Report Writers

Be careful in what you do.

Don't give data to others unless they have a legitimate business need and abide by the same storage and security requirements as you. See https://its.ucsc.edu/security/index.html for best practices.

Protect personal identity, information such as names, social security numbers, gender, ethnicity, birthdate and parents income.

If it is printed, be careful not to leave this information lying around on a desk.

Lock it in a drawer at night and put it in the shred bin instead of garbage cans.

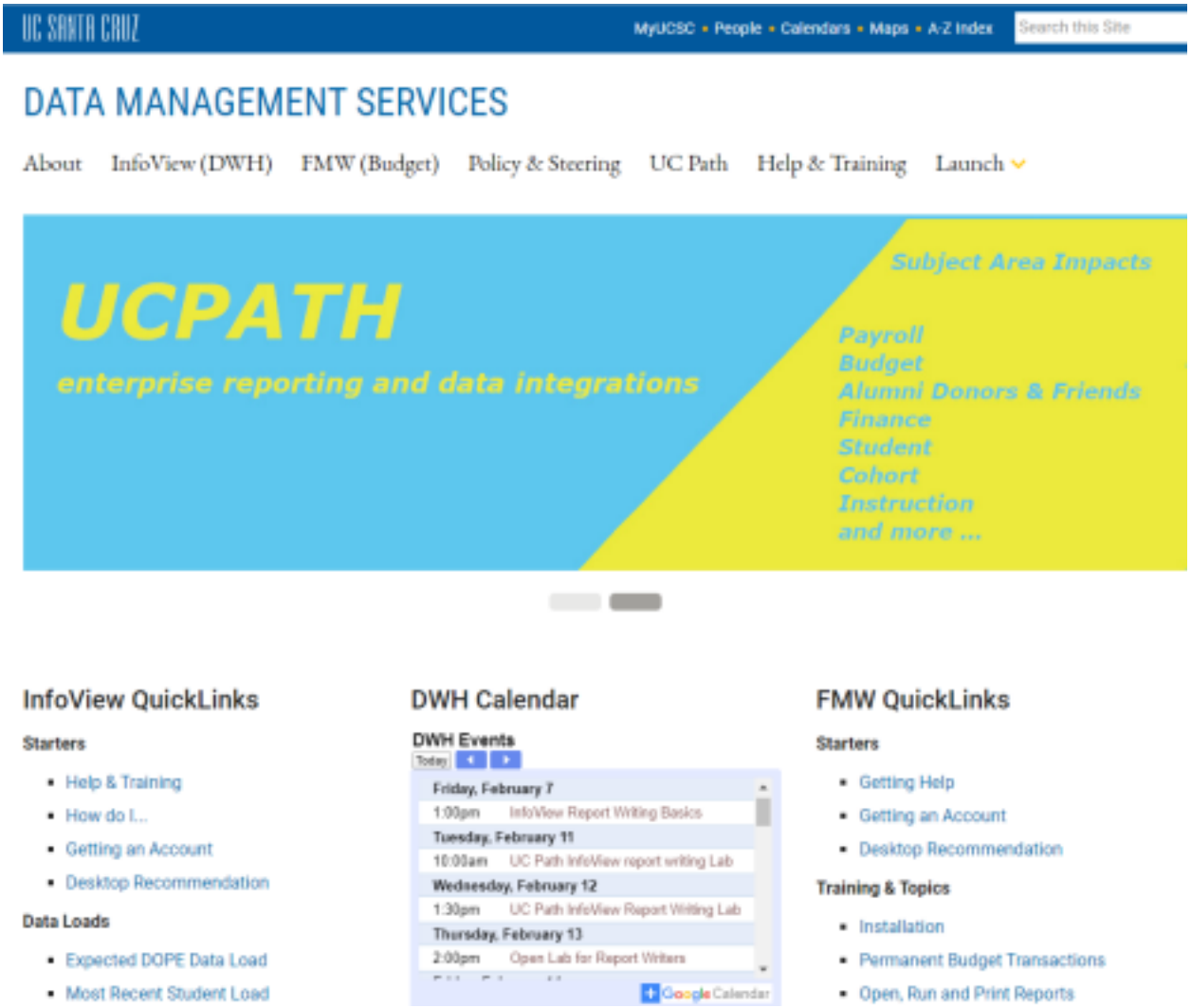
Filelocker

- New Secure File Transferring Service where you can email confidential
- To start using Filelocker, log in with your CruzID and Gold password: https://filelocker.ucsc.edu • Very user friendly!

Make your reports Accurate - start with what is known as the '**Corporate Reports**' and build off of them.

Use Corporate Reports to educate and guide yourself as a Report Writer!

Data Management Website



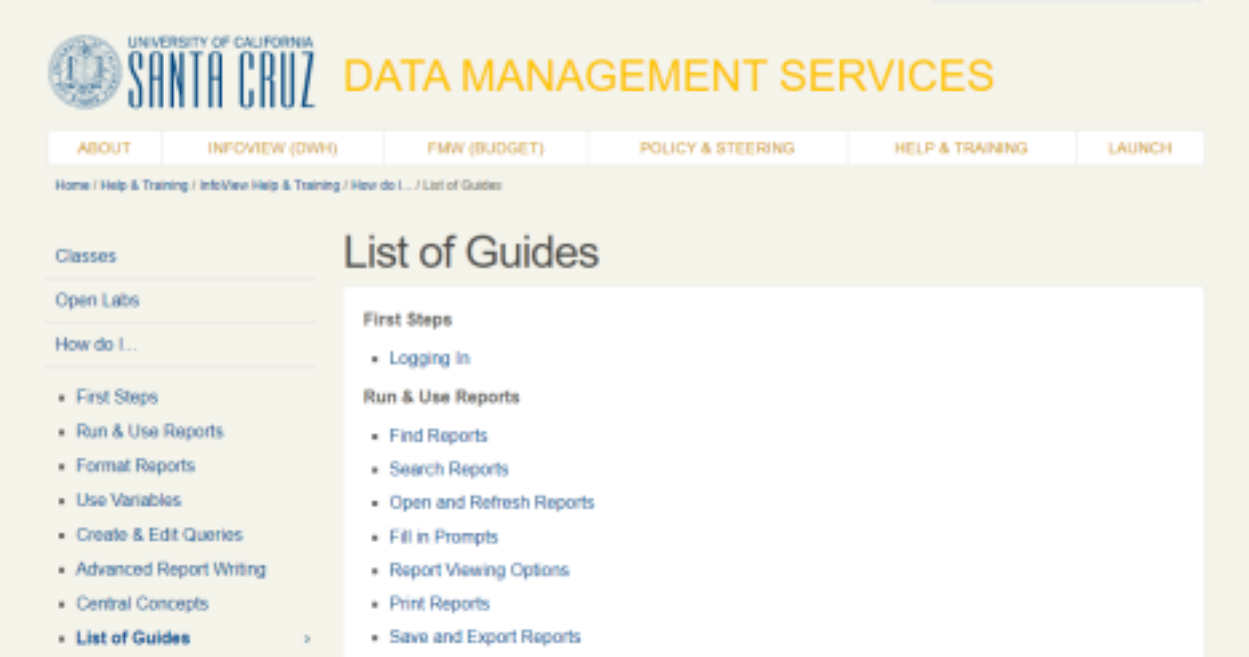
Calendar of events – listing upcoming classes and the monthly open labs

Open labs are where you can come and get one on one help on your reports.

How do I …

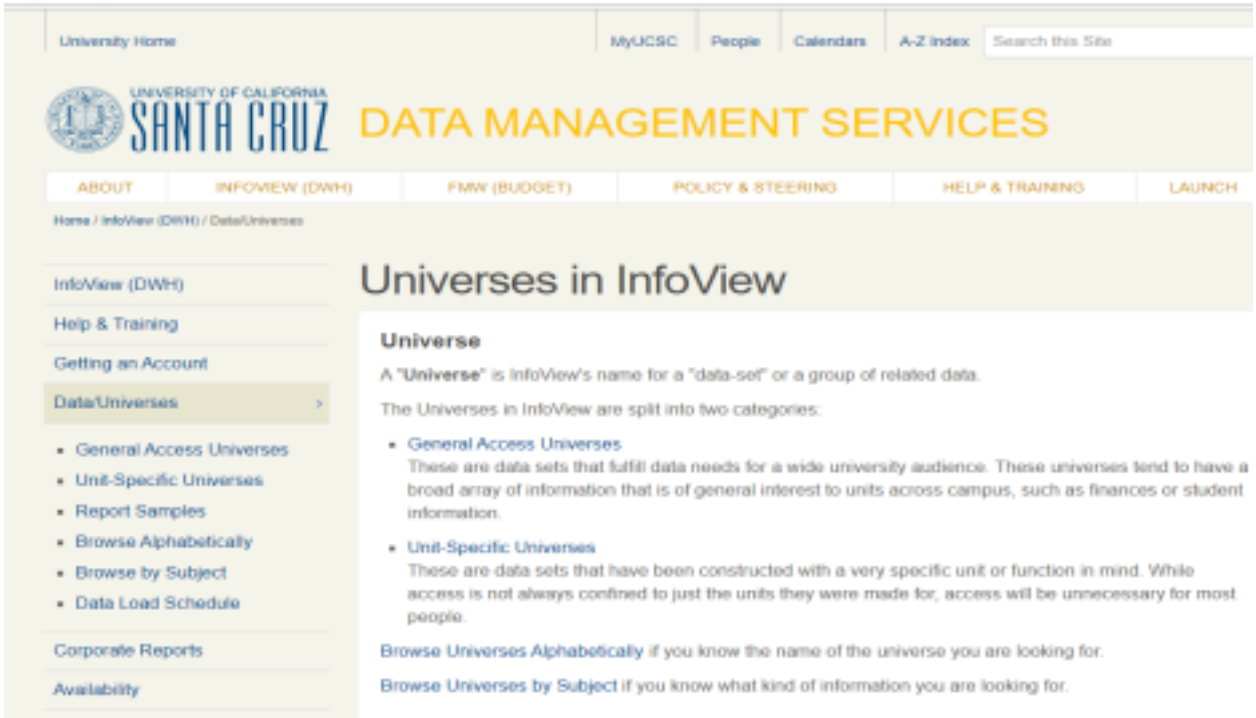
- Variety of guides on how to navigate and work in InfoView
- Self-Help section has **videos, screen shots, step by step guides** and explanations on working in **InfoView**
- Links for all aspects of how to run and use reports, formatting, creating variables and more

Help & Training/InfoView Help & Training/How do I..

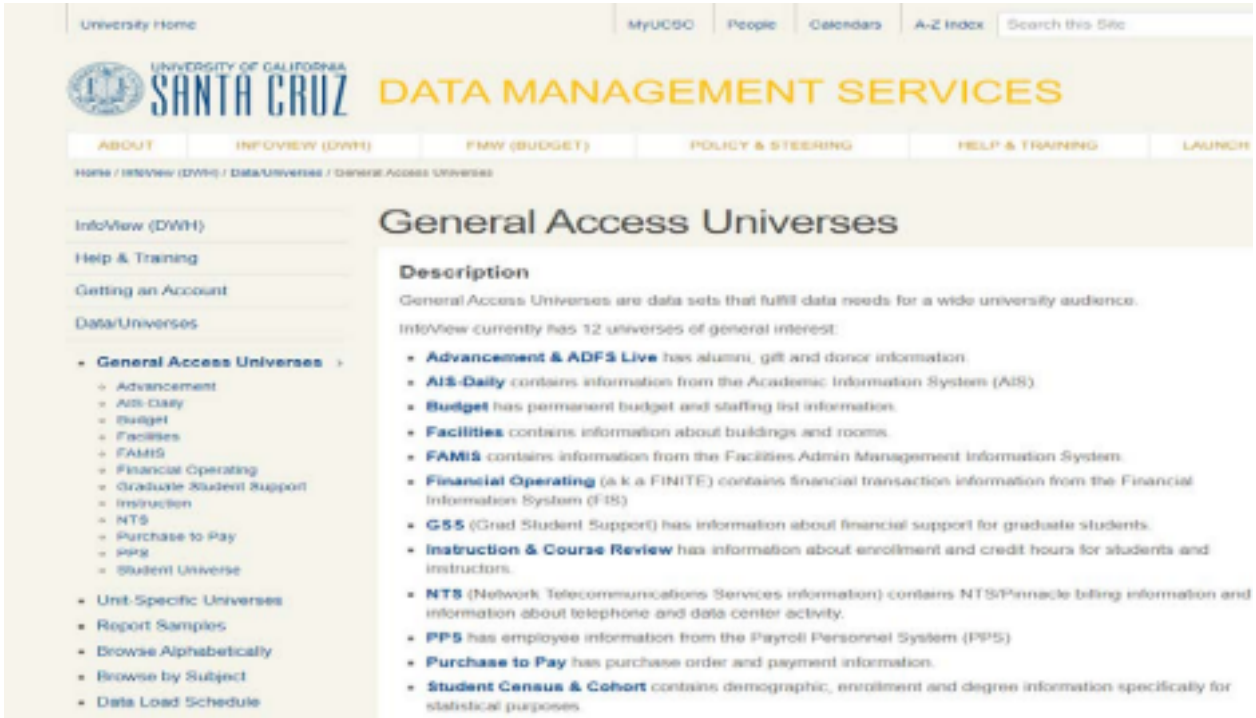


By clicking '**List of Guides'** you can see the wide scope of subjects. Spend a lot of time going through each of these guides – it will only help you going forward!

Links to each of the Universes from **How Do I…/InfoView (DWH)/Data/Universes**

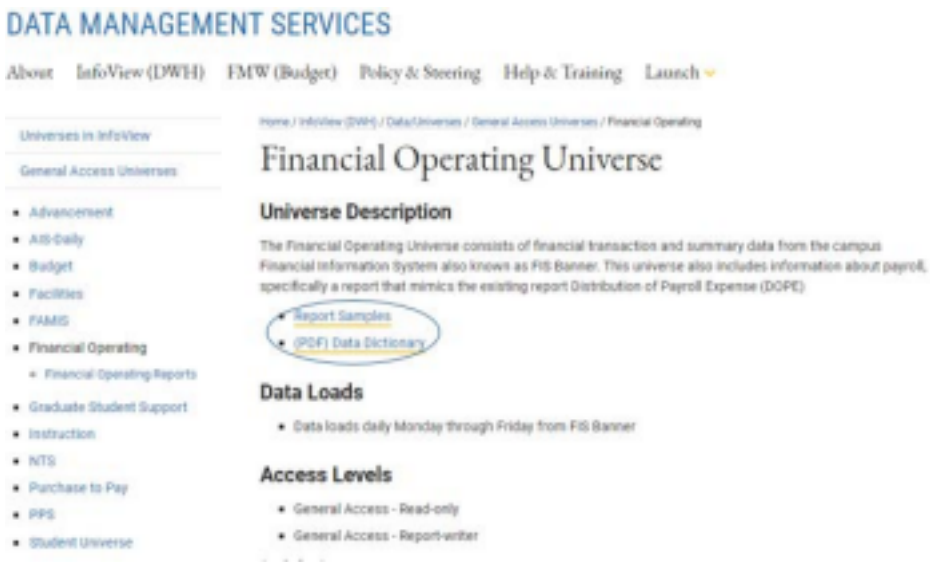


General Access Universes - Corporate Reports exist for all



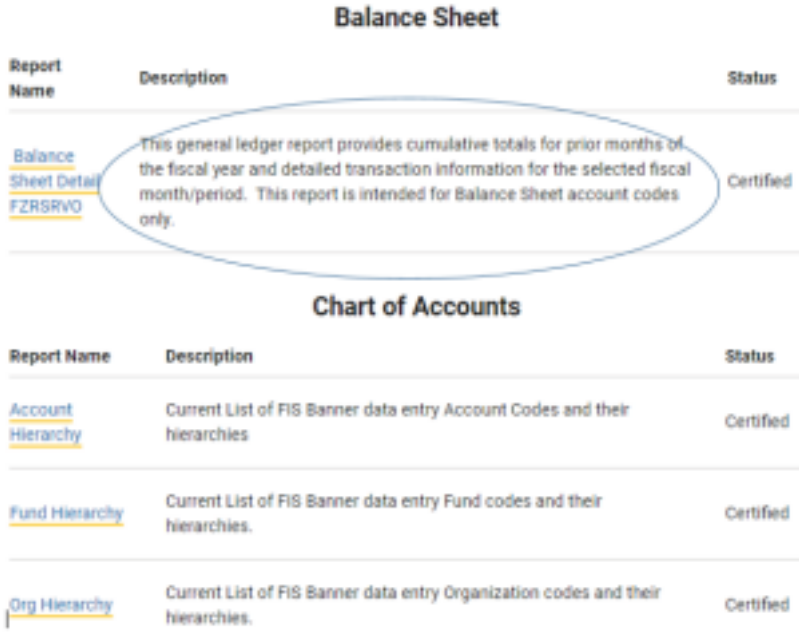
InfoView Report Writing Basics Class - Lisa Warming 7/1/19 Page 4

Overall Description of Universe, Giving Guidance on Structure



Included here are links to content description, report samples of **Corporate Reports**, data dictionaries and for some – a report writing training document. Corporate Reports are available for the following universes: **Advancement, AIS-Daily, Budget, Facilities, Financial Operating (or FINITE), Grad Student Support (or GSS), NTS, PPS and Student**.

- Learn the basic structure of your universes and understand what is readily available. • Download a copy of the **data dictionary** for each universe you work with. This lists all the objects in the universe with a description.
- Go through all the **report samples** in your universe(s) carefully and see if any of them are even closely related to the type of work or report you are looking to create. The report samples are the layouts of the Corporate Reports. A more in-depth description is here next to each link.



Balance Sheet

Report Name	Description	Status
Balance Sheet Detail FZRSRVO	This general ledger report provides cumulative totals for prior months of the fiscal year and detailed transaction information for the selected fiscal month/period. This report is intended for Balance Sheet account codes only.	Certified

Chart of Accounts

Report Name	Description	Status
Account Hierarchy	Current List of FIS Banner data entry Account Codes and their hierarchies	Certified
Fund Hierarchy	Current List of FIS Banner data entry Fund codes and their hierarchies.	Certified
Org Hierarchy	Current List of FIS Banner data entry Organization codes and their hierarchies.	Certified

- A good trick is to Ctrl F and type in a keyword for your report (such as 'summary' in Financial Operating).

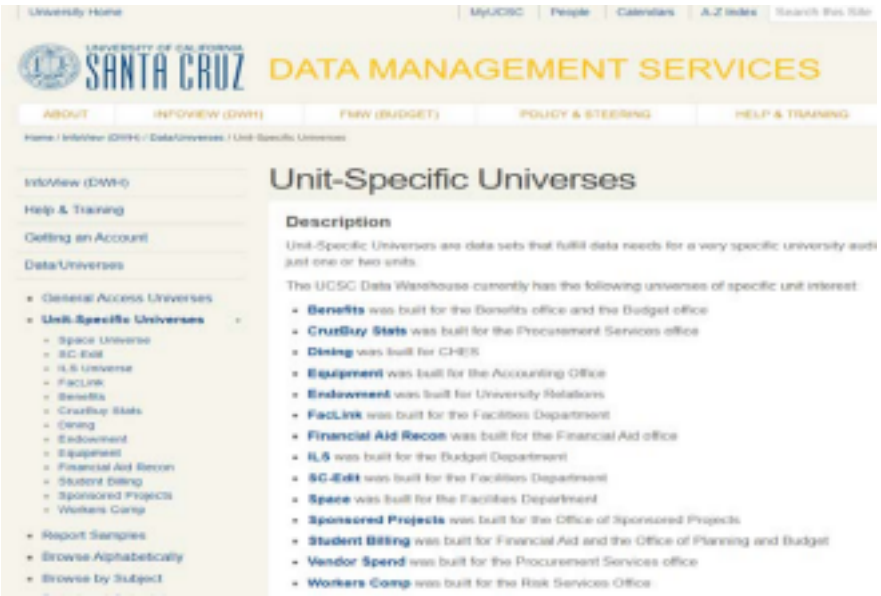
- Right away, you know that this word is used 9 times and which reports to look in!
- You can narrow down which report is best for your needs this way

Financial Transactions - FY	information as well as various summaries. Benefit account codes are rolled together to reduce space. Encumbrances are rolled together to show current balance of encumbrance only. The report is designed to give accurate balances for non-revenue and revenue FOAPALS, except revenue for grant funds is excluded.	
Fiscal Close Summary	Fiscal year-to-date summary designed specifically as a tool during fiscal close, but can be used at any time during the fiscal year.	Certified
Fiscal Overview	Fiscal year-to-date summary by Fund/Org or Fund/Org/Activity. Contains two sections: (1) financial summary by Account Code Level 1 and (2) list of employee's cumulative salary/benefits expenses/encumbrances.	Certified

- Save a copy of the Corporate Report to your 'My Favorites' or shared folder to use as a template or start, and then add the other objects and revise the layout as needed. The necessary filters and parameters have already been added correctly.

Until you learn the objects, parameters and filters, use the Corporate Reports as much as possible!

Unit Specific Universes Corporate Reports do not exist, but Data Dictionaries and descriptions do.



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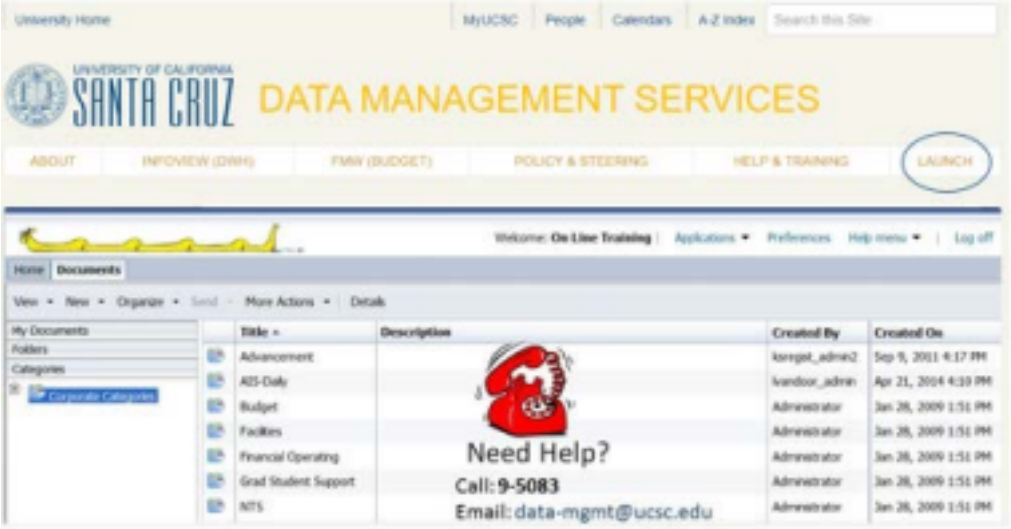
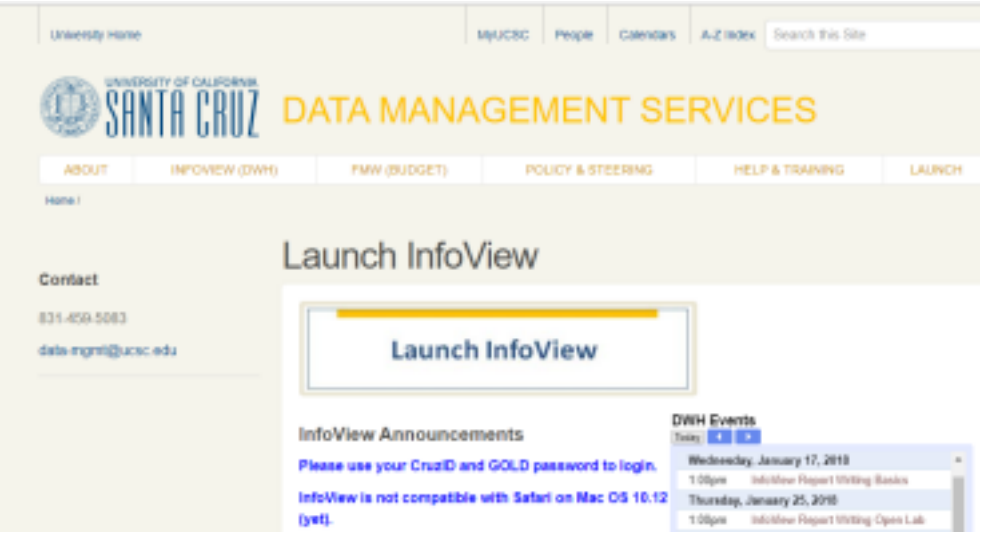
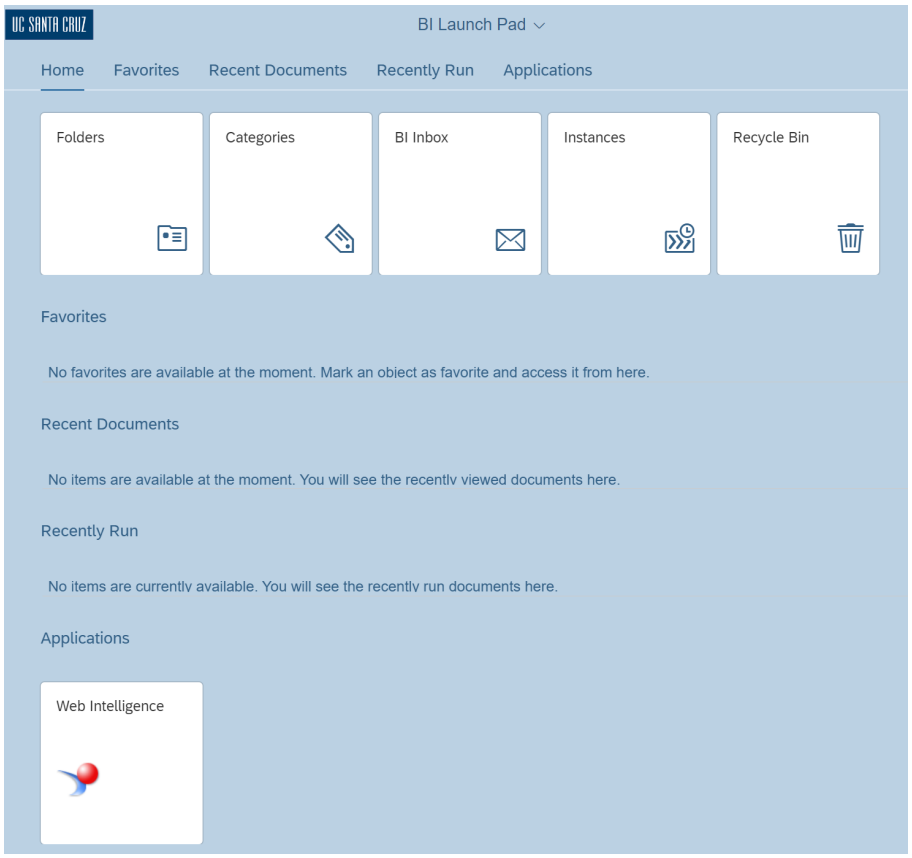
How to Access Corporate Reports from the Data Management site (https://datamgmt.ucsc.edu)



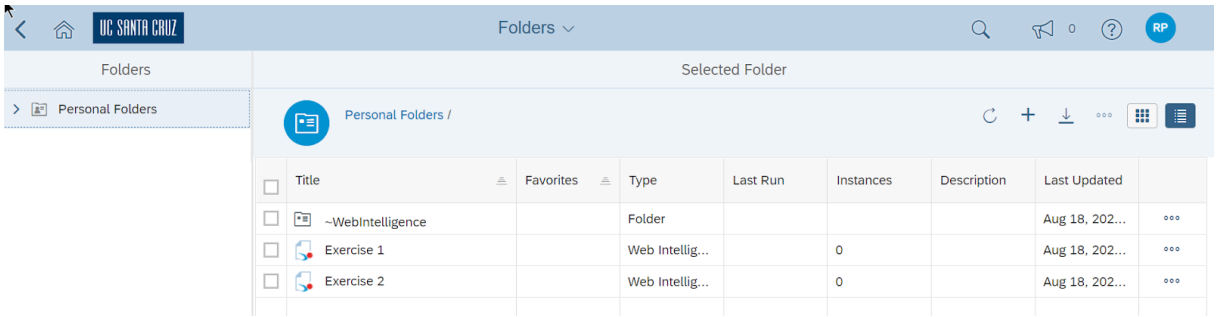
1. On the top far right, click 'Launch' and then 'InfoView'
2. Click 'Launch InfoView'



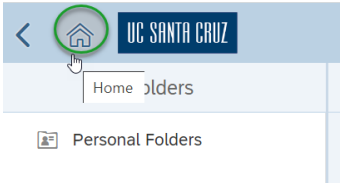
3. Enter your Gold Cruzid & Password and you will see this:



4. Click on the "Folders" tile to open the folder list:



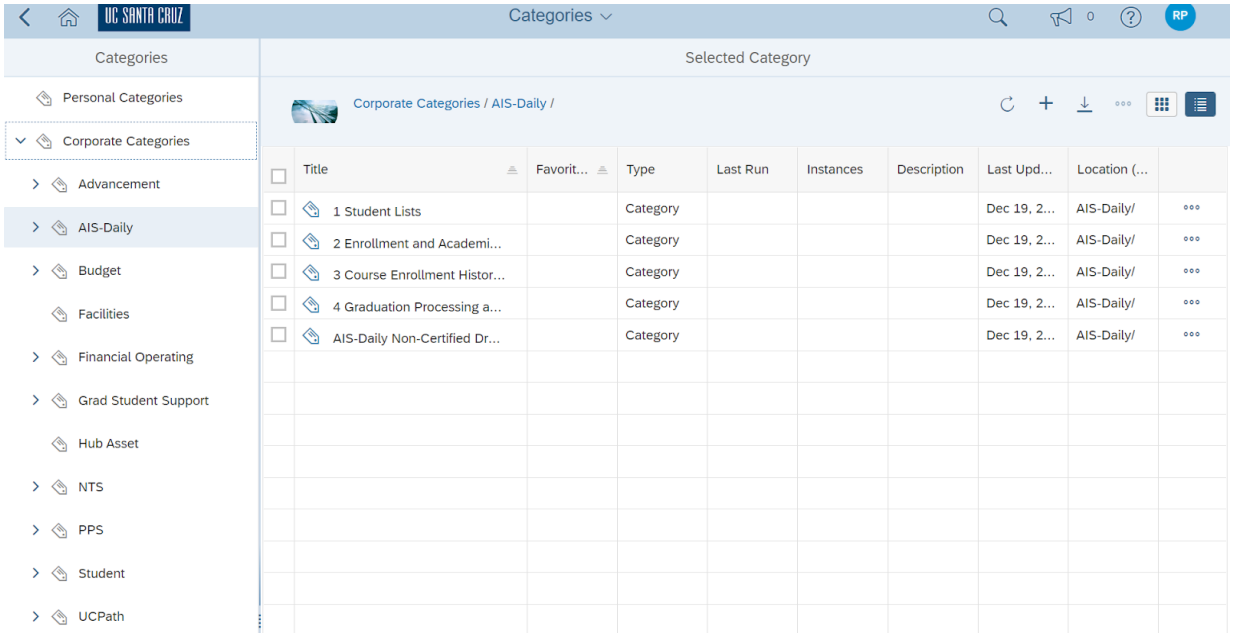
5. From here, return to the Home screen by clicking on the Home icon:



and then click on the "Categories" Tile:

Which will display the list of Categories:

6. Corporate Reports are listed under 'Corporate Categories':



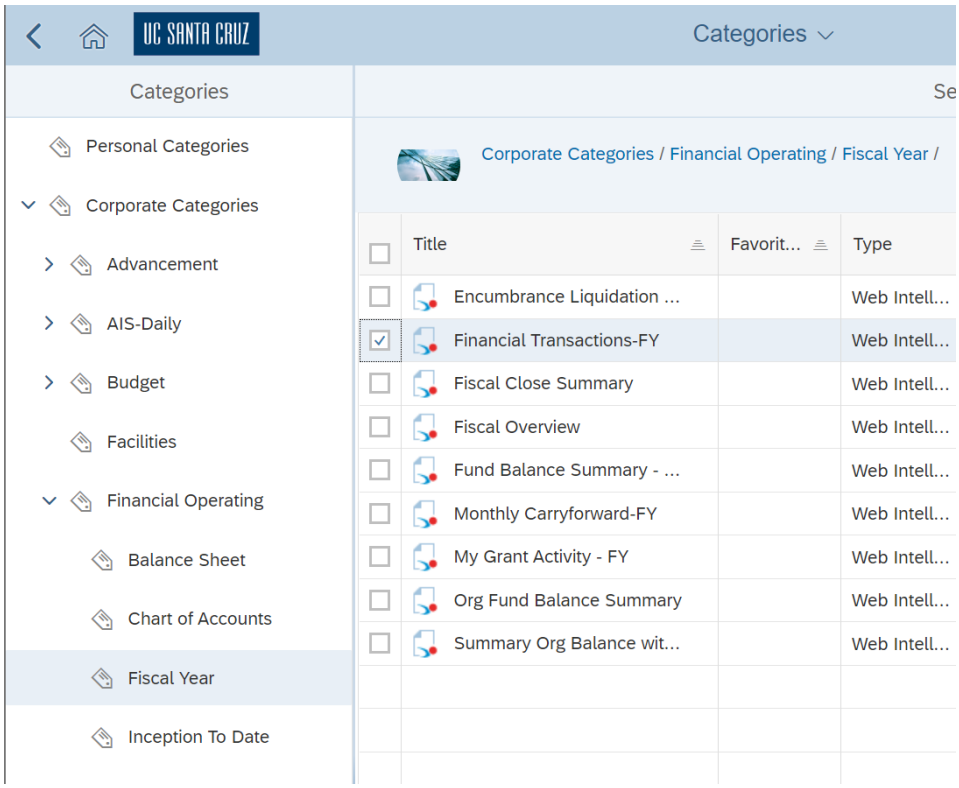
- You can only run reports for universes that you have access to
- You cannot 'break' these reports
- The number of Corporate Reports per universe vary
- Corporate Reports are '**certified' and accurate :**

This report has passed the UCSC Data Warehouse's Report Certification Process (see http://datamgmt.ucsc.edu/infoview/corporate-docs/index.html). Any user customizations that change the dynamics, functionality or purpose of the report negate the certification status. In such event, please remove all marks of certification from each report tab.

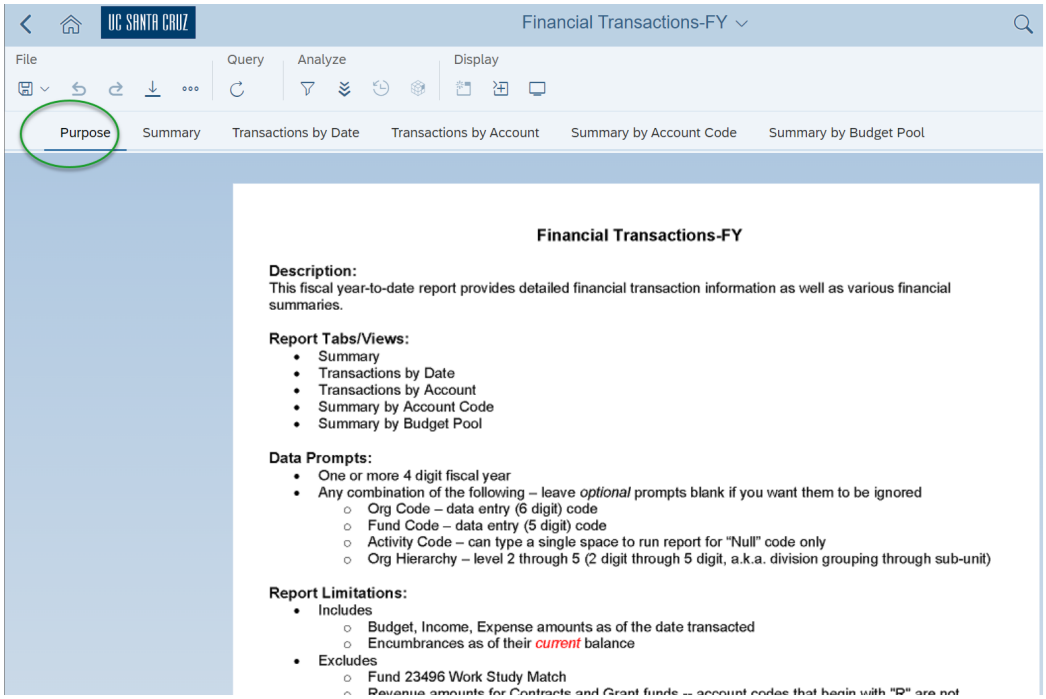
When changes are made to the existing prompts or adding more objects, delete the certification status from the Purpose Page.

EXERCISE 1 – Refreshing a Corporate Report

The first example report is from the **Financial Operating / Fiscal Year** Category, entitled '**Financial Transactions FY**'. This is a widely used report, showing financial transactions for all departments:



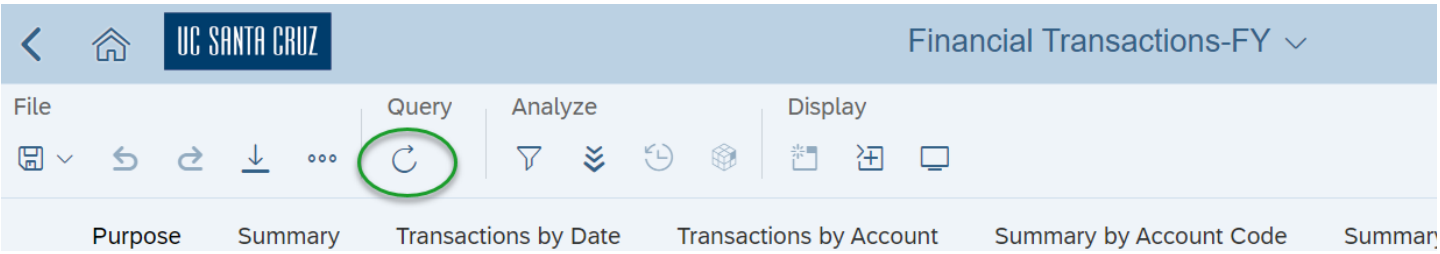
Double click on the report name to open the report in Reading mode. Upon opening, we see the first report tab, the '**Purpose Page**' :



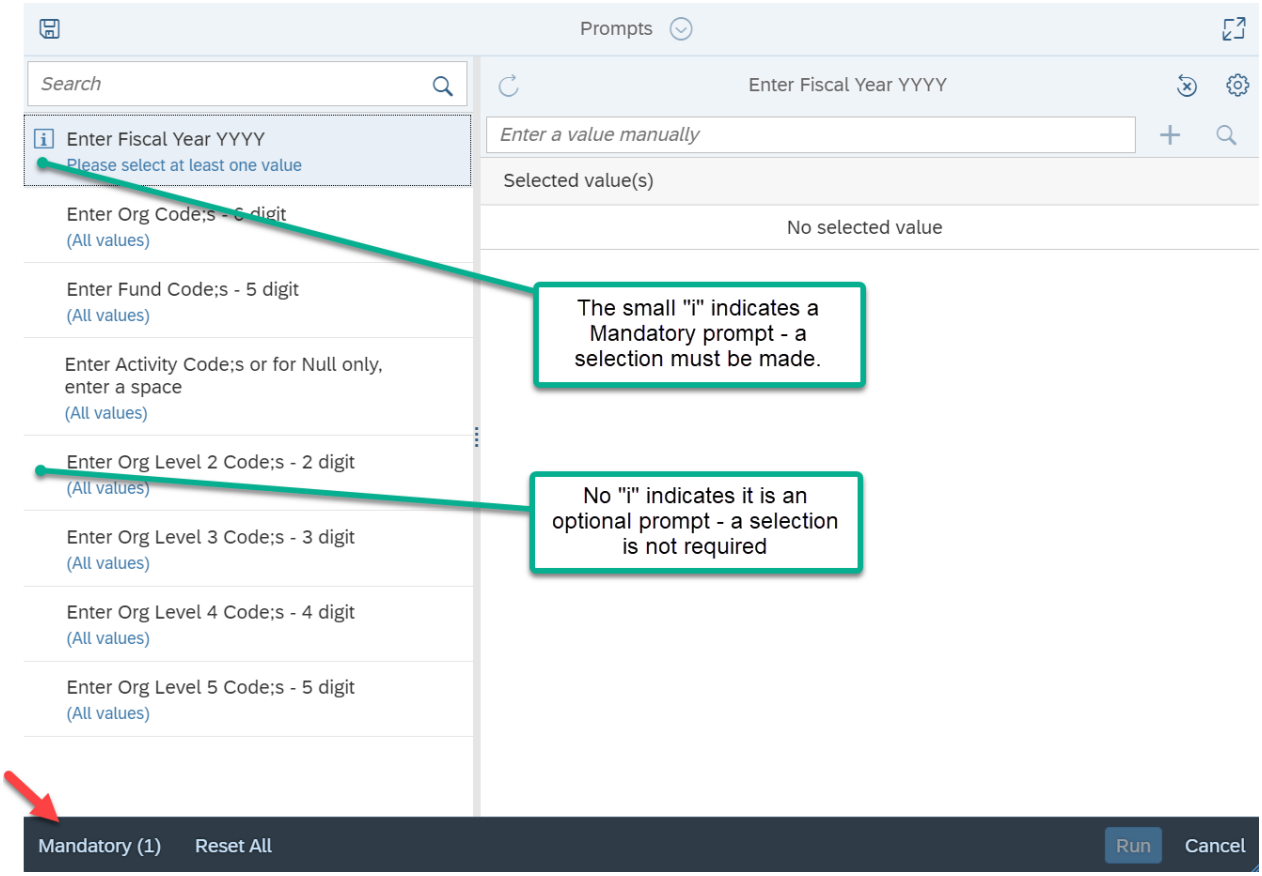
This is a basic description of the report, explaining the separate tabs, prompts and limitations. A

'Purpose Page' exists for all corporate reports on the far left tab. This needs to be revised if any parameters are changed. It also contains information a report writer needs to know about customizations or cautions before changing the report. The bottom of the Purpose Page is where the certification mark is.

To run or generate the report, click the '**Refresh**' icon under the Query options on the top toolbar:

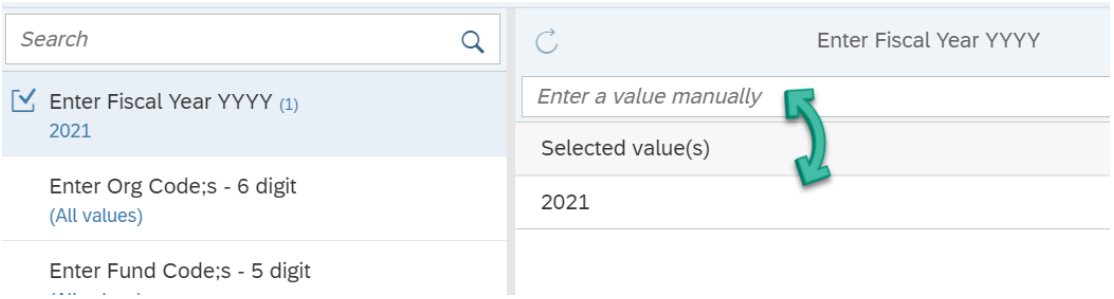


A pop up window will appear, where you can choose the parameters in one or more levels:



A prompt is selected on the left and then values are supplied on the right.

1. For the first prompt, "Enter Fiscal Year YYYY", type **2021** on the right and then hit Enter so that the value is selected:



Note: For Mandatory prompts, the "Run" button will be grayed out until selection/s are made. After mandatory prompts have been selected, the "Run" button will be active.

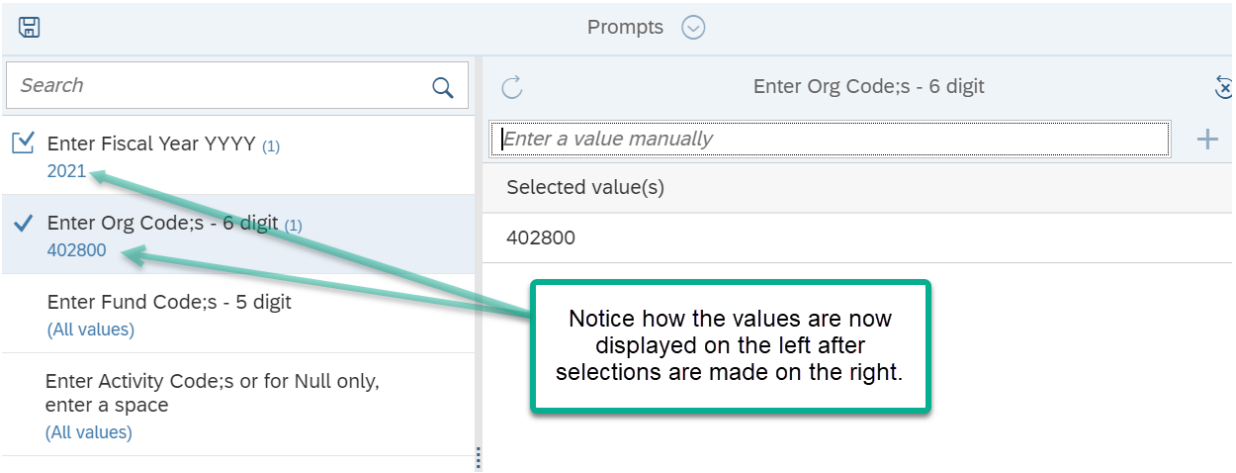
UCSC uses a hierarchical structure of 5 different levels (or org codes) for financial reporting, called a FOAPAL.

- Fund
- Organization
- Account
- Program
- Activity
- Location

Each level or Org Code has that number of digits. For example, Org Code level 6 has 6 digits, and Org Code level 3 has 3 digits.

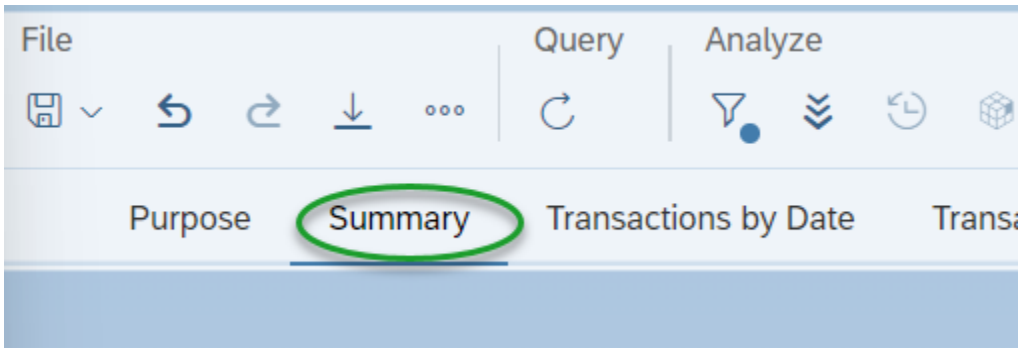
Org Code level 4 (4 digits) is also referred to as a 'cost center' .

2. On the 2nd prompt, "Enter Org Code;s - 6 digit", enter **402800** for the 6 digit Org code – which is the Arts Division:



3. All the other prompts in this report are optional and, in this example, we will keep the "All values" options on those, and we are ready to run this report. Click the "Run" button on the lower right of the pop-up window:

4. Click on the Summary tab at the top of the report to see the results:



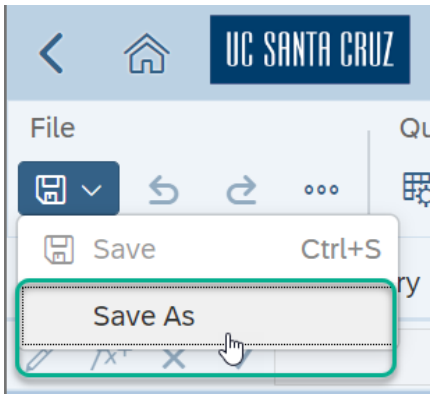
These reports generally are very fast, but if your parameters are too broad, it will take more time. Again, these reports have correct information. For this report, there are 5 separate tabs, each showing a different view of the data. Here is a screen shot of the **Summary** tab:

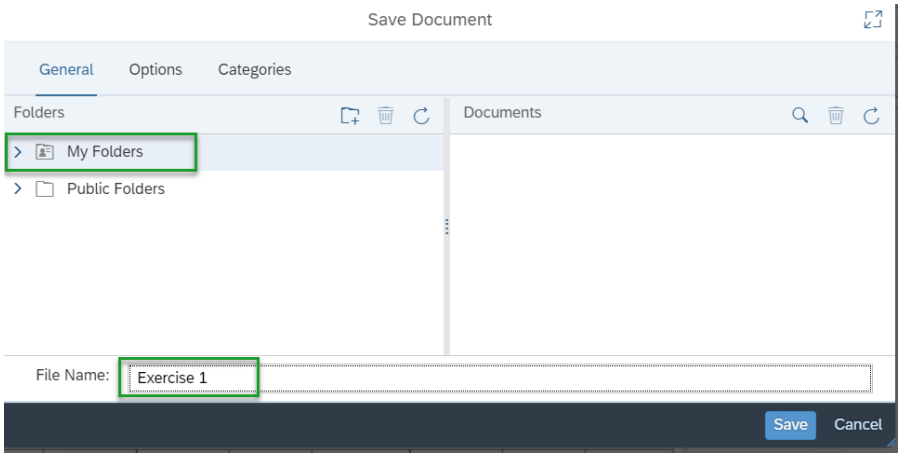
Fiscal Year 2021 Summary As of 8/19/22

Org	Fund	Activity	Title	Cfwd Budget	Perm Budget	Budget Adj	Total Budget	Expenses	Liens	Balance
402800	05397		ARTS/ADMINISTRATION	1,019.55	8,305.00	10,368.25	19,692.80	0.00	95.31	19,597.49
			Total	1,019.55	8,305.00	10,368.25	19,692.80	0.00	95.31	19,597.49
402800	09510		ARTS/ADMINISTRATION	707.44	0.00	0.00	707.44	0.00	0.00	707.44
			Total	707.44	0.00	0.00	707.44	0.00	0.00	707.44
402800	09523		ARTS/ADMINISTRATION	27,765.52	0.00	0.00	27,765.52	0.00	0.00	27,765.52
			Total	27,765.52	0.00	0.00	27,765.52	0.00	0.00	27,765.52
402800	18082		ARTS/ADMINISTRATION	216,236.35	8,500.00	(9,975.44)	214,760.91	0.00	0.00	214,760.91
402800	18082	AIC100	ARTS/COMP/SHARED/HARDWARE	0.00	0.00	1,746.91	1,746.91	1,746.91	0.00	0.00
402800	18082	AIC110	ARTS/COMP/LADDER/HARDWARE	0.00	0.00	1,499.47	1,499.47	1,499.47	0.00	0.00
402800	18082	AIC120	ARTS/COMP/STAFF/HARDWARE	0.00	0.00	1,729.06	1,729.06	1,729.06	0.00	0.00
			Total	216,236.35	8,500.00	(5,000.00)	219,736.35	4,975.44	0.00	214,760.91
402800	18083		ARTS/ADMINISTRATION	2.70	0.00	0.00	2.70	0.00	0.00	2.70
			Total	2.70	0.00	0.00	2.70	0.00	0.00	2.70
402800	19900		ARTS/ADMINISTRATION	402,493.07	2,602,023.00	689,275.91	3,693,791.98	3,470,829.55	44,781.13	178,181.30
402800	19900	AIDVT	ARTS/DIVISION/DIVERSITY	0.00	0.00	1,517.31	1,517.31	1,134.36	382.95	(0.00)
402800	19900	AIIIPP	ARTS/IIPP	316.20	0.00	0.00	316.20	0.00	0.00	316.20
402800	19900	AISEF	ARTS/STRATEGIC EVENTS FUNDS	(300.00)	0.00	300.00	0.00	0.00	0.00	0.00
402800	19900	COVD19	CORONAVIRUS COVID-19 EXPENSES	(14,920.44)	0.00	507.90	(14,412.54)	(14,414.54)	0.00	2.00
			Total	387,588.83	2,602,023.00	691,601.12	3,681,212.95	3,457,549.37	45,164.08	178,499.50
402800	19933		ARTS/ADMINISTRATION	286,700.00	20,000.00	(176,705.00)	129,995.00	154,683.46	0.00	(24,688.46)
			Total	286,700.00	20,000.00	(176,705.00)	129,995.00	154,683.46	0.00	(24,688.46)

Any time we want to make a change to a corporate report or look at the query used to build the report, we must first SAVE the report to our personal folders. Let's do that now.

5. Click the 'Save As' option in the upper left with the name of **Exercise 1** - to your My Folders or a Public/ Shared Folder:



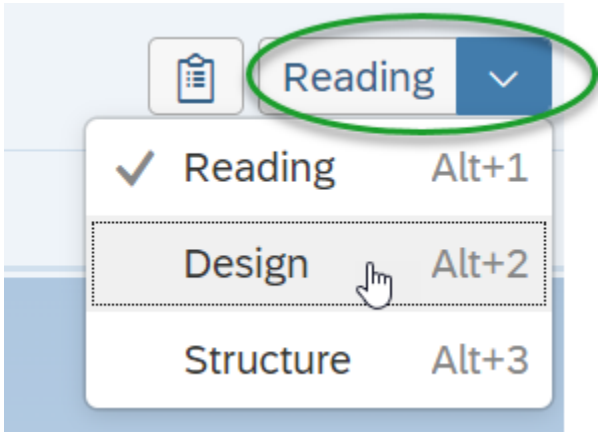


This can now serve as a personal copy or 'working report'.

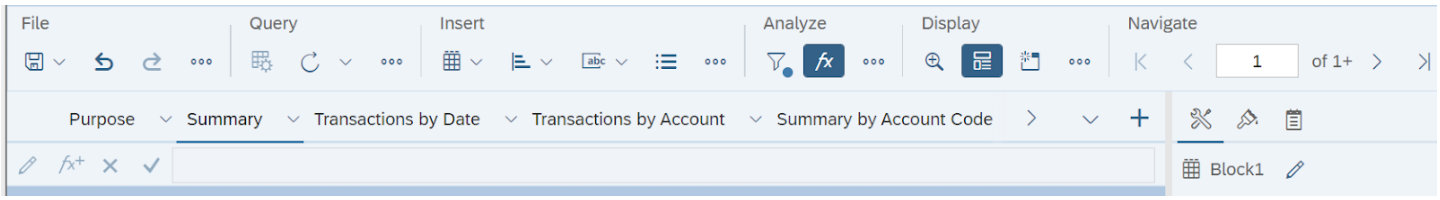
DESIGN MODE

In order to modify the report in any way, we must switch to "Design" mode. In "Design" mode we can look at the query filters and prompts. (Double clicking on the report always opens it in "Reading" mode, where you can only view & refresh the report).

6. Click on the "Reading" button or use the drop down beside the Reading button in the upper right corner in order to change to Design mode:

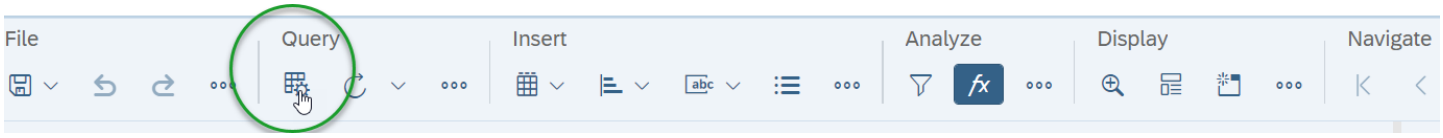


You must be in design mode before any revisions can be made

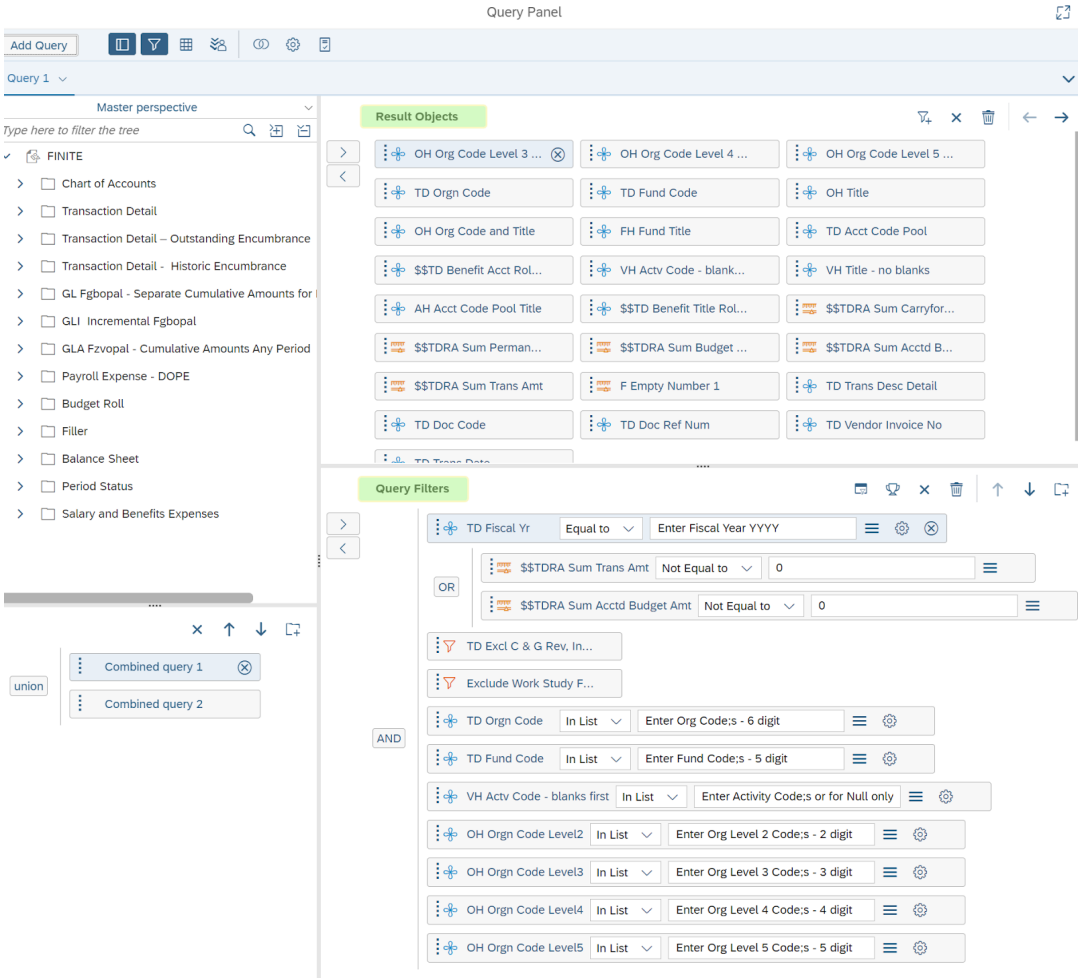


As you can see, the screen has changed quite a bit. You can now **access what is in the report** as opposed to only reading or running it.

To look at the objects and query filters, click the '**Edit Query**' icon:



We are now in the '**Query Panel**'. This is where you can add or remove Objects and Filter criteria:



As you can see, there are quite a lot of them! The objects (or fields) included in the report are in the

'Result Objects' (top section). The Filters and Prompts are in the 'Query Filters' (lower/middle section).

What is a filter? A query filter is used to limit the amount of data returned to the report and fine tune the results. When you run a query, only the data that fits the query filter definitions will be returned to the report.

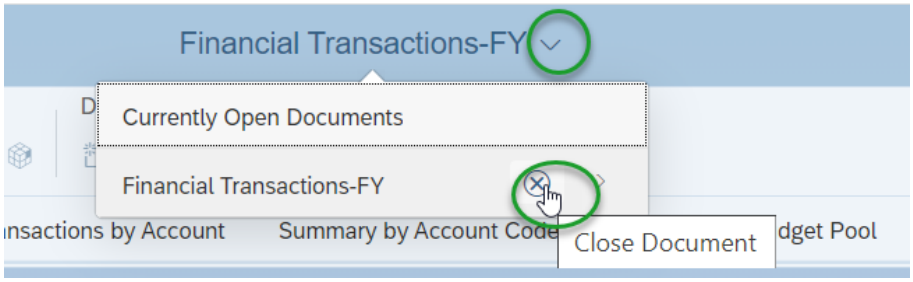
There are Pre-built filters, signified by the funnel icon  and then there are also manually built filters, such as this:

The filters in this report have been set up with input from subject matter experts to ensure accuracy.

- There are 2 pre-built filters and 10 manual filters in this report
- These filters are crucial to an accurate output

7. At this point, we will not make any changes to the query. At the bottom right of the query filter panel, click the "**Cancel**" button.

8. We have completed the refreshing of the data on this report and finished with our analysis, so we can close the report. In the center of the toolbar, click on the drop down and click on the X beside the report name to close the report:

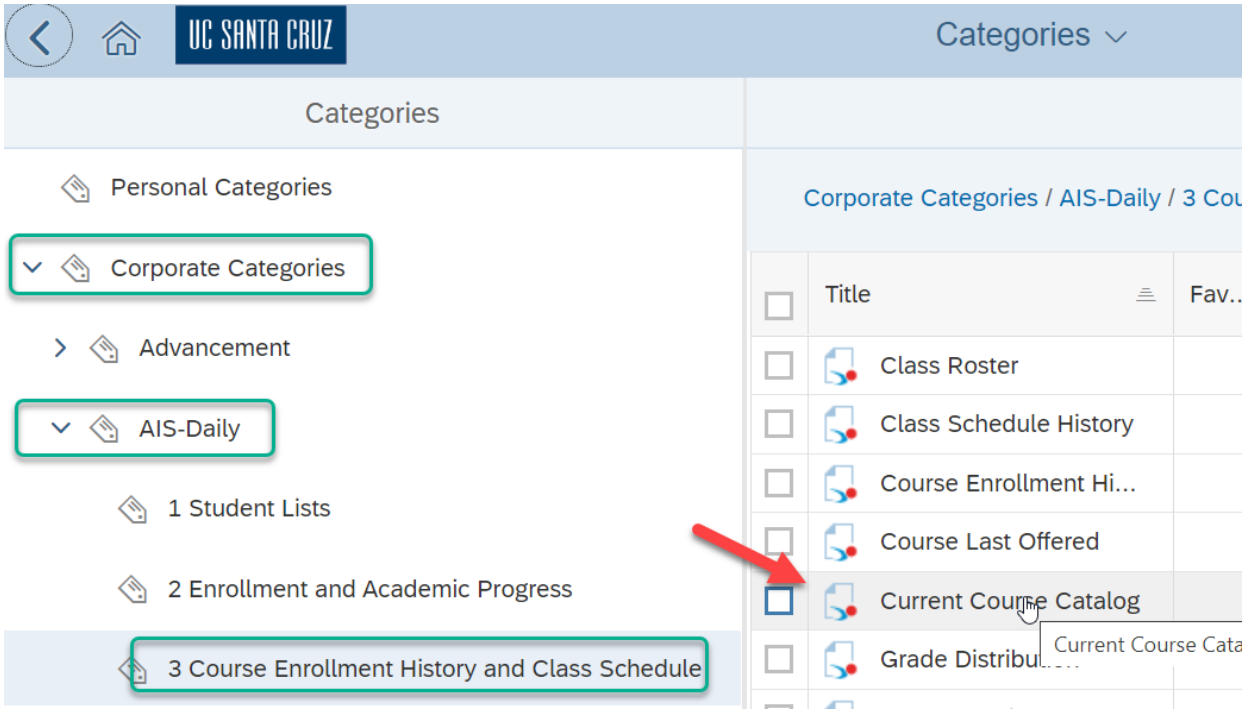


Do you see the complexity and what is necessary to obtain a correct output? This is why it is better to **start with the Corporate Reports** and not from scratch.

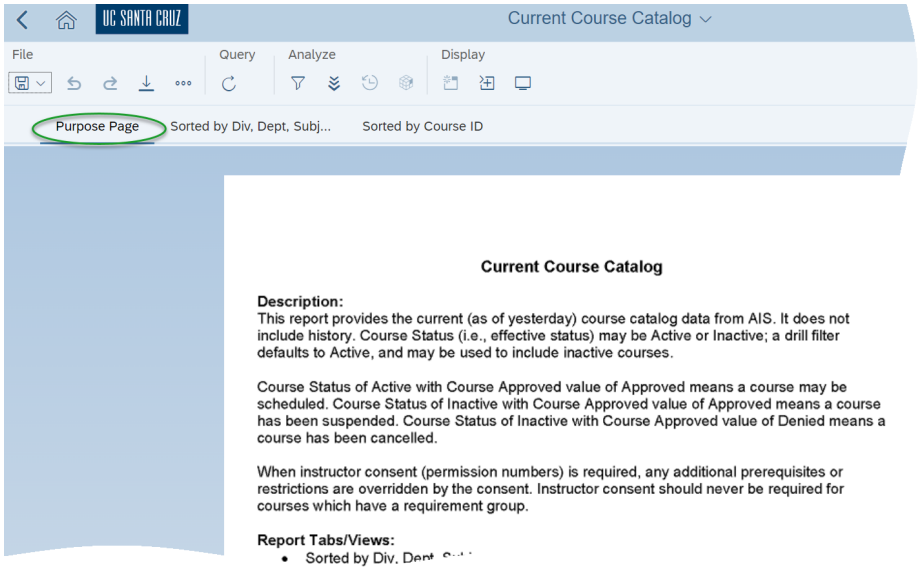
In many instances, a Corporate Report may already exist with the data you are wanting.

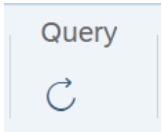
EXERCISE 2- Running a Corporate Report 2

1. Click on the Categories tile / Corporate Categories and expand AIS-Daily / 3 Current Enrollment History and Class Schedule/ Double click on the **Current Course Catalog** report to open it:

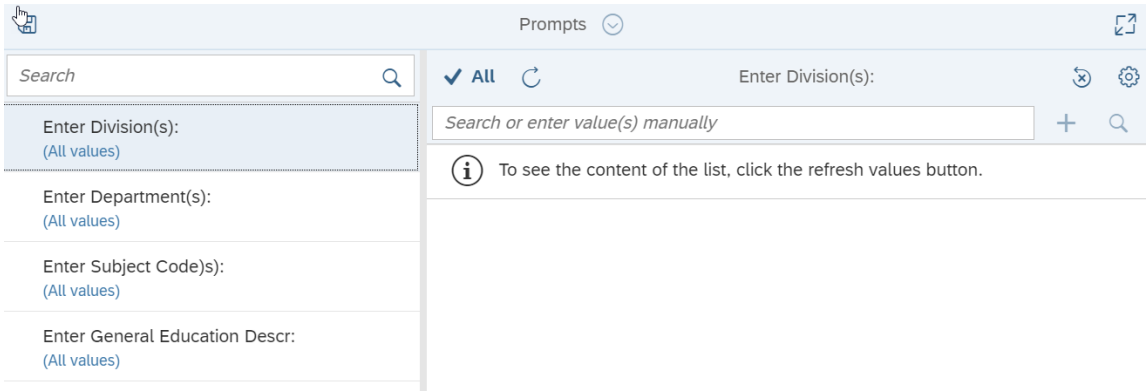


2. The report opens to the Purpose Page:



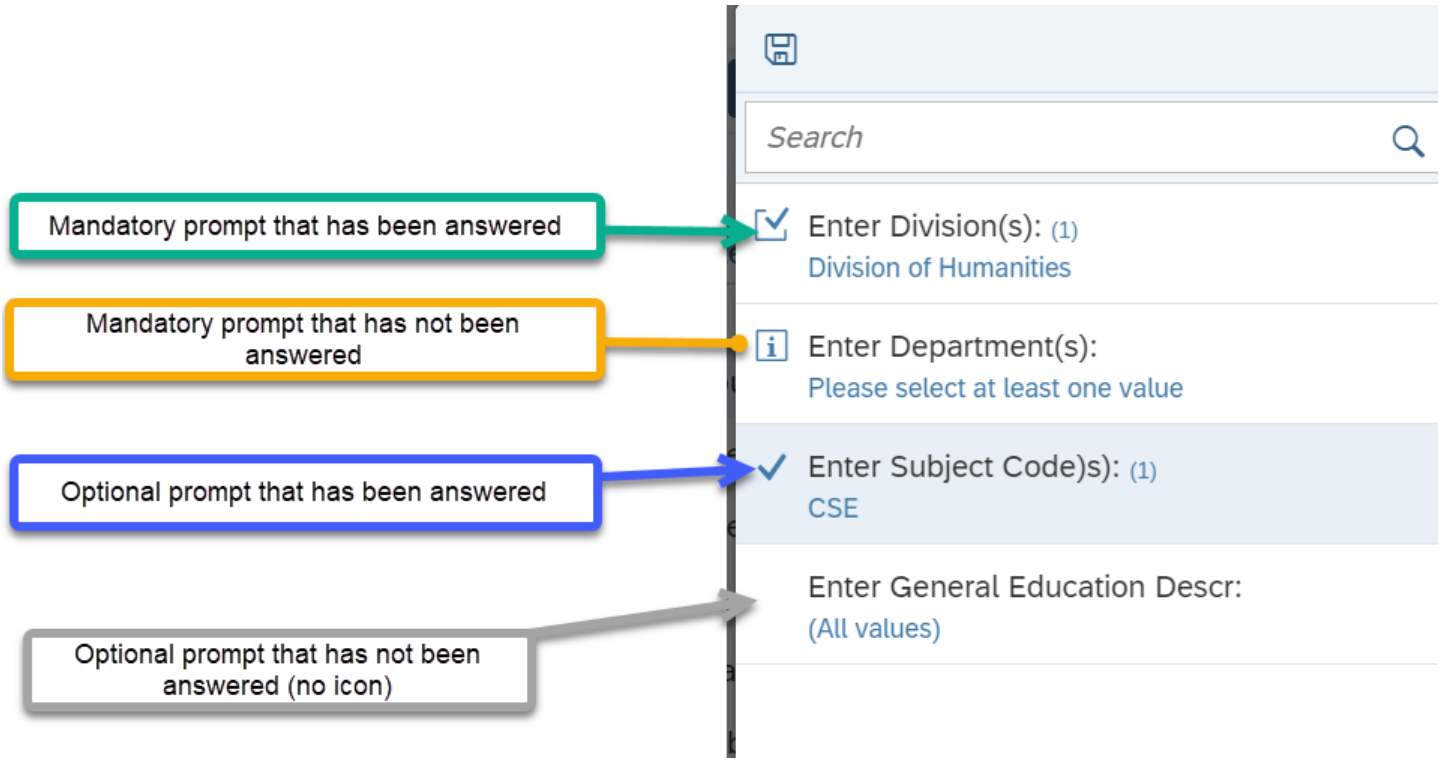
3. Click on the 'Refresh' button: 

4. The Prompts window will pop up:



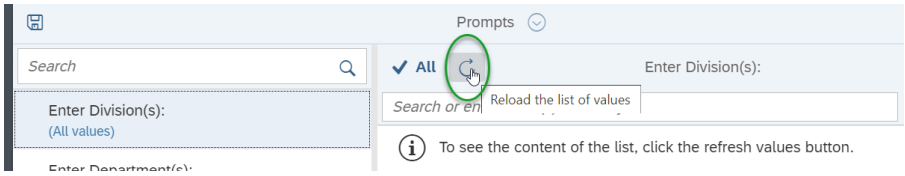
PROMPTS - Mandatory and Optional

Most Corporate reports will have prompts when refreshed, and these can be a combination of Mandatory prompts - prompts which must be answered, and Optional prompts - prompts which could be left blank if not needed. The example belows shows what a report would look like with 2 mandatory prompts and 2 optional prompts. Notice the icons beside each prompt

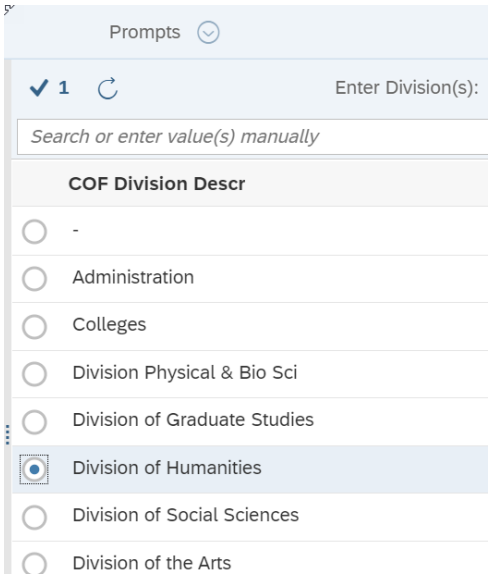


This report (**Current Course Catalog**) has all *optional* prompts (no small  on the left of the prompt to indicate it is mandatory, as in the previous report we looked at), so will run without further revisions. Though all prompts are optional, the report will run faster if prompt selections are made to narrow down the final output.

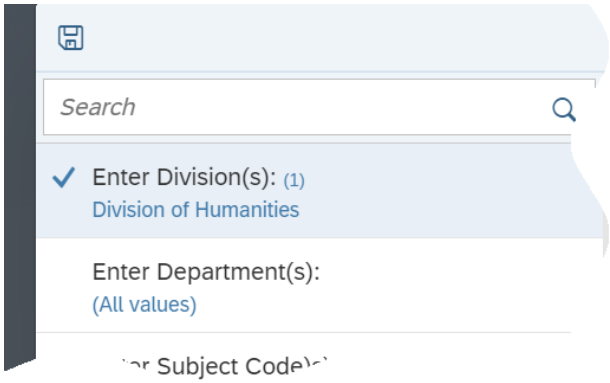
5. Click on the first prompt, "Enter Division(s):" and click on the refresh button to view a list of values:



6. From the list of Divisions, click on "**Division of Humanities**":



Notice that Division of Humanities is now displaying on the left:

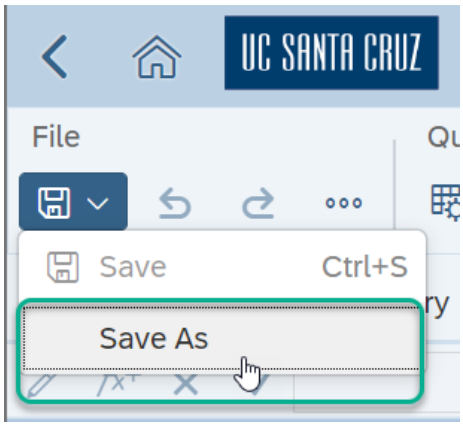


Depending on how the prompt was set up, you can select either one or more Divisions. This report only allows one division at a time.

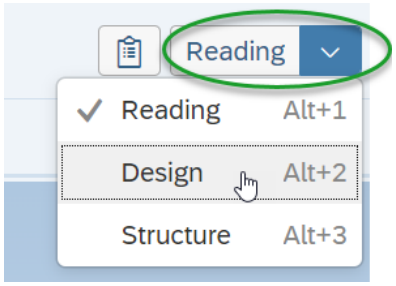
7. Since the other prompts are optional, we will not make any selections for these prompts at

this time. This report is ready to run now. Click the **Run** button on the lower right. When the refresh completes, your report is ready to view. These reports generally are very fast, but if your parameters are too broad, it will take more time.

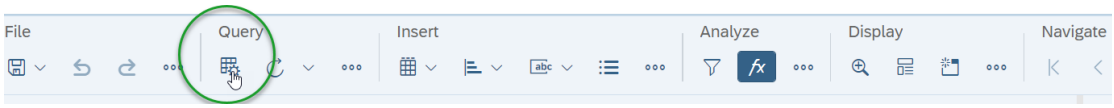
8. Click 'Save As' with the name of **Exercise 2** - to your **My Folders** or a Shared Folder. This can now serve as a personal copy or 'working report':



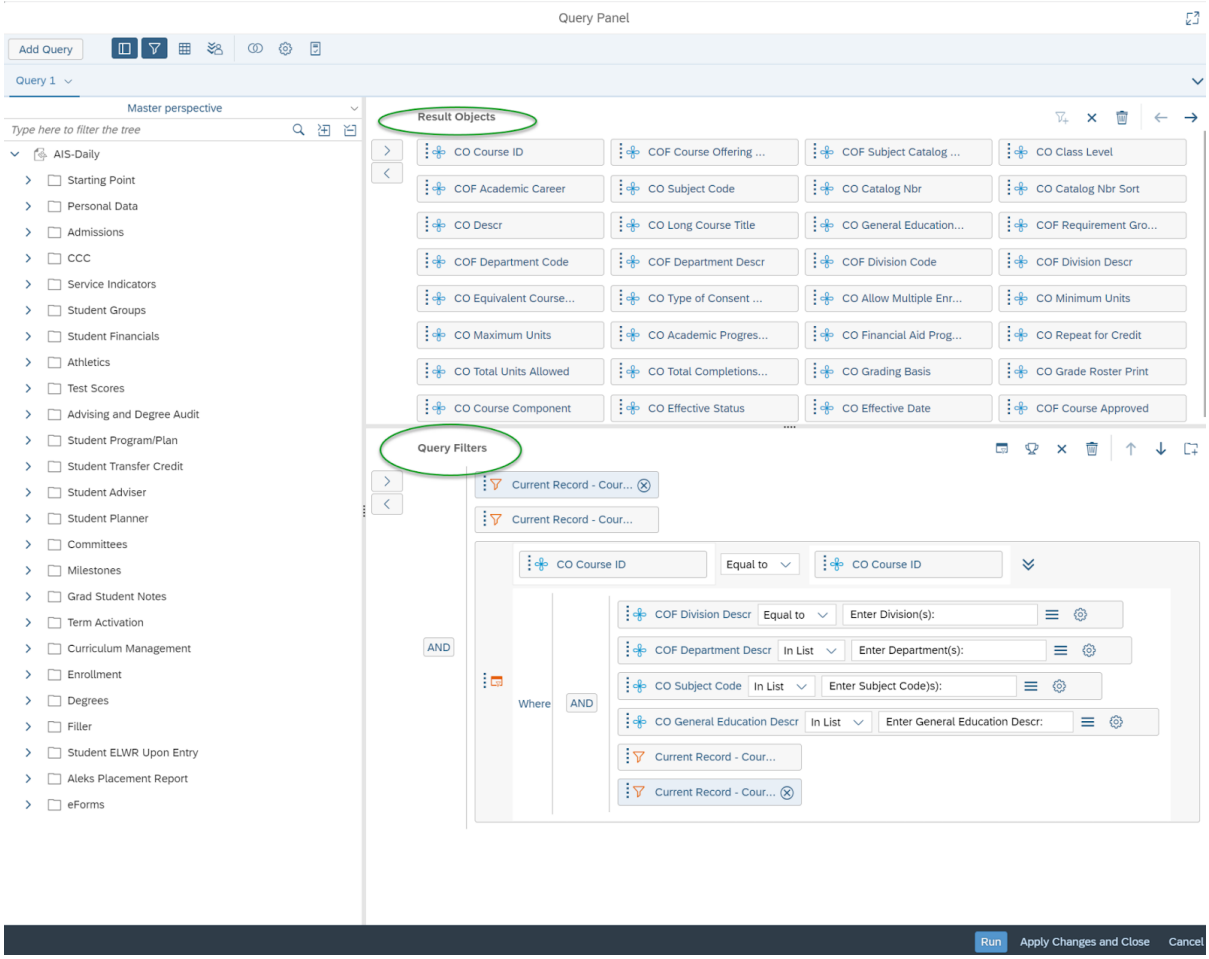
9. To edit the report and view the query filters, toggle the Reading button on the upper right corner to switch to 'Design' mode. (Remember, double-clicking on the report opens it in Reading mode, so if you want to make any changes, you will have to switch to Design mode):



10. To view the query filters, click on the Edit Query button:



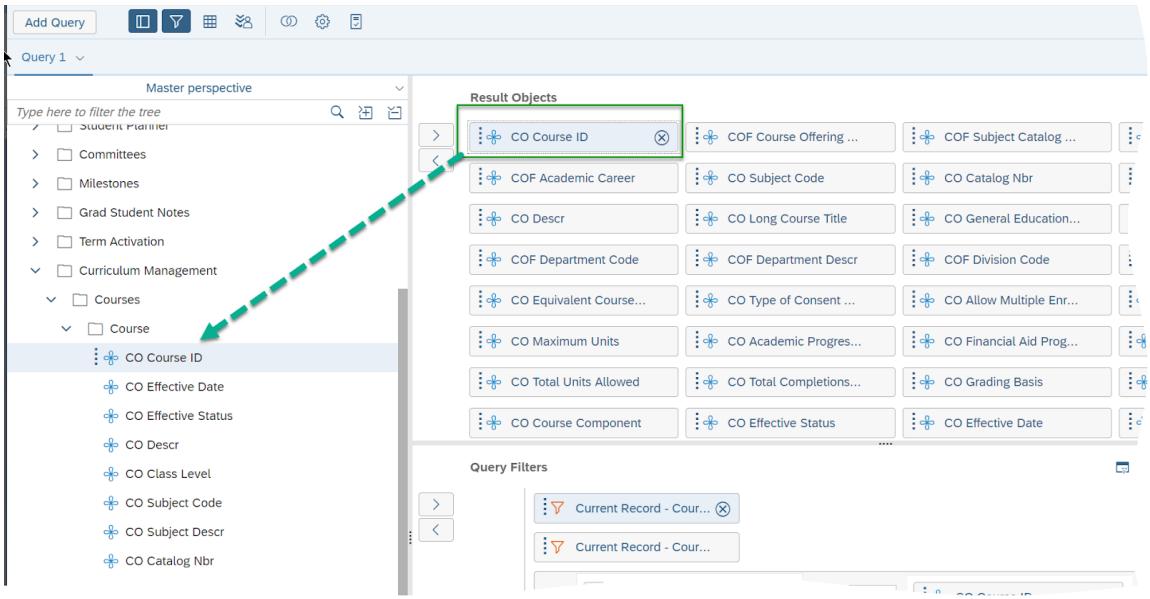
We are now in the 'Query Panel'. The objects (or fields) included in the report are in the 'Result Objects' (top section). The Filters and Prompts are in the 'Query Filters' section in the lower/middle section:



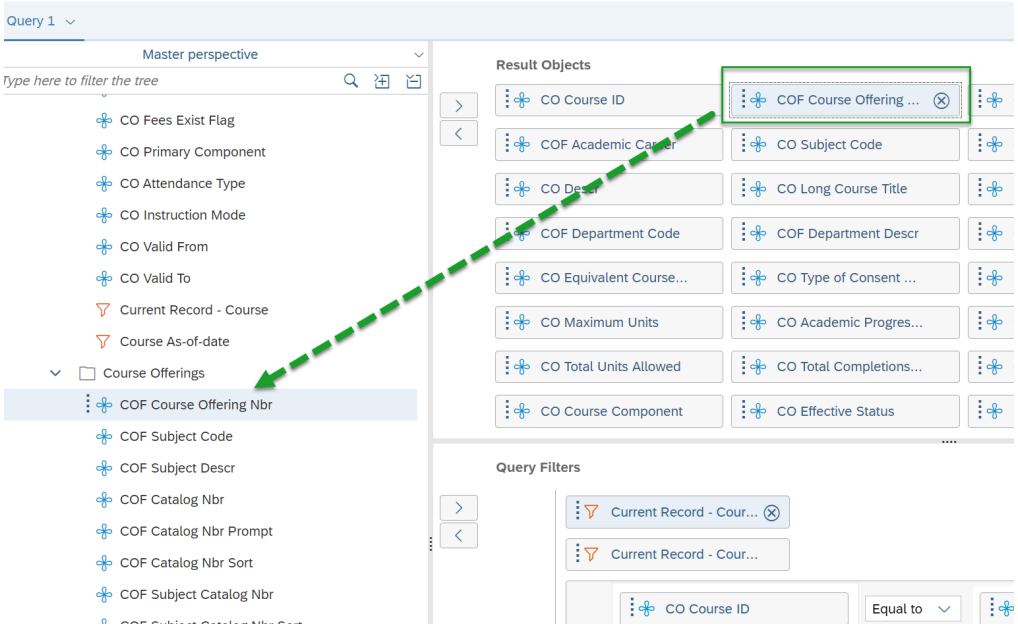
Notice that the predefined filters  are referring to current records.

The left panel is where the separate folders (where all the objects 'live') in the universe are accessible. Objects (in 'Result Objects') above start with a **2-4 letter code**. This code is an **abbreviation of the folder** where it 'lives' in the database.

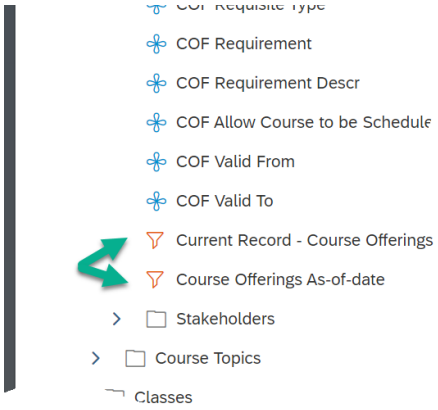
11. Click on the 'CO Course ID' in 'Result Objects' and the corresponding object will be highlighted on the left, where we can easily see the folder that it lives in ('Course' under 'Curriculum Management' and then the 'Courses' folder):



12. Click on the 2nd object in the Result Objects pane - 'COF Course Offering Nbr'- in the 'Course Offerings' folder. 'COF' stands for 'Course Offerings'. As we open up the other folders, you can see that this is a huge universe – holding 8,544 objects:



13. When you scroll to the bottom of the 'Course' folder, you will see that it has 2 separate pre-built filters – shown at the bottom of the list of objects in the 'Course' file:

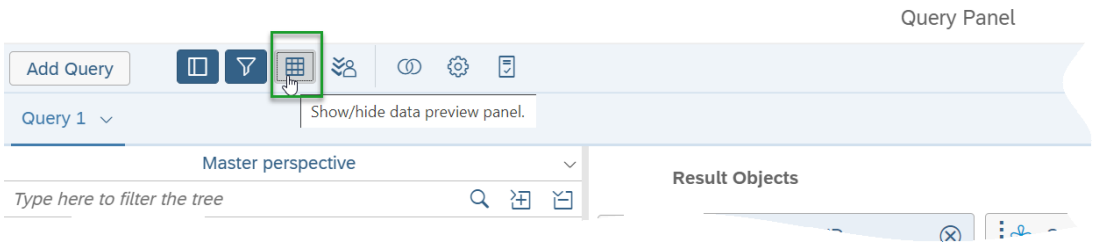


It takes time to learn the objects and when to use filters. Use the Corporate Reports for now!

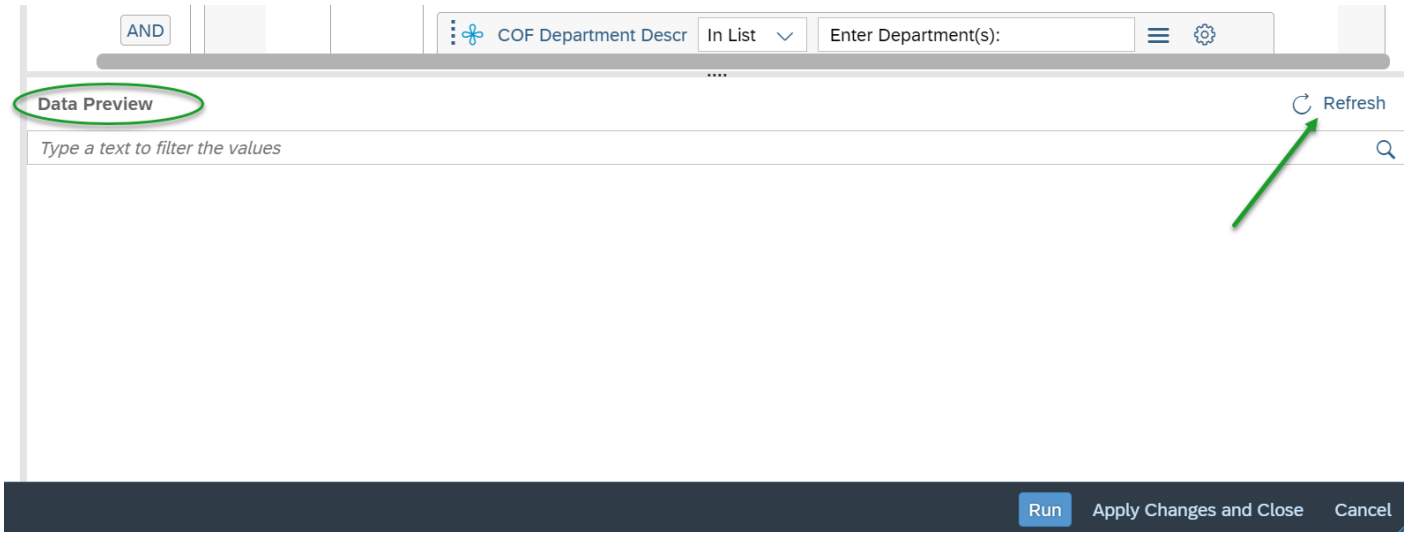
EXERCISE 3 – Practice Adding Objects to a Report & Previewing Them

Continuing with this same report in the Query Panel, we will take a look at the **Data Preview** panel. The Data Preview panel gives a quick view of the data values, which can help you decide if it is appropriate for your report.

You can toggle the Data Preview panel on or off from the icons at the top of the Query Panel. It will be the 3rd icon from the left shown below:

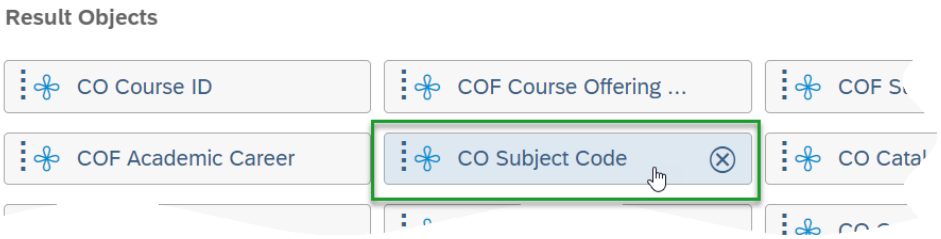


When the Data Preview panel is toggled on, it appears on the bottom below the Query Filters panel, and the data preview can be generated by its own 'Refresh' button:

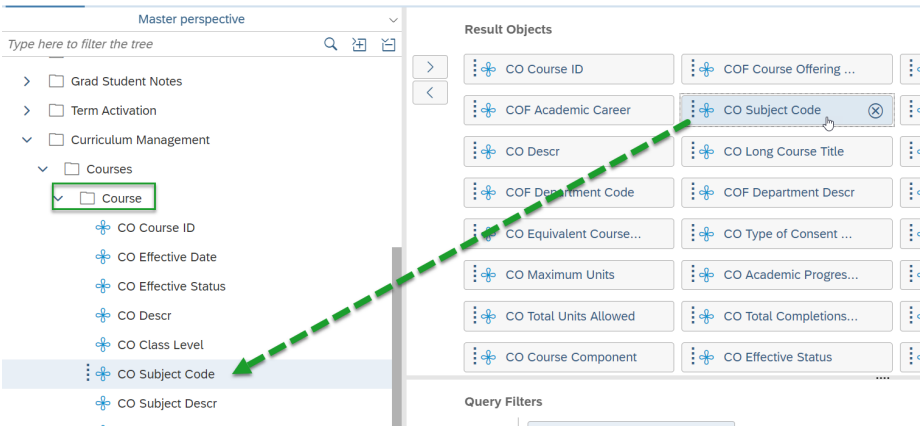


We want to add a new field (object), but aren't sure which one. The 'CO Subject Code' is in the report and we want to add a description of that – the 'CO Subject Descr' field.

1. To begin we will add an object to the Results Object panel and then later view the values in the Data Preview panel. Click on the **CO Subject Code** object in the Results Objects panel:

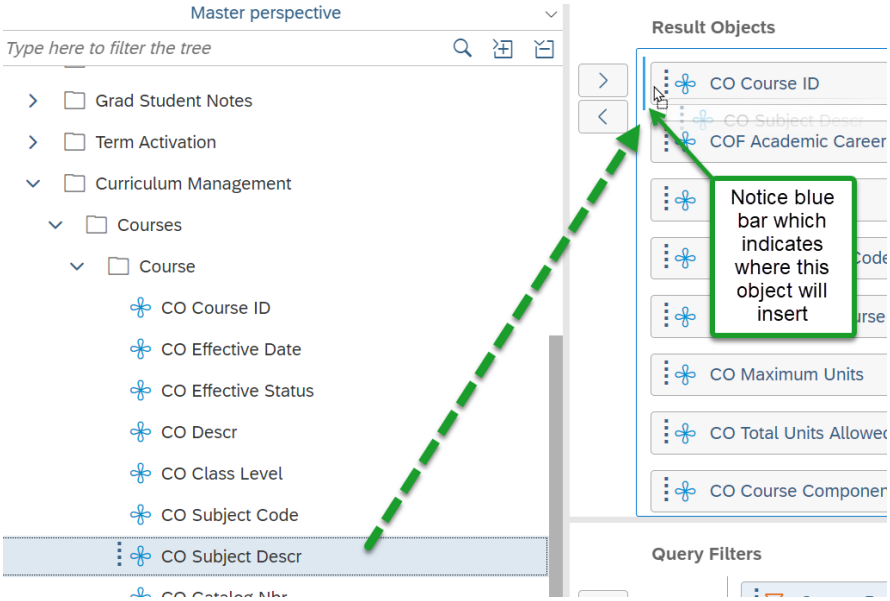


2. This will expand the **Course** folder on the left panel:



3. For convenience sake, we will add it **as one of the first objects.** This is because there are many objects in this report and we would need to scroll far to the right in the Data Preview panel if we place it at the end. When dragging and dropping to add an object, look for the thin blue bar as your place identifier.

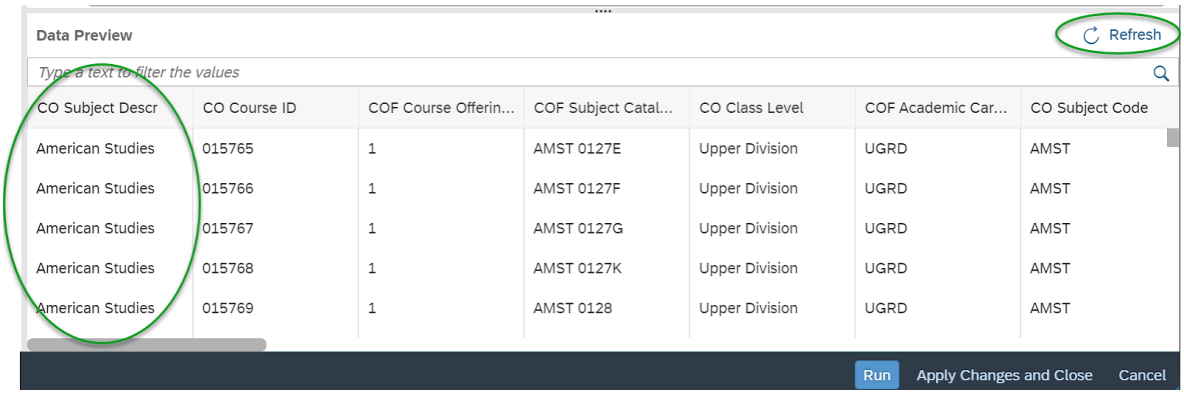
   Click the '**CO Subject Descr**' object on the left and drag it into the Results Object pane as the FIRST object:



Be careful not to add it to the 'Query Filters' section.

The system is smart enough that if you try to add an existing object (to 'Result Objects') it won't let you.

4. Click **Refresh** in the **Data Preview** panel, and then Run for the prompt pop-up. (We will keep our previous selection):



CO Subject Descr	CO Course ID	COF Course Offerin...	COF Subject Catal...	CO Class Level	COF Academic Car...	CO Subject Code
American Studies	015765	1	AMST 0127E	Upper Division	UGRD	AMST
American Studies	015766	1	AMST 0127F	Upper Division	UGRD	AMST
American Studies	015767	1	AMST 0127G	Upper Division	UGRD	AMST
American Studies	015768	1	AMST 0127K	Upper Division	UGRD	AMST
American Studies	015769	1	AMST 0128	Upper Division	UGRD	AMST

The output will be faster – because it's only a sample of the data. Data Preview shows that the field is populated and would be good for our report.

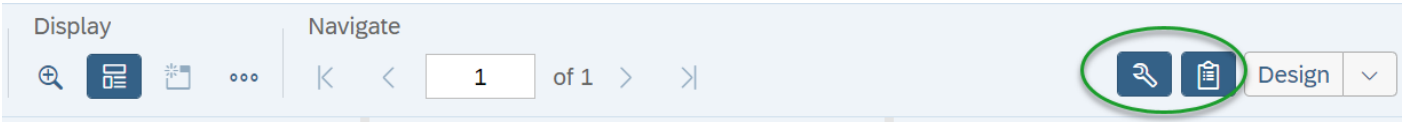
5. As the object works for our report, we are ready to run the Query. Click on the **Run** button on the bottom right, and then **Run** again to keep the same prompt selection as before (Division of Humanities).

The very first time a query is run when developing a report, all the objects will appear in the report table that is generated. If Objects are added to the Query Panel later, there is a **second step** involved. The new object(s) will need to be 'dragged and dropped' (or placed) from 'Document Objects' into the report.

Report Development Panels

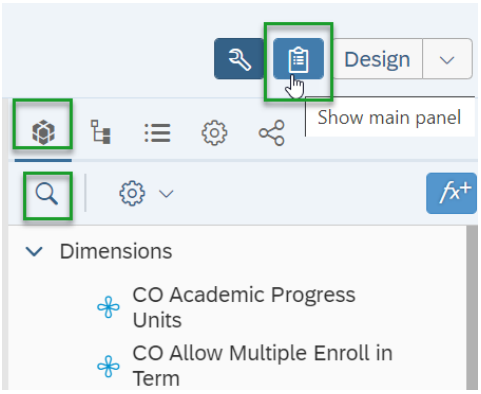
In Webi 4.3, we have 2 important panels on the right hand side of our report:

Once they have been toggled ON, they will look like this (if the icons are not highlighted, just click them to toggle them on):



Main Panel

The far right Panel is the Main Panel and it also has icons menu options as well as sub-menu options below each main icon:

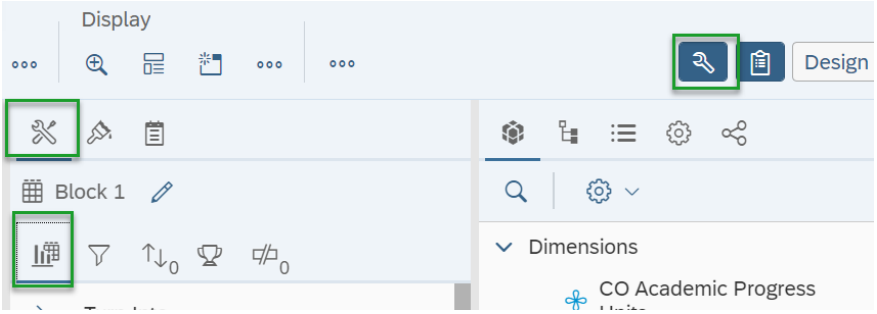


The first icon is the **Document Objects** icon  and this will show ALL the objects that were included in the Results Objects panel from our Query. This report has many objects, so you can scroll down the panel to see them all. You could also use the search icon to find a particular object.

Properties Panel

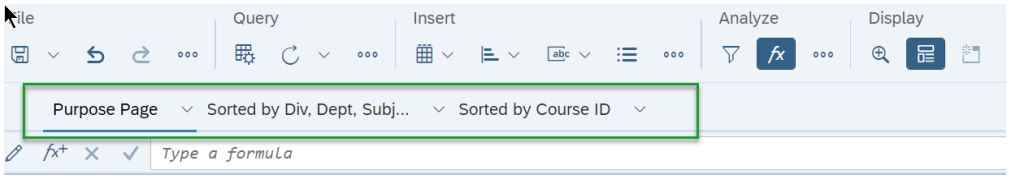
The Properties Panel is specific to the item on the report that we want to focus on. For example, if you click on different areas on the left - the block of data, the header area, in the 'white space' - you will notice that the options change in the Properties panel.

Again, there are Icon menu options and then submenus under each:



We will use both the Main Panel and Properties panel in future steps in our report.

First though, we need to navigate to the report tab where we want to add our new object. At the top of the report, notice that there are 3 tabs listed. Similar to Excel, a Webi report can have multiple tabs in a single report. However, in Webi we navigate to the tabs at the **top** instead of the bottom:



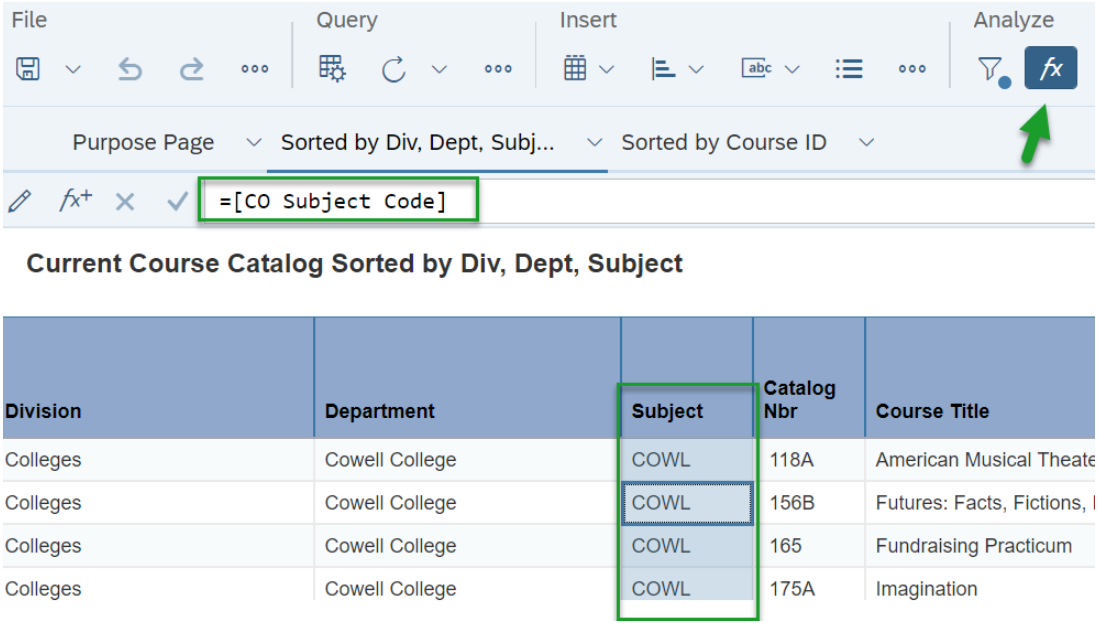
This report has 3 tabs - the Purpose Page and 2 additional tabs.

6. Click on the 2nd tab - **Sorted by Div, Dept, Subj**

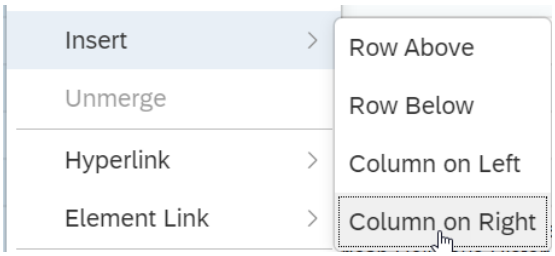
Adding a New Object to a Report

To add an object to the report, first decide where you want to place it. We want to add 'CO Subject Desc' to the right of 'CO Subject Code' (labeled 'Subject') in the header.

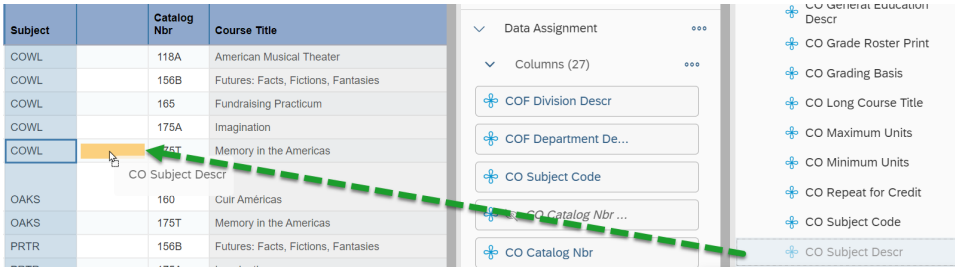
7. For the most part, the object name will appear in the header. To see the full name (including the folder 'code'), click **inside** the column of the field. The whole column is now highlighted in light blue. The **formula bar** shows the name of the object in the column ('CO Subject Code') (*If the formula bar is not displayed, toggle it on by clicking on the "fx" button under Analyze on the toolbar*)



8. As we want a new column on the right of 'CO Subject Code', right click inside the column and select **Insert** from the right click menu, then **Column on Right**:



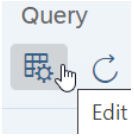
9. Now from the Document Object list, drag CO Subject Descr and drop it right in the center of the new column cell (preferably not in the header for best results). (*Look for the broad orange highlight that covers most of the cell - this is an indicator that you are dropping it in the correct spot*):



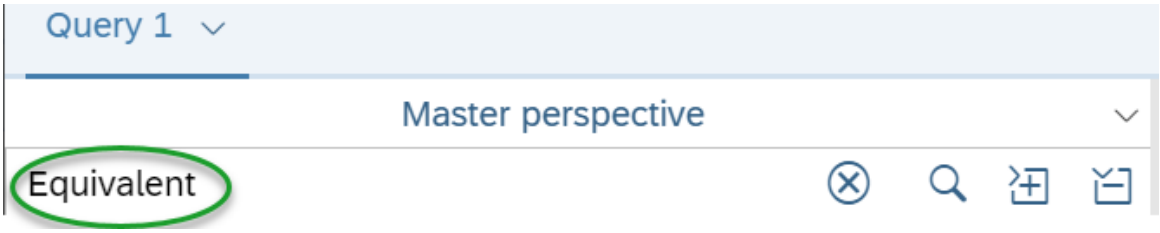
10. When you release your mouse to drop the object there, you should see values populating the column:

Subject	CO Subject D	Catalog Nbr
COWL	Cowell Colleg	118A
COWL	Cowell Colleg	156B
COWL	Cowell Colleg	165
COWL	Cowell Colleg	175A

*(If the object did not go where you intended it to, you can always use the '**Undo**' button from the upper left toolbar to reverse that action and try again).*

11. Edit the query to add another new object to the report. Click the edit Query button 

12. The new object we want to add is called 'CO Equivalent Course Short Descr'. This time, let's do a search for the word "Equivalent " in the search bar at the top of the object list (make sure to hit the Enter key when finished typing to kick off the search):



This gives us a reduced list of objects that have the word 'Equivalent' in the name. Now we can easily pick out the object we want.

13. Drag 'CO Equivalent Course Short Descr' into the Results Objects pane as the new first object and then click the "Refresh" button to get a Data Preview:

Data Preview

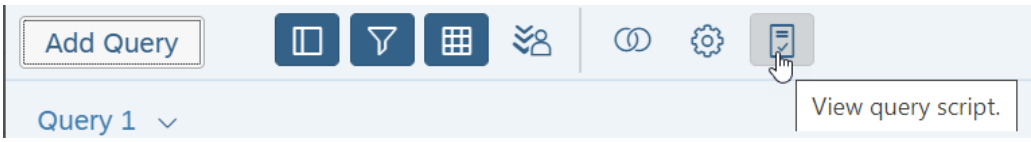
Type a text to filter the values

CO Equivalent Cou...	CO Subject Descr	CO Course ID	C
-	American Studies	015765	1
-	American Studies	015766	1
-	American Studies	015767	1
-	American Studies	015768	1
-	American Studies	015769	1

As you can see, there are no values populating for this object. This is a good reason to preview

data - it can save time.

14. If you want to view the SQL that is generated by this query, click on the “View Query Script” icon on the query panel toolbar:

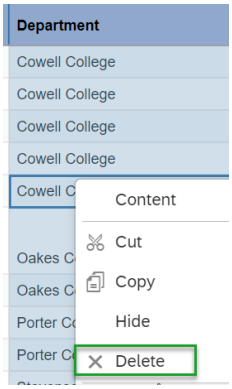


15. Close the Script window and click the **Run** button in the lower right and then click Run again at the Prompt window to keep the last selection and generate the report.

    When it has completed, we see this object that we just previewed, (that is not populated) is in the Document Objects list on the far right panel. However, we can decide NOT to add it to the report.

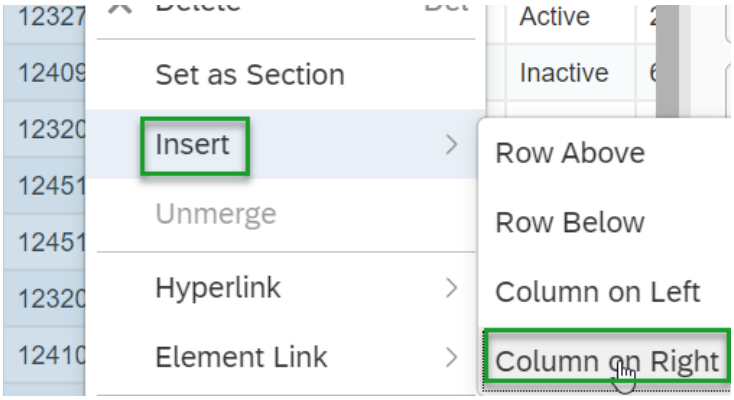
Deleting, Adding and Hiding a Column

16. To delete a column, first select the column so that it is highlighted, then right click and select Delete. Delete the ‘Department’ column:

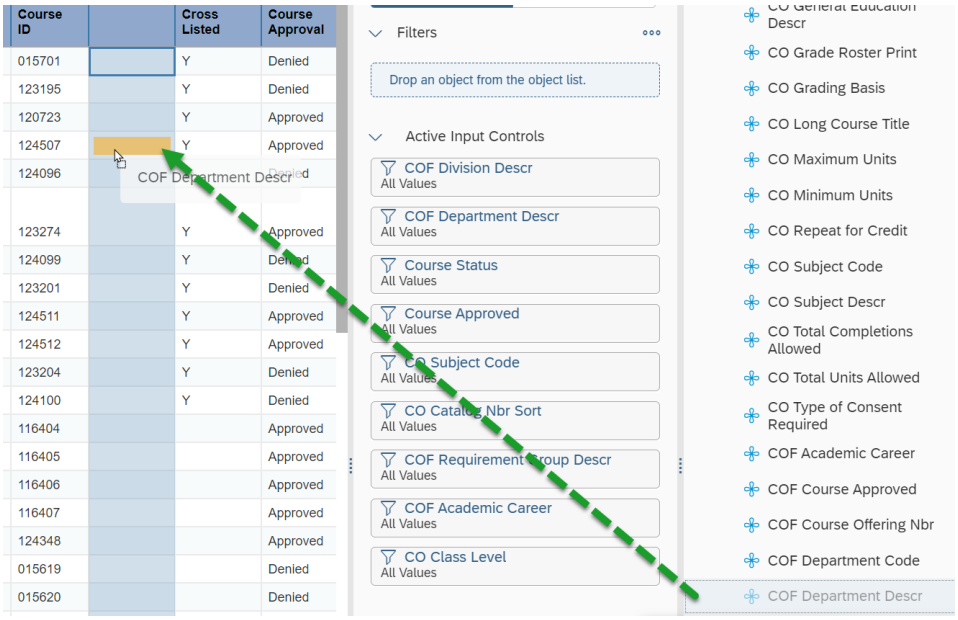


Though the column has been removed from the report, the object is still listed in ‘Document Objects’ to add later or put in a different place in the report.

17. Let’s add the ‘COF Department Descr’ back to the report - to the right of the ‘Course ID’ column (‘CO Course ID’) (*you may need to scroll to the right to see this column).* First we will add a new blank column to the right of Course Id by selecting the column, then right click / Insert / Column on Right:



18. Now we can drag from the Documents Objects the 'COF Department Descr' object (*you may need to scroll down to see it in the list)* and drop it into this new blank column:

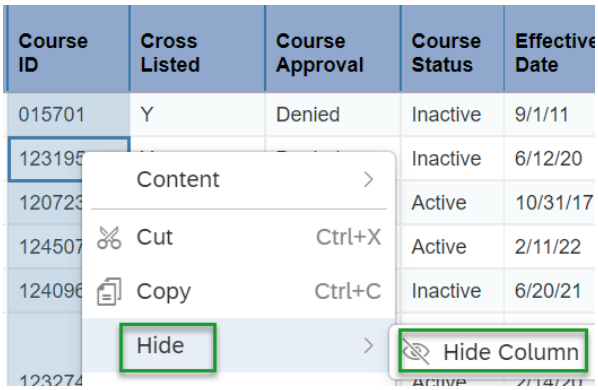


Hide a Column

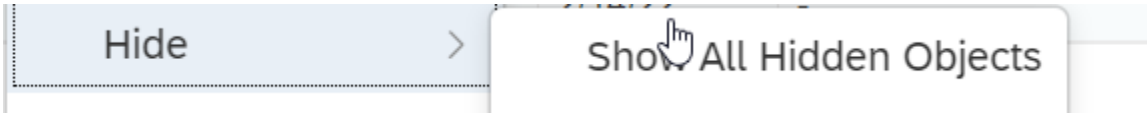
Sometimes we may want to Hide a column in our table - perhaps we need it there for sorting purposes or to get the level of detail we need. It is an easy right click option to Hide a column.

19. Click inside to highlight the 'Course ID' column ['CO Course ID']

20. Right click, choose 'Hide' and then **Hide Column**:



21. To "Show" any columns that have been hidden, you must select the whole table rather than just a column. Click in the white area above the table, then click once back on the table (no columns should be highlighted). Right click and select **Hide / Show All Hidden Objects**:

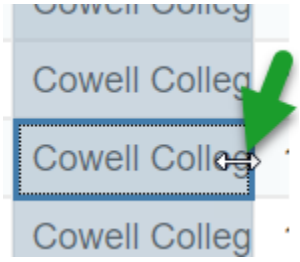


(*This will display any columns that have previously been hidden. If you only want to "unhide" the one column you just hid, you could always just use the* ***Undo*** *button*.)

Auto-fit / Widen Columns

22. To auto-fit a column so that all the values display, click inside the table on the column labeled 'COF Department Descrr' - the column we just added - so that the whole column is highlighted in light blue.

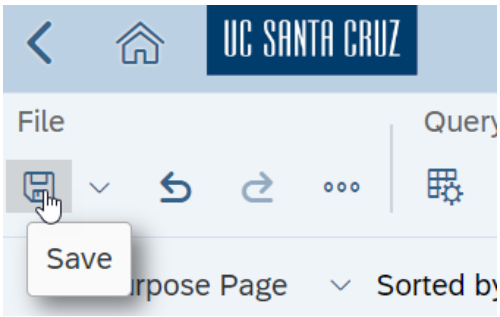
23. Hover near the right edge of the column until you see the double-sided arrow, then double-click:



Your table will now look like this:

	Course Descr	Course ID	COF Department Descr	Cross Listed
heater	Am Musical Theater	015701	Cowell College	Y
ons, Fantasies	Futures	123195	Cowell College	Y
ım	FundraisingPracticum	120723	Cowell College	Y
	Imagination	124507	Cowell College	Y
icas	Memory in the Americas	124096	Cowell College	Y
	Cuir Américas	123274	Oakes College	Y
icas	Memory in the Americas	124099	Oakes College	Y

24. Save these changes by clicking on the Save button in the upper left corner:

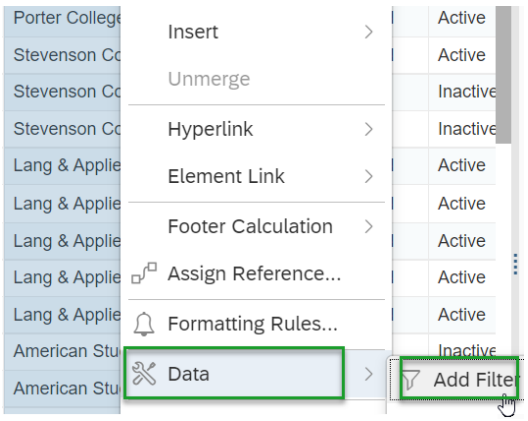


Report Filters

Report filters allow us to further refine the data we are viewing in the table.

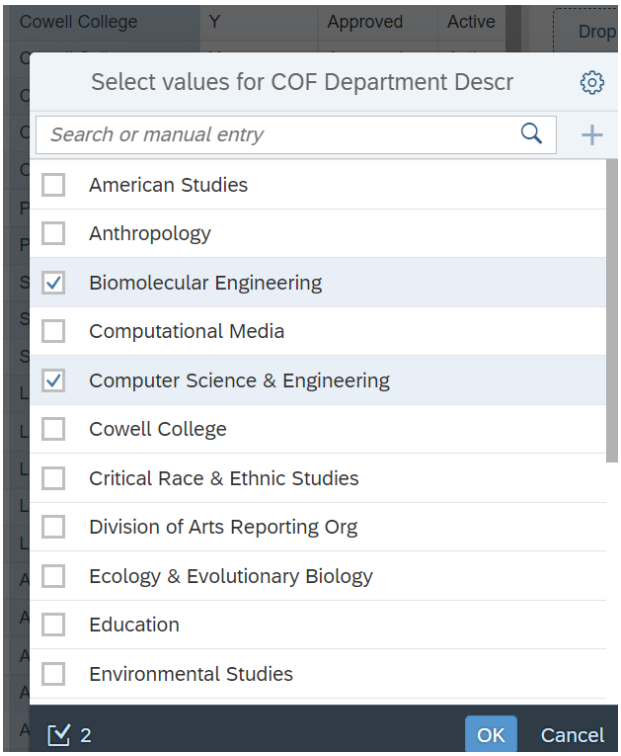
Adding and Editing a Filter

25. Let's filter our report for just a few Departments. Click inside to highlight the 'Department' column ['COF Department Descr']. Right click and from the bottom of the right click menu, choose "**Data**" and "**Add Filter**" :



This will open a pop-up window with the list of Departments.

26. Select a couple of Departments by clicking on the check box beside the name and click OK:

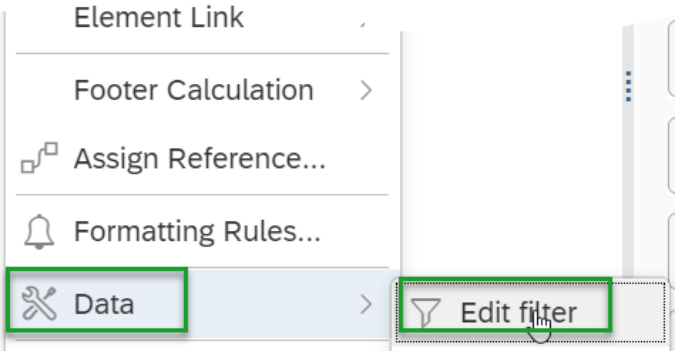


You will then see your report filtered for these Departments:

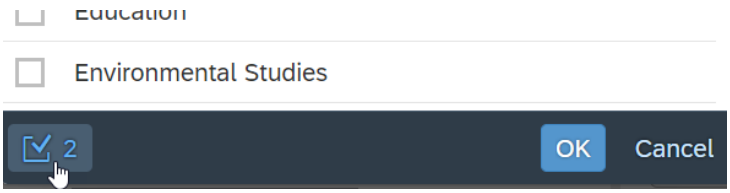
Course Descr	Course ID	COF Department Descr	Cross Listed	Course Approval
Bioethics 21st Cent	018003	Biomolecular Engineer		Approved
Stem Cell Research	105302	Biomolecular Engineer	Y	Denied
Science and Justice	110361	Biomolecular Engineer	Y	Approved
Sci Jus Research	110718	Biomolecular Engineer	Y	Approved
ComputModelsDiscours	110363	Computer Science & E		Approved

Edit a Filter

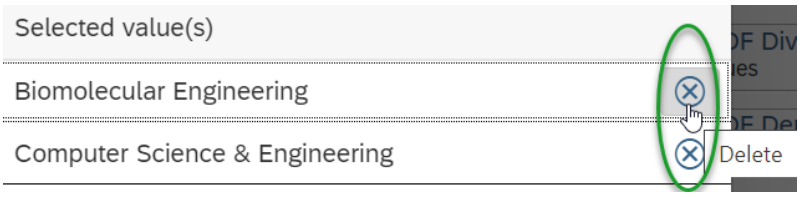
27. To Edit the filter, click inside to highlight the 'Department' column ['COF Department Descr']. Right click, choose "**Data**" and "**Edit Filter**" :



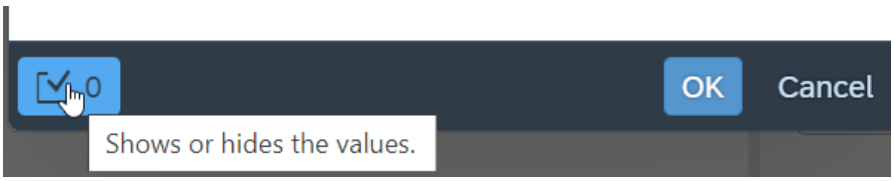
28. To clear out the previous selection, click on the checkmark & number at the bottom left of the pop-up window:



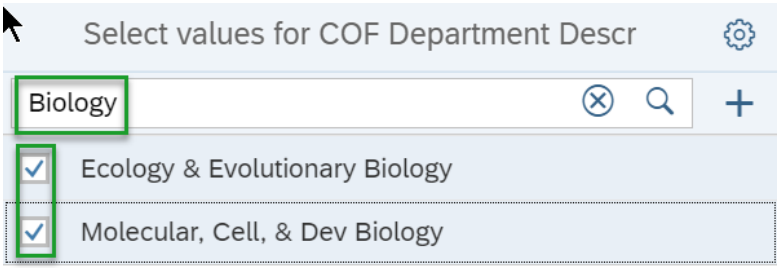
And click the "X's" beside each filter to delete them:



29. Now click back on the checkbox & number (0) to return to the complete list:



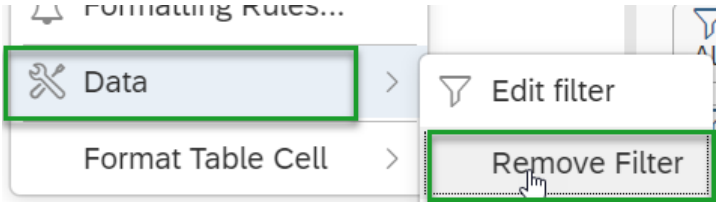
30. This time, use the search bar at the top to find all the Biology departments. Check the box beside each and click OK:



Remove a Filter

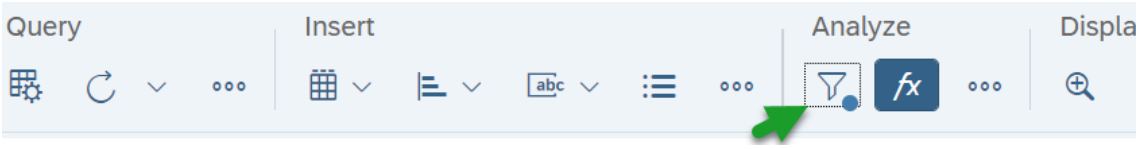
31. To remove the filter on the Department column, right click in the column and choose "**Data**" and

"**Remove Filter**":



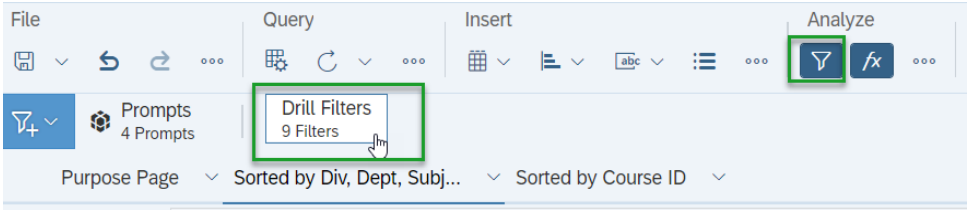
Drop Downs or Filters in the Corporate Reports

Many of the Corporate Reports include Filters at the top of the report, similar to Excel filters. These can be accessed by clicking on the Filter button on the top toolbar. The little blue dot next to the funnel icon indicates that there are Filters already set up for this report:



Widely used in Corporate Reports, these filters allow individual Divisions and Departments to Filter or Drill into the desired data set.

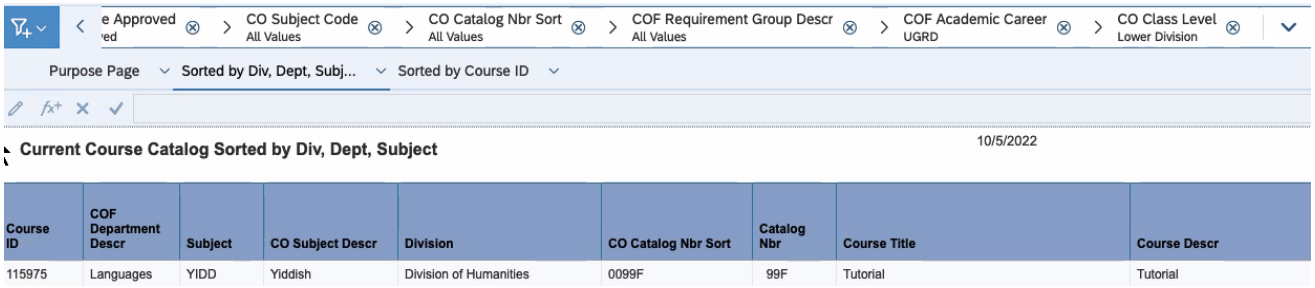
When toggled on initially, the filters may be collapsed, like this:



Click the Drill Filters button to expand them. There are 9 filters in the report, so you will need to scroll across to view the ones on the far right. Test them out with these examples:

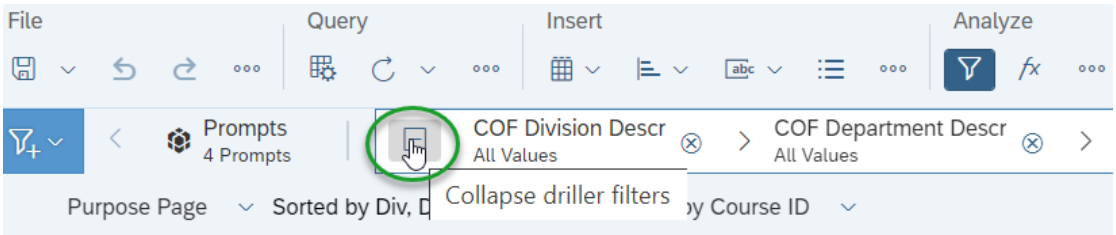
a. Click on 'COF Division Descr' filter, and pick Division of Humanities
b. Click on 'COF Department Desc' filter, choose Languages
c. Click on 'Course Status' filter, choose Active
d. Click on 'Course Approved' filter, choose Approved
e. 'CO Subject Code' – leave at 'All Values'
f. 'CO Catalog Nbr Sort' – leave at 'All Values'
g. 'COF Requirement Group Descr' – leave at 'All Values'
h. Click on 'COF Academic Career' filter, choose UGRD
i. Click on 'CO Class Level' filter, choose 'Lower Division'

Your report will look similar to this:



32. The filters must be reset individually - go through and return all the filter to “All Values”

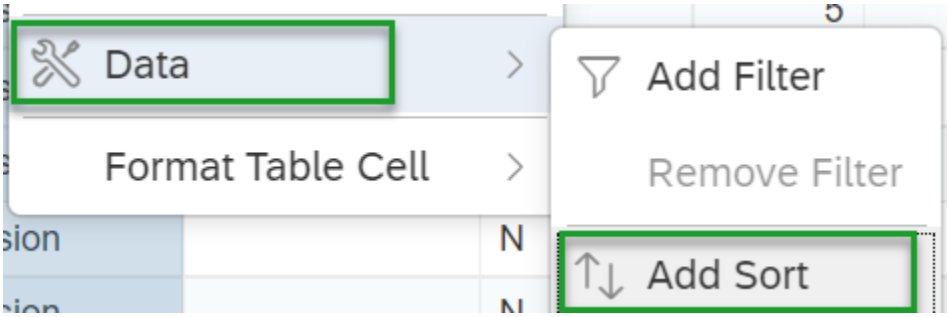
33. You can collapse the filters by clicking on the “-” sign at the beginning of the filters.



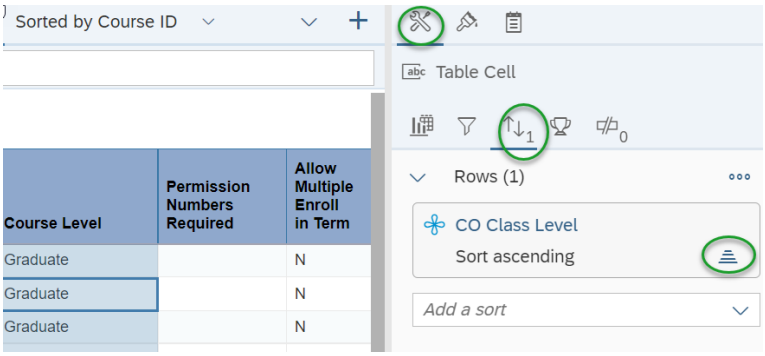
Adding a Sort

Adding sorts to our data can often make our analysis a bit easier.

34. Let’s apply a sort to the **Course Level** column (*scroll to the right to find this column*). Click inside to highlight the ‘Course Level’ column [‘CO Class Level’]. Right click and choose “**Data**” and “**Add Sort**”:

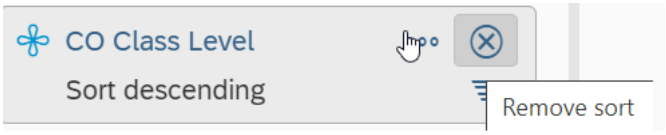


Notice that an Ascending sort is applied AND the **Properties panel** also changed to display this sort as well:



By default, Webi will apply an Ascending sort. Click on the little pyramid icon to toggle a change to a Descending sort.

35. To Remove a sort, you can use the Right click option of Data / Remove Sort. You could also remove the sort from the the Properties Panel by click on the

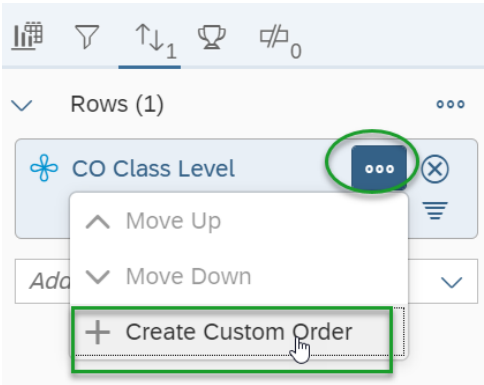


Custom Sort

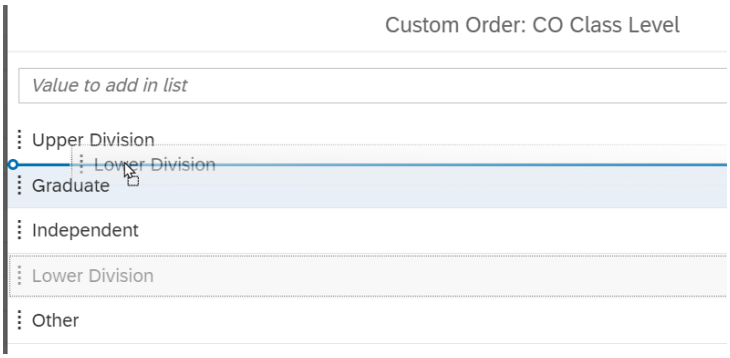
We can also create a custom sort for the data. For example, let's say we prefer to see the data sorted in this order:

- Upper Division
- Lower Division
- Graduate
- Independent
- Other

36. In the Properties Panel / Sort options, click on the ellipses beside the current sort object 'CO Class Level' and select 'Create Custom Order':



37. Drag & drop the class levels into the order shown above:



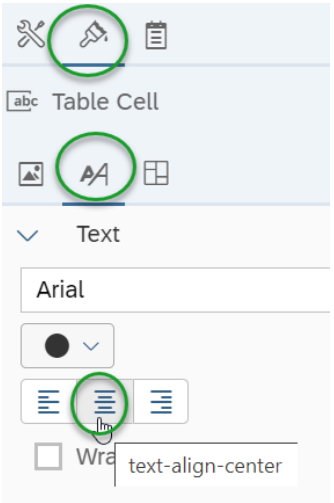
Click **OK** after you have them in the specified order and **toggle** the ascending/descending icon back to ascending and you will see that the table is now sorted in the custom order.

38. Again, to remove the custom sort, just click on 'X' in the Properties Panel:

Formatting Text

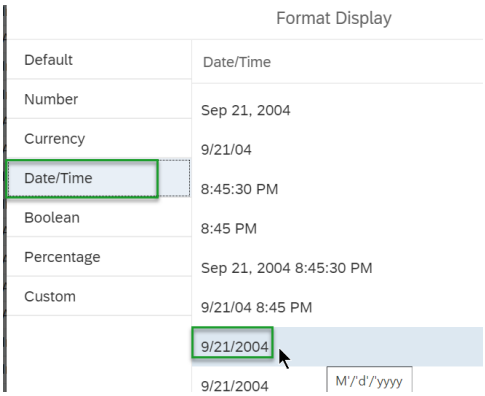
Shaping up your report for easy viewing is an important step. This section will cover various formatting options available to you.

39. To **center align a column**, click inside the column - say the Subject column 'CO Subject Code'- so that it is highlighted, Click on the Format paintbrush on the Properties Panel / Text Settings and select text-align-center:



40. To **Wrap Text**, let's wrap the text for the 'CO Subject Descr' column that we added earlier. In the same area of the Properties Panel - **Format /Text** - check the box to wrap text and then also apply a center alignment.

41. To change a **Date Format**, for example, change the format of the Effective Date ('CO Effective Date') values to have the full year, we will first select the column so that it is highlighted, then right click and select Format Display. Click on the Date/Time options and choose a date format with the full year:



Nice job formatting your report! **Save** these changes by clicking the Save button..

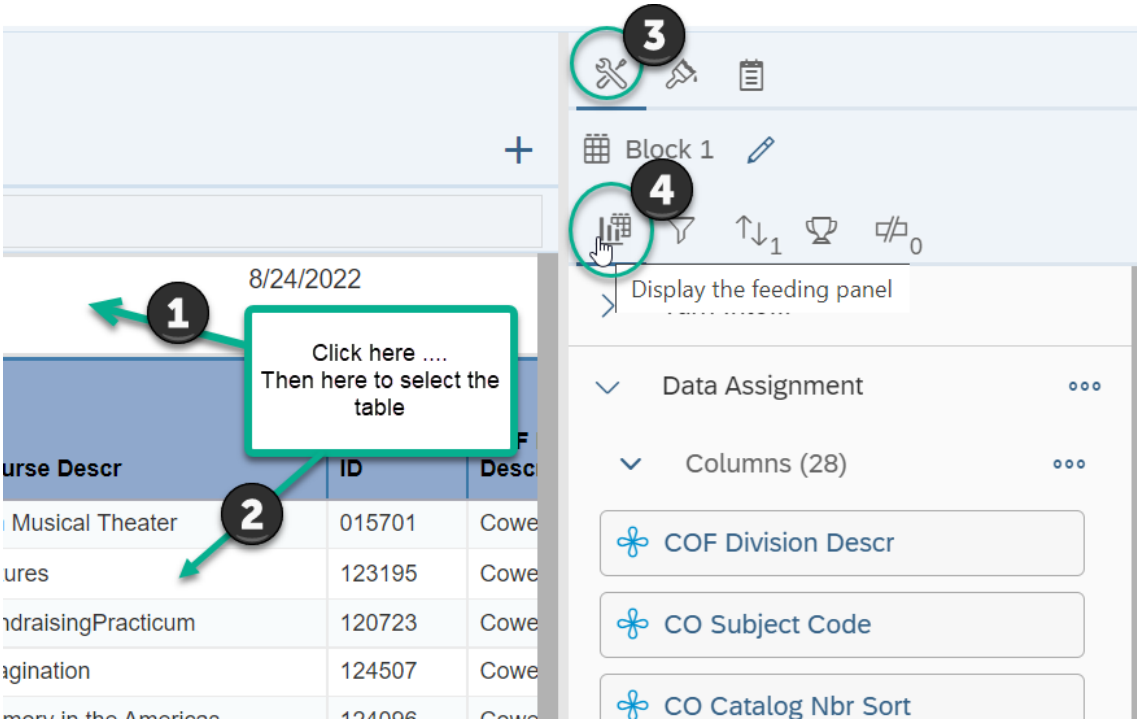
EXERCISE 4 - Re-arranging objects in a table

Continuing to work on the same report (**Current Course Catalog**) this exercise will show how to use the Feeding Panel for re-arranging objects and getting a nice overview of what's happening in the table.

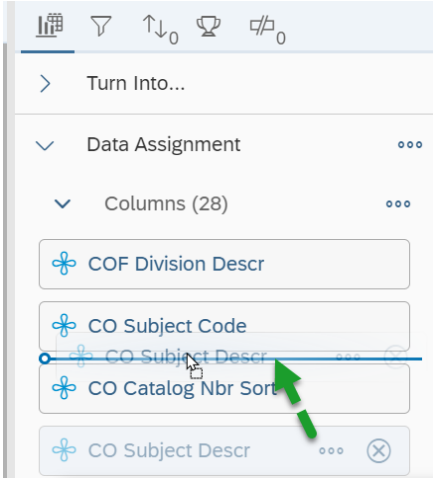
Re-arranging Objects

The Feeding Panel is the perfect place for moving objects in or out of the table, as well as re-arranging objects within a table.

1. Click in the white area above the table, then back on the table - this ensures that the table is selected and the borders of the table are highlighted. Then click on the Feeding Panel in the Properties Panel:



2. Notice we have 28 columns in this table! Let's move the **CO Subject Dscr** object to the right of "Subject" (**"CO Subject Code**"). To do this, we will simply drag CO Subject Descr up and drop it right below the CO Subject Code:

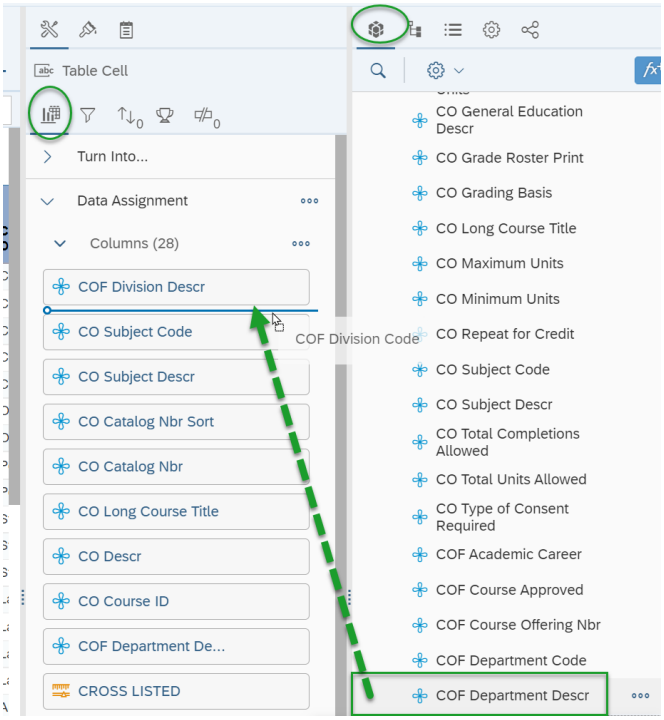


When you drop the object into its new spot in the Feeding Panel, you will see the corresponding change in the table on the left:

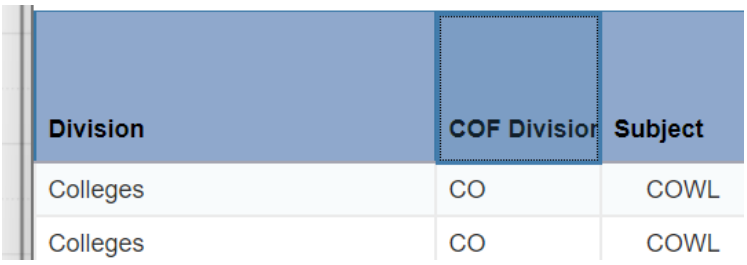
Division	Subject	CO Subject Descr	CO Catalog I
Colleges	COWL	Cowell Colleg	0118A
Colleges	COWL	Cowell Colleg	0156B

Adding a New Object

3. Let's add the Division Code beside the Division column. From the Document Objects panel, drag **COF Division Code** into the Feeding Panel right below **COF Division Descr**:

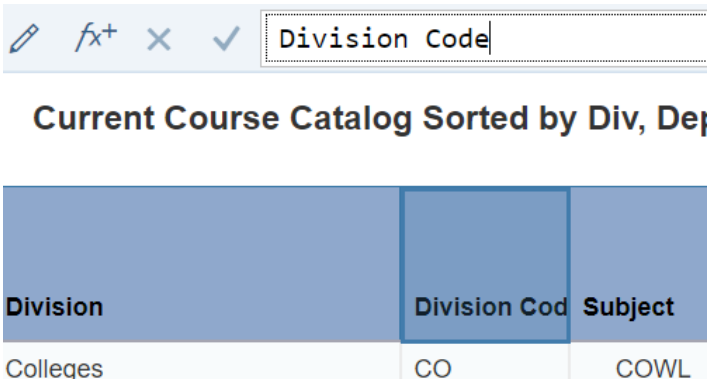


4. Confirm that the new column is showing up in the table:

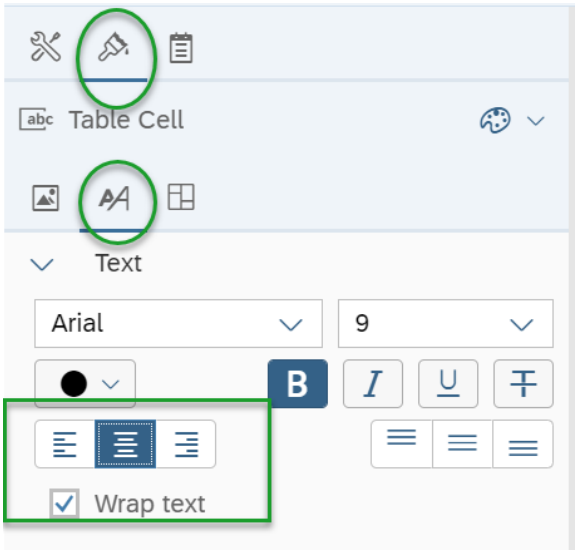


Division	COF Divisior	Subject
Colleges	CO	COWL
Colleges	CO	COWL

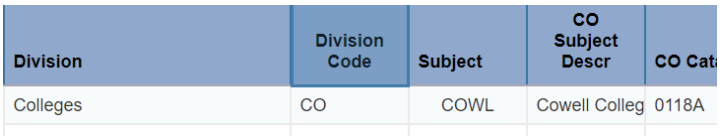
5. While here, let's modify the header. Click inside the header cell of COF Division Code and, from the formula bar, change it to display as "Division Code":



6. Now switch to the Format Paintbrush in the Properties Panel / Text options and check the box to Wrap Text and Center align the text:



The Header should now look like this:



Division	Division Code	Subject	CO Subject Descr	CO Cat
Colleges	CO	COWL	Cowell Colleg	0118A

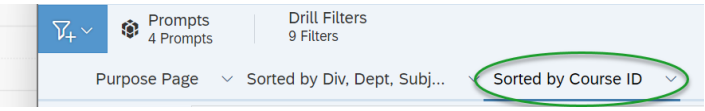
7. **Save** the Report.

Deleting and Hiding an Object

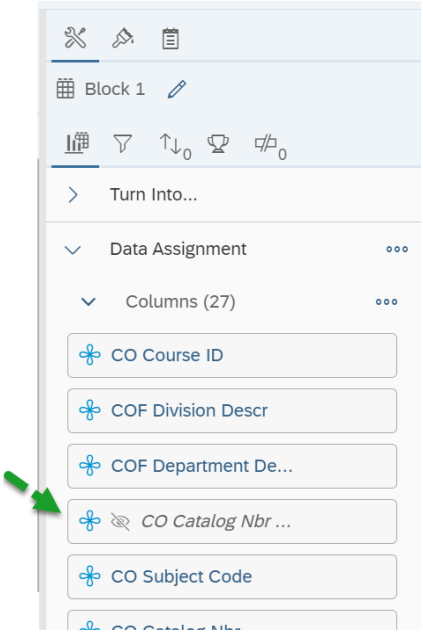
8. Let's say we want to delete a couple objects that are no longer needed in our report. Scroll down the list in the Feeding Panel to CO Equivalent Course Descr and COF Academic Career. Click on the "X" beside each column to delete them:

Confirm that they have been deleted from the table as well.

9. Click on the 3rd tab of this report - Sorted by Course ID:

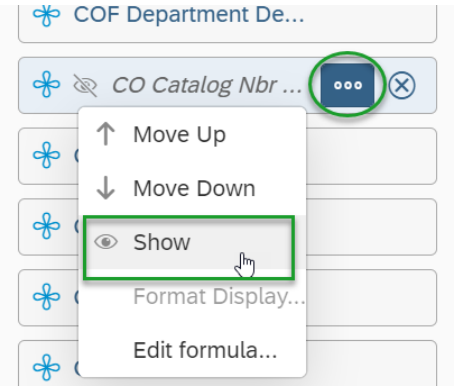


10. Open the Feeding Panel on this tab and look at the objects. Notice that one of the objects has been grayed out:



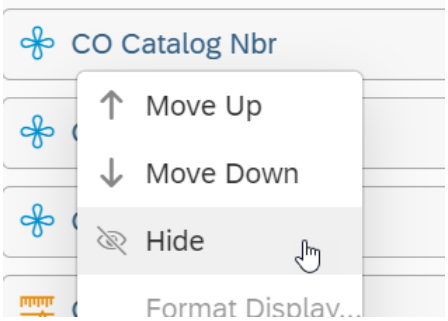
11. The ability to Hide a column can be a handy option for several reasons. For example, we may want to have the column in our table for sorting purposes, but we don't really want to display the column. The Feeding Panel is showing us as the report developer that there is an extra column in this table, but it is hidden.

To display the column rather than hiding it, click on the ellipses beside the hidden object in the Feeding Panel and select "Show":



Confirm that this column is now displaying in the table.

12. To hide the object once more, follow the same steps as above and select “Hide”:

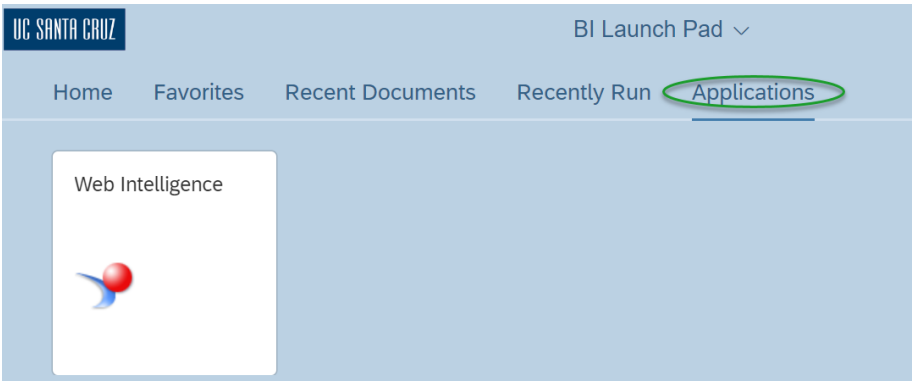


13. **Save** the report once more and then Close the report,

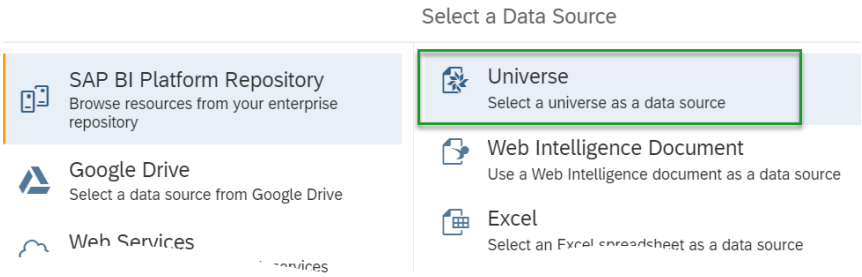
EXERCISE 5 - How to Write a New Report

In this exercise we will start a new Webi report from scratch.

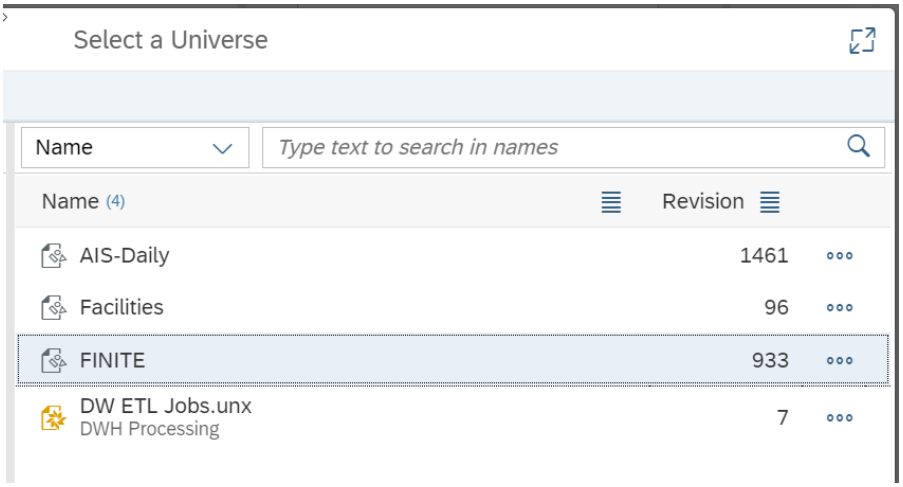
1. Click on the 'Home button, if not already there:  Then click on the 'Applications' button on the top menu and the 'Web Intelligence' tile:



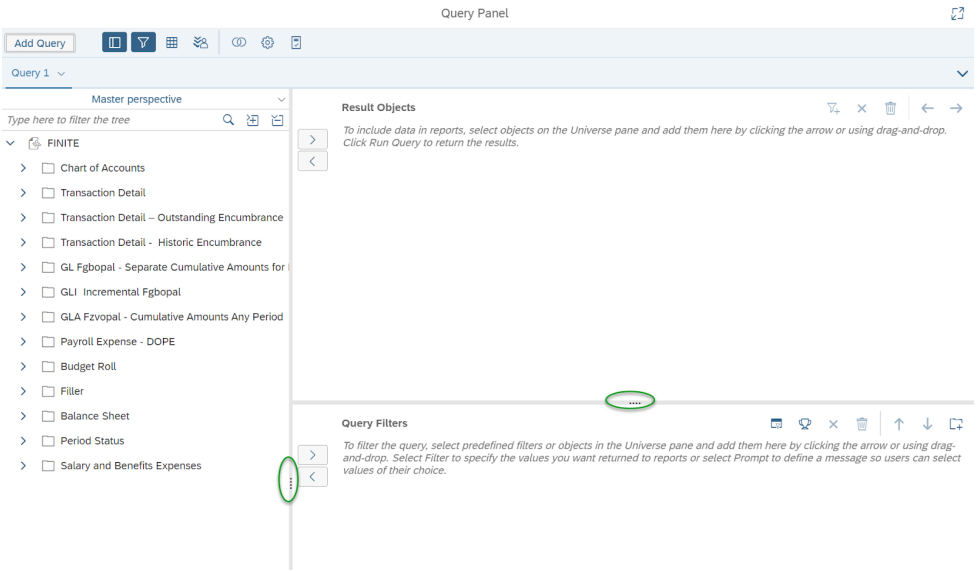
2. From here, a window opens for you to choose your data source. Select 'Universe' by clicking and 'OK' or double clicking on 'Universe':



3. Select the 'FINITE' universe and click ok (or double click on it):



4. The ‘Query Panel’ opens and on the left you will see the list of folders for this universe:

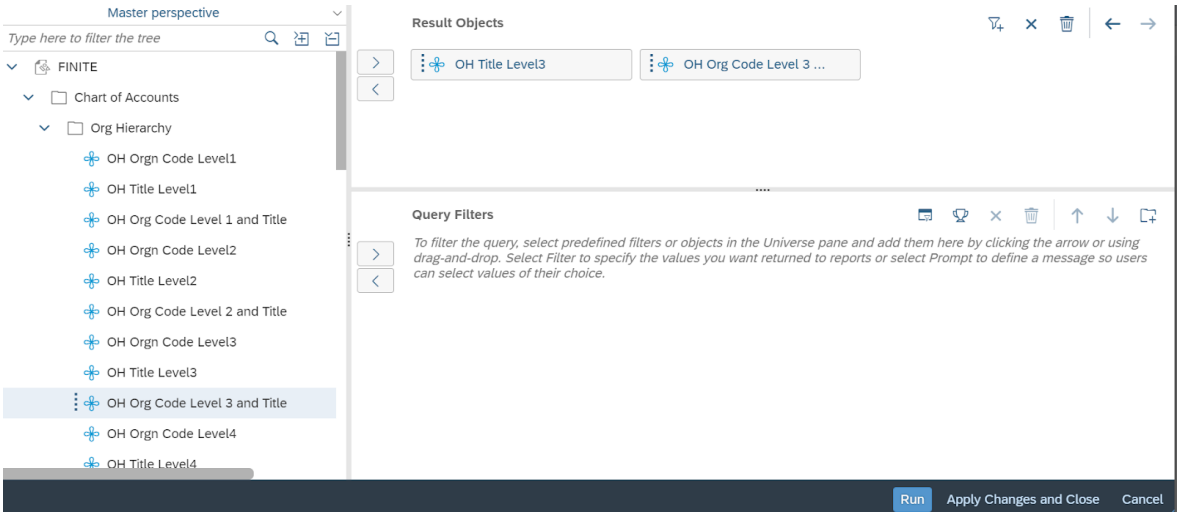


By the time you get to this screen, you should have in mind how you want your report to look, the fields/objects involved, as well as the filters and any prompts needed. Write it out on a sheet of paper.

This is where you select the fields or objects for your report. You can compare this to an artist’s empty canvas! Notice that the panel sizes are adjustable - you can increase or decrease the size of a panel when needed.

The report requirements for this report will be: **Create a listing of all the Org Hierarchy Level 3 codes and their Title**

5. Expand the ‘Chart of Accounts‘ folder and the ‘Org Hierarchy’ folder and drag these 2 objects into the Results Objects panel: ‘OH Title Level 3’ and ‘OH Org Code Level 3 and Title’ :



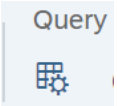
6. Click ‘Run” to generate your report, which will look like this:

Report 1

OH Title Leve	OH Org Code
ACADEMIC A	213 ACADEM
ACADEMIC F	105 ACADEM
ACADEMIC S	103 ACADEM
ADMINISTRA	147 ADMINIS
ALUMNI ENG	210 ALUMNI

When creating a report from scratch, the first time you run it, all objects will appear in the report. The biggest hurdle is learning the fields or objects in your universes and knowing when to use them together with the appropriate filters.

Add a Parameter (of filter) to the Report – to have it for Engineering only

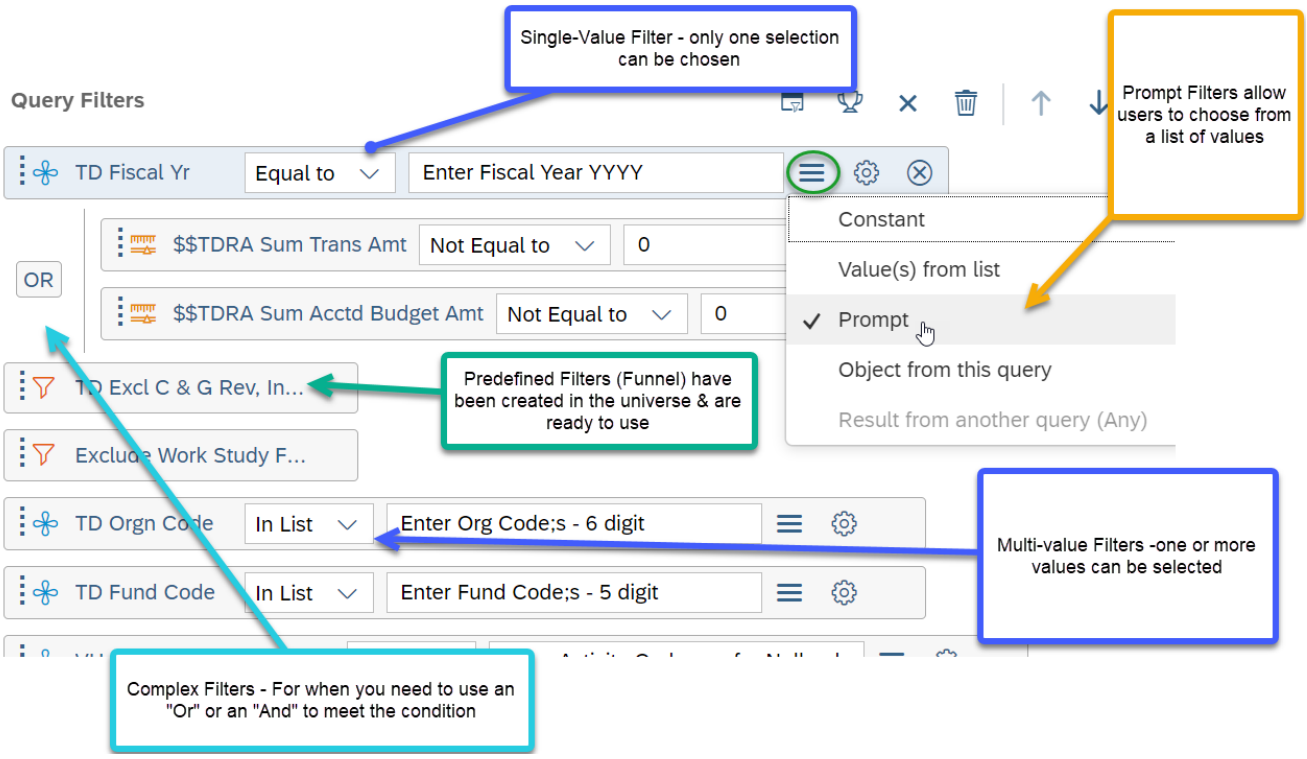
7. Click the 'Edit Query' button under the Query options on the toolbar: 

Types of Query Filters

There are 4 types of query filters that can be set up in Webi and we will give a brief description of each:

- Predefined filters
- Single & Multi-value filters
- Prompted Query Filters
- Complex Filters

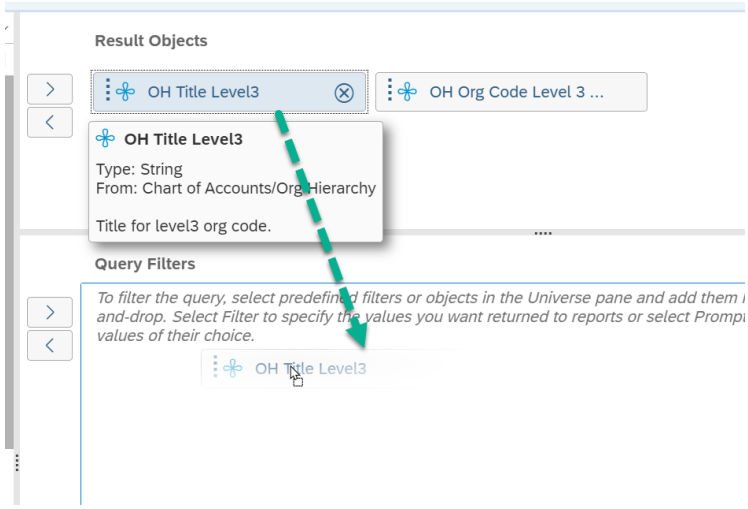
The example below is from the Financial Transactions-FY report which we looked at in Exercise 1:



The above is just an example of filter types available in Webi.

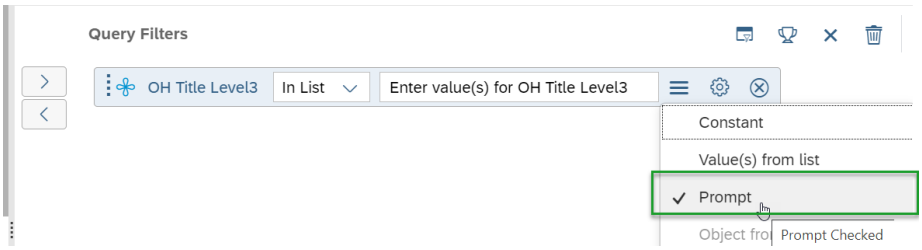
In our report we just want to create a prompt for **OH Title Level3** and then we will choose **Engineering** from the list.

8. Since the object we want to filter on is already in our Results Objects panel, we can just drag and drop it from there into the Query Filters panel:

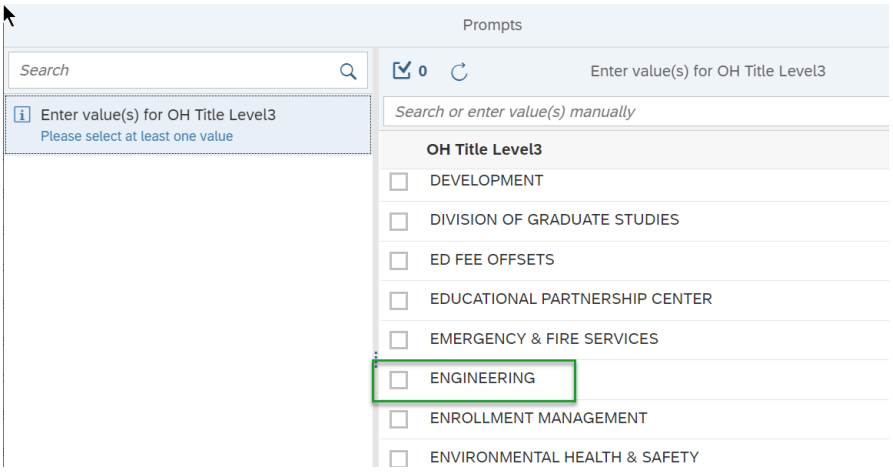


This is a good 'best practice' to follow , as it assures that you are using objects for your filters from the same folders as your 'Results' objects.

9. Click on the 'menu' option on the query filter and choose 'Prompt':

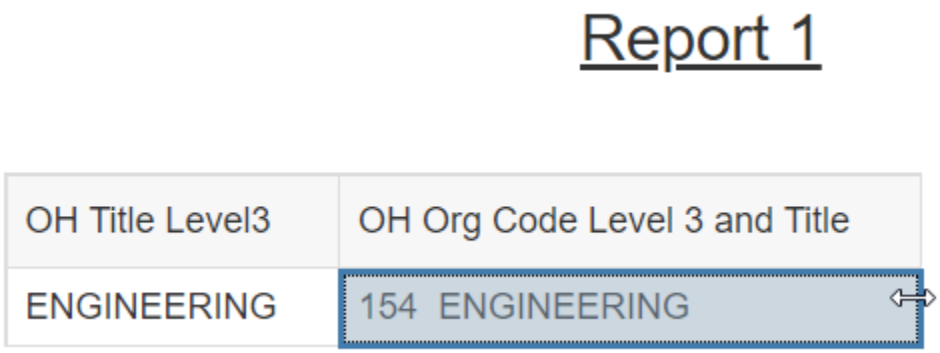


10. Click "**Run**" and you will see a list of values pop up. You can scroll through the list for 'Engineering' or start typing it in the Search window:

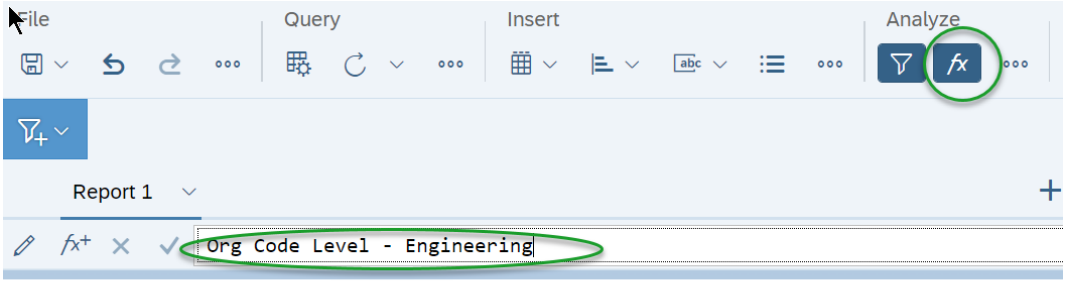


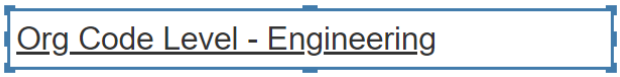
11. Check the box for '**ENGINEERING**' and click '**Run**'.

12. Auto-fit the columns this time so they are easier to read:



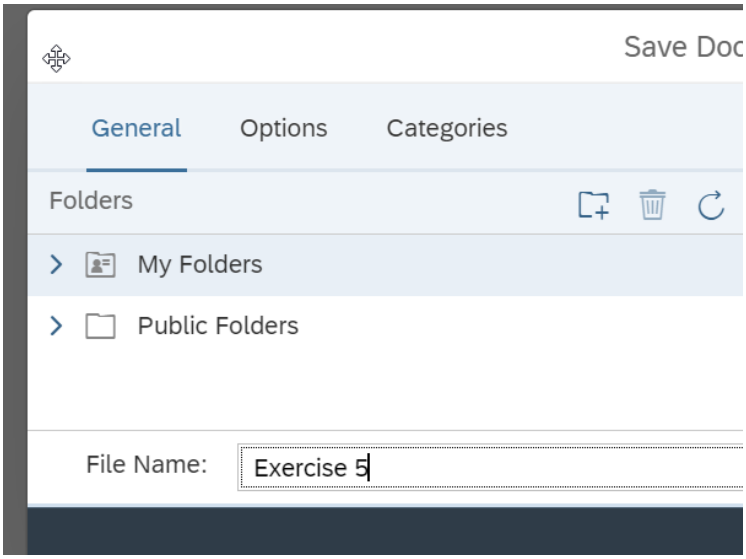
13. To update the title, click inside the cell which currently reads Report 1, then in the Formula bar, type "**Org Code Level - Engineering**"
(*If the Formula bar is not showing, toggle the "fx" button on the toolbar*):





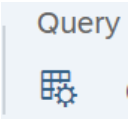
OH Title Level3	OH Org Code Level 3 and Title
ENGINEERING	154 ENGINEERING

14. Click the Save button and Save As **Exercise 5** in My Folders: *(Note, you have to click on the "My Folders" folder, otherwise the Save button will be grayed out)*



Add Additional Objects and Change the Filter

In the next steps, we will edit the query, add additional objects and change the query filter.

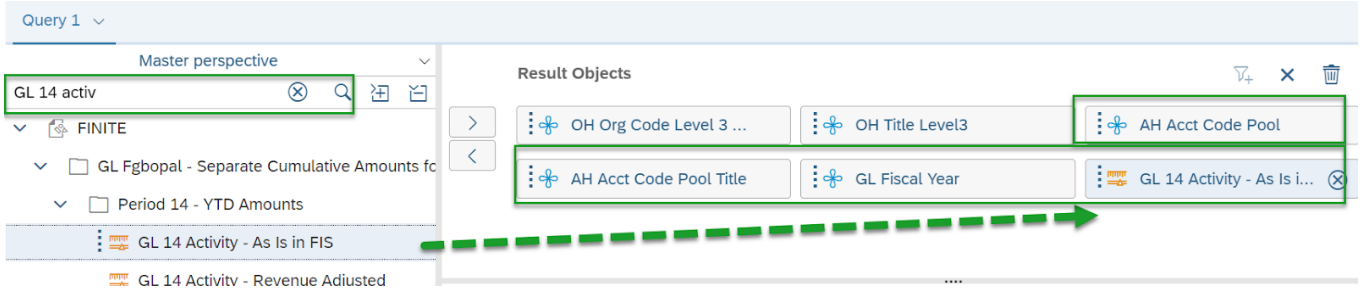
15. Click the 'Edit Query' button under the Query options on the toolbar: 

16. From the **Chart of Accounts** / **Acct Hierarchy** folder, drag (or double click) the following objects to add them to the Results Objects panel:
    - **AH Acct Code Pool**
    - **AH Acct Code Pool Title**

    And from the **GL Fgbopal ….** folder, add

    - **GL Fiscal Year**

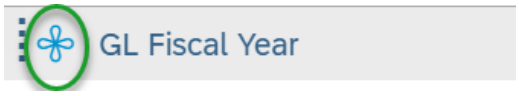
    Add the Transaction amount (an object called GL 14 Activity - As is in FIS) - and use the **Search** feature to find:
    - **GL 14 Activity – As Is in FIS**



*(Remember that the **order** of the objects only matters the very first time the query is run. After that, it doesn't matter what order you place new objects. After the query is run, you will manually add them to the table in the report.)*

So far in this query, we have 5 "Dimensions" and one "Measure".

Dimensions are text type data, dates or numbers that will not be aggregated, for example, Course Number or Fiscal Year. The symbol beside dimension objects looks like this:



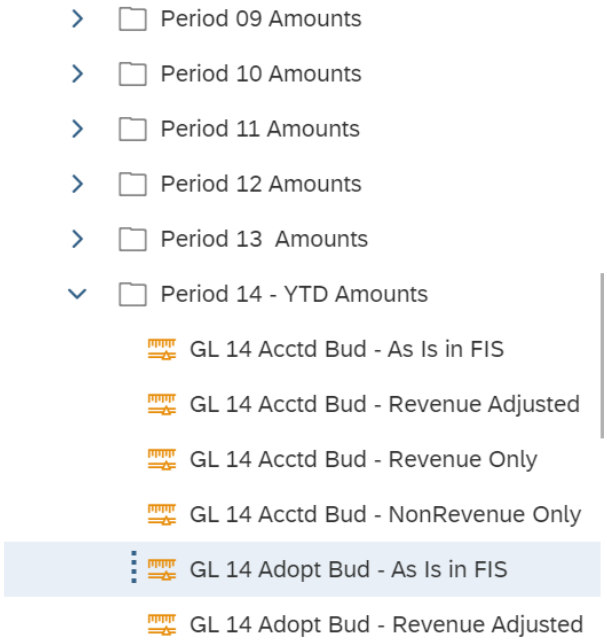
Measures are number type data that will be aggregated . GL 14 Activity - As Is In FIS is a measure and represents the transaction amount. Measure objects are indicated by this symbol:

For this particular measure - GL 14 Activity - As Is In FIS - the 14 in the name is indicating important

information about the Period that this measure is representing.

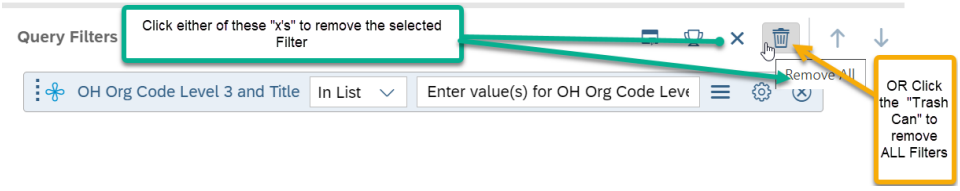
- The Periods specify months of the school (or fiscal) year, which starts in July
- Period '00' represents the Carry Forward Amount
- Period 14 always represents the total for the year

Notice the structure in the universe for these period measures:



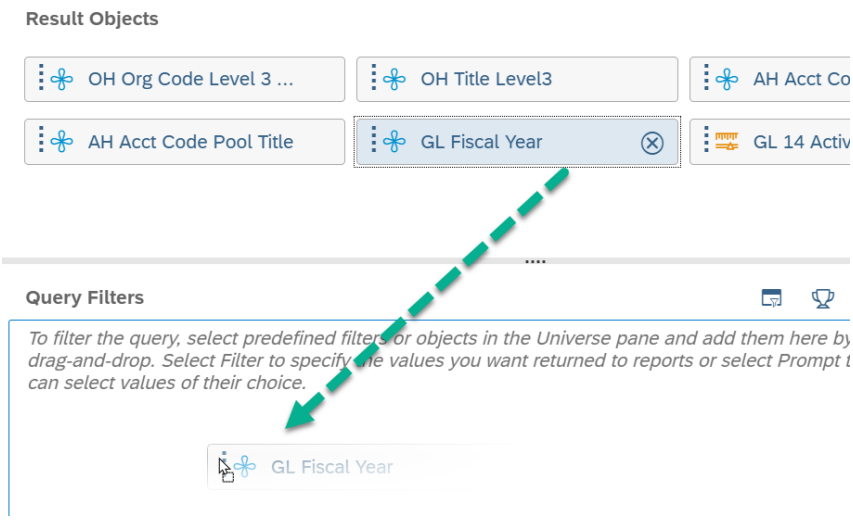
Add a Prompted Filter for GL Fiscal Year

17. Before we add a new query filter, let's delete the current filter, as it is not needed any more. You can click on the "x" or on the Trash icon:

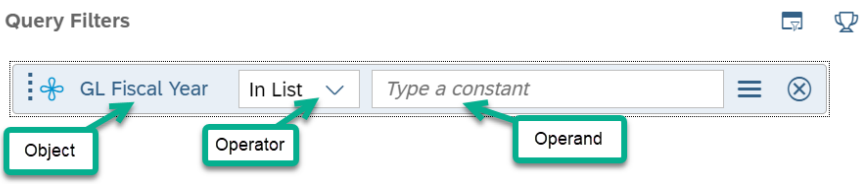


In this case, we only have one filter, so any of these options will work fine. If you have many filters and want to start over, it's nice to have a way to remove them all at once.

18. Now, drag **GL Fiscal Year** from the Results Objects pane down into the Query Filters pane:

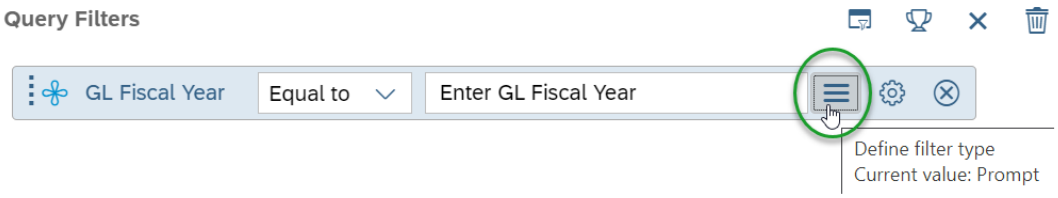


A query filter has 3 parts:

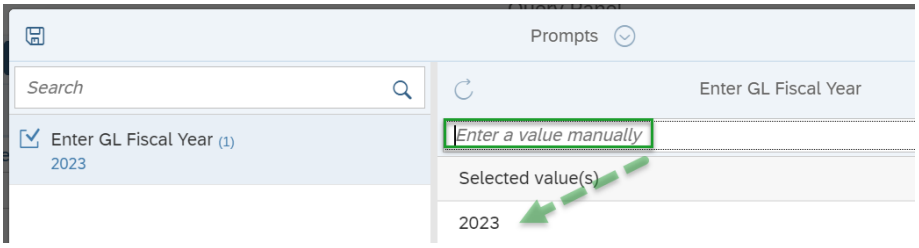


19. Click on the Operator drop down to see all the options. The default is "In List", which allows a user to select one or more values from a list. In this case, we want users to select a single year, so we will change the Operator to '**Equal To**'

20. Click on the filter menu option and choose "**Prompt**" from the list. Your filter should now look like this:

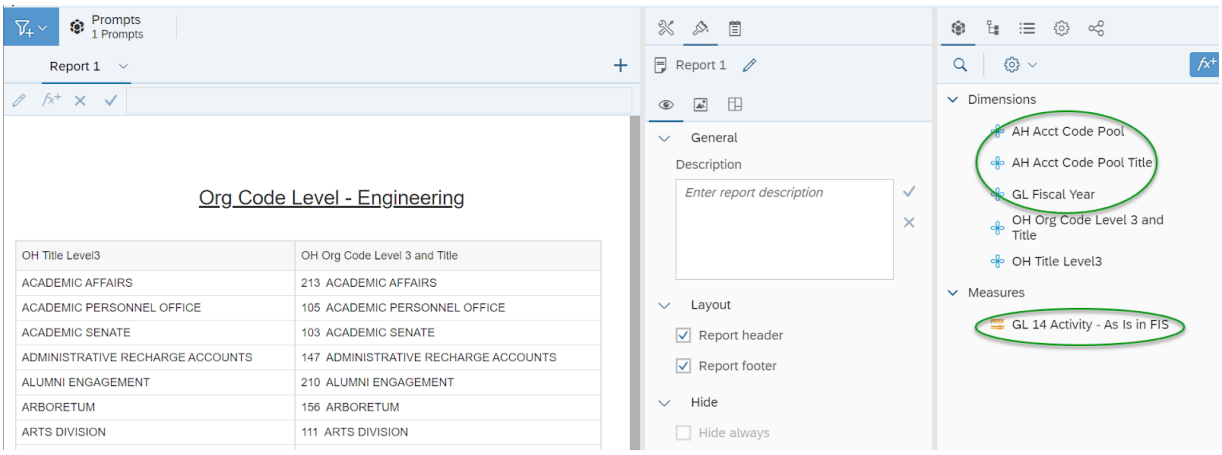


21. Click "Run" to run the query and type 2023 in the box at the top & click enter:



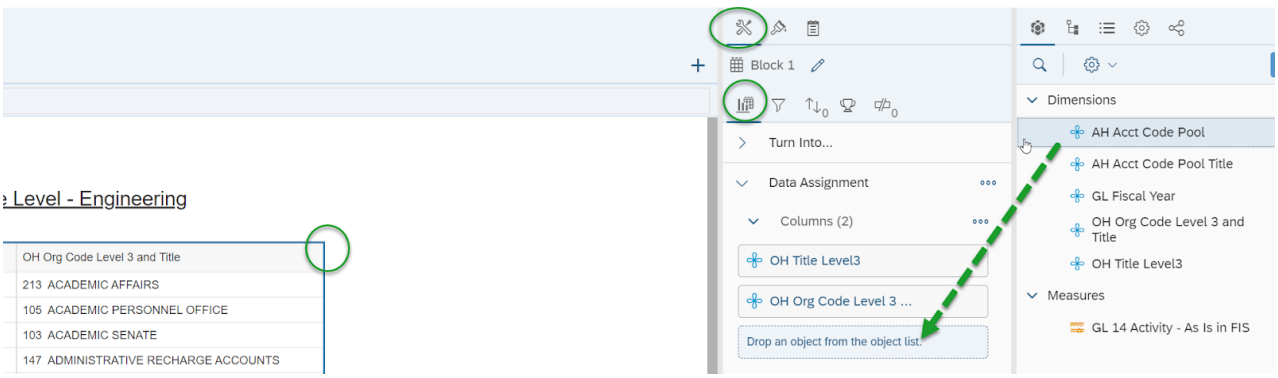
Notice that the Run button at the bottom will be grayed out until you click enter.

22. Click 'Run' to run this query. Your output should look similar to this:



[AH Acct Code Pool]Notice the additional objects added to the Document Objects panel. All objects will appear in the initial report table ONLY the first time it is run. When objects are added **after** the first refresh (as this), there is a second step – to drag and drop them in the report.

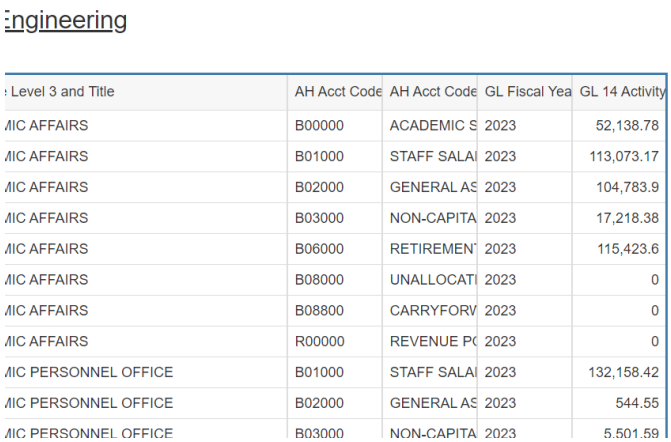
23. Click on the table so the border is highlighted, then, making sure the Properties Panel is displaying the Report Elements (Tools icon) and the Feeding Panel sub-menu - drag AH Acct Code Pool into the Feeding Panel:



24. You should see the new object added to the table:

OH Org Code Level 3 and Title	AH Acct Code
213 ACADEMIC AFFAIRS	B00000
213 ACADEMIC AFFAIRS	B01000
213 ACADEMIC AFFAIRS	B02000

25. We will format the columns later. For now, add the other 3 new objects, AH Acct Code Pool Title, GL Fiscal Year and GL 14 Activity - AS Is in FIS and drop them in the Feeding Panel:



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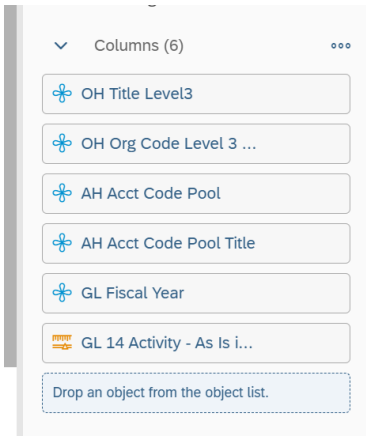
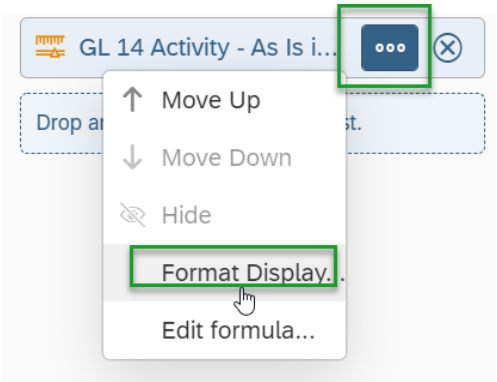
Level 3 and Title	AH Acct Code	AH Acct Code	GL Fiscal Yea	GL 14 Activity
MIC AFFAIRS	B00000	ACADEMIC S	2023	52,138.78
MIC AFFAIRS	B01000	STAFF SALAI	2023	113,073.17
MIC AFFAIRS	B02000	GENERAL AS	2023	104,783.9
MIC AFFAIRS	B03000	NON-CAPITA	2023	17,218.38
MIC AFFAIRS	B06000	RETIREMEN	2023	115,423.6
MIC AFFAIRS	B08000	UNALLOCATI	2023	0
MIC AFFAIRS	B08800	CARRYFORV	2023	0
MIC AFFAIRS	R00000	REVENUE P(	2023	0
MIC PERSONNEL OFFICE	B01000	STAFF SALAI	2023	132,158.42
MIC PERSONNEL OFFICE	B02000	GENERAL AS	2023	544.55
MIC PERSONNEL OFFICE	B03000	NON-CAPITA	2023	5,501.59

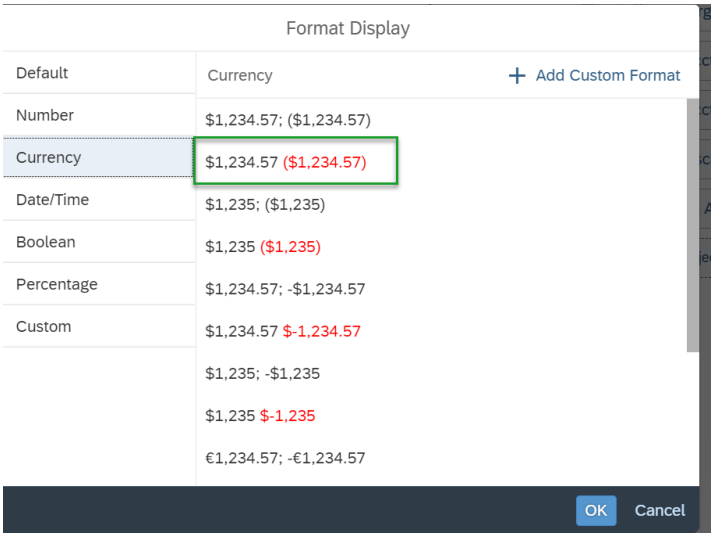


26. Auto-fit the AH Acct Code Pool Title column so that we can read all the values.

27. In the Feeding Panel, click on the ellipses beside the GL 14 Activity - As Is in FIS object:



28. Format the number as Currency and click ok:



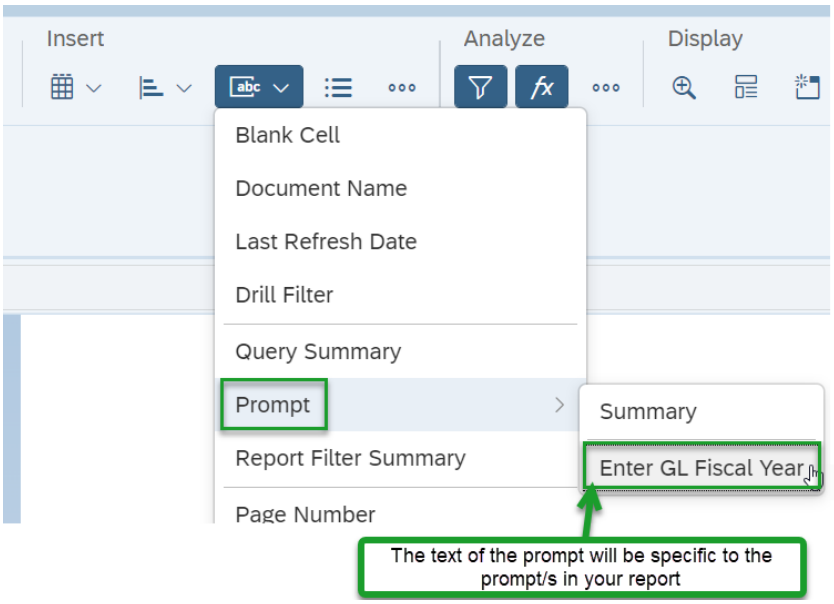
29. Auto-fit this column as well, then **Save** these report changes.

Create Dynamic Report Title

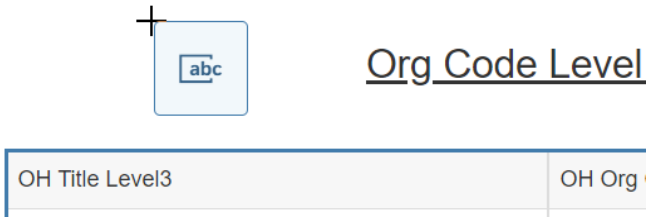
Currently our report title says “Org Code Level - Engineering” … even though it is not really specific any more to Engineering, because we removed that filter. Let’s modify the report title and create a dynamic name that will change depending on the user’s selection.

We have some useful, prebuilt formulas that we can just drag and drop onto our report. These prebuilt formulas are on the toolbar under the Insert options.

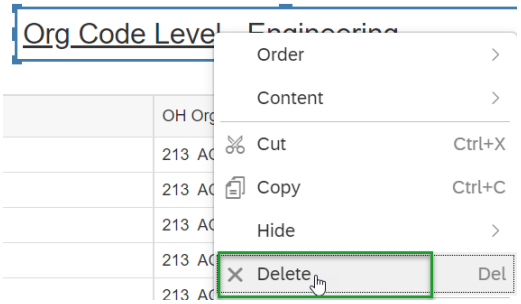
30. Click on the “Insert Cell” dropdown options and choose “Prompt” and then “Enter GL Fiscal Year”:



Drag and drop this to the left of our current report title:



31. Now you can delete the original report title cell, by right clicking on the cell and selecting Delete:



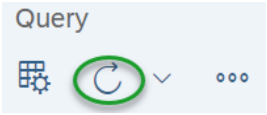
32. Now click on our *new* Report Title cell, which has the Year displaying in it. Drag the right edge out so that we have room to add more text:

33. With the cell still selected, in the Formula bar, put your cursor after the = sign and type the text in red below - be sure to include the double quotes and the + sign:

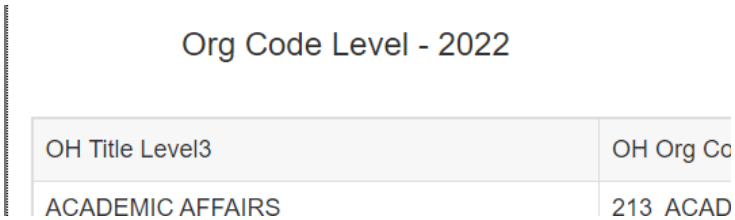
```
="Org Code Level - " + UserResponse([Query 1]; "Enter GL Fiscal Year")
```

Click Enter or the check mark to validate the formula. Your title cell should now look like this:

34. To test out the dynamic nature of this new Report Title, refresh the report by clicking on the refresh button



When prompted to select a year, type in the previous year (2022) and 'Run'. You should now see this reflected in your report title:

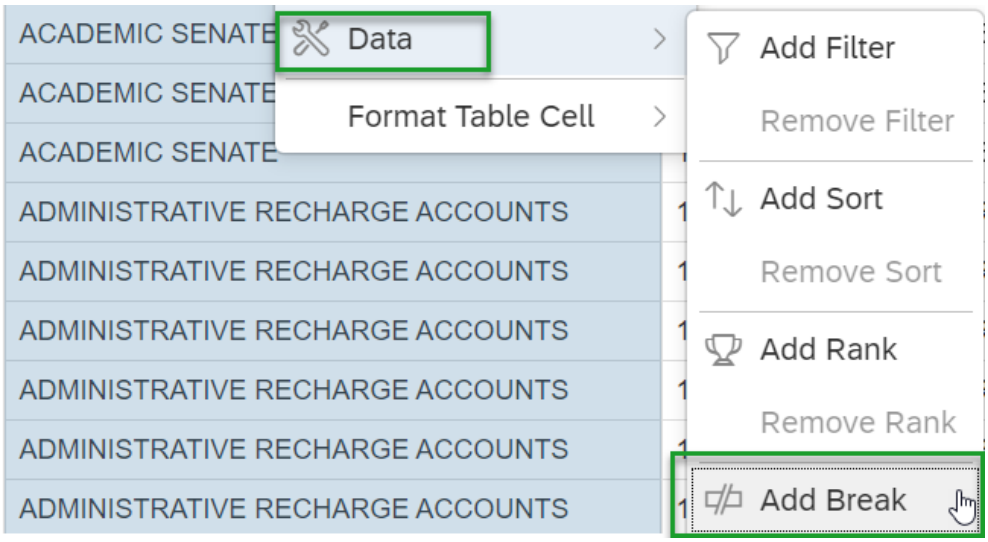


Refresh the report once more and type 2023 for the prompted Year. **Save** the report once more.

Adding Breaks

Breaks group data and are useful for calculating subtotals and are easy to format. We will add a break for each category and insert a Sum for each.

35. Highlight the column you want the break to be on - 'OH Title Level 3'. Right click and choose Data / Add Break from the menu:



Your report will look similar to this now:

Org Code Level - 2023

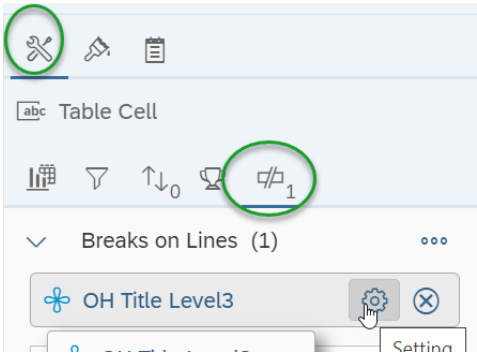
OH Title Level3	OH Org Code Level 3 and Title	AH Acct Code	AH Acct Code Pool Title	GL Fiscal Yea	GL 14 Activity - As Is in FIS
ACADEMIC AFFAIRS	213 ACADEMIC AFFAIRS	B00000	ACADEMIC SALARIES	2023	$52,138.78
	213 ACADEMIC AFFAIRS	B01000	STAFF SALARIES	2023	$113,073.17
	213 ACADEMIC AFFAIRS	B02000	GENERAL ASSISTANCE	2023	$104,783.90
	213 ACADEMIC AFFAIRS	B03000	NON-CAPITAL EXPENDITURE-BUDGET	2023	$17,218.38
	213 ACADEMIC AFFAIRS	B06000	RETIREMENT & EMPLOYEE BENEFITS	2023	$115,423.60
	213 ACADEMIC AFFAIRS	B08000	UNALLOCATED-BUDGET	2023	$0.00
	213 ACADEMIC AFFAIRS	B08800	CARRYFORWARD FROM PRIOR YEAR	2023	$0.00
	213 ACADEMIC AFFAIRS	R00000	REVENUE POOL ACCOUNT	2023	$0.00
ACADEMIC AFFAIRS					**402,637.83**

By default, breaks display the 'break' value once, add a sub-total row and sum any measures

OH Title Level3	OH Org Code Level 3 and Title	AH Acct Code	AH Acct Code Pool Title	GL Fiscal Yea	GL 14 Activity - As Is in FIS
ACADEMIC PERSONNEL OFFICE	105 ACADEMIC PERSONNEL OFFICE	B01000	STAFF SALARIES	2023	$132,158.42
	105 ACADEMIC PERSONNEL OFFICE	B02000	GENERAL ASSISTANCE	2023	$544.55
	105 ACADEMIC PERSONNEL OFFICE	B03000	NON-CAPITAL EXPENDITURE-BUDGET	2023	$5,501.59
	105 ACADEMIC PERSONNEL OFFICE	B06000	RETIREMENT & EMPLOYEE BENEFITS	2023	$48,016.32
	105 ACADEMIC PERSONNEL OFFICE	B08000	UNALLOCATED-BUDGET	2023	$0.00
	105 ACADEMIC PERSONNEL OFFICE	B08800	CARRYFORWARD FROM PRIOR YEAR	2023	$0.00
ACADEMIC PERSONNEL OFFICE					**186,220.88**

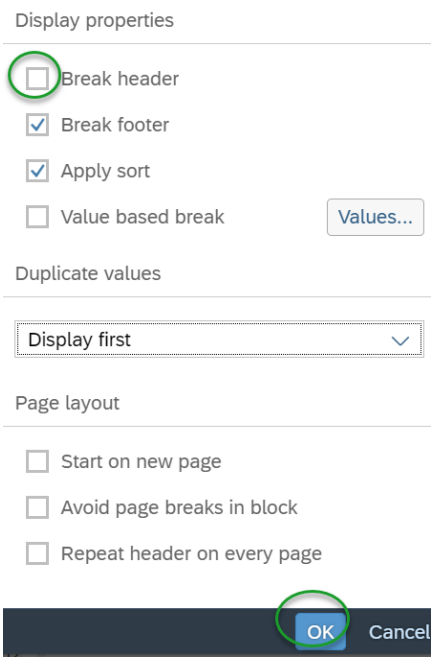
OH Title Level3	OH Org Code Level 3 and Title	AH Acct Code	AH Acct Code Pool Title	GL Fiscal Yea	GL 14 Activity - As Is in FIS
ACADEMIC SENATE	103 ACADEMIC SENATE	B01000	STAFF SALARIES	2023	$56,633.00
	103 ACADEMIC SENATE	B02000	GENERAL ASSISTANCE	2023	$0.00

36. We have options to modify how the Break looks though. For example, if we want the break headers to only appear once, at the top of the report, we can make these modifications. First we look at the Break properties in the Properties Panel. With the break column selected, notice the options in the Properties:

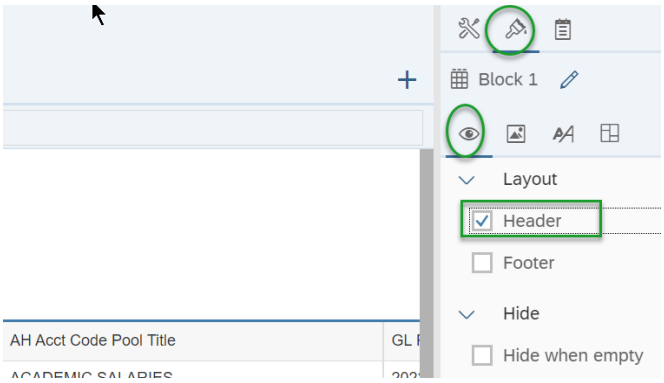


(*Note: the "1" under the break symbol here is indicating that this report table has 1 break applied. A table can have multiple breaks if needed, so this is another visual indicator to notify the report developer)*

Click on the "Wheel" icon for the Break settings. Uncheck the Break header box and click "OK":



37. Initially this may look odd because ALL the headers are gone now. However, we just need to "turn on" the Headers for the table. Click somewhere outside the table, then back on the table so that you see the table outlined. Click on the Format paintbrush in the Properties Panel and the Display sub-menu, then check the box beside the Header:

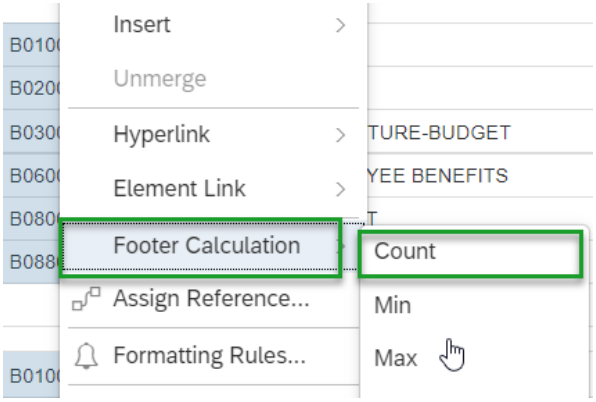


Now the header appears only at the top of the table. Your table will be similar to this:

OH Title Level3	OH Org Code Level 3 and Title	AH Acct Code	AH Acct Code Pool Title	GL Fiscal Yea	GL 14 Activity - As Is in FIS
ACADEMIC AFFAIRS	213 ACADEMIC AFFAIRS	B00000	ACADEMIC SALARIES	2023	$52,138.78
	213 ACADEMIC AFFAIRS	B01000	STAFF SALARIES	2023	$113,073.17
	213 ACADEMIC AFFAIRS	B02000	GENERAL ASSISTANCE	2023	$104,783.90
	213 ACADEMIC AFFAIRS	B03000	NON-CAPITAL EXPENDITURE-BUDGET	2023	$17,218.38
	213 ACADEMIC AFFAIRS	B06000	RETIREMENT & EMPLOYEE BENEFITS	2023	$115,423.60
	213 ACADEMIC AFFAIRS	B08000	UNALLOCATED-BUDGET	2023	$0.00
	213 ACADEMIC AFFAIRS	B08800	CARRYFORWARD FROM PRIOR YEAR	2023	$0.00
	213 ACADEMIC AFFAIRS	R00000	REVENUE POOL ACCOUNT	2023	$0.00
ACADEMIC AFFAIRS					**402,637.83**
ACADEMIC PERSONNEL OFFICE	105 ACADEMIC PERSONNEL OFFICE	B01000	STAFF SALARIES	2023	$132,158.42
	105 ACADEMIC PERSONNEL OFFICE	B02000	GENERAL ASSISTANCE	2023	$544.55
	105 ACADEMIC PERSONNEL OFFICE	B03000	NON-CAPITAL EXPENDITURE-BUDGET	2023	$5,501.59
	105 ACADEMIC PERSONNEL OFFICE	B06000	RETIREMENT & EMPLOYEE BENEFITS	2023	$48,016.32
	105 ACADEMIC PERSONNEL OFFICE	B08000	UNALLOCATED-BUDGET	2023	$0.00
	105 ACADEMIC PERSONNEL OFFICE	B08800	CARRYFORWARD FROM PRIOR YEAR	2023	$0.00
ACADEMIC PERSONNEL OFFICE					**186,220.88**
ACADEMIC SENATE	103 ACADEMIC SENATE	B01000	STAFF SALARIES	2023	$56,633.00
	103 ACADEMIC SENATE	B02000	GENERAL ASSISTANCE	2023	$0.00

Adding calculations in Breaks

38. By default, when we have a measure in a table where a Break is applied, it will automatically give us a sum of the measure in the subtotal row. Let's also add a Count of the AH Acct Code Pool column. Right click on the column and select Footer Calculation / Count:



39. Notice how it puts the Count on a new row below the Sum row. We can move the calculation up by dragging the count value up into the cell above it. (*Look for the orange highlighting that covers most of the cell):*

	213 ACADEMIC AFFAIRS	R00000	REVEN
ACADEMIC AFFAIRS			
	Count:	**8**	

Move up the cell that is displaying as “Count:” as well. Then you can right click on the empty row and delete it. Select the “Row” option and click OK.

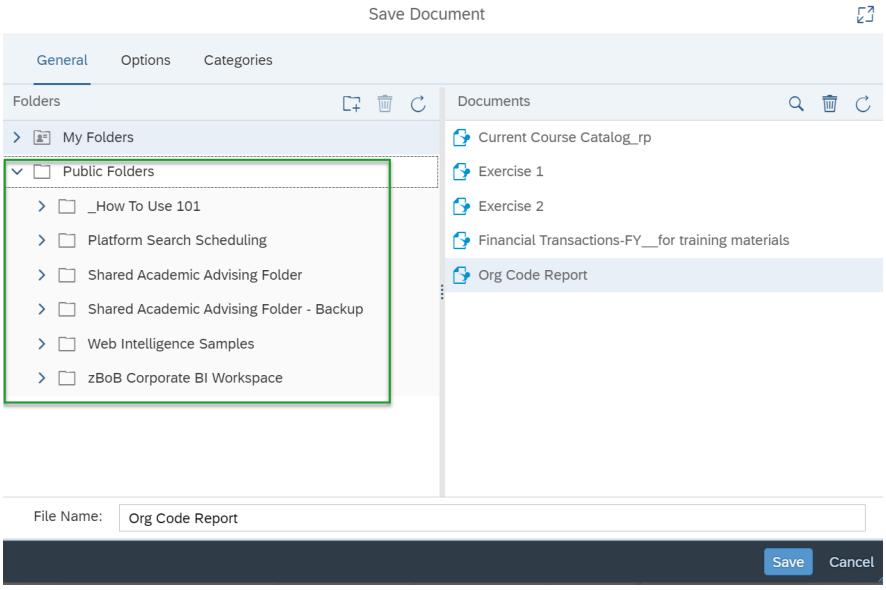
40. Apply a “Currency” format to the sub-total cell for Total Amount in the last column. (*Right click, Format Display / Currency):*

OH Title Level3	OH Org Code Level 3 and Title	AH Acct Code	AH Acct Code Pool Title	GL Fiscal Yea	GL 14 Activity - As Is in FIS
ACADEMIC AFFAIRS	213 ACADEMIC AFFAIRS	B00000	ACADEMIC SALARIES	2023	$52,138.78
	213 ACADEMIC AFFAIRS	B01000	STAFF SALARIES	2023	$113,073.17
	213 ACADEMIC AFFAIRS	B02000	GENERAL ASSISTANCE	2023	$104,783.90
	213 ACADEMIC AFFAIRS	B03000	NON-CAPITAL EXPENDITURE-BUDGET	2023	$17,218.38
	213 ACADEMIC AFFAIRS	B06000	RETIREMENT & EMPLOYEE BENEFITS	2023	$115,423.60
	213 ACADEMIC AFFAIRS	B08000	UNALLOCATED-BUDGET	2023	$0.00
	213 ACADEMIC AFFAIRS	B08800	CARRYFORWARD FROM PRIOR YEAR	2023	$0.00
	213 ACADEMIC AFFAIRS	R00000	REVENUE POOL ACCOUNT	2023	$0.00
ACADEMIC AFFAIRS	**Count:**	**8**			**$402,637.83**
ACADEMIC PERSONNEL OFFICE	105 ACADEMIC PERSONNEL OFFICE	B01000	STAFF SALARIES	2023	$132,158.42
	105 ACADEMIC PERSONNEL OFFICE	B02000	GENERAL ASSISTANCE	2023	$544.55
	105 ACADEMIC PERSONNEL OFFICE	B03000	NON-CAPITAL EXPENDITURE-BUDGET	2023	$5,501.59
	105 ACADEMIC PERSONNEL OFFICE	B06000	RETIREMENT & EMPLOYEE BENEFITS	2023	$48,016.32
	105 ACADEMIC PERSONNEL OFFICE	B08000	UNALLOCATED-BUDGET	2023	$0.00
	105 ACADEMIC PERSONNEL OFFICE	B08800	CARRYFORWARD FROM PRIOR YEAR	2023	$0.00
ACADEMIC PERSONNEL OFFICE	**Count:**	**6**			**$186,220.88**

Save the report.

Saving to Shared Public Folder.

Be aware that you may also have rights to save reports to your departments Shared folders. Under your “Save As” options, you may also have Public Folders options and then a folder or folders within that area to save reports you are working on:



We won’t save this report in a Shared Public folder at this time - just be aware that might be an option for you.

Remember that there are excellent tutorials on the Data Management site

If a Corporate Report does not exist in any form for what you need, writing reports with the guidance of corporate reports is a great idea!

EXERCISE 6 - Build a Cross table, add Sections & Export

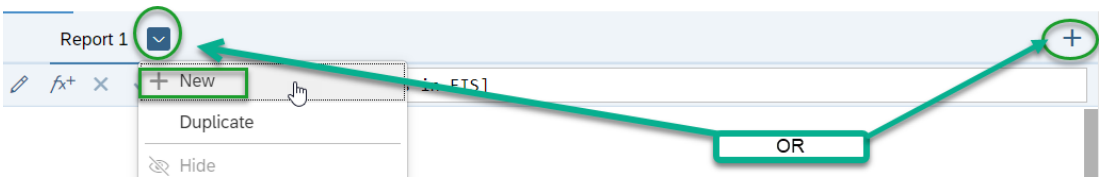
This exercise will be covering adding a new report tab and creating a “CrossTable” to analyze data. A CrossTable is very similar to a Pivot Table in Excel.

We will continue working from the same document in the previous exercise, which we called **Exercise 5**. *(Remember to switch to “Design” mode if just opening the report).*

*Now save the report as **Exercise 6**.*

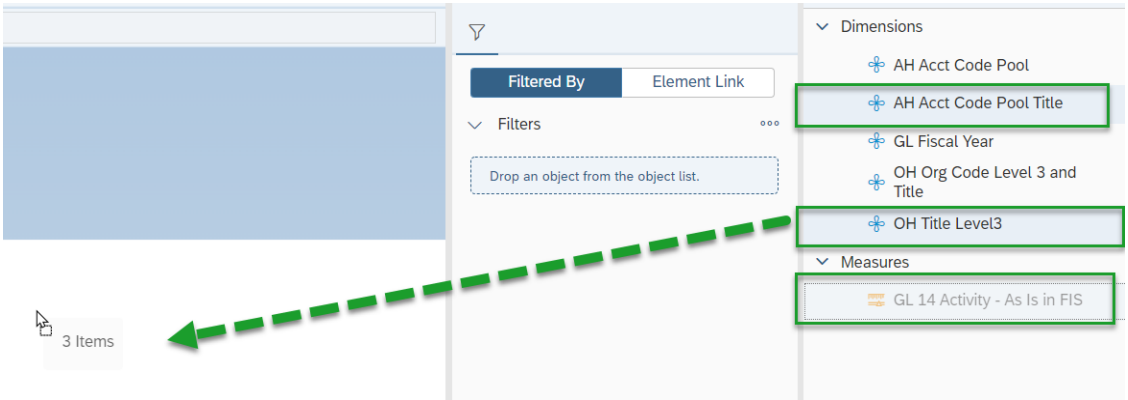
First **Add a New Tab** to the Report

1. There are 2 easy ways to add a new report tab to a Webi report.



Use one of these options to add a new blank report tab to our report.

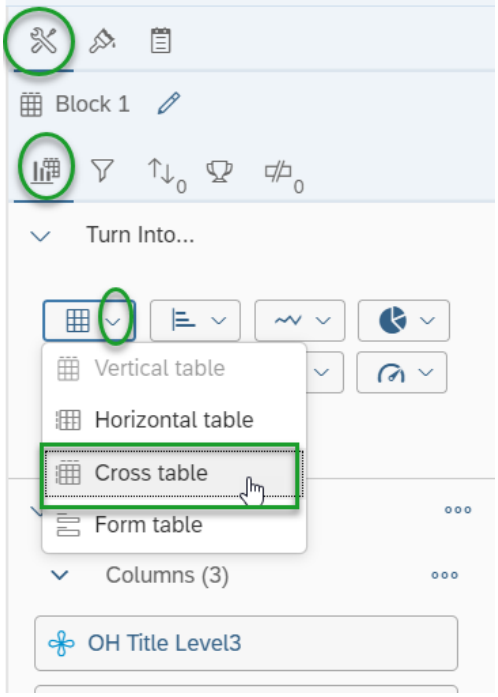
2. There are also 2 ways to create a Cross table. The easiest way is to start from a vertical table and “Turn Into” a Cross table. We use this method first. From the Document Object list, use your CTRL / CMD key and select ‘OH Title Level 3’ , ‘AH Acct Code Pool Title’ and ‘GL 14 Activity – As Is in FIS’ then drag these objects onto the white area of your report:



And this will display a table like this:

OH Title Leve	AH Acct Code	GL 14 Activity
ACADEMIC A	ACADEMIC S	52,138.78
ACADEMIC A	CARRYFORV	0
ACADEMIC A	GENERAL AS	104,783.9
ACADEMIC A	NON-CAPITA	17,218.38
ACADEMIC A	RETIREMENT	115,423.6
ACADEMIC A	REVENUE PC	0
		113,072

3. Select the table so that the border is highlighted, then in the Properties Panel, choose the Tools icon and the Feeding panel submenu. Expand the "Turn Into" options, choose the table options and **Cross table**:



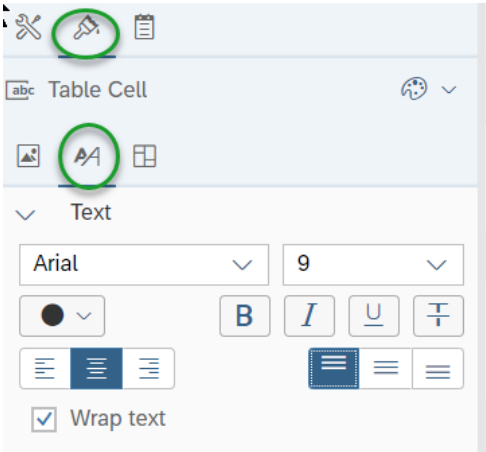
And your table will now look similar to this:

	ACADEMIC A	ACADEMIC P	ACADEMIC S	ADMINISTRA	ALUMNI ENG	ARBORETUM	ARTS DIVISIC	ASST
ACADEMIC S	52,138.78			-14.07			#########	
CAPITAL EXP							7,210.97	
CARRYFORV	0	0	0	0	0	0	0	
C&G DOMES			1,000			0	1,685.64	
C&G FOREIG							0	
C&G INDIREC							11,390.22	
C&G PARTIC								

4. Let's shape up the table a bit with some formatting. Drag out the column on the left so we can read the values:

	ACADEMIC A	ACADEMIC P	ACADEMIC S	ADMI
ACADEMIC SALARIES	52,138.78			
CAPITAL EXPENDITURE-BUDGET				
CARRYFORWARD FROM PRIOR YEAR	0	0	0	
C&G DOMESTIC TRAVEL			1,000	
C&G FOREIGN TRAVEL				
C&G INDIRECT COSTS				
C&G PARTICIPANT SUPPORT				

5. Select the top Header row of the cross table, then in the Properties Panel, select the Format Paintbrush, Text settings and check the box for "Wrap Text", Center Align and Top Align:

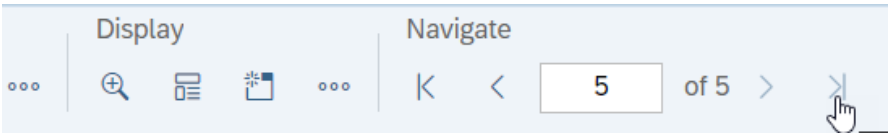


And then drag the right edge out a bit so that the values fit better:

6. Add a Currency format to the transaction amount data in the middle of the Cross table, either by right click /Format Display or from the Feeding Panel:

	ACADEMIC AFFAIRS	ACADEMIC PERSONNEL OFFICE	ACADEMIC SENATE	ADMINISTRATIVE RECHARGE ACCOUNTS
ACADEMIC SALARIES	$52,138.78			($14.07)
CAPITAL EXPENDITURE-BUDGET				
CARRYFORWARD FROM PRIOR YEAR	$0.00	$0.00	$0.00	$0.00

7. The report is looking much better now. Notice, however, that there are actually multiple pages to this report - it goes several pages to the right. From the Navigation options on the top toolbar click through the pages:

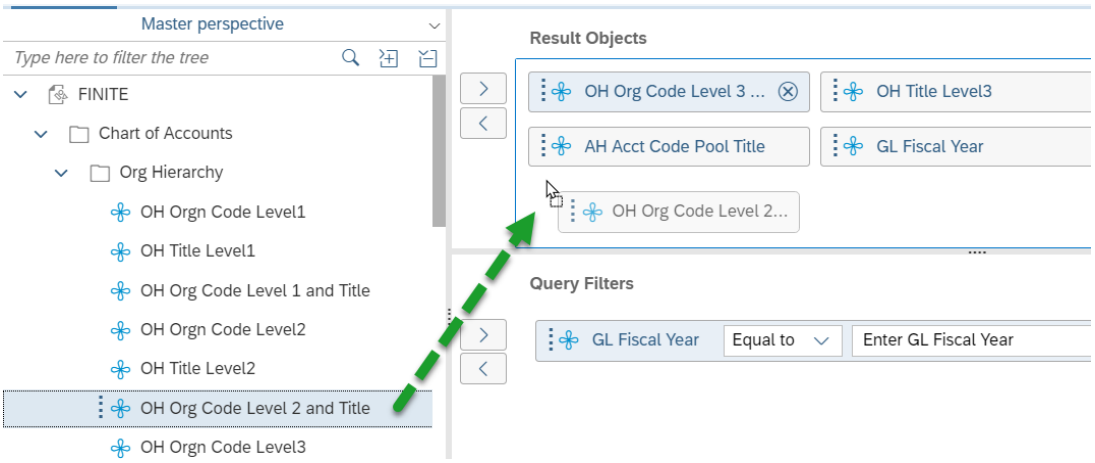


Return to the first page of the report.

Sections

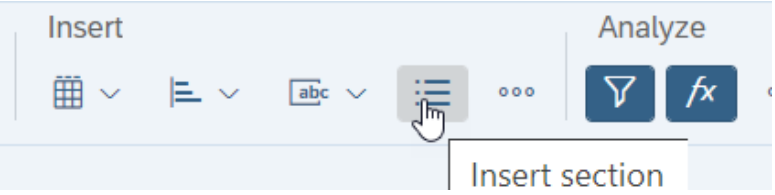
Sections are a way to break up the data into more manageable groups and also gives us some unique benefits which Breaks do not.

8. To make the report easier to read, we will create sections for our Cross table by a higher Org Level object. Edit the query and click on 'OH Org Code Level 3' which is in your Results Objects panel. This will expand the folder on the left, which is where this object came from. Above this object, you will see '**OH Org Code Level 2 and Title**'. Drag and drop this object into the Results Object pane:

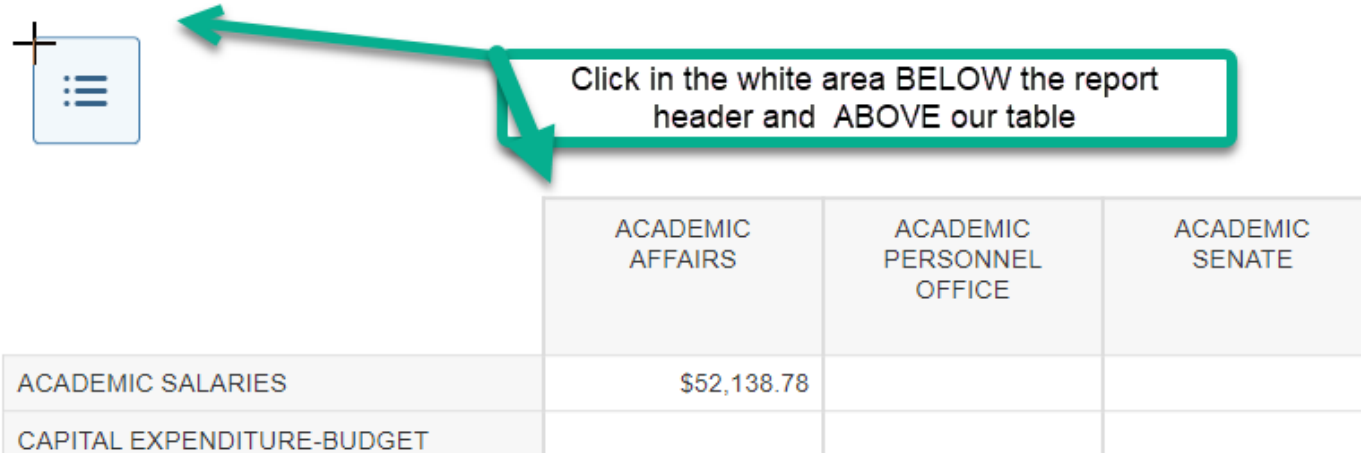


Run the query and click **Run** again to keep the same Fiscal Year.

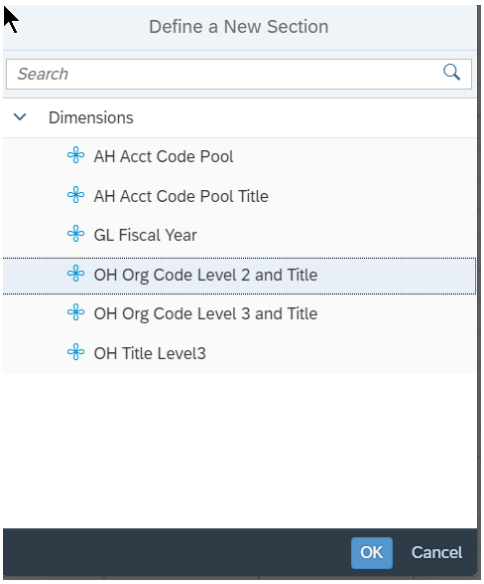
9. There are multiple ways to add Sections to your report. If the object is already part of your table (which our's is not), then you can right click on the object and "Set as Section". As our object has not yet been added to the report (though it is listed in the Document Objects panel), we will use another way. From the toolbar, the Insert options has a Insert Section icon:



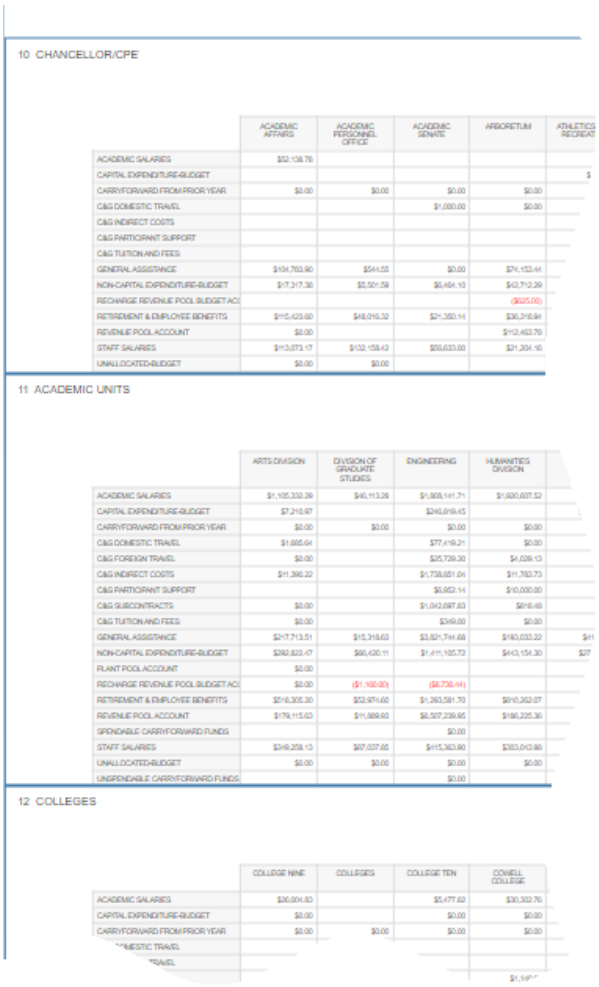
10. Now when you move your cursor into the report area, drop the Section Below the report Header (which you will see if you hover about a half inch from the top of the report) and yet Above your report table:



11. Choose the new object - **'OH Org Code Level 2 and Title'** and click OK:



Your report will now look like this:



10 CHANCELLOR/CPE

	ACADEMIC AFFAIRS	ACADEMIC PERSONNEL OFFICE	ACADEMIC SENATE	ARBORETUM	ATHLETICS RECREAT
ACADEMIC SALARIES	$52,138.76				
CAPITAL EXPENDITURE-BUDGET					$
CARRYFORWARD FROM PRIOR YEAR	$0.00	$0.00	$0.00	$0.00	
C&G DOMESTIC TRAVEL			$1,000.00	$0.00	
C&G INDIRECT COSTS					
C&G PARTICIPANT SUPPORT					
C&G TUITION AND FEES					
GENERAL ASSISTANCE	$104,763.90	$544.55	$0.00	$74,153.44	
NON-CAPITAL EXPENDITURE-BUDGET	$17,317.38	$5,501.59	$0,464.10	$42,712.29	
RECHARGE REVENUE POOL BUDGET AC				($925.00)	
RETIREMENT & EMPLOYEE BENEFITS	$115,423.00	$48,016.32	$21,350.14	$30,218.94	
REVENUE POOL ACCOUNT	$0.00			$112,463.76	
STAFF SALARIES	$113,573.17	$132,158.43	$50,033.00	$21,204.10	
UNALLOCATED-BUDGET	$0.00	$0.00			

11 ACADEMIC UNITS

	ARTS DIVISION	DIVISION OF GRADUATE STUDIES	ENGINEERING	HUMANITIES DIVISION	
ACADEMIC SALARIES	$1,135,332.29	$46,113.28	$1,809,141.71	$1,500,607.52	
CAPITAL EXPENDITURE-BUDGET	$7,210.97		$245,619.45		
CARRYFORWARD FROM PRIOR YEAR	$0.00	$0.00	$0.00	$0.00	
C&G DOMESTIC TRAVEL	$1,695.64		$77,419.21	$0.00	
C&G FOREIGN TRAVEL	$0.00		$25,739.30	$4,028.13	
C&G INDIRECT COSTS	$11,390.22		$1,739,651.04	$11,783.73	
C&G PARTICIPANT SUPPORT			$0,952.14	$10,000.00	
C&G SUBCONTRACTS	$0.00		$1,042,687.83	$816.48	
C&G TUITION AND FEES	$0.00		$349.00	$0.00	
GENERAL ASSISTANCE	$217,713.51	$15,319.63	$3,821,744.68	$183,033.22	$41
NON-CAPITAL EXPENDITURE-BUDGET	$292,822.47	$66,420.11	$1,411,105.72	$443,154.30	$27
PLANT POOL ACCOUNT	$0.00				
RECHARGE REVENUE POOL BUDGET AC	$0.00	($1,102.00)	($8,730.44)		
RETIREMENT & EMPLOYEE BENEFITS	$216,305.20	$52,974.60	$1,260,581.70	$210,262.07	
REVENUE POOL ACCOUNT	$179,115.63	$11,889.93	$6,507,239.65	$186,205.36	
SPENDABLE CARRYFORWARD FUNDS			$0.00		
STAFF SALARIES	$349,258.13	$87,037.65	$415,363.90	$303,043.98	
UNALLOCATED-BUDGET	$0.00	$0.00	$0.00	$0.00	
UNSPENDABLE CARRYFORWARD FUNDS			$0.00		

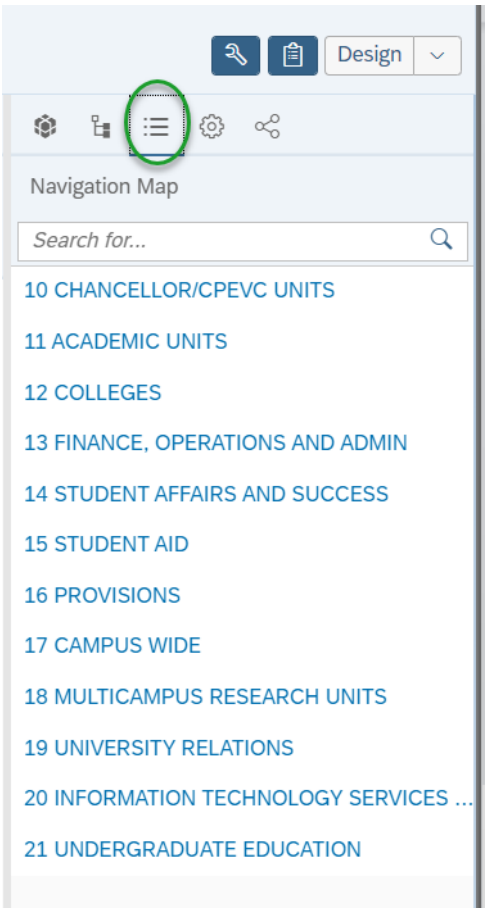
12 COLLEGES

	COLLEGE NINE	COLLEGES	COLLEGE TEN	COWELL COLLEGE
ACADEMIC SALARIES	$36,904.83		$5,477.62	$30,302.76
CAPITAL EXPENDITURE-BUDGET	$0.00		$0.00	$0.00
CARRYFORWARD FROM PRIOR YEAR	$0.00	$0.00	$0.00	$0.00
[illegible]MESTIC TRAVEL				
[illegible]TRAVEL				
				$1,[illegible]

12. Auto-fit the Section cell by double clicking on the right edge of the cell:

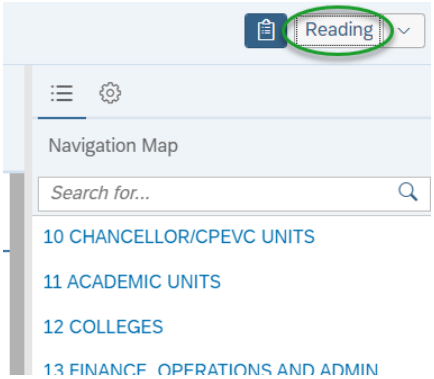
13. **Save** the report.

14. We can now take a look at one of the unique advantages that Sections give us. On the Main Panel on the far right, click on the 'Report Map' icon:



This shows each of the sections as a hyperlink, so you can quickly jump to a section of the report. Test this out by clicking on several of the sections and then return to the first section.

15. This Navigation map is alway available to “view only” users of this report. Switch to ‘Reading’ mode and test it out there too:

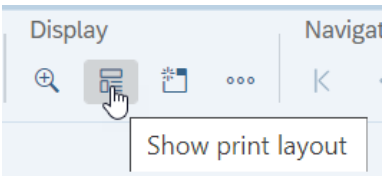


16. Return to Design mode and **save** the report once more.

Preparing for Export

Continuing with this same report, let’s prepare it for exporting to Excel or PDF.

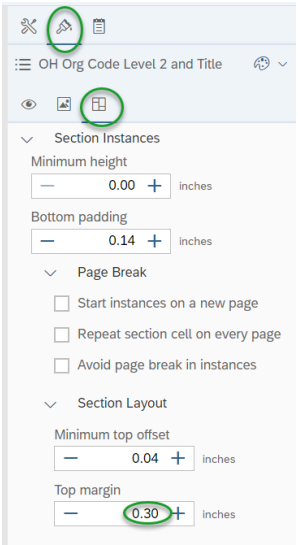
17. In Design mode on the toolbar, under the “Display” options, click on the “Show Print Layout” icon:



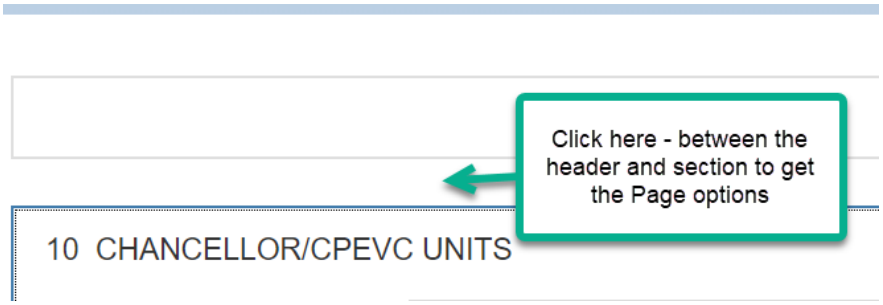
You will see that much of our table and section is getting cut off. We will make adjustments so that the cross tables fit better inside a page for exporting.

18. We need to be able to look at the Page properties, but currently our section may be so high on the page that we do not have room to select the page area. To fix that issue, click inside the white area of one of the sections above the cross table.

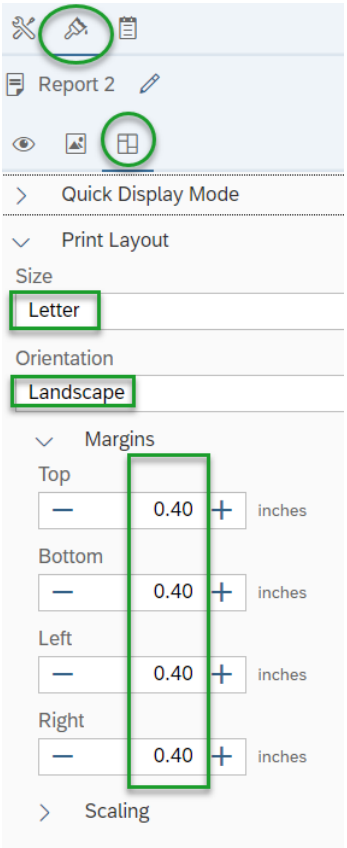
    In the Properties panel, click the **Format** Paintbrush and **Layout** icons and then change the Top Margin to **0.3**:



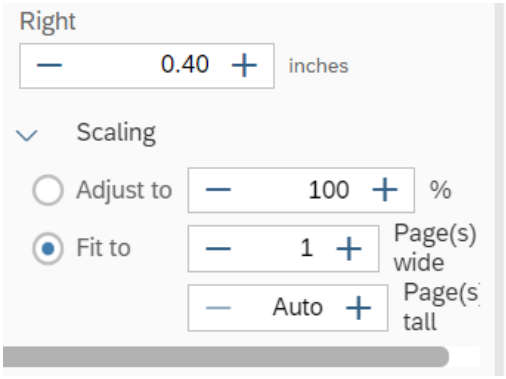
19. Now we can click in the white area below the header and above the section:



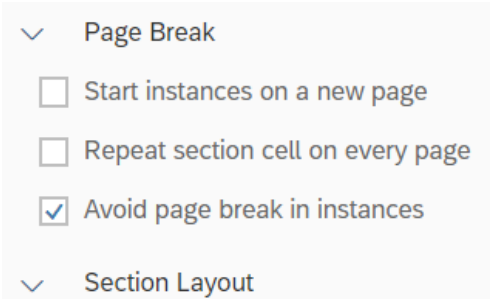
20. From the **Properties Panel /Format /Layout** options, change the Print Layout size to "**Letter**", the Orientation to "**Landscape**" and the 4 margins to **0.40**:



21. As a final step, we will expand the "**Scaling**" options so that the tables "**Fit to**" **1 Page wide**:

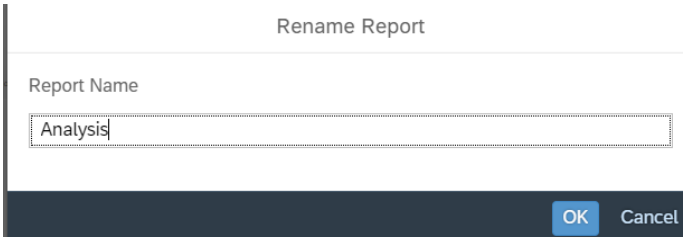


22. Let's change the Section to NOT have a page break in the middle of a section. Click inside the white area of a Section, then on the **Properties** panel /**Format / Layou**t icon, check the box to "**Avoid page break in instance**":



Rename report tab

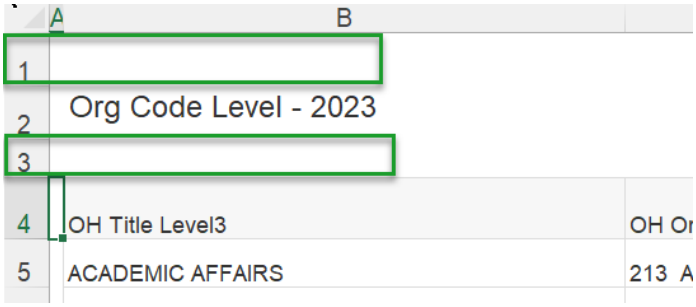
23. This tab is ready to export, but let's first rename the report tab. Use the drop down beside "**Report 2**" and choose "**Rename**". Type "**Analysis**" for the new name and click OK:



24. Click on the **Report 1** tab and rename this tab to "**Detail**"

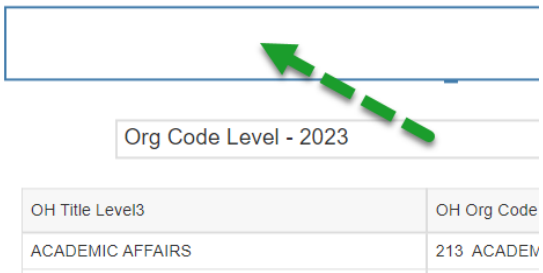
25. Let's get this Detail tab ready for export. Click on the Display / Show Print Layout icon on the toolbar to see how the report would look if we exported it now. This tab we will export as Excel, so we don't need to worry so much about the margins or layout. However, there is one thing we do want to address.

    IF we were to export the report in its current state, this is how it would look:



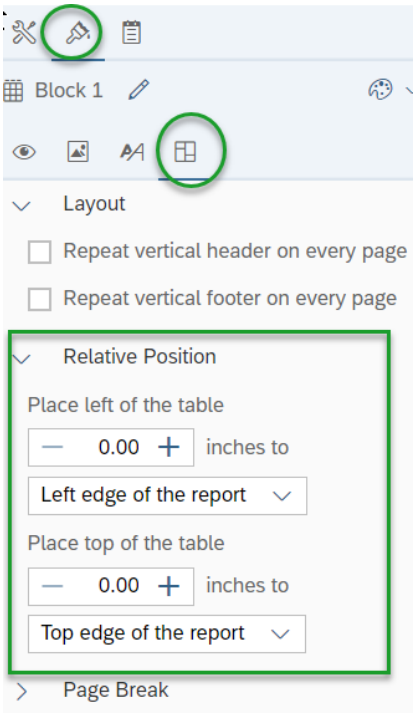
    Notice the extra row at the top and below the title, and the extra skinny "Column A". These are things we can avoid by setting up the report properly first in Webi before exporting.

26. Let's start off by moving the Report title into the header area:



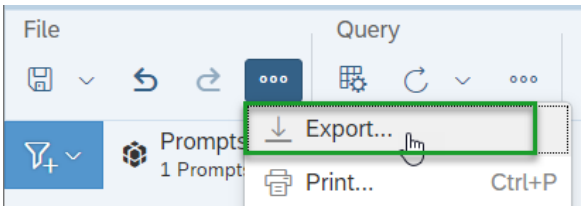
    The header does not actually export to Excel, but is helpful when viewing the report in Webi.

27. Now click on the table so that the border is highlighted. In the **Properties** panel / **Format /Layout** options, we will set the "**Relative Position**" of the table to be right at the top and all the way to the left of the report. This will help us avoid the unnecessary blank rows & columns:

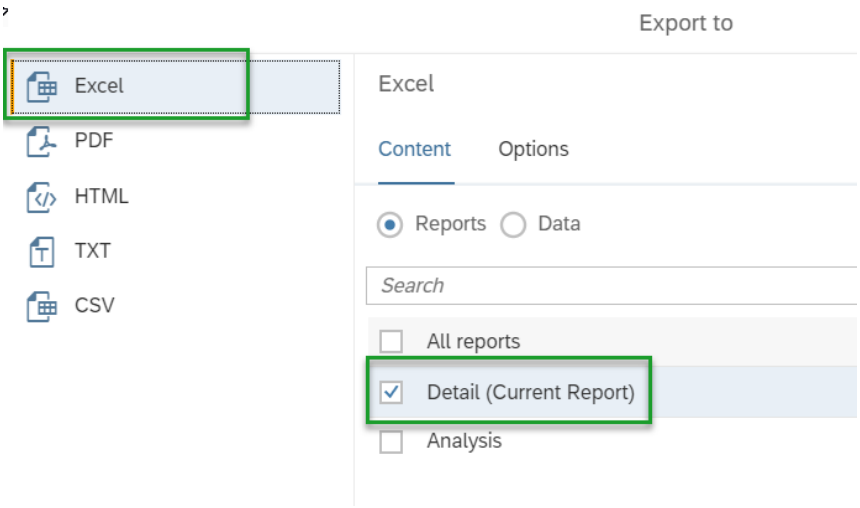


Export as Excel

28. From the toolbar and **File** options, click on the ellipses and choose **Export** from the options:



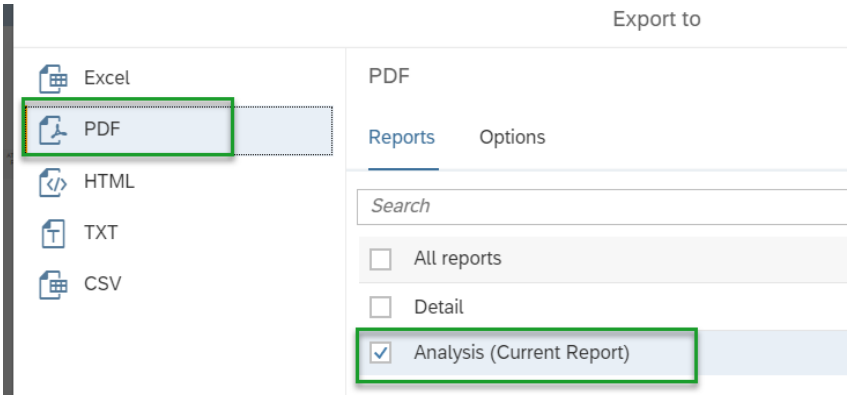
29. Choose Excel and check the box beside "Detail" so that only this tab is exported:



Click the "Export" button at the bottom and you will see an Excel download begin. When it has finished, you can open the file to confirm that it looks as intended.

Export as PDF

30. Click on the **Analysis** tab of the Webi report and then from the File toolbar at the top, click on the ellipses & choose Export. This time, choose PDF and check the box beside the Analysis tab:



Click the "Export" button at the bottom and you will see the PDF download begin. When it has finished, you can open the file to confirm that it looks as intended.

Save and Close **Exercise 6**.

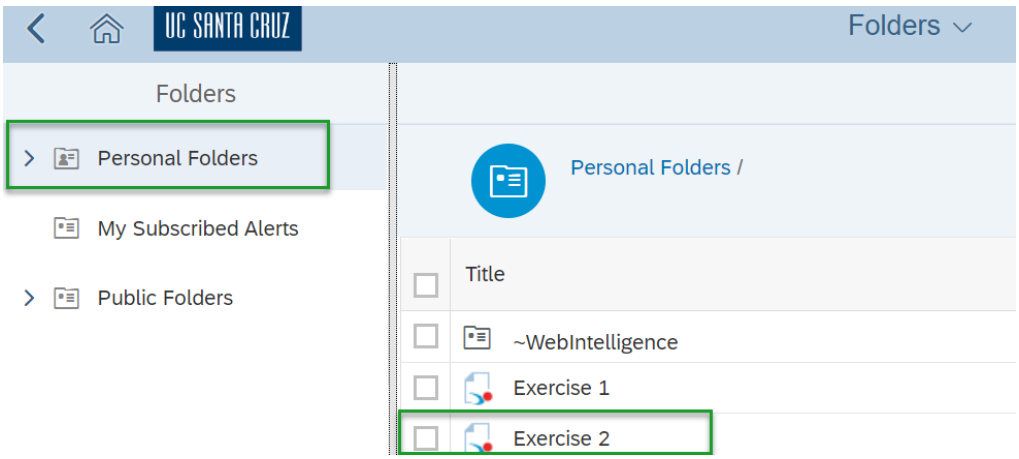
EXERCISE 7 – Creating a Variable

What is a 'Variable'? It is a formula with a name that can be used repeatedly in your report. It contains simple or complex calculations specific to your needs, creating its own 'object'.

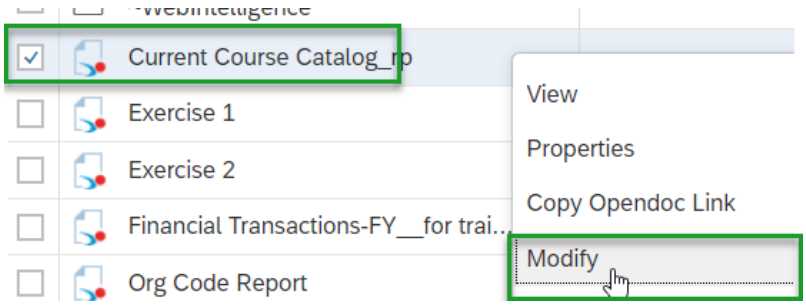
There are more than 200 functions and operators to choose from, ranging from a '+' to assigning the year of a date. It creates a calculation or combines elements (or objects) within a report by manipulating or calculating the data that exists.

3 different types of Variables – a **Dimension** (for names, non-numerical), a **Measure** – for a calculation or for a D**etail** (not used often – a more detailed item). Each has a different icon.

1. Open **Exercise 2** report, which is a copy of the **Current Course Catalog** report that was previously saved in your Personal Folders (Home /Folders):



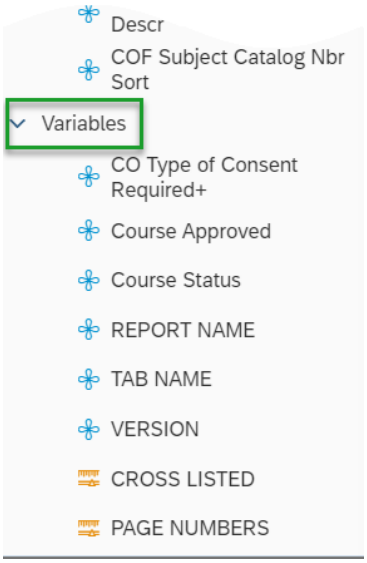
2. Either open the report by double clicking it and then switching to Design mode, OR Right click on the document and select "Modify". This opens the report directly into Design mode:



If not already on the 2nd report tab, move to the "**Sorted by Div, Dept, Subject**" tab.

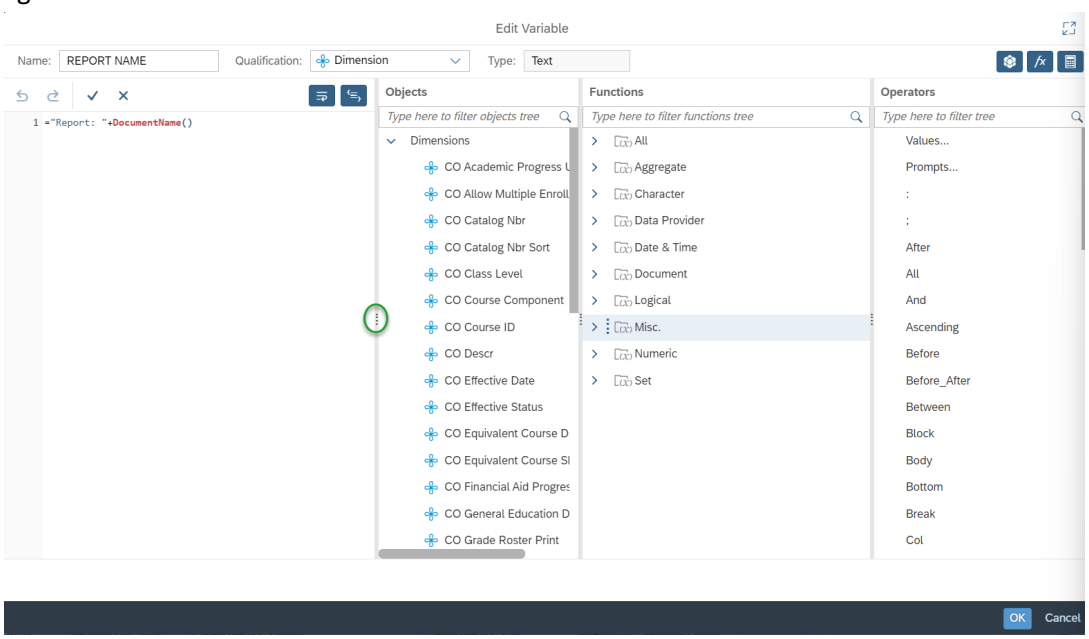
3. Save the report as **Exercise 7**.

4. This report has 8 Variables - 6 Dimension Variables (shown by a blue bar) and 2 Measure. View the Variables that have already been created in the Document Objects pane, near the bottom of the panel. As this report has so many objects, you may need to scroll down to see them:



5. Select the 'Report Name' variable. We can Edit the variable in 2 ways, either click on the ellipses and select **Edit,** or **double click** on the variable name it will also open the variable window.

6. This window has 4 panels which can all be resized easily by dragging the handles left or right:

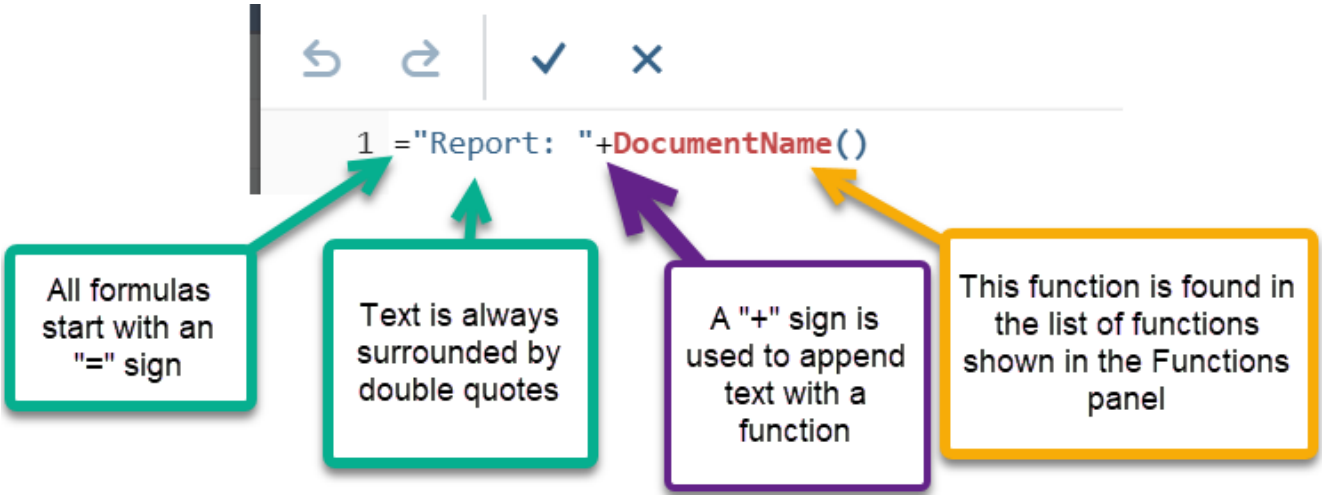


At the top, we have the name, qualification and Type (data type) of the variable.

The 3 panels on the right will list the **Objects** (these will include all objects in your query), **Functions**, and **Operators**. These 3 panels can also be toggled OFF by using the 3 icons on the far right. Notice also the search bar above each panel for searching.

The panel on the left is for your formula. This panel also has a "Wrap Text" icon and "Syntax

highlighting" buttons that can be toggled off (but usually are not, as they are very helpful!).



7. Click "Cancel" to close the Edit Variable window. This variable is being used in the Footer of each report tab - on the lower left:

Report: Exercise 7
Tab: Sorted by Div, Dept, Subject
Version: 3.2

This report contains both a 'Subject' ('CO Subject Code') and 'Catalog Number' ('CO Catalog Nbr Sort'), listed in separate columns.

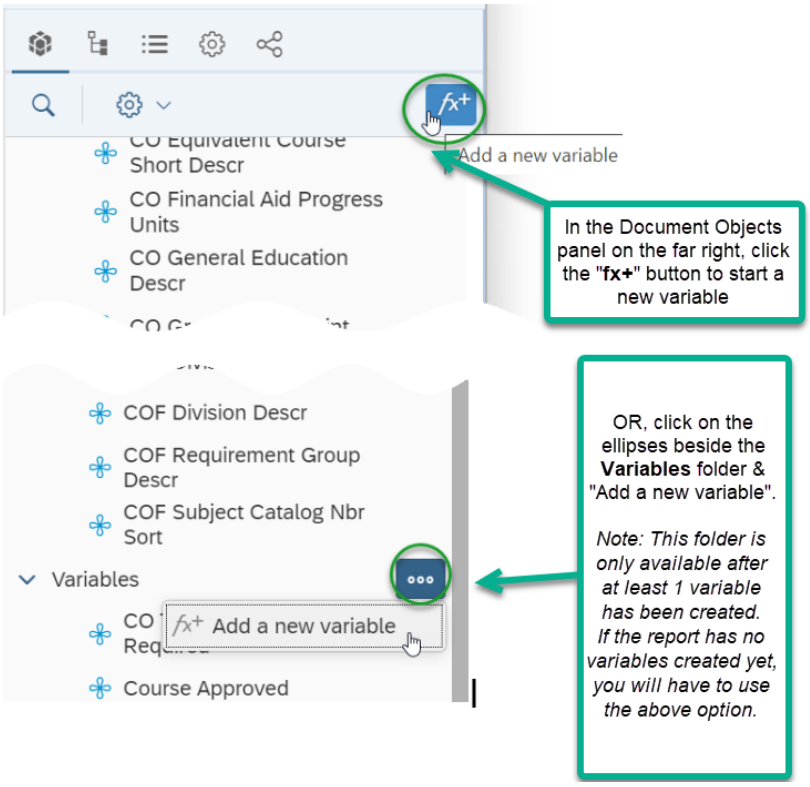
Write a **new** Variable having both the **'Subject' and 'Catalog Number' appear in one column**, referred to as 'concatenated'.

Current Course Catalog Sorted by Div, Dept, Subject

Division	Subject	CO Catalog N	CO Subject Descr	Catalog Nbr
Colleges	COWL	0118A	Cowell Colleg	118A
Colleges	COWL	0156B	Cowell Colleg	156B
Colleges	COWL	0165	Cowell Colleg	165

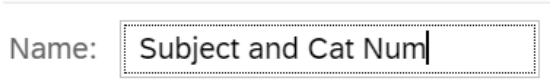
2 Ways to Create a Variable

8. To start a new variable, either click on the “fx+” blue button in the upper right of the Document Objects panel, or right click on the Variables folder:

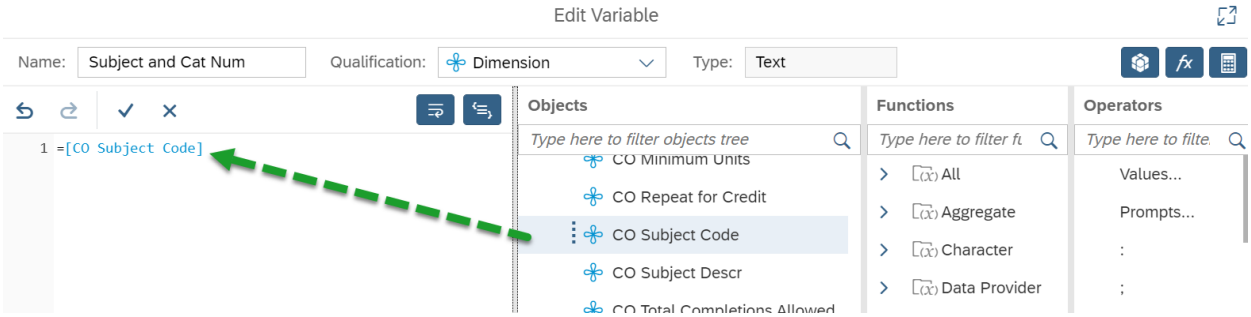


Choose one of the above methods and start a **new variable**.

9. In the “Create Variable” dialog box, begin by giving the variable a name: **Subject and Cat Num**

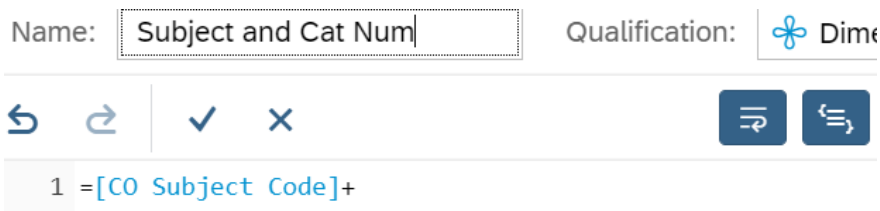


10. This will be text type data, so we can keep the default Qualification as “Dimension” and move into the Formula area. Scroll down in the “Objects” list to ‘**CO Subject Code**’ and drag it into the formula area:

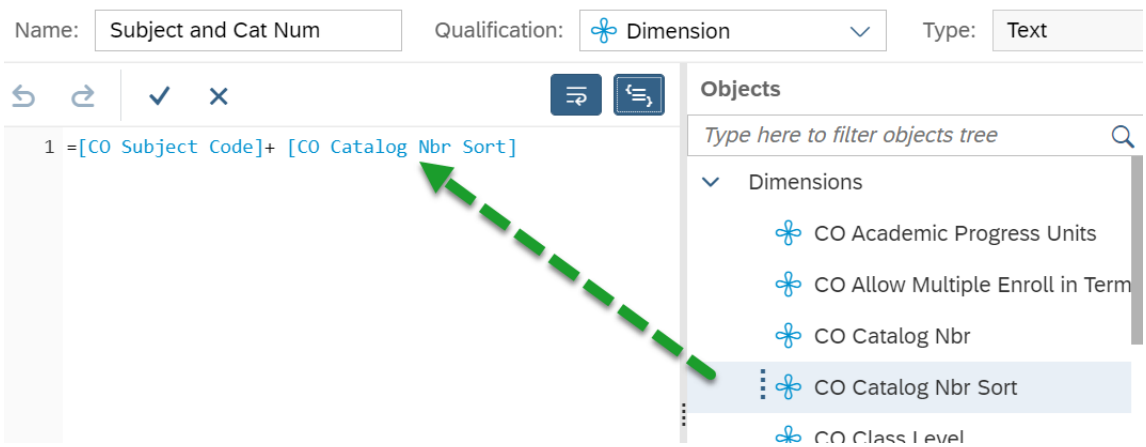


(Note: you could also use the search feature to find the Object if needed)

11. Move your cursor to the end of the formula and type a + sign:

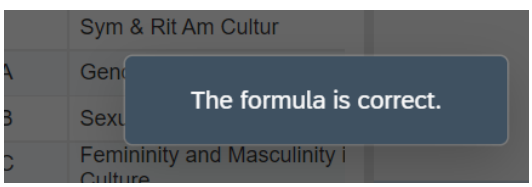


12. Now drag from the Objects list the '**CO Catalog Nbr Sort**' and add it to the end of this formula:

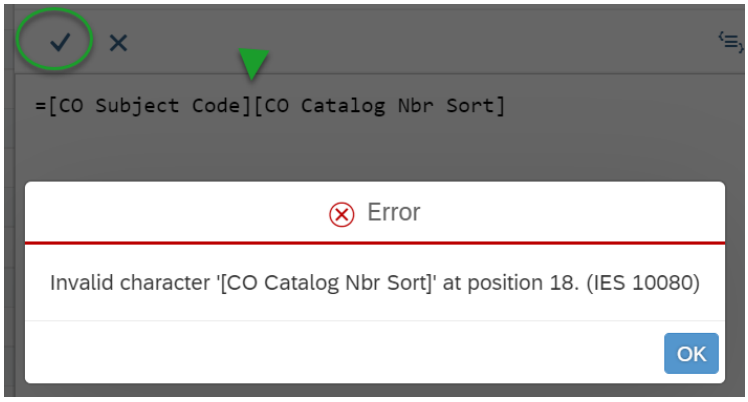


(*Notice that the objects are always surrounded by square brackets)*

13. We are finished with this formula, so to confirm that we have the syntax correct, click on the blue checkmark above the formula. If everything is good, you will see this message below the Create Variable window:

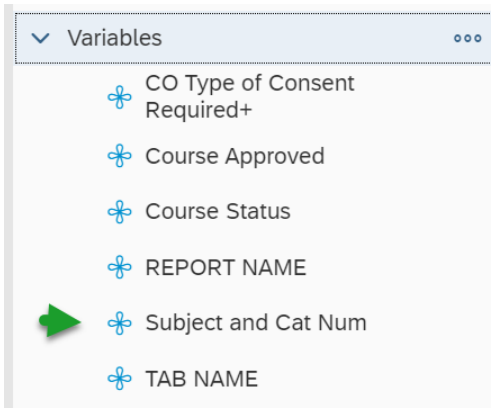


14. If the syntax was not correct, you would get an error message. To see what that looks like, let's remove the + sign from the formula and then press the check mark to validate the formula:

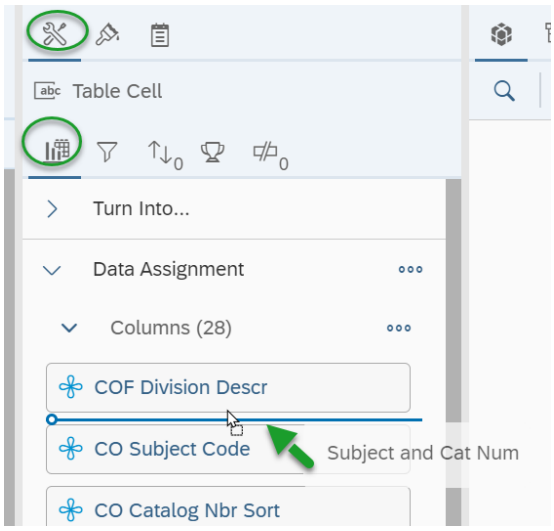


Click OK, add the + sign back in, validate and click OK.

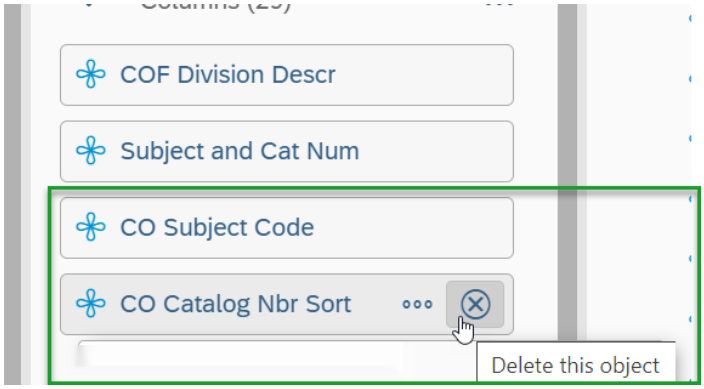
15. Now look in the Document Objects panel and the Variables folder and you should see our new object for 'Subject and Cat Num':



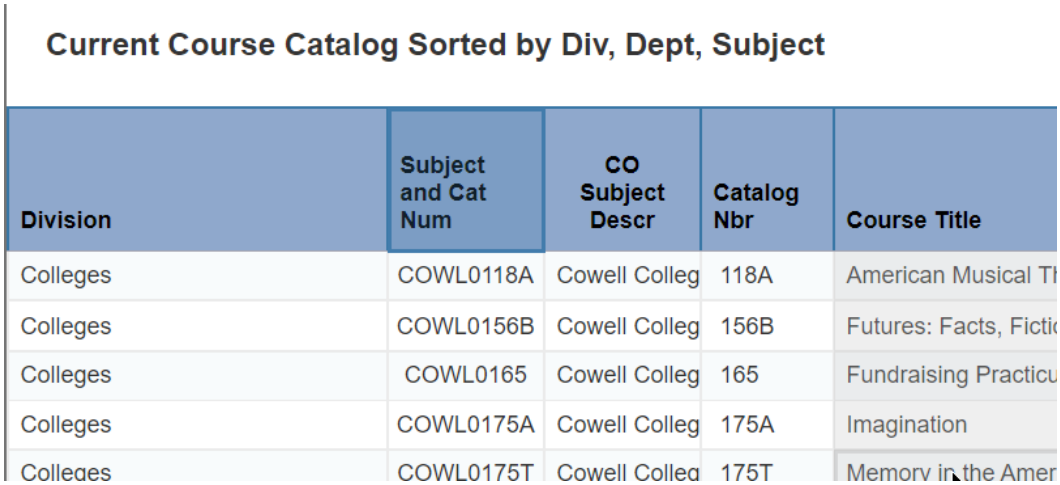
16. To add this new variable to our table, first click on the table, then in the Properties Panel / Tools/Feeding Panel, drag the new variable and drop it after 'COF Division Descr':



17. Now we can delete the 2 columns - 'CO Subject Code' and 'CO Catalog Nbr Sort':



18. Wrap the text in the Header cell for 'Subject and Cat Num' (Format Paintbrush / Text Settings / Wrap Text), and your report should then look like this:

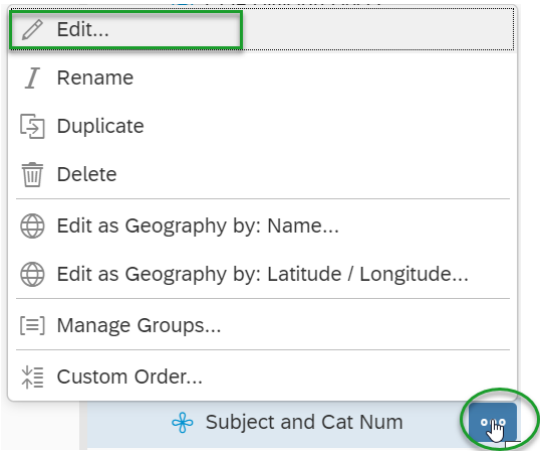


Current Course Catalog Sorted by Div, Dept, Subject

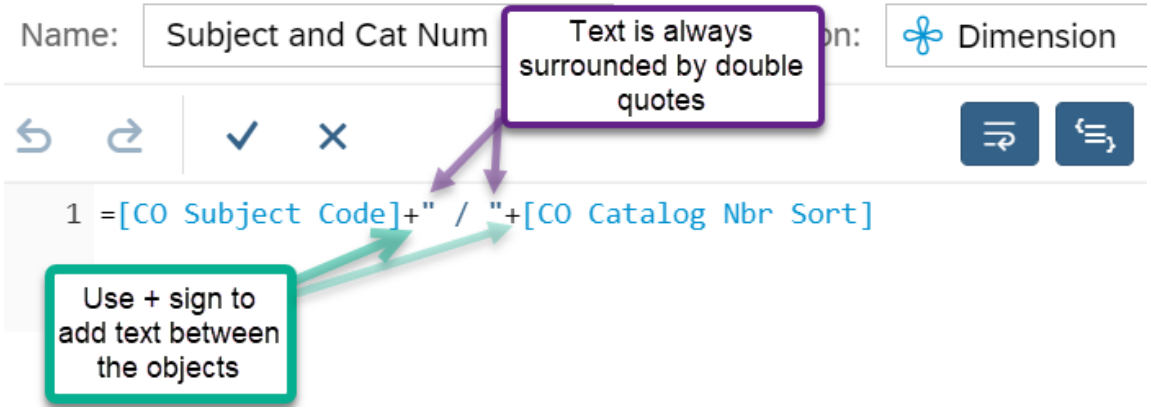
Division	Subject and Cat Num	CO Subject Descr	Catalog Nbr	Course Title
Colleges	COWL0118A	Cowell Colleg	118A	American Musical Th
Colleges	COWL0156B	Cowell Colleg	156B	Futures: Facts, Ficti
Colleges	COWL0165	Cowell Colleg	165	Fundraising Practicu
Colleges	COWL0175A	Cowell Colleg	175A	Imagination
Colleges	COWL0175T	Cowell Colleg	175T	Memory in the Amer

Edit Variable

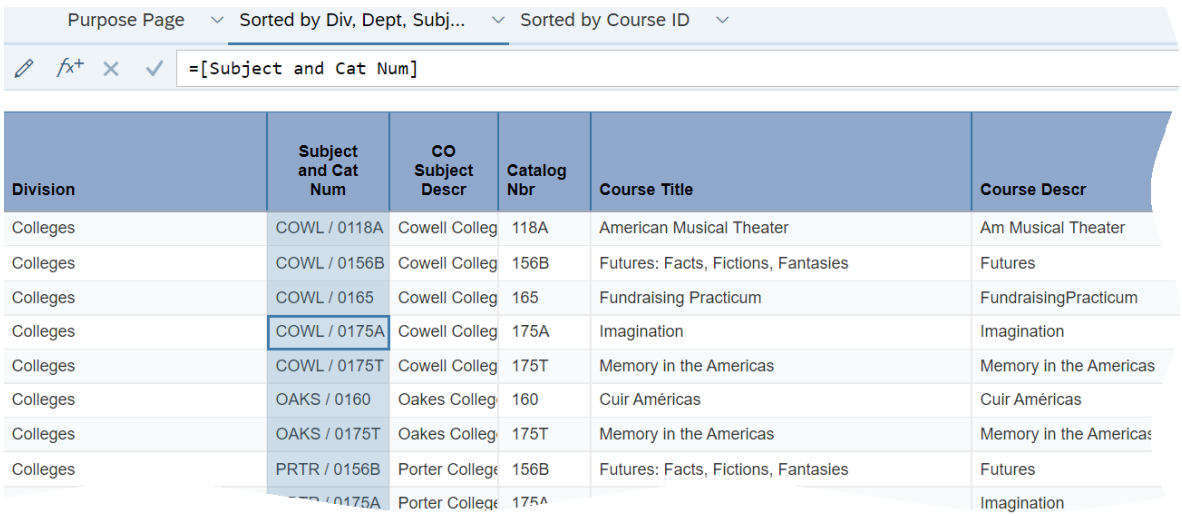
19. Let's edit this variable and add a "/" between the Subject and Catalog number for easier readability. In the Document Objects panel and Variables folder, click on the ellipses and choose Edit from the options:



20. We want to add some text between the objects - in this case, a "/".



21. Notice how the variable looks in the table now:



Division	Subject and Cat Num	CO Subject Descr	Catalog Nbr	Course Title	Course Descr
Colleges	COWL / 0118A	Cowell Colleg	118A	American Musical Theater	Am Musical Theater
Colleges	COWL / 0156B	Cowell Colleg	156B	Futures: Facts, Fictions, Fantasies	Futures
Colleges	COWL / 0165	Cowell Colleg	165	Fundraising Practicum	FundraisingPracticum
Colleges	COWL / 0175A	Cowell Colleg	175A	Imagination	Imagination
Colleges	COWL / 0175T	Cowell Colleg	175T	Memory in the Americas	Memory in the Americas
Colleges	OAKS / 0160	Oakes Colleg	160	Cuir Américas	Cuir Américas
Colleges	OAKS / 0175T	Oakes Colleg	175T	Memory in the Americas	Memory in the Americas
Colleges	PRTR / 0156B	Porter College	156B	Futures: Facts, Fictions, Fantasies	Futures
	PRTR / 0175A	Porter College	175A		Imagination

Nice job!