Training Guide

Web Intelligence Reporting Basics

Appropriate Use and Security of Confidential and Sensitive Information
Due to the integrated nature of the Finance modules and the reporting information in the ERP Database, your access has been granted based on business need.

Web Intelligence 4.1 Reporting Basics

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Chapter 1: Creating a Basic Report

SAP Business Objects Products

SAP Business Objects is a software suite of report creation, viewing, and distribution tools. Business Objects is composed of applications that are accessible through the web or on your desktop computer. The major components that you will interface with are:

- infoAdvantage

Web Intelligence

Web Intelligence is an easy to use report editor which allows you to create, edit, and analyze both simple and complex business intelligence reports. Web Intelligence can be accessed online through infoAdvantage using the HTML editor, or from your computer desktop through Web Intelligence Rich Client. This training class will focus on Web Intelligence Rich Client, but you are free to experiment with the online HTML version.

If you create your reports through the HTML editor in infoAdvantage, you must save and run your reports from infoAdvantage.

Terminology

The following are terms representing the parts of a Web Intelligence file:

Document: A document is the file created by Web Intelligence. A document can contain multiple queries and multiple reports.

Query: The query refers to the parameters set to define the data content for your report. The act of building a query refers to selecting the data to include in your report and then applying filters to limit the data returned.

Report: A report is any formatted display of data from the data providers. A report can include one or more blocks.

Block: A block is a collection of data in a particular format. In Web Intelligence, the block types are *table*, *crosstab*, and *chart*. Multiple blocks can appear in a single report and each block can display data from the same or different data providers.

Logging into Web Intelligence from FIN C2HERPS

1. Open the infoAdvantage login page: **https://erpltfin01/webapp/FINUSRV1/ Advantage**

Login

User ID: _____

Password: _____

[Login] [Reset]

Login Hint

User ID: C2HERPS User ID - firstname.lastname (maximum 16 characters) Example: joe.aloha

Password: Use your Active Directory (AD) password that you use to logon to your computer at the start of work

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Press CTRL+D to bookmark CGI Advantage

2. Click **InfoAdvantage R4** link.

The infoAdvantage Home Page is displayed:
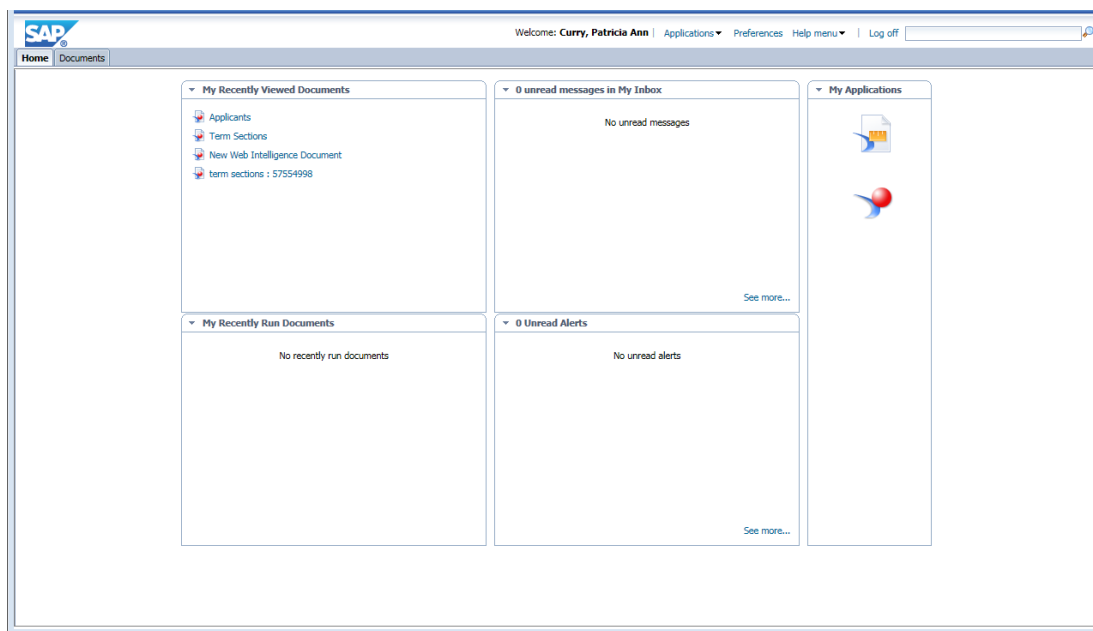
Setting Web Intelligence Preferences

You must select your default creator/editing tool from the Preferences menu in infoAdvantage.

1. Click **Preferences** on the infoAdvantage toolbar.

2. On the left-hand menu, select the **Web Intelligence** category.
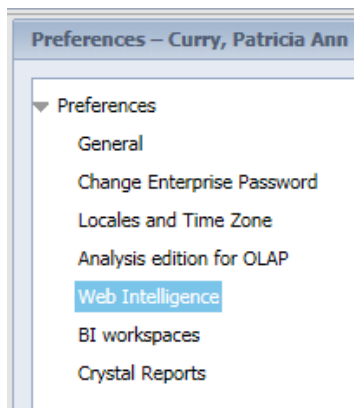
3. Under **View** and **Modify**, select **HTML** radio-button.

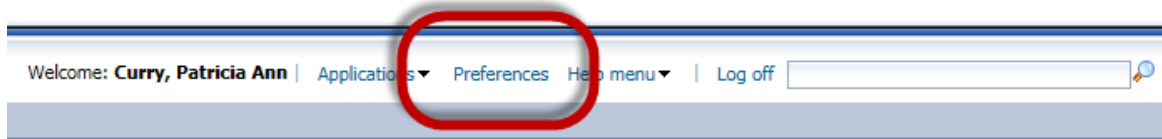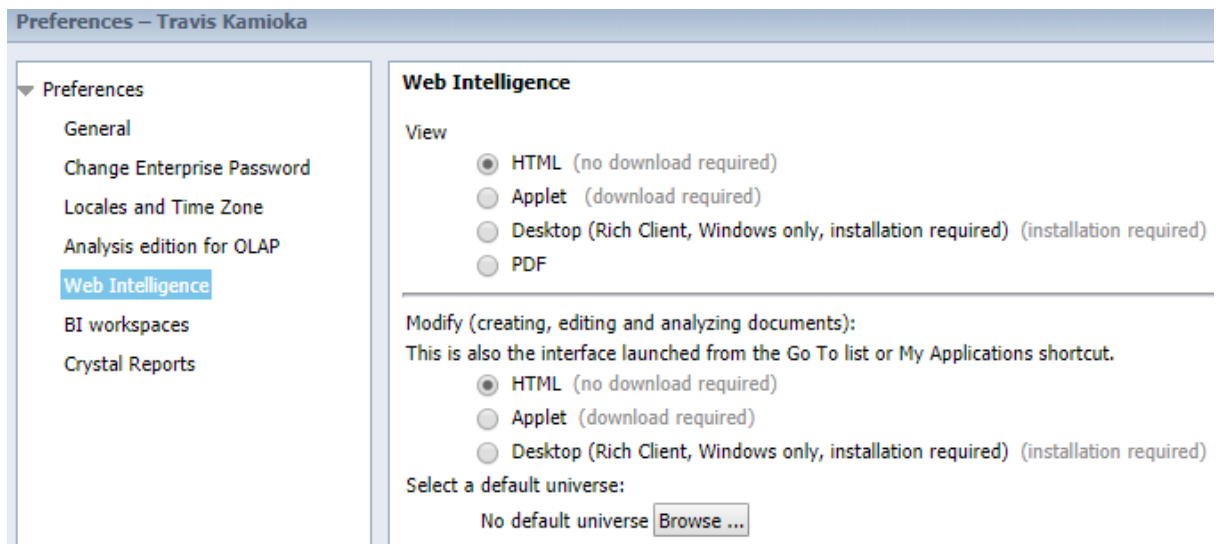4. Click the **Save & Close** button in the bottom-right corner of window.

5. Click **OK** when you see informational message regarding changes taking effect after page reloads.

Launch Web Intelligence Rich Client FIN

1. Click the Web Intelligence icon under the Applications menu.

The Web Intelligence editor starts and the Web Intelligence Rich Client home page is displayed.

The Web Intelligence Home Page offers options to create new documents, and to open existing documents. The home page provides short-cut links to the most recently used data sources and recently opened documents.

Creating a New Document

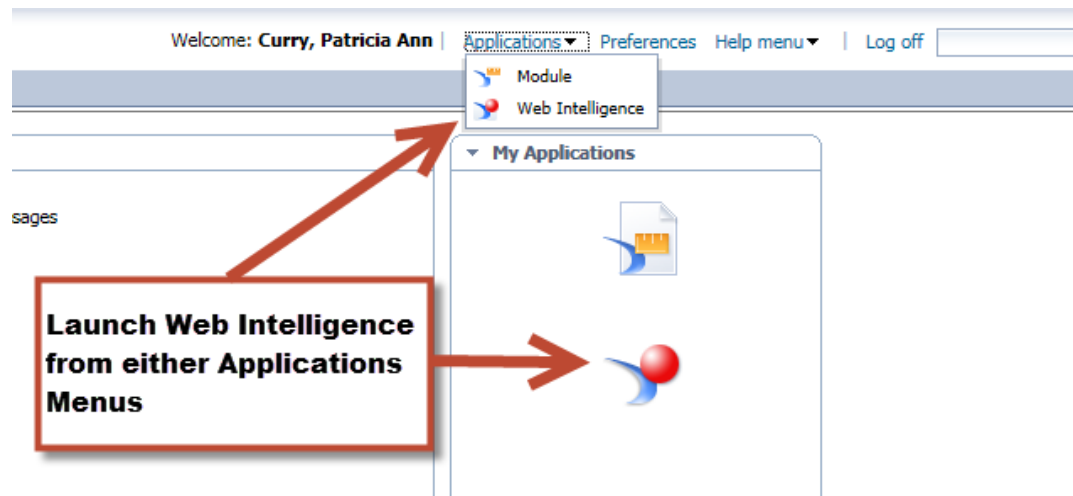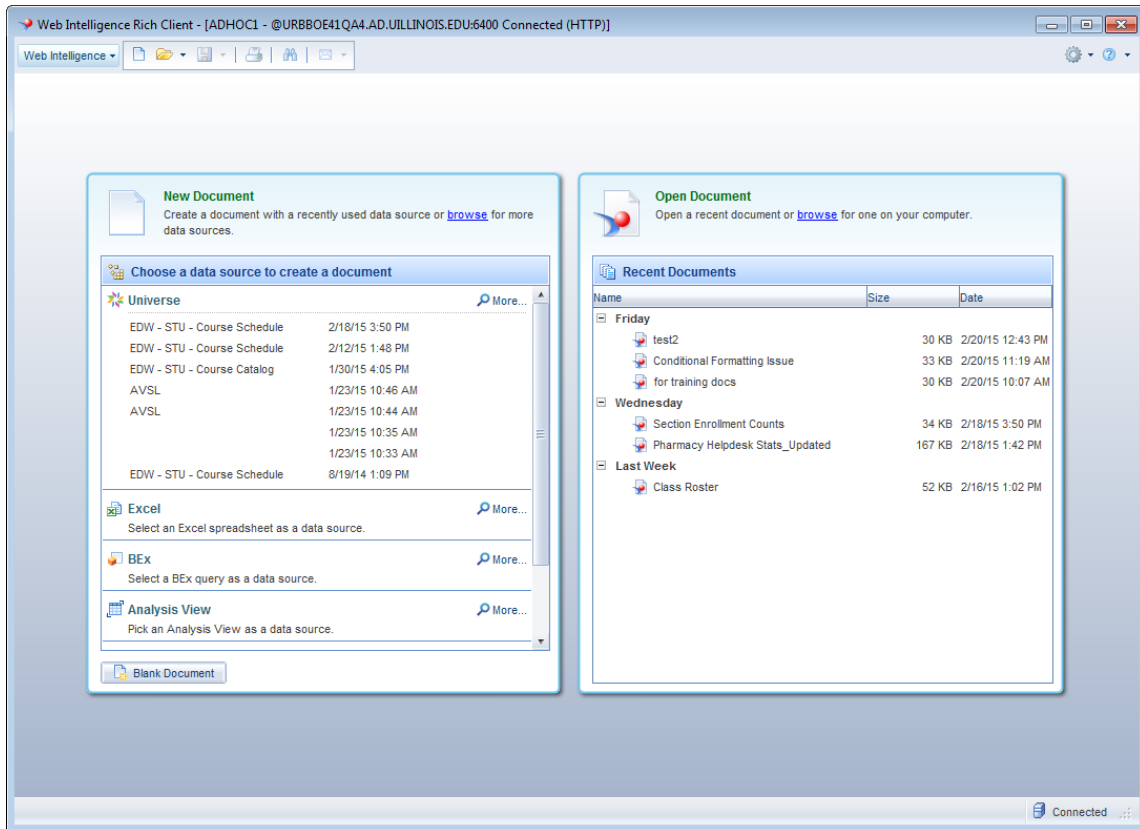The first step in creating a new document is to select the source for the data. We will use a Universe for our data.

1. Click on **Universe**

☑   *Note:* A **Universe** is a database interface which maps objects to fields in the database. The universe simplifies report creation by eliminating the need to know the database structure. It also provides automatic joins between database tables based on key values.

The Universe Selection window is displayed:
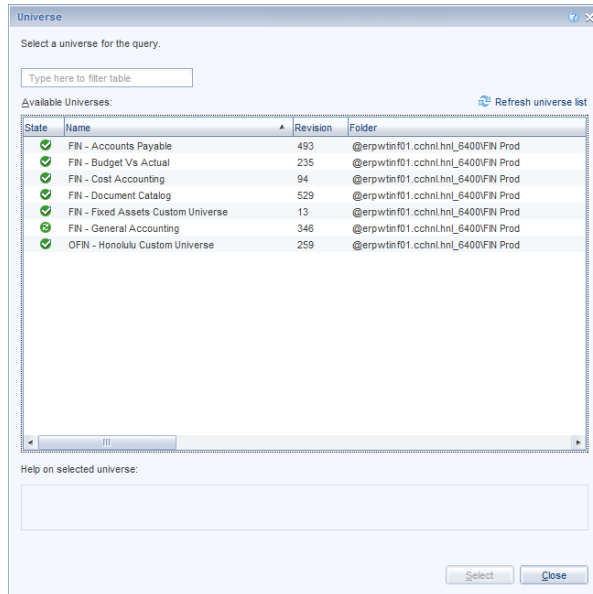
2. Select the universe most related to your report

3. Click **Select**

4. The **Query Panel** is displayed:

Query Window

The Query Panel window is used to create the query that retrieves data from the database. The objects and filters in the query window determine what data is included in the query results. The data returned when the query is run is called a *data provider,* which is stored in the document and becomes the source of the data displayed in the report.

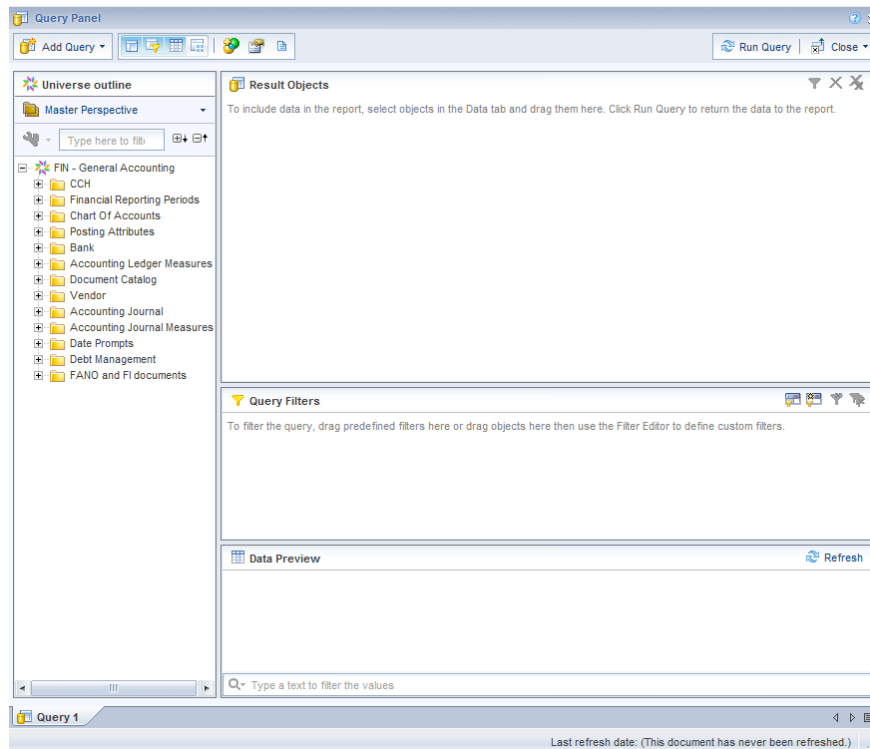- **Result Objects:** This panel holds the objects to be included in the report.   When building a new query, each object added to the Result Objects panel is represented as a column in the initial report table.

- **Query Filters:** This panel contains selection criteria for the query. The query filters determine which rows from the database are included in the query results.

- **Data Preview:** Click **Refresh** to display a preview of the data that would be returned if the query was run.

Query Panel Toolbar
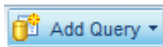
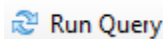|	
Add Query	**Add Query:** Use drop-down menu to select data source for additional queries.
	Show/Hide Universe Outline panel
	Show/Hide Filter Pane
	Show/Hide Data Preview Panel
	Add Combined Query: Two queries on same data source. Join results as a union, intersection, or minus.
	View Script: Shows the SQL select statement produced by the Query
Run Query	Runs the query

Objects

A universe is a collection of *objects*, which represent fields in a database table. Object names are everyday terms which are easier to understand than the cryptic field names in the database.

Classes 📁
Classes are logical groupings of objects to make the objects easier to find. For example, all address fields might be grouped together in one class.

Object Types

▮ Dimension

- Dimension objects usually contain text or dates, such as *Name, UIN,* or *Application Date.* However, some dimension objects may contain numeric data, such as *Section Enrollment*.
- Dimension objects represent the basic structure of the data.

✳ Detail

- A detail object is always associated with a dimension object.
- A detail object provides additional information about the dimension object.

▥ Measure

- Measure objects are numeric values that are the result of calculations.
- A measure's value changes depending on the report context. For example, values displayed for a Salary object differ if the report is for one pay period or for one year.

Finding Objects

Most of the universes you will be working with contain a large number of classes and objects, which can make finding the objects difficult. You can look for objects by subject by expanding the related class folders, or you can use the Filter option to search for objects that contain certain words or phrases.
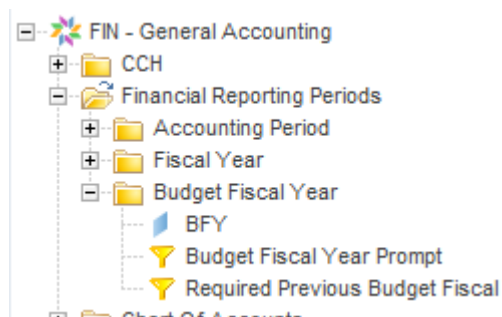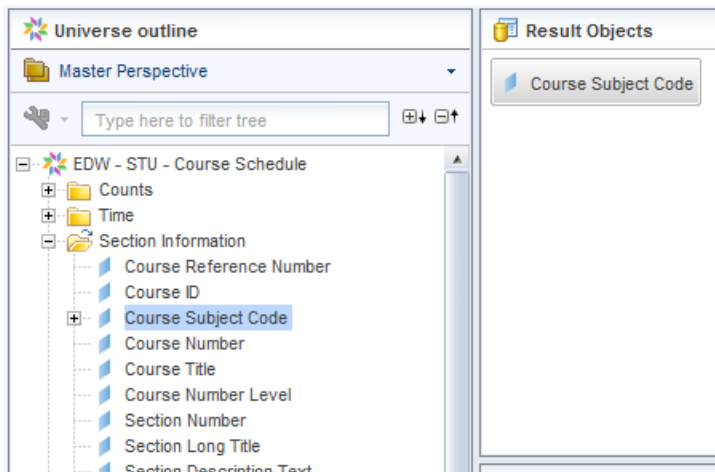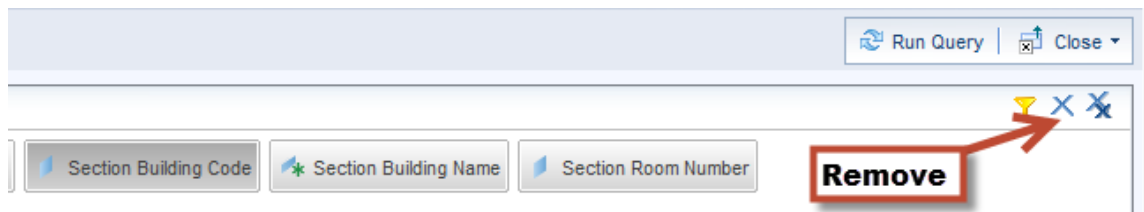
Adding Objects to the Result Objects Panel

Once you locate the object to add to your document, there are two ways to add the object to the *Result Objects* panel:

- Double-click the object.
- Drag and drop the object to the *Result Objects* panel.

1. Expand a folder.

2. Double-click an object to add it to the *Result Objects* panel.

3. Locate any other objects.

4. Drag them from the Universe Outline panel to the right in the Result Objects panel.

5. To delete objects use any one of these methods:

- Clicking the Remove button on the Panel toolbar

- Pressing the Delete key on your keyboard

- Dragging and Dropping it back in the Universe Outline panel

When you are done the Result Objects panel should look like this example:
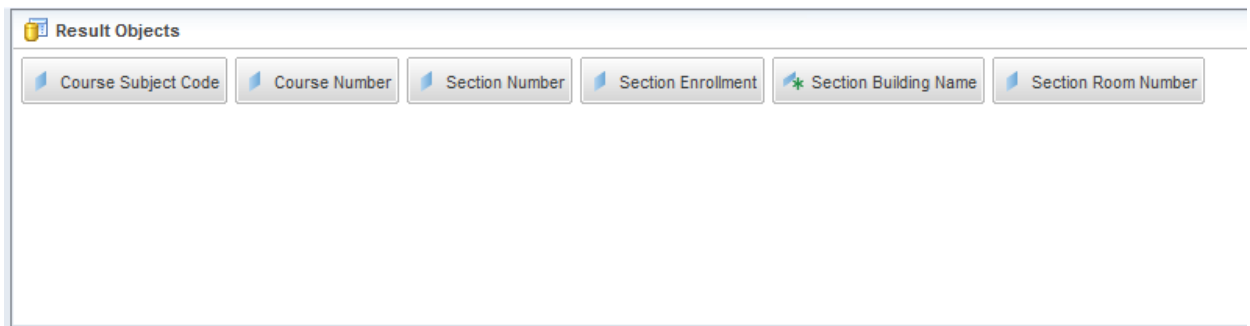
Predefined Query Filters

Query filters add conditions to your query that limit the data returned from the database. Filters are vital when running queries against a large database. There are two types of query filters: *predefined* and *user-defined*.

Query filters allow you to:
- Retrieve only the data you need to answer a specific business question
- Hide the data you don't want specific users to see when they access the document
- Minimize the quantity of data returned to the document to optimize performance

Predefined query filters are time savers that are included within the universe. They are created for conditions that are complicated and/or commonly used. Predefined query filters save time because they can just be added rather than having to create the filter yourself.
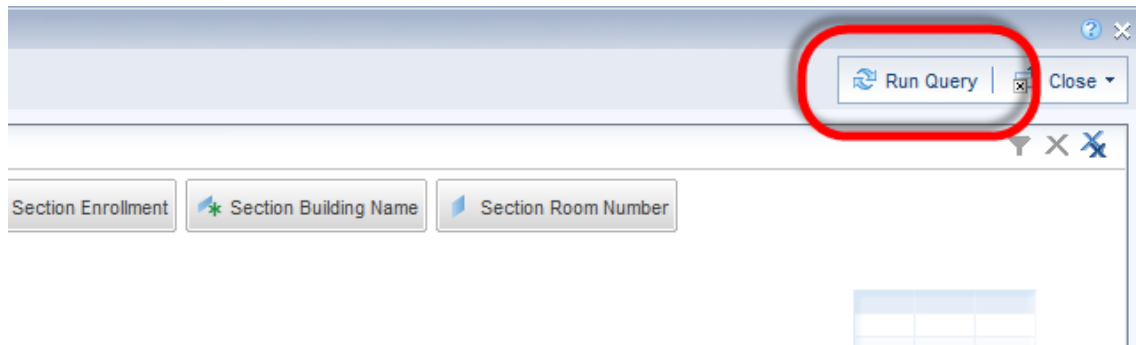
Predefined filters are in indicated in the data window with the ▼ icon.

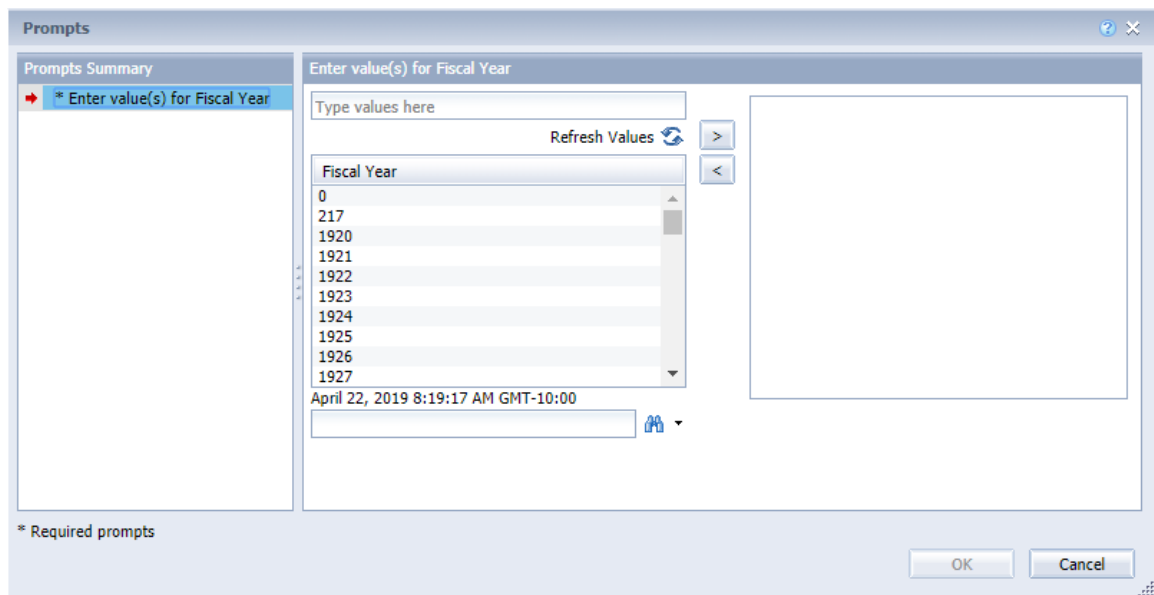There are two ways to add a predefined filter to the *Query Filters* panel:
- Double-click the filter.
- Drag the filter to the *Query Filters* panel.

Running the Query and Entering Prompt Values

1. Click the **Run Query** button

Since our query contains prompts, the Prompts Window is displayed:

2. Click the prompt in the Prompt Summary.

☑ **Note:** The first time the list of values for an object are displayed, all values are retrieved from the database and stored in a file on the hard-drive, which can take some time. However, the next time you see the same list, the values will be read more quickly from the local file.

There are two methods for entering a prompt value:
- Select from the list of values
- Manually type a value in the "Type a value" box

☑ **Note:** If you choose to use the Type a Value box, you must type the value exactly as it appears in the database. Values are case-sensitive.

8. Click the [>] button to move the value into the selected value(s) box.

☑ ***Note:*** If you enter the value manually in the *Type a value* field, make sure to type it correctly; otherwise, you will get no data. Remember that the values are case-sensitive.

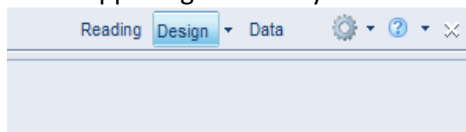**9.** Click the **OK** button to run the query.

Report Manager Window

Once your query has run, the report will be displayed in the Report Manager window. This window has many toolbars and tabs that contain the various features available in Web Intelligence.
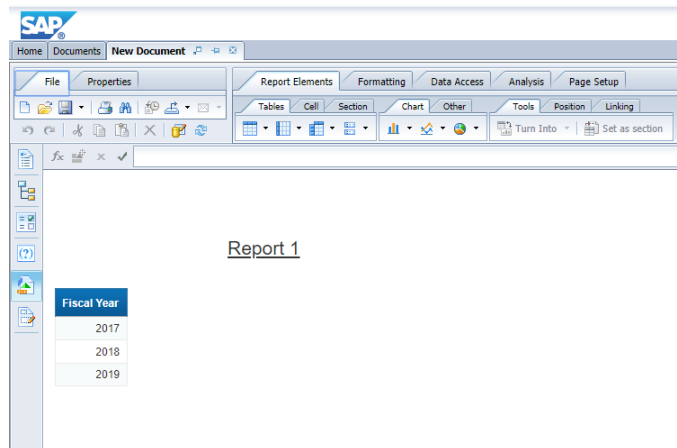
View Mode

In the upper-right corner you will see 3 view modes: Reading, Design, and Data.

Reading Mode: This is a view only mode. Report features are not available in this mode.

Design Mode: Offers reporting features and the ability to make changes to report formatting.

Data Mode: Shows query information such as data source and number of rows returned.

Saving a Web Intelligence Document

1. On the File tab, click the Save menu icon.

2. Select **Save as**
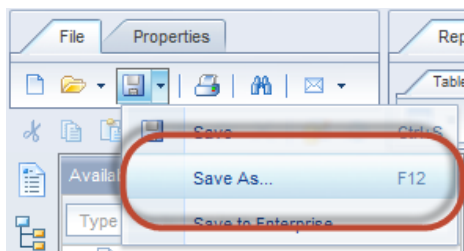
The Save Document dialog box is displayed:

3. In *File name:* Type in the name of the report created.

Document Toolbar
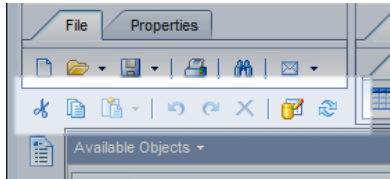
 Undo: Undo last action(s).

 Redo: Redo an action that was undone.
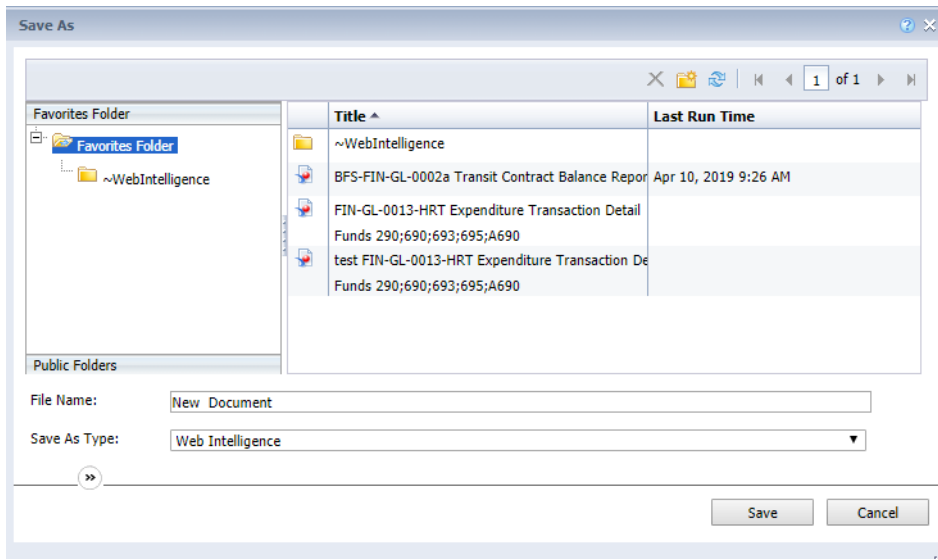
 Delete: Deletes the selected report element(s).

 Edit Query: Opens the Query panel to make changes to the query.

 Refresh Data: Refreshes the report data and/or change Prompt Values.

Page Navigation

By default, Web Intelligence paginates results every 100 rows. To see all results, you may need to use page navigation, located at the bottom of your report window:
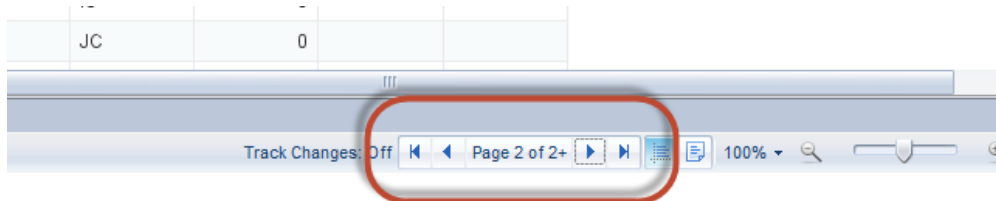
Exiting Web Intelligence

1. Close Web Intelligence by clicking the X in the upper right corner of the program window.

Chapter 2: Edit Query / User-defined Query Filters

Open Document

1. Select the **Section Enrollment** document from the **Recent Documents** list.

☑ *Note:* You can also select 📂 ▾ ▸ **Open** to locate the document.

Adding Objects to Existing Query

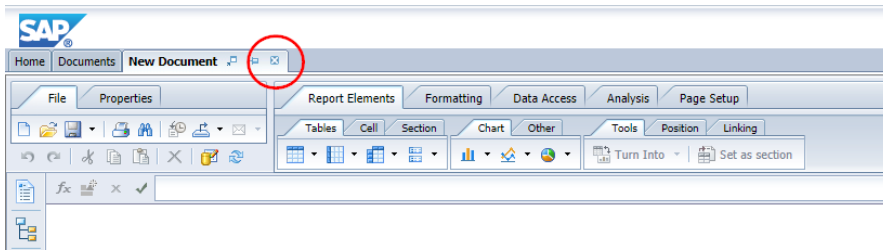Most reports require changes to the data after the query is run the first time, such as removing or adding objects. Selecting the **Edit Query** button on the *Standard toolbar* displays the *Query Panel* where you can make changes to the query.
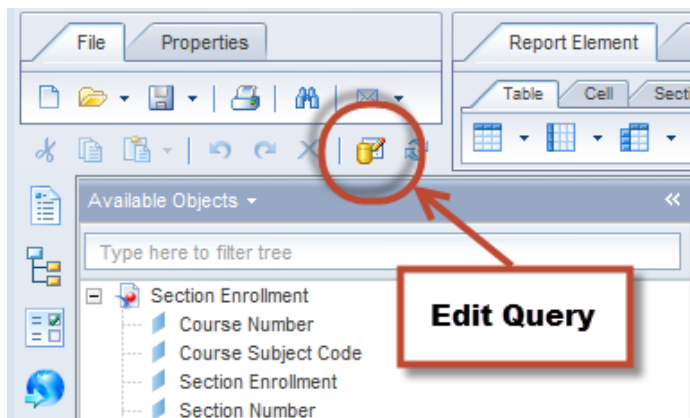
1. Click the 🗗 button to display the *Query Panel* window

2. Expand a folder

3. Locate the object you want

4. Double-click the object to add to the list of result objects
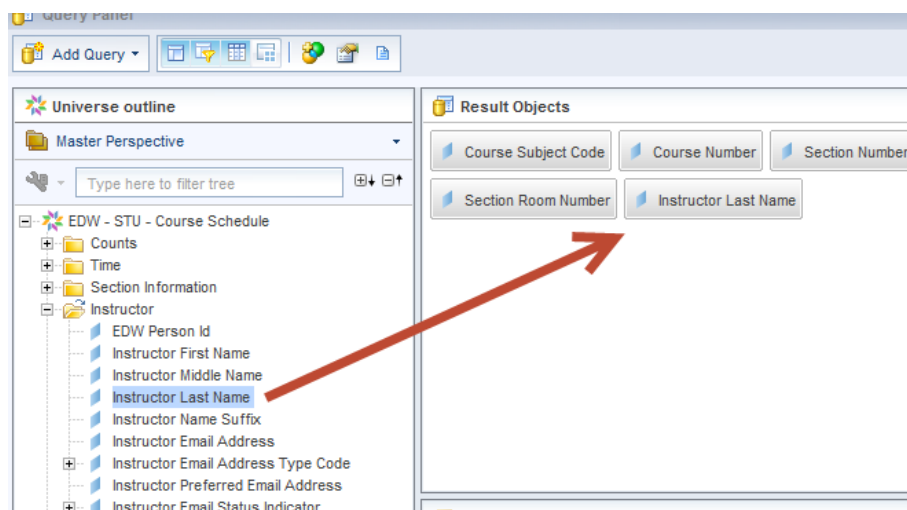
5. You can use the Search box to find objects you're looking for

6. Then double-click the object to add it
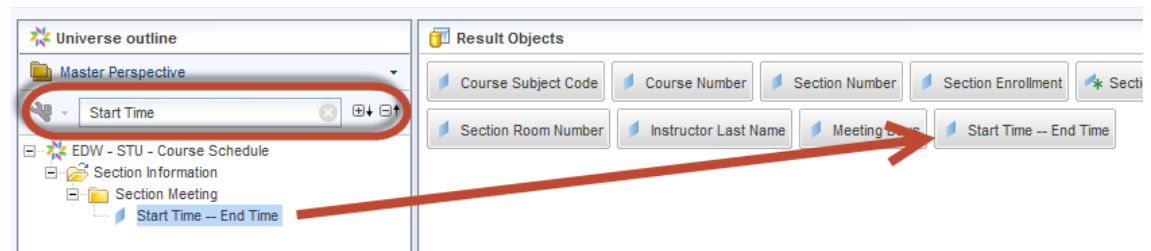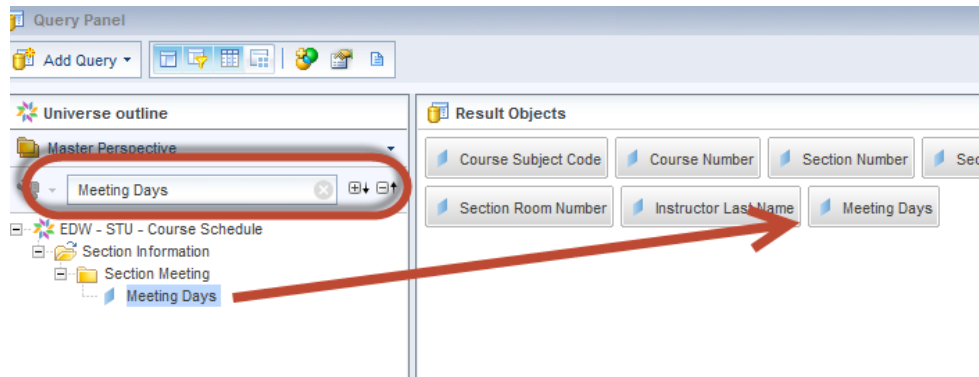
7. Click **Run Query**

8. When the prompt window is displayed, click **OK**

The report is displayed and the new objects are shown in the available objects list:

Adding a New Object to a Table

Although the new object has been added to the query, it does not automatically show on the table. You must add the column to your table from the Report Manager window. Columns can be added to a table using the drag and drop method. Drag the object you want to add to the table from the Data Manager, and drop the object into the table where you want to add it:

To add the object into a new column to the left of an existing column, drag the object onto the left edge of any cell in the column.
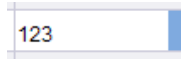
To add the object into a new column to the right of an existing column, drag the object onto the right edge of any cell in the column.
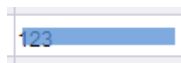
To replace an existing column with the new column, drag the object over the center of any cell in the column.

1. Select the object from the list of **Available Objects**.

2. Drag the object to the far right side of the *Section Room Number* column header. You will see a small blue rectangle on the right side of the cell.
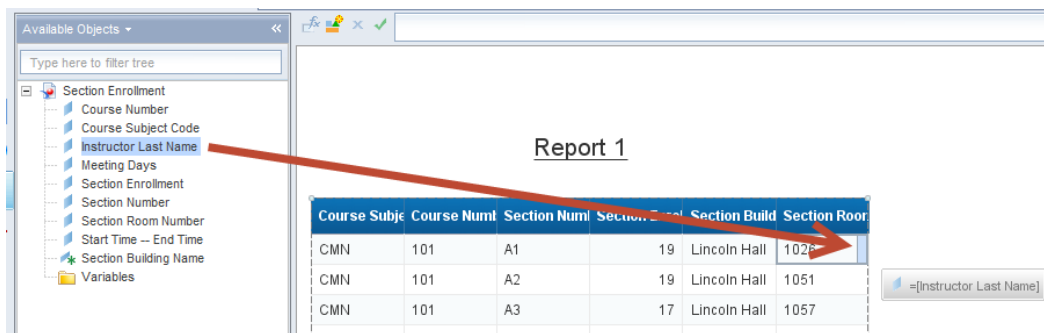
3. Drop the object. The data is added as a column in your table.

User-defined Query Filters

As we learned in Chapter 1, filters are added to a query to limit data returned from the database. If there are no predefined filters in the Universe that you can use to get the desired data, you can easily create your own *User-defined Query Filter*. A filter contains three elements:

1. **Object:**   What to compare

2. **Operator:** How to compare it

3. **Operand:**   What to compare it to

We will now add a query filter that will display only sections with enrollment greater than zero in our results.

1. Click the 🖉 button to display the *Query Panel* window.

2. Drag the **Section Enrollment** object to the *Query Filters* panel.

3. Drop the object below the other Query Filters.
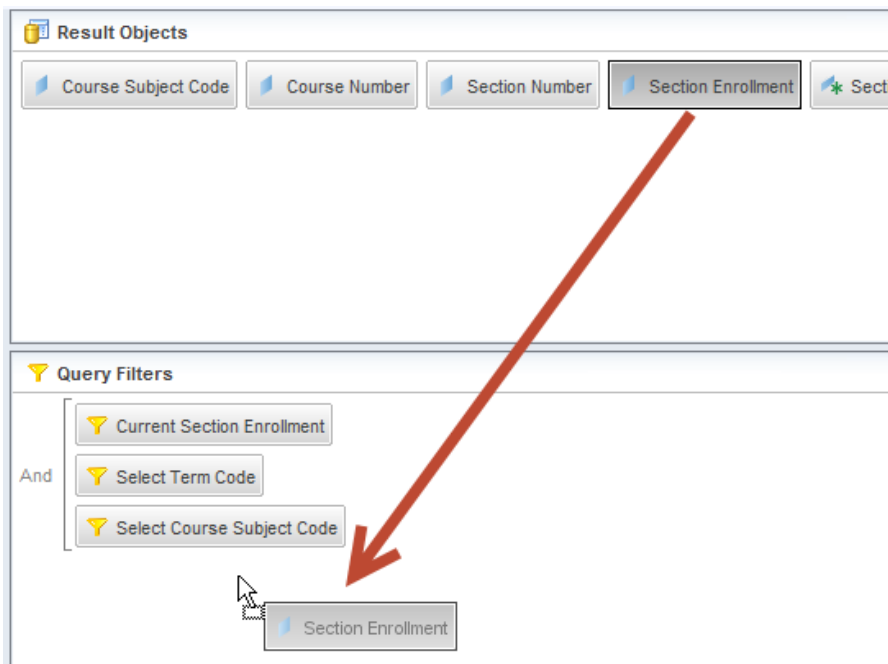
The **Section Enrollment** filter box is displayed:
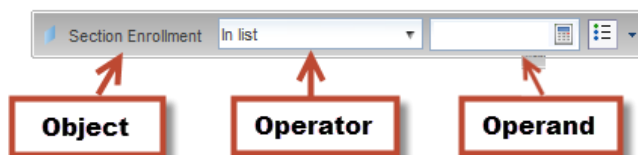
4. Click the drop-down arrow next to **In List**, and select **Greater than** from the list of operators. (See Appendix G for a description of each operator option.)
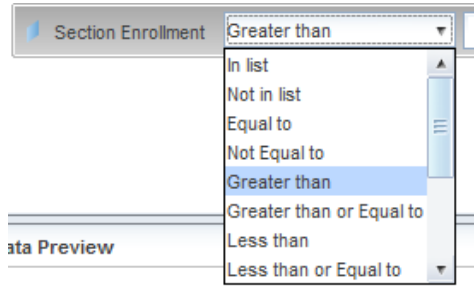
Note: See Appendix A – Query Filter Operators for more information on operators.

5. Enter **0** in the **Type a constant** text box.

☑

Note: You can also select the operand menu button 🔲 for other options for entering the Operand, including Selecting Values from List and creating a Prompt.

Your filter should now look like this:
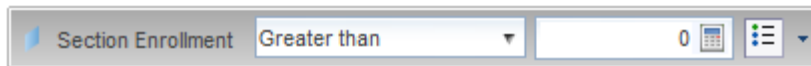
6. Click the **Run Query** button.

7. When the prompt window is displayed, click **OK** to generate your report.

Now we only see sections with enrollment greater than zero:

| Course Subje	Course Numb	Section Numb	Section Enrol	Section Build	Section Roon	Instructor La	Meeting Days	Start Time --
CMN	101	A1	19	Lincoln Hall	1026	Moll	M W F	0800--0850
CMN	101	A2	19	Lincoln Hall	1051	Godwin	M W F	0800--0850
CMN	101	A3	17	Lincoln Hall	1057	Conrad	M W F	0800--0850
CMN	101	B1	18	Lincoln Hall	1026	Moll	M W F	0900--0950
CMN	101	B2	19	Lincoln Hall	1051	Alexander	M W F	0900--0950
CMN	101	B3	19	Lincoln Hall	1057	Conrad	M W F	0900--0950
CMN	101	B4	18	Lincoln Hall	1062	Michael	M W F	0900--0950
CMN	101	B5	18	Lincoln Hall	1068	Obradovich	M W F	0900--0950
CMN	101	B6	17	Armory	242	Izaguirre	M W F	0900--0950
CMN	101	C1	19	Lincoln Hall	1026	Denham	M W F	1000--1050
CMN	101	C2	16	Lincoln Hall	1051	Alexander	M W F	1000--1050
CMN	101	C3	17	Lincoln Hall	1057	Coambs	M W F	1000--1050
CMN	101	C4	19	Lincoln Hall	1062	Michael	M W F	1000--1050

Grouping Filters using the And / Or Logical Operator

Web Intelligence permits the creation of complex query filters in which filters can be grouped together. Complex query filters are created by grouping and connecting filters with logical operators.
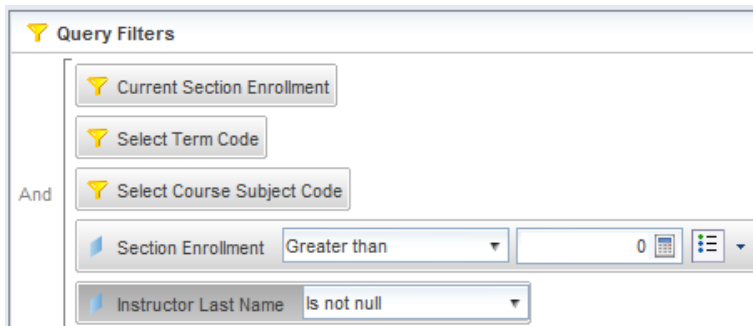
- The **And** operator requires that **both** conditions be true for the row to be included in the query.
- The **Or** operator requires that only **one** of the conditions be true for the row to be returned in our query results.

We will further refine our search by including sections that have an instructor assigned, even if the enrollment is zero by using the **Or** operator.

1. Click the ◻ button to display the Query Panel window.

2. Locate the **Instructor Last Name** object and drag it to the bottom of the *Query Filters* panel.
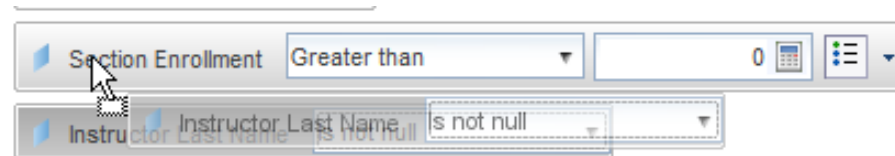
   Notice that all of the filters are connected with an *And* operator. This means all conditions have to be true.

3. Select the **Is not null** operator from the drop-down list.

☑ **Note:** The "**Is not null**" operator returns only rows that have a value in the *Instructor Last Name* field.

4. Drag the *Instructor Last Name* filter box, and drop it on top of the *Section Enrollment* filter box.

5. Click the *And* operator that joins the *Section Enrollment* and the *Instructor Last Name* filters. The operator will change to *Or*.

6. **Run the query** using the same prompt values.

Now we see sections that have an enrollment of 0 if the instructor name is not null (these results are from page 2 of the report).

CMN	113	B	28	Armory	143	Bryan	M W F	1100--1150
CMN	115	1	0			Tewksbury	M W F	0900--0950
CMN	191	BJW	0			Wilson		--
CMN	191	BQ	0			Quick		--
CMN	191	CF	0			Finnegan		--
CMN	191	CS	0			Sandvig		--
CMN	191	CSJ	0			Jacobs		--
CMN	191	DT	0			Tewksbury		--
CMN	191	DTS	0			Schiller		--

7. Click 🖫 to save the changes to the document.

No Data to Retrieve

When working with filters, it is possible to create a situation where there are no rows that meet the created conditions. When this happens, you will receive the following message:
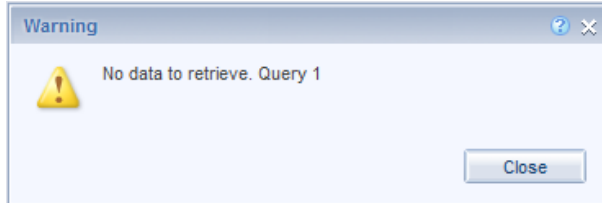
This means that there is no data to fetch from the database. Usually, this means you need to fix a problem with your query filters. Some reasons this may happen include:

- Entering a bad value for a prompt or filter. If you manually entered values in the Type a Value box, try removing the values, and selecting from the list.

- Creating two filters that are contrary to each other, for example requesting Section Enrollment greater than 0 and less than 0 in the same query, or looking for a Fund Code, but forgetting to change the Org code.

- Requesting data to which you do not have security access. For example, entering a program code that is not in your deparment.

Chapter 3: Prompts

A prompt is a Query Filter where the Operand can be defined each time the report is refreshed. Creating a query filter with a prompt allows the user to retrieve different data from the database without changing the filters, making the report more flexible. Each time you run a query with a prompt, you will be asked to supply the value(s) to limit the data. We will now create a query filter with a prompt which will allow us to determine what level classes to return.

Building a Prompt

We will now create a prompt that will allow us to filter our results to just show certain Course Number Levels.

1. Edit the query by clicking the button.

2. Type **Level** in the search box. Locate the **Course Number Level** object and drag it into the *Query Filters* panel.
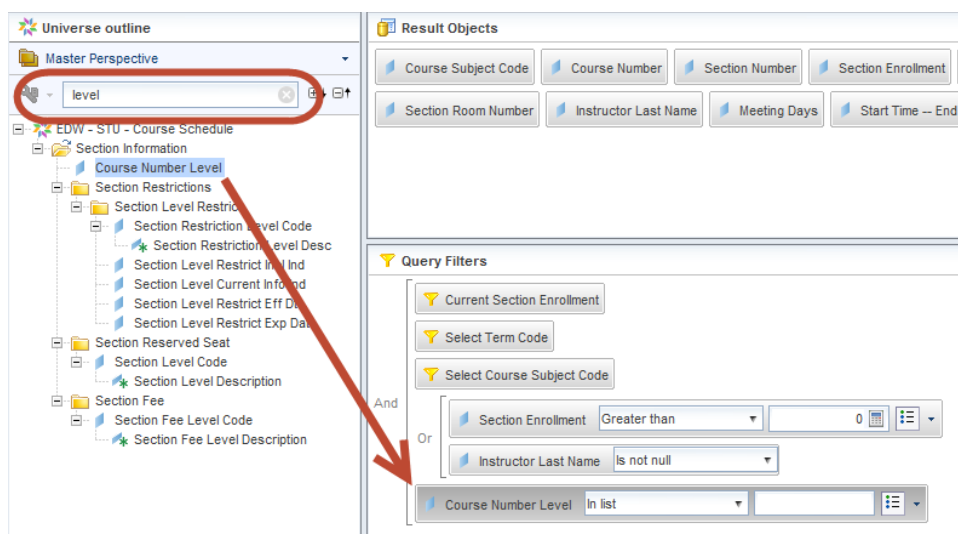
3. Leave the Operator value as **In list** *(default value)*

    The *In list* operator is similar to *Equal to*, but it allows you to provide a list of values rather than a single value.

4. Click the **Operand menu button** and select **Prompt**.
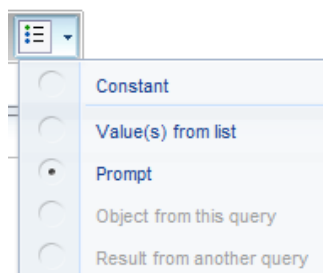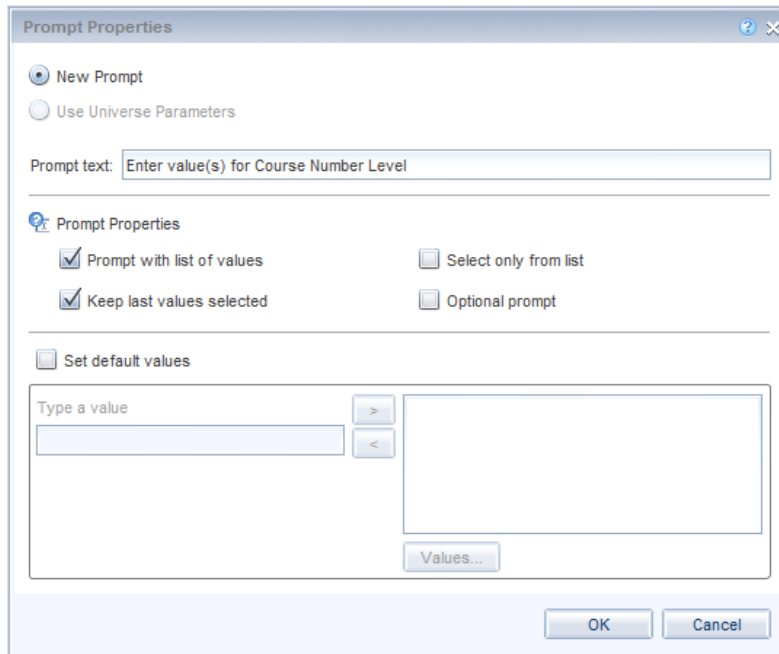
The filter should look like this example:
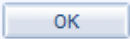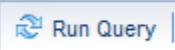
5. Click the Prompt Properties button.
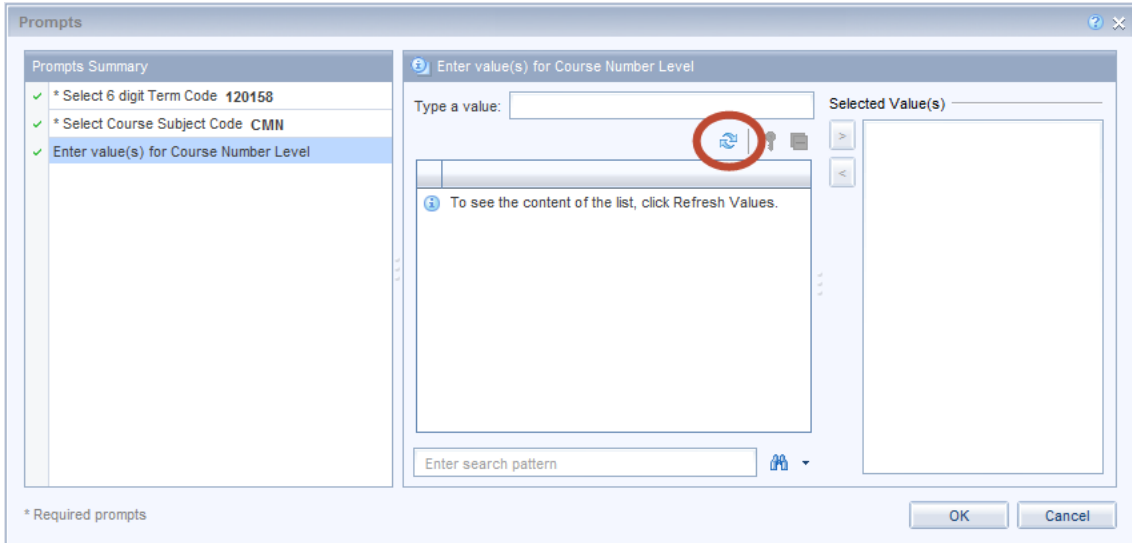
The **Prompt Properties** dialog box is displayed:

Prompt Properties

Prompt with List of Values	When a prompt is selected, a list of values is generated. This list can be disabled if the list of values is large and takes too much time to populate.
Select only from list	Removes the Enter a Value field in the prompt window. Values must be selected from the list of values.
Keep last values selected	Saves the value(s) entered the last time the query was run.
Optional prompt	User can choose to not enter a value for prompt. If a value is not entered, the filter will be not be applied to the report.
Set default values	Allows you to select default values. User can modify this value at prompt.

6. Check the **Optional prompt** check box.

7. Click [OK]

8. Click [Run Query]

9. Select the **Enter value(s) for Select Course Levels** prompt.
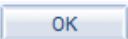
10. Click ⟳ to refresh the list of values

    The *List of Values of Course Number Level* object is displayed.

11. Select **100**, **200, and 300** from the list.

☑ ***Note:*** You can select a value from the list in two ways: Double-click the value or single-click the value and then click the **>** button.

12. Click [OK]

    The report now only includes courses with numbers in the 100s, 200s, and 300s:

Course Subje	Course Numl	Section Numl	Section Enrol	Section Build	Section Roon	Instructor La	Meeting Days	Start Time --
CMN	101	A1	19	Lincoln Hall	1026	Moll	M W F	0800--0850
CMN	101	A2	19	Lincoln Hall	1051	Godwin	M W F	0800--0850
CMN	101	A3	17	Lincoln Hall	1057	Conrad	M W F	0800--0850
CMN	101	B1	18	Lincoln Hall	1026	Moll	M W F	0900--0950
CMN	101	B2	19	Lincoln Hall	1051	Alexander	M W F	0900--0950
CMN	101	B3	19	Lincoln Hall	1057	Conrad	M W F	0900--0950
CMN	101	B4	18	Lincoln Hall	1062	Michael	M W F	0900--0950
CMN	101	B5	18	Lincoln Hall	1068	Obradovich	M W F	0900--0950

Refresh Data / Changing Prompt Values

Since the query includes prompts, you can change or update the data by "refreshing." We will now refresh the data for the document.

1. Click to refresh the report.
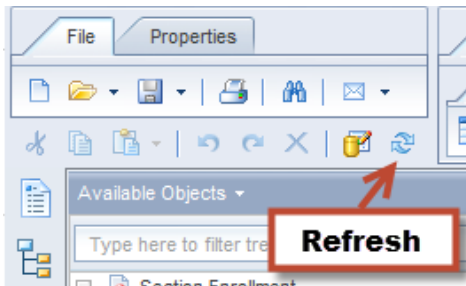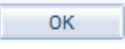
2. In the Selected Values box, click on the 120158 Term Code value.

3. Click the < button to remove the current Term Code
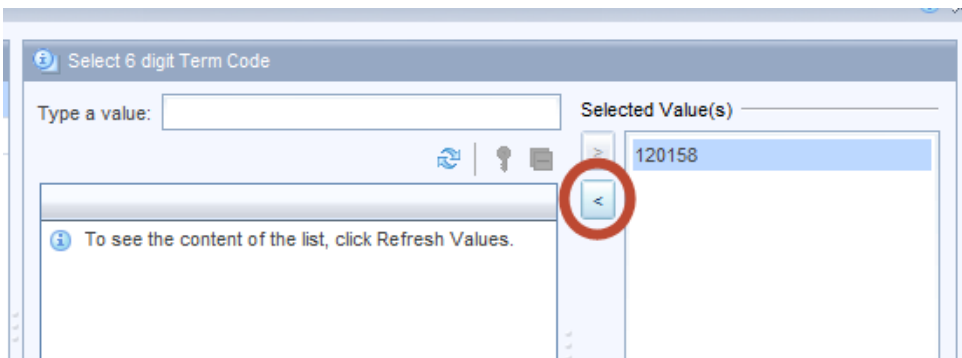
4. In the Type a Value box, enter **120168** and press Enter (or click the > button).

5. Leave Course Subject Code as **CMN**

6. Add **400** to the list of course level numbers.

7. Click to run the query.

When the data is refreshed, the most recent data is displayed in the report.

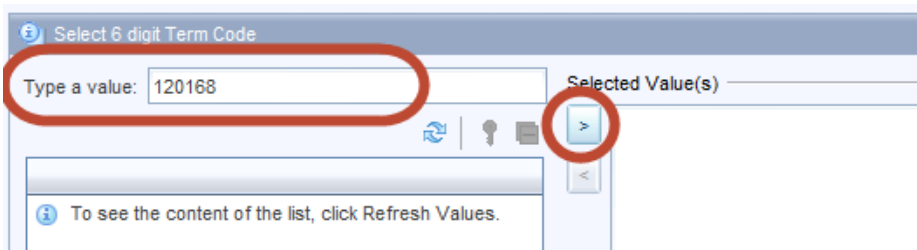| Course Subje	Course Numl	Section Numl	Section Enrol	Section Build	Section Roon	Instructor La	Meeting Days	Start Time --
CMN	101	A1	16	Lincoln Hall	1026	Nead	M W F	0800--0850
CMN	101	A2	17	Lincoln Hall	1051	Alexander	M W F	0800--0850
CMN	101	B1	19	Lincoln Hall	1026	Nead	M W F	0900--0950
CMN	101	B2	18	Lincoln Hall	1051	Bisbee	M W F	0900--0950
CMN	101	B3	18	Armory	330	Butkowski	M W F	0900--0950
CMN	101	B4	18	Lincoln Hall	1062	Devinney	M W F	0900--0950
CMN	101	B5	19	Lincoln Hall	1068	Michael	M W F	0900--0950
CMN	101	B6	17	Armory	242	Ruge-Jones	M W F	0900--0950
CMN	101	C1	18	Lincoln Hall	1026	Popp	M W F	1000--1050
CMN	101	C2	15	Lincoln Hall	1051	Alexander	M W F	1000--1050
CMN	101	C3	19	Armory	330	Butkowski	M W F	1000--1050
CMN	101	C4	19	Lincoln Hall	1062	Devinney	M W F	1000--1050

8. Click 🖫 to save the changes to the document.

Chapter 4: Formatting

Most of the formatting of a report takes place after the query has been run and the results are displayed in the Report Manager. This chapter will guide you through the process of formatting the report so that the data can all be viewed and printed.

Report Formatting

Report formatting is used when you plan to print or save to a PDF.

Print Preview (Page Mode)

Web Intelligence offers two view-modes for reports: Quick Display Mode and Page Mode. Page mode will display the reports as they will look when printed (Print Preview). To switch to Page Mode:

1. Click on the **Page Setup** tab.

2. Click on the **Display** sub-tab.

3. Click on ⬚ Page button.
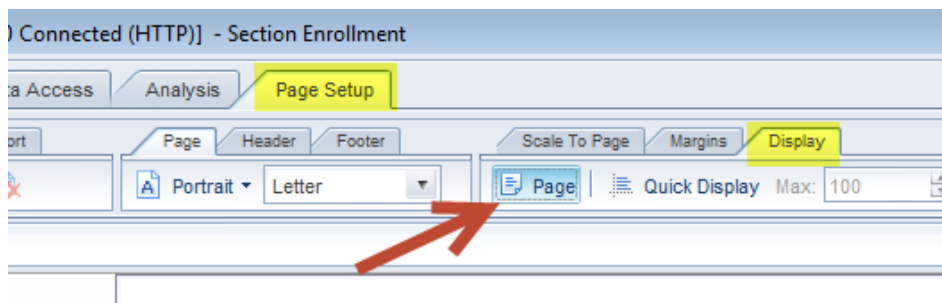
☑   *Note:* You can also switch to Page Mode using the icon on the status bar located at the bottom of your window:
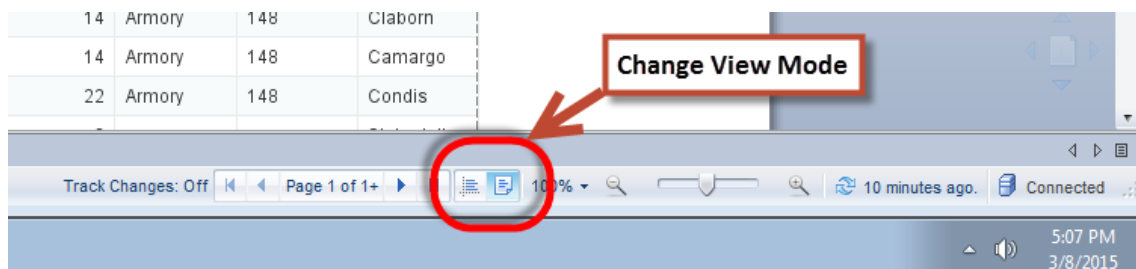
The report is now displayed in Page Mode.

Changing Margin Sizes

In order to fit larger tables of data in your report, you may have to adjust the margin sizes of your document.

1. Click the **Page Setup** tab.
2. Click the **Margins** sub-tab.
3. For each of the four margin settings, delete the current setting, and type the desired size. For our example, we will change the margins to all be **.5 "**
4. Press **Enter** after you type each value
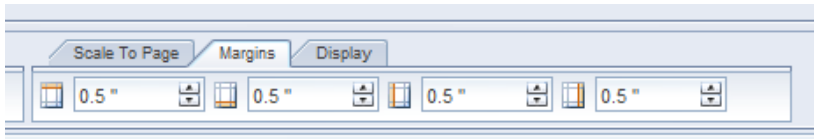
Note: If margins are showing in Centimeters, you can change to inches. Select **Properties > Application > Viewing**. Change the default measurement unit to inches.
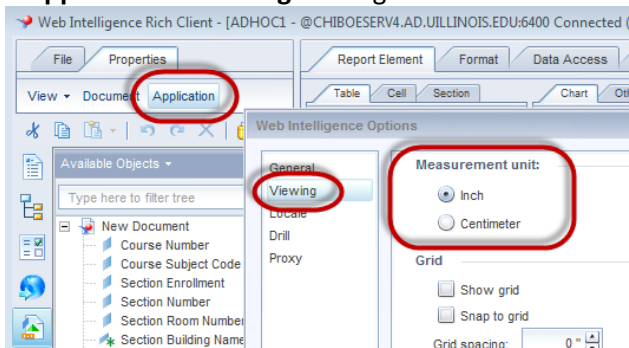
Apply Scale to Page

Scale to Page allows you to specify the number of pages wide and high you want your report to fit on.

1. Click the **Page Setup** tab.
2. Click the **Scale to Page** sub-tab
3. In the **Width** drop-down box, select **1 Pages**
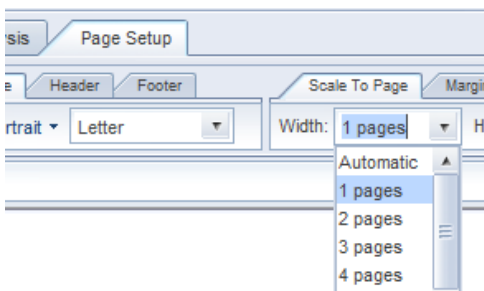
Changing Page Size and Orientation

1. On the **Page Setup** tab, click the **Page** sub-tab
2. Change the Page Size from **A4** to **Letter**
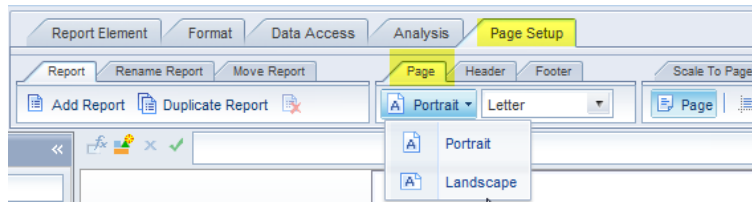
Table Formatting

Removing a Column

After running a query you may decide that you no longer need a column to appear in the finished report.

1. Right-click in the column.
2. Select **Delete.**
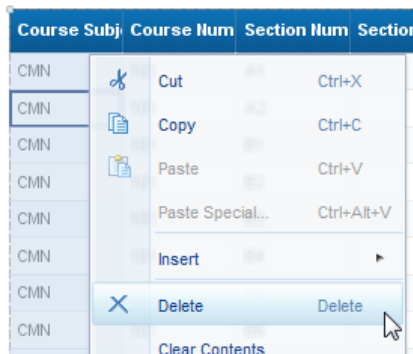
Rearranging Columns

One way of moving columns within Web Intelligence involves *dragging and dropping* a column to the desired location. Moving columns allows you to modify the way the data is presented after running the query.

1. Click on any cell in the column. The entire column is highlighted.
2. Drag the column and drop it to the right or left of the column you want it at.

3. Release the mouse to move it to its new location.

Wrap Text

If your object names are too wide for the width of the cell in the table header row, you can turn on Wrap Text.

1. Click the **Format** tab.

2. Click in the **Course Number** header cell.

3. Hold down **CTRL** and click each of the cells in the header row, until all have been selected.

4. In the **Alignment** sub-tab, select the **Wrap-text** icon
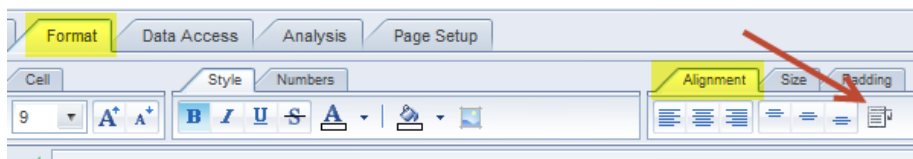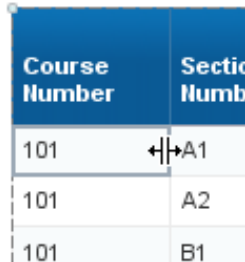
The text in the header row is now wrapped:

*Originally for the University of Illinois modified for the City and County of Honolulu on July 22, 2019

Resizing Columns Width

1. Double-click on the right border of the **Course Number** column (Auto-size) or drag the right column border and drag to desired width.

Course Number	Section Number
101	A1
101	A2
101	B1

2. Resize all columns to desired width.

Course Number	Section Number	Section Building Name	Section Room Number	Instructor Last Name	Meeting Days	Start Time -- End Time	Section Enrollment
101	A1	Lincoln Hall	1026	Nead	M W F	0800--0850	16
101	A2	Lincoln Hall	1051	Alexander	M W F	0800--0850	17
101	B1	Lincoln Hall	1026	Nead	M W F	0900--0950	19
101	B2	Lincoln Hall	1051	Bisbee	M W F	0900--0950	18
101	B3	Armory	330	Butkowski	M W F	0900--0950	18
101	B4	Lincoln Hall	1062	Devinney	M W F	0900--0950	19

Formatting Numbers

You can change how values display in specific cells or columns on your table. By default, number formats are defined for the object in the universe. You can change this format to another predefined format, or you can apply custom formats to the data in your table. In this class we will focus on the predefined number formats.

1. Right-click on any cell within the **Section Enrollment** column.
2. Select **Format Number**.

Format Number	
Default	Sample
Number	1,234.57; -1,234.57
Currency	1.234567E3; -1.234567E3
Date/Time	1235; -1235
Boolean	1235; (1235)
Percentage	1234.57; -1234.57
Custom	1,235; -1,235

Custom   OK   Cancel   Apply
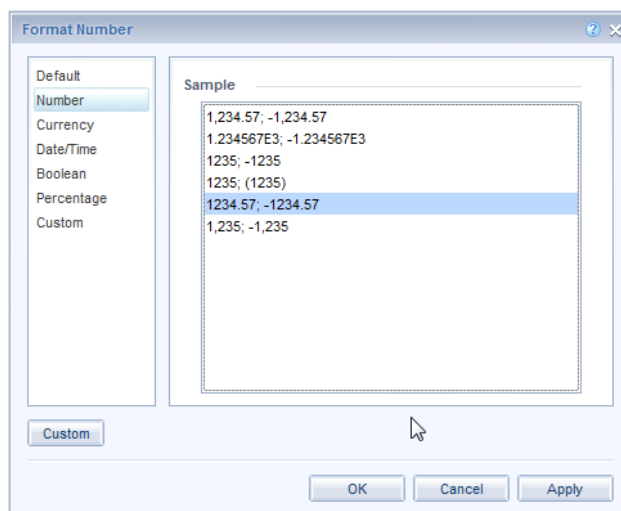
3. Select the **Number** format type.

4. Select the **1234.57** format.

5. Click the **OK** button.

   The numbers in the Section Enrollment column are displayed with 2 decimal places.
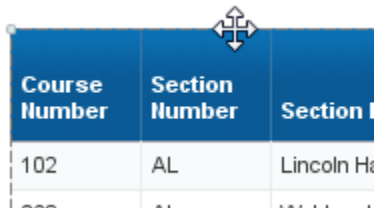
6. Click the ↺ Undo button to undo this change.

Displaying Table Headers at the Top of Each Page

By default, the Table Header row only shows at the top of the first page. You can display the header row at the top of each page:

1. Click on the border of the Report 1 table.

2. Click on the **Report Element** tab.

3. Click on the **Behaviors** Subtab.

4. Select **Repeat > Headers on Every Page**
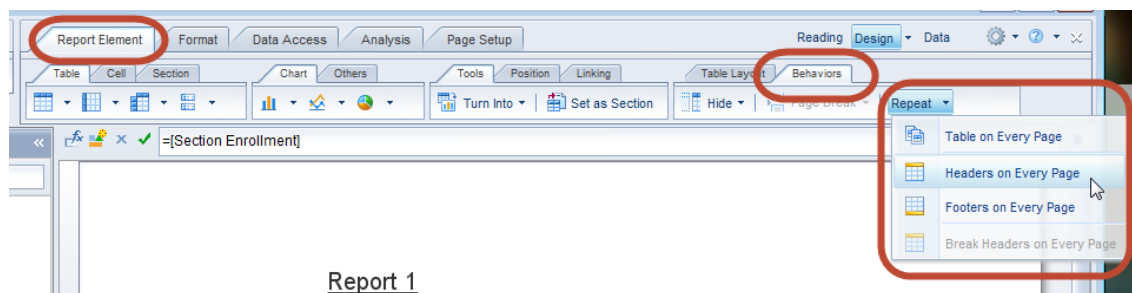
5. Click 💾 to save the changes to the document.

Chapter 5: Report Analysis Features

In this chapter, we will cover four features that can help you analyze the data in your reports: Sorting, Filtering, Breaks, and Calculations.
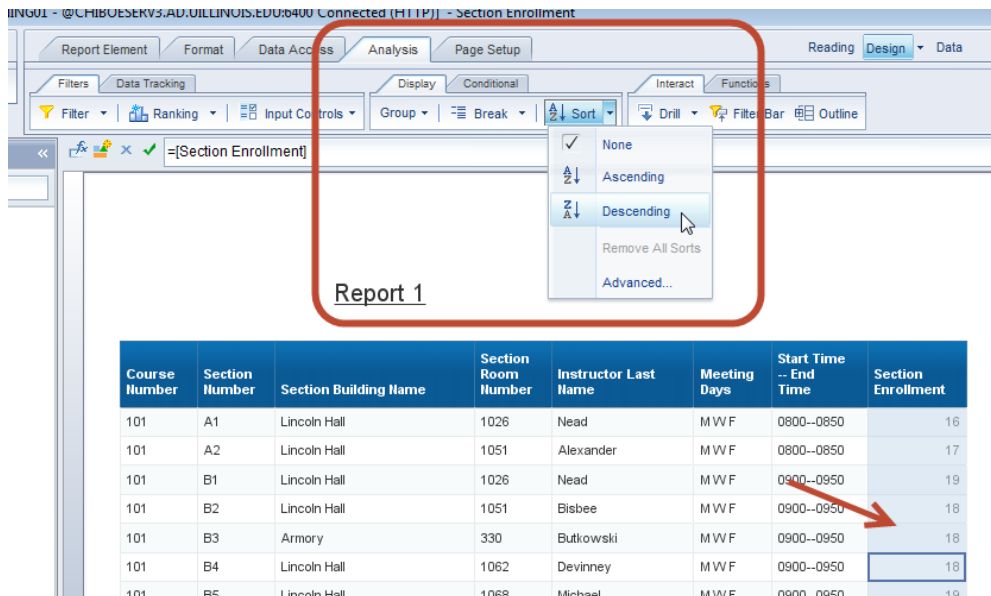
Sorting Data in a Table

Even if no sorting has been applied, the table is sorted by default. The dimension and detail objects are sorted from left to right in ascending order. Measure objects are not sorted by default. We will now override the default sorting on the previous example by specifying the sort order for some columns.

Inserting Sorts

The default sorting is in effect, so the table is sorted by *Course Number* in ascending order first. The table is then sorted by *Section Number* in ascending order. Within *Section Number*, it is sorted by *Instructor Last Name*. And so on. We will now sort the table by Section Enrollment in descending order.

1. Select the **Section Enrollment** column by clicking any value in the body of the column.

2. Select the **Analysis** tab, then **Display** sub-tab.

3. Click the **Sort** drop-down menu.

4. Select ⬛ **Descending.** *(Note: You may need to navigate back to page 1 after adding sort)*

✅ *Note:* You can also right-click in the column and select **Sort > Descending** from the right-click menu.

The report is now sorted by *Section Enrollment* in descending order. Within *Section Enrollment*, the default sorts are still applied as shown below.

Course Number	Section Number	Section Building Name	Section Room Number	Instructor Last Name	Meeting Days	Start Time -- End Time	Section Enrollment
102	AL	Lincoln Hall	THEAT	Quick	M W F	1200--1250	323
368	AL	Wohlers Hall	141	Ramey	M W	0900--0950	241
230	AL	Smith Memorial Hall	114	Guntzviller	M W	1300--1350	229
277	AL	Lincoln Hall	1000	Tewksbury	T R	0930--1050	82
321	1	Bevier Hall	180	Murphy	M W F	1000--1050	79
304	KDM			Ditewig-Morris		--	52

Now we will apply a secondary sort to the *Course Number* column using the right-click menu option:

5. Right-click anywhere in the **Course Number** column.

6. Select **Sort** from the menu.

7. Select ![A-Z icon] **Ascending.**

Note: The second sort didn't make a major change to the order of the rows because it only affected rows with the same value for *Section Enrollment*.

Managing Sorts

The Advanced option in the sort menu allows you to add, edit, and remove sorts, as well as to change the priority of the sorts applied to a table. Now we will change our sort priority to sort first on Course Number, and next on Section enrollment.

1. Click anywhere in the table.

2. Select the **Analysis** tab, then **Display** sub-tab.

3. Click the **Sort** drop-down menu.

4. Select **Advanced.**

5. Click **Course Number**, which is the bottom sort.

6. Under Priority, click [▲ button]

7. Click **OK.**

Manage Sorts

- Vertical Table: Block 1
  - Section Enrollment
  - **Course Number**

Priority: ▲ ▼

Order: A↓ Ascending ▼

Sort: Add... Remove

Custom Order: Values... Reset

OK   Cancel   Apply
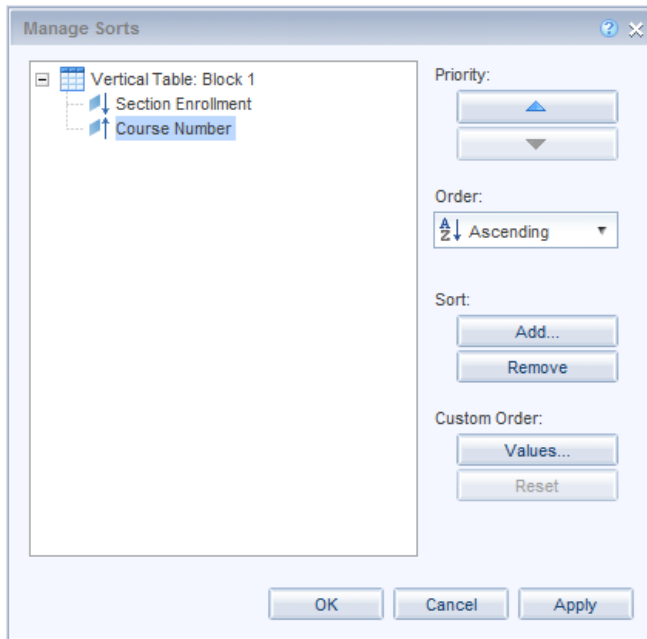
8. Use page navigation to return to page 1

Course Number is now the primary sort, and Section Enrollment is the secondary sort:

Course Number	Section Number	Section Building Name	Section Room Number	Instructor Last Name	Meeting Days	Start Time -- End Time	Section Enrollment
101	B1	Lincoln Hall	1026	Nead	M W F	0900--0950	19
101	B5	Lincoln Hall	1068	Michael	M W F	0900--0950	19
101	C3	Armory	330	Butkowski	M W F	1000--1050	19
101	C4	Lincoln Hall	1062	Devinney	M W F	1000--1050	19
101	C5	Armory	329	Saldivar	M W F	1000--1050	19
101	D3	Armory	330	Al-Ghaithi	M W F	1100--1150	19
101	D4	Lincoln Hall	1062	Yamaguchi	M W F	1100--1150	19

Duplicating and Renaming a Report

It is good practice to first make a copy of a report before making major modifications. Each report within a document has its own tab at the bottom of the editor. Next, we will create a duplicate report so that we can save different variations of the report.

1. Locate the **Report 1 tab** in the bottom left corner of your report window.

2. **Right-click** on the **Report 1** tab to display the pop-up menu.
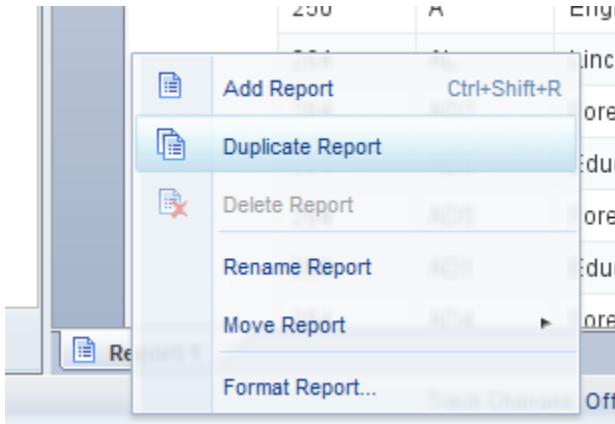
3. Select **Duplicate Report**.
   An exact copy of the report named **Report 1 (1)** is added to the document and is now the active report.

4. Right-click on the **Report 1 (1)** Tab and select **Rename Report** from the menu.
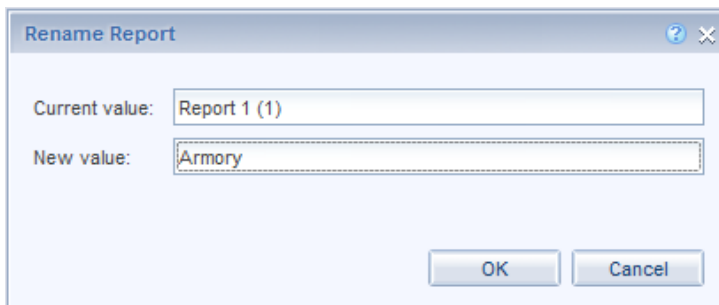
☑   *Note*: Notice when you rename the Report tab, the report title automatically updates.

Applying a Report Filter
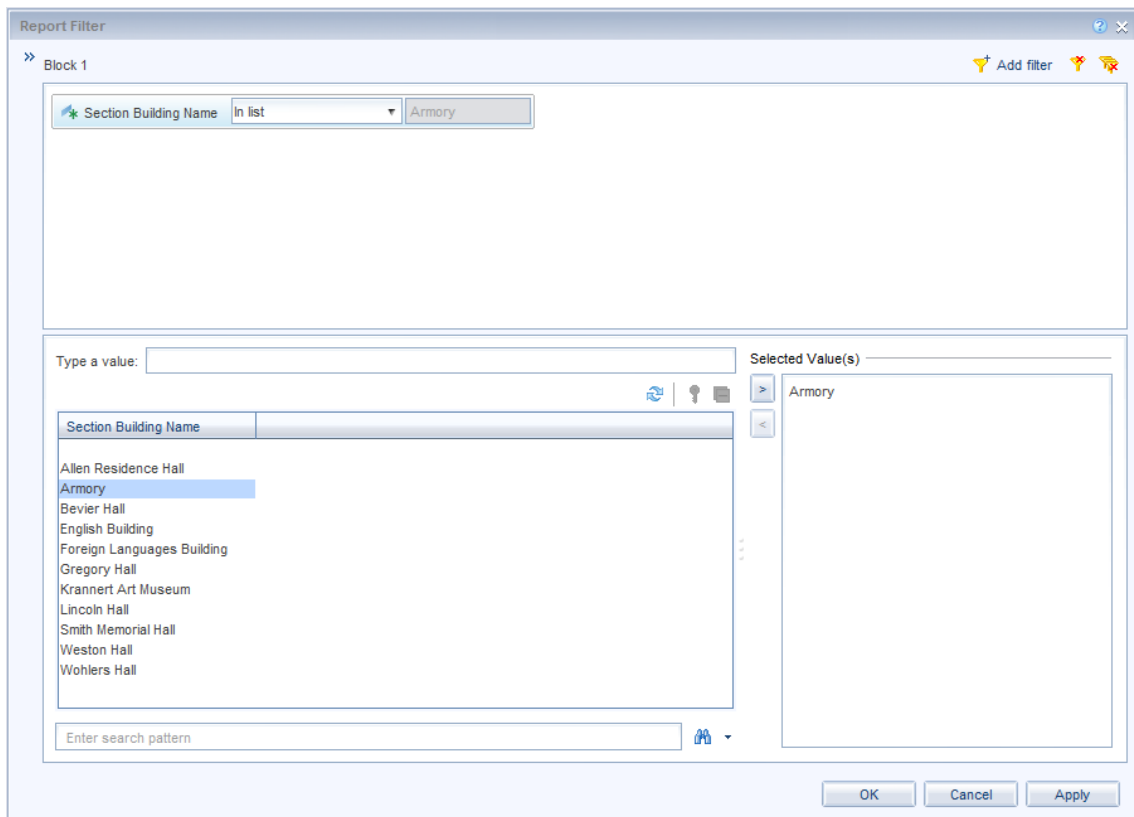
After running a query, you may decide that you want only certain data to be displayed in your report. If you run a report for your college, you may want to separate the report by department. Applying a report filter allows you to run a single query with all the data you need to produce a number of reports. In our case, we only want to show data for the sections held in the *Armory*.

1. Click on the report tab.

2. Click on any value in the **Section Building Name** column.

3. Select the **Analysis** Tab, then the **Filters** sub-tab.

4. Click ▼ **Filter.**

☑   *Note*: You can also right-click in the Section Building Name column, then select **Filter > Add Filter**.

The Report Filter dialog box is displayed:

5. Double-click on **Armory** in the list of values

6. Click **OK** to apply the filter.

The report now displays only data where the *Section Building Name* is *Armory*. Additional filters could be applied to further limit the rows displayed.

Armory

Course Number	Section Number	Section Building Name	Section Room Number	Instructor Last Name	Meeting Days	Start Time -- End Time	Section Enrollment
101	C3	Armory	330	Butkowski	M W F	1000--1050	19
101	C5	Armory	329	Saldivar	M W F	1000--1050	19
101	D3	Armory	330	Al-Ghaithi	M W F	1100--1150	19
101	E3	Armory	330	Al-Ghaithi	M W F	1200--1250	19
101	F3	Armory	241	Yamaguchi	M W F	1300--1350	19
101	H1	Armory	144	Vanhemert	M W F	1400--1450	19
101	P4	Armory	241	Bishop	T R	1100--1220	19
101	B3	Armory	330	Butkowski	M W F	0900--0950	18
101	C6	Armory	242	Ruge-Jones	M W F	1000--1050	18
101	D6	Armory	329	Saldivar	M W F	1100--1150	18
101	J1	Armory	144	Vanhemert	M W F	1500--1550	18
101	Q6	Armory	144	Benson	T R	1230--1350	18

CMN Enrollment   Armory

☑ ***Note***: To remove the filter, select the filtered column, click the arrow to the right of the **Filter** ▽ ▾ icon and select **Remove Filter**.

Inserting a Break

In our example, we would like to display the sum of students enrolled not only in each section, but also a sub-total by Course Number. First we will insert a break on Course Number. Inserting a break will take a large table of data, and create sub-tables to make the information easier to understand.

1. Select the **CMN Enrollment** report.

2. Click anywhere in the **Course Number** column.

3. Click the **Analysis** tab

4. Click the **Break > Add Break**
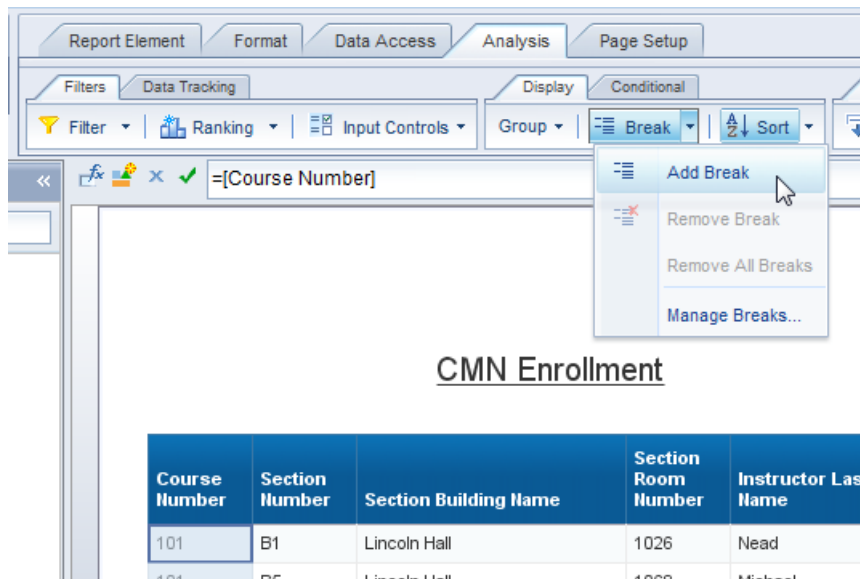
☑ *Note:* Breaks can also be found by right-clicking in the desired column, and selecting **Break > Insert Break** from the right-click menu

Course Number	Section Number	Section Building Name	Section Room Number	Instructor Last Name
102	AL	Lincoln Hall	THEAT	Quick
	DQ	Gregory Hall	329	Wiemer
	EQ	Foreign Languages Building	1128	Wiemer
	IQ	Lincoln Hall	4053	Wiemer
	JQ	Lincoln Hall	1024	Moga
	KQ	Armory	143	Hebert
	MQ	Armory	143	Hebert
	AQ	Armory	143	Hebert
	BQ	Armory	136	Wiemer
	CQ	Gregory Hall	221	Hebert
	FQ	Armory	330	Wiemer
	GQ	Armory	330	Moga
102				

Course Number	Section Number	Section Building Name	Section Room Number	Instructor Last Name
111	D1	Armory	242	Dzurick
	E1	Armory	242	Bacon
	M1	Armory	242	Miric

MN Enrollment   📄 Armory

Track Changes: Off ◄◄ ◄ Page 3 of 3+ ► ►► 100%

Inserting Calculations

Web Intelligence calculations enable you to quickly add information to your report. Many of the calculations only work with numeric data. The type of data determines which calculation functions are available.

The following table shows the available calculations and data types:

Calculation	Object Type	Description
Sum		Calculates the sum of the selected data.
Count		Counts distinct rows.
		Counts all rows.
Average		Calculates the average of the data.
Minimum		Displays the minimum value of selected data.
Maximum		Displays the maximum value of selected data.
Percentage		Displays each row's percentage of the total.

Inserting a Sum

The *Sum* calculation adds the values in a column.

1. Right-click in the **Section Enrollment** column.

2. Select **Insert** > **Sum.**
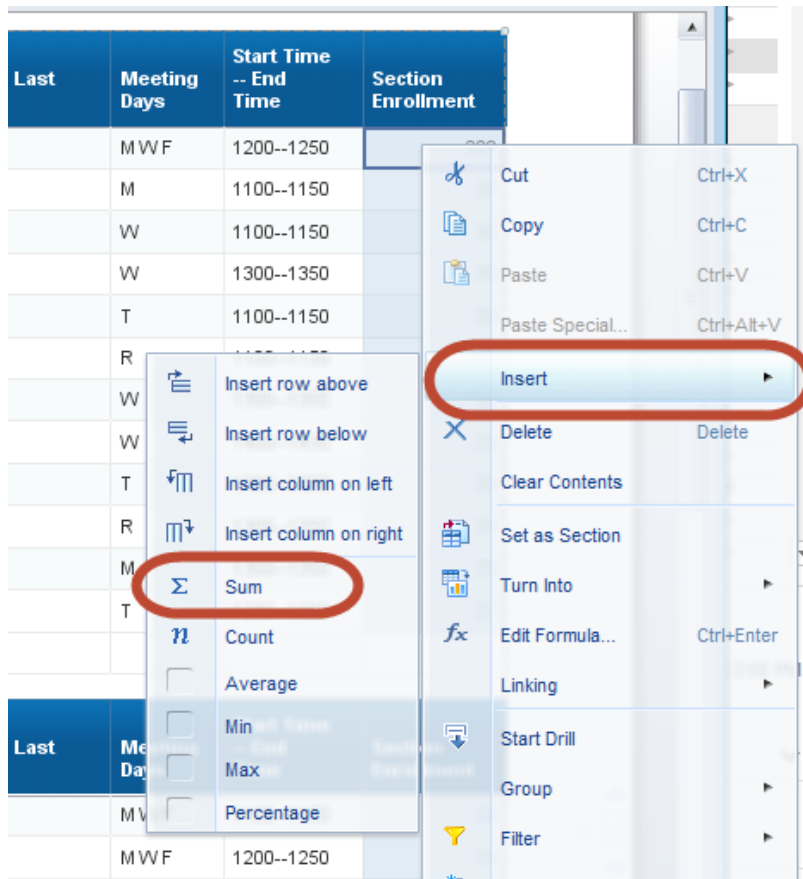
☑   *Note:* Calculations can also be found on the **Analysis** tab, under the **Functions** sub-tab.

The sum of the *Section Enrollment* values is added for each course number. The name of the calculation is added to the previous column, if one exists.

Course Number	Section Number	Section Building Name	Section Room Number	Instructor Last Name	Meeting Days	Start Time -- End Time	Section Enrollment
102	AL	Lincoln Hall	THEAT	Quick	M W F	1200--1250	323
	DQ	Gregory Hall	329	Wiemer	M	1100--1150	30
	EQ	Foreign Languages Building	1128	Wiemer	W	1100--1150	30
	IQ	Lincoln Hall	4053	Wiemer	W	1300--1350	30
	JQ	Lincoln Hall	1024	Moga	T	1100--1150	30
	KQ	Armory	143	Hebert	R	1100--1150	30
	MQ	Armory	143	Hebert	W	1300--1350	30
	AQ	Armory	143	Hebert	W	1400--1450	29
	BQ	Armory	136	Wiemer	T	1300--1350	29
	CQ	Gregory Hall	221	Hebert	R	1300--1350	29
	FQ	Armory	330	Wiemer	M	1300--1350	29
	GQ	Armory	330	Moga	T	1230--1320	27
102						Sum:	646

3. **Save** the document.

Chapter 7: Saving and Sending

In addition to saving a document in the standard file type (.wid), you can also save the file in different formats such as Excel, PDF, CSV, or Text. It is a good practice to save your report first as a Web Intelligence document, and then to save your results to Excel or PDF each time you refresh the report.

Save as Excel

1. On the File tab, click the Save menu icon.

2. Select **Save as**
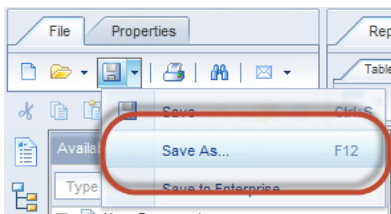
3. In the Files of Type drop-down, select **Excel 2007.**
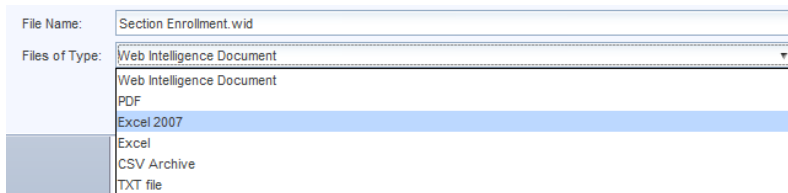
4. Select a location on your computer to save the file. (We will select **Desktop**)

5. Click the **Save** button.

6. **Open** the .xlsx file through Excel.

The Excel file looks like this:

CMN Enrollment

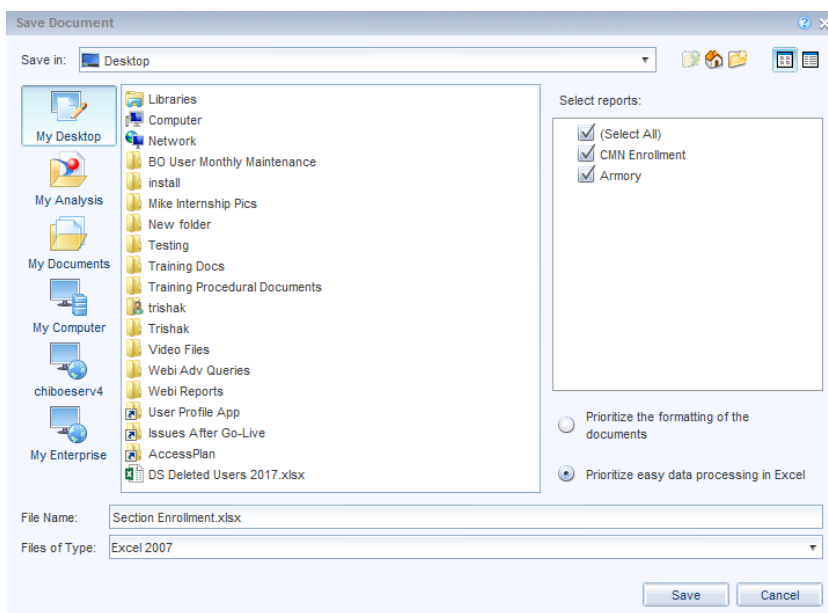| Course Number	Section Number	Section Building Name	Section Room Number	Instructor Last Name	Meeting Days	Start Time -- End Time	Section Enrollment
101	B1	Lincoln Hall	1026	Nead	M W F	0900--0950	19
	B5	Lincoln Hall	1068	Michael	M W F	0900--0950	19
	C3	Armory	330	Butkowski	M W F	1000--1050	19
	C4	Lincoln Hall	1062	Devinney	M W F	1000--1050	19
	C5	Armory	329	Saldivar	M W F	1000--1050	19
	D3	Armory	330	Al-Ghaithi	M W F	1100--1150	19
	D4	Lincoln Hall	1062	Yamaguchi	M W F	1100--1150	19
	E3	Armory	330	Al-Ghaithi	M W F	1200--1250	19
	F2	Lincoln Hall	1051	Alexander	M W F	1300--1350	19
	F3	Armory	241	Yamaguchi	M W F	1300--1350	19
	H1	Armory	144	Vanhemert	M W F	1400--1450	19
	M1	Lincoln Hall	1026	Obradovich	T R	0930--1050	19
	M2	Lincoln Hall	1051	Kenney	T R	0930--1050	19
	M3	English Building	127	Godwin	T R	0930--1050	19
	M4	Lincoln Hall	1062	VanNatta	T R	0930--1050	19
	NN3	Lincoln Hall	1068	Michael	M W F	1300--1350	19
	NN4	Lincoln Hall	1057	Fijalkovich	T R	0930--1050	19
	P1	Lincoln Hall	1026	VanNatta	T R	1100--1220	19
	P2	Lincoln Hall	1051	Costello	T R	1100--1220	19
	P3	Lincoln Hall	1068	Semetko	T R	1100--1220	19
	P4	Armory	241	Bishop	T R	1100--1220	19
	Q2	Lincoln Hall	1051	Gailey	T R	1230--1350	19
	R1	Lincoln Hall	1026	VanNatta	T R	1400--1520	19
	R2	Lincoln Hall	1051	Gailey	T R	1400--1520	19
	R3	Lincoln Hall	1062	Obradovich	T R	1400--1520	19
	Z2	Lincoln Hall		Gailey	T	1830--2050	19
	B2	Lincoln Hall	1051	Bisbee	M W F	0900--0950	18
	B3	Armory	330	Butkowski	M W F	0900--0950	18
	B4	Lincoln Hall	1062	Devinney	M W F	0900--0950	18

CMN Enrollment | Armory | ⊕

7. **Close** the Excel file and return to Web Intelligence.

Save as PDF

Adobe Acrobat Reader has fairly extensive controls for viewing and printing reports.

1. On the File tab, click the Save menu icon.
2. Select **Save as.**
3. In the **File of Types** drop-down menu, select **PDF.**
4. Deselect any reports that you do not wish to save to the PDF document. Each report will be saved with its own bookmark in the PDF.
5. Click **Save.**
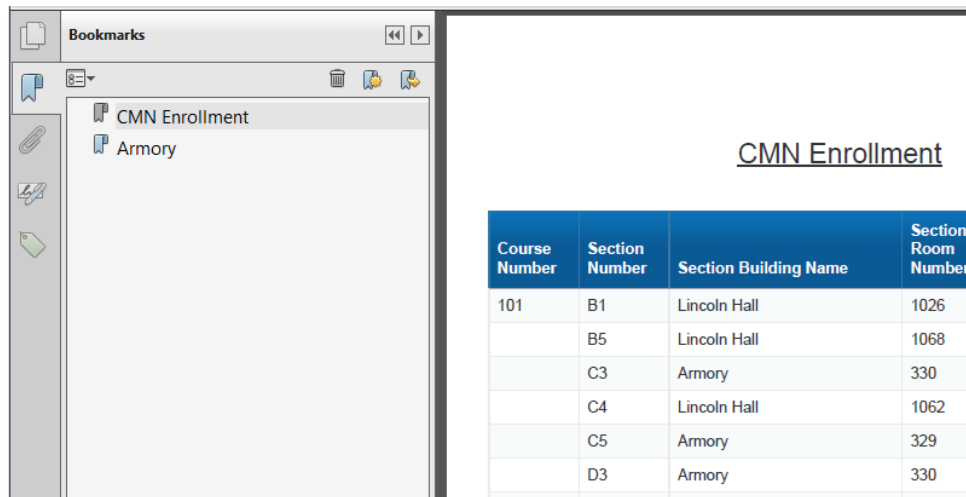
Save as CSV

1. Select the **Data Access** tab, and then the **Tools** sub-tab.
2. Select **Export Data**.
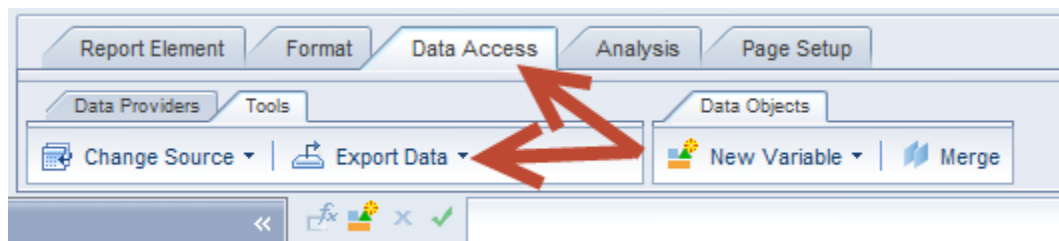
3. Click **Save.**

Saving Documents to infoAdvantage

Web Intelligence offers the option to save your reports to your Favorites folder in infoAdvantage. Reports saved to infoAdvantage can be viewed and refreshed from any computer through our secured Business Objects environment. Some advantages to saving reports to infoAdvantage include:

- Documents are stored in a safe and consistent location for long-term storage of completed documents or templates.

- Documents can be viewed easily from any location through the infoAdvantage website.

- Documents can be shared with others via the **Business Objects Inbox** option or scheduled to run automatically with the **Schedule** option.

1. On the File tab, click the Save menu icon.
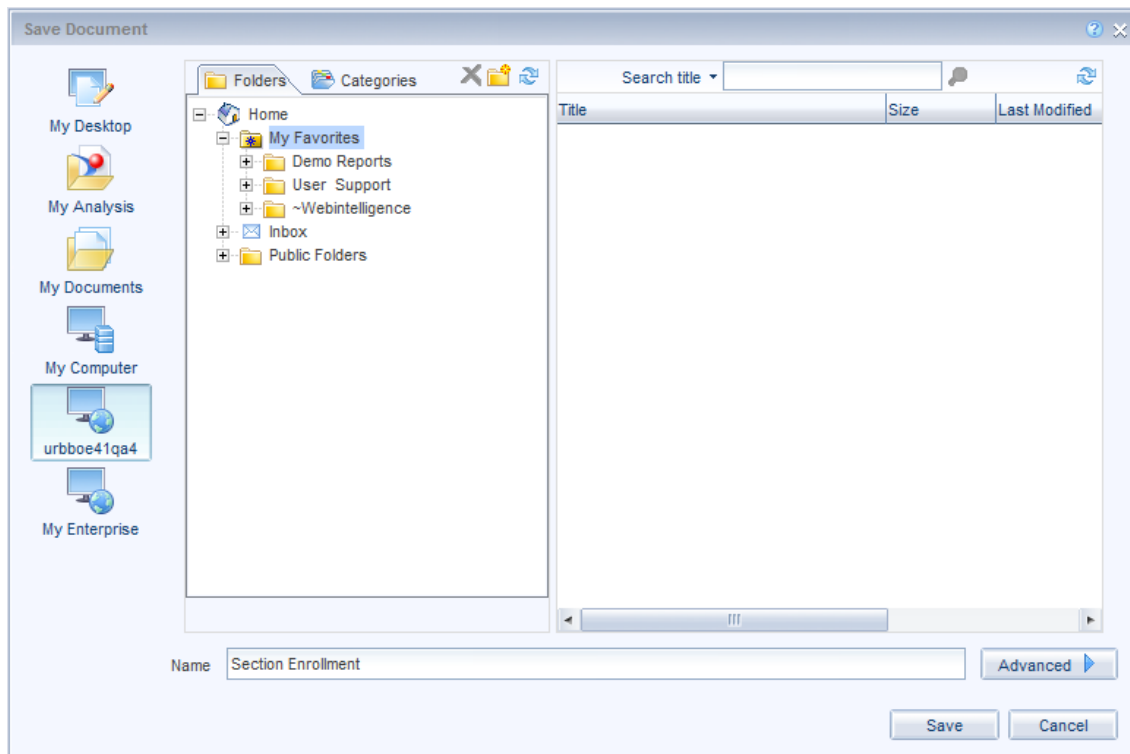
3. Select the **My Favorites** folder.

☑   *Note*: You can also select a sub-folder or **create a new folder** by clicking the 📁 icon.

4. Click **Save.**

5. Close the Document by clicking the lower ⊠ in the upper-right corner of the window.

Opening a Document from infoAdvantage from your Desktop

To retrieve the document from infoAdvantag

1. Web Intelligence Rich Client home page, click the **File Open** drop-down
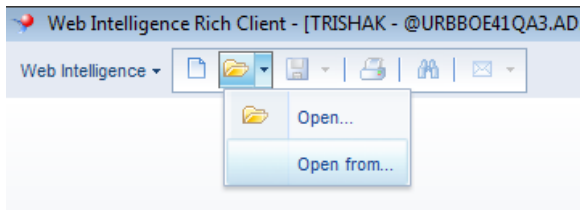
2. Select **Open From.**

   The *Open Document from Server* window is displayed:
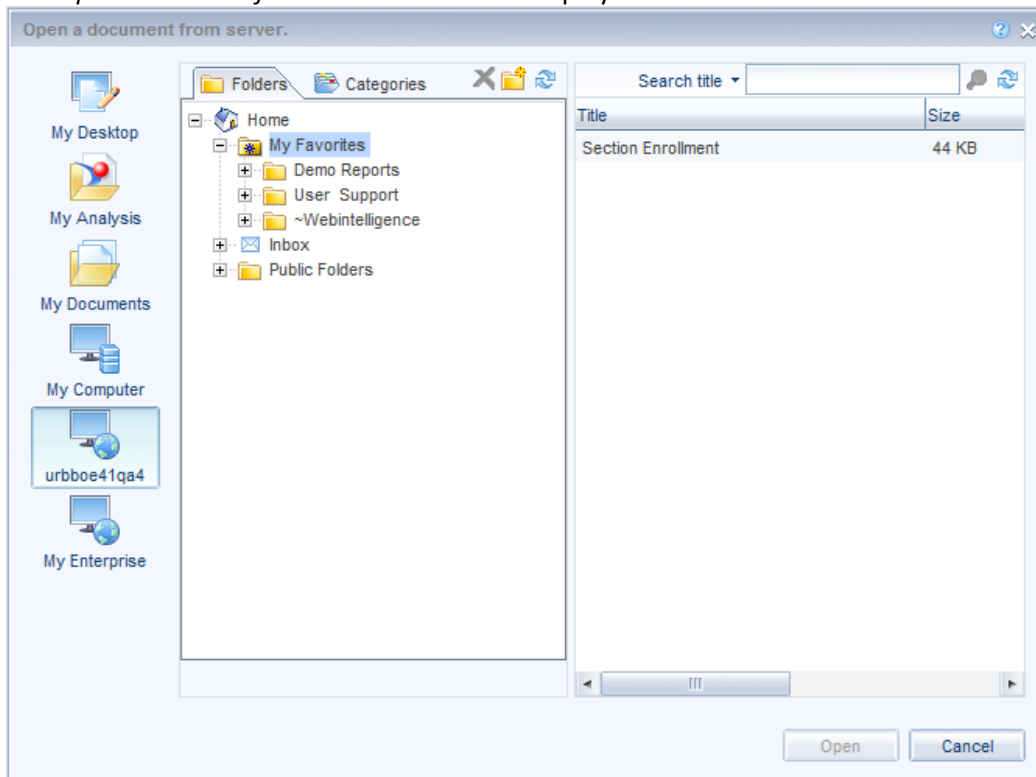
3. Select the **Section Enrollment** document.
4. Click the **Open** button.

Sending a Document via Email

Make sure you have checked the **Save for All Users** and **Remove Document Security** prior to sending by email.

1. Open the **Section Enrollment** document.

2. Click Send my Email ✉ ▾ drop-down menu.

3. Select **Web Intelligence Doc (.Wid)** for the document type to send.

☑ *Note*: You can also choose to send as the document in Excel or .PDF formats.

4. Your default email application appears with the Web Intelligence document inserted as an attachment.

5. Close the document.

6. Close **Web Intelligence.**

Appendix A – Query Filter Operators

The following table helps you to select the operator you need:

Operator	Description	Example
Equal to	Is equal to *one* given value	Year Equal to 2005
Not Equal to	Is different from, or not equal to, *one* given value	Employee Status Code Not Equal to T
Greater than	Is greater than a given value	GL Detail Credit Amount Greater than 100
Greater than or Equal to	Is greater than or equal to a given value	GL Detail Credit Amount Greater than 100
Less than	Is less than a given value	Job Detail Annual Salary Less than 20000
Less than or Equal to	Is less than or equal to a given value	Employees who are 60 or under
Between	Is greater than or equal to the first given value and less than or equal to the second given value	Job Begin Date Between 1/1/2004 12:00:00 AM and 12/31/2004 11:59:59 PM
Not Between	Is less than the first given value or greater than the second given value	Employee Age Not Between 18 and 60
In list	Is equal to any of a list of values	Employee Campus Address Code In list (C1;C2)
Not in list	Is different from all of a list of values	Employee Detail Department Code Not in list (103;714;715)
Is null	Contains empty rows	Employee Campus Email Addr Type CD Is null
Is not null	Does not contain empty rows	Employee Campus Email Addr Type CD Is not null
Matches pattern	Contains the same character(s) as the given pattern	Employee Last Name Matches pattern S%
Different from pattern	Does not contain the same characters as the given pattern	Financial Account Code Different from pattern 9%
Both	Satisfies two conditions on one object	Prior Degree Year Both 2001;2004
Except	Excludes a given value	Employee Status Code Except T

Using In list

You can type your list of values in the text field of the *Type a constant* text box. If you click the **Operand** button, you can also select **Value(s) from list** to select from a list of values. The maximum number of values allowed in a list is 256.

When entering multiple values manually, use a semi-colon (;) to separate each value.

Using Not equal to; Not in list; and Except

Not equal to; Not in list; and *Except* are all operators that exclude certain data from your query results. Note also that you can only specify one value with *Not equal to,* but multiple values with *Not in list*.

Using wildcard characters

Conditions with the *Matches pattern* and *Different from pattern* operators are great for finding lists of similar values, such as customer names beginning with S.

Wildcard Description

%   Replaces several characters, or in the response to a prompt.
          For example, N% returns all values beginning with an N (New York, Nevada, etc.)

_   The underscore character (_) replaces a single character in a constant.
          For example, GR_VE returns Grave, Grove, Greve, etc.

Appendix B – Query Filter Operand Options

The following table helps you select the operand option you need:

Operand Option	Description	Enter by…
Constant	Values that you type. Note that values are case-sensitive and must be entered exactly as they appear in the database otherwise no data will be returned.	Type the values with a separator (semicolon) between each one.
Value(s) from list	Values that you select from the object's list of values	Select **Value(s) from list** option. Select from the populated list of values. Click **Refresh values** if list does not automatically populate.
Prompt	Values that you will select when you run the query	Edit default prompt text in text box. Click **Prompt Properties** for more options.
Results from another query	Use a list generated by another query, for example: a list of UINs from another spreadsheet. Note there is an Oracle limit of 1000 values.	Select **Results from another query** then select the data provider from list.