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(Updated for Intro to Query – Part 3)

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#### 8. The **Criteria** tab should look like this:

Records Query Expressions Prompts Fiel	lds Criteria Ha	aving View SQL Run										
Query Name: ELLELL_CLASS_CRITERIA Description: query class exercise Section Section: Query Class exercise												
Add Criteria Group Criteria Reorder Criteria												
Criteria		Customize   Find   🗖   🛗	First 🚺 1-5 of 5 🚺 Last									
Logical Expression1	Condition Typ	e Expression 2	Edit Delete									
A.EFFDT - Effective Date	Eff Date <=	Current Date	Edit –									
AND A.ACCOUNT_TYPE - Account Type	equal to	E	Edit –									
OR A.ACCOUNT - Account	like	14%	Edit –									
AND A.EFF_STATUS - Status as of Effective	Date equal to	А	Edit –									
AND A.SETID - SetID	equal to	B.SETID - SetID	Edit 📃									
Save Save As New Query Preferences	<u>s Properties Publi</u>	ish as Feed <u>New Union</u>	Return To S									

#### 9. Click the **Run** tab.

Recor	ds Que	ery Expressi	ions Prom	ots Fi	ields	Criteria Having View SQL Run							
View All   Rerun Query   Download to Excel   Download to XML First 🖪 1-100 of 752 🕨 Last													
	SetID	Account	Eff Date	Status	Туре	Descr	Short Desc	SetID	Descr				
1	UOD01	120200	01/01/1951	А	E	PROFESSIONAL STAFF FULL-TIME	PROF FT	UOD01	Expense				
2	UOD01	120201	11/11/2004	1	E	(D)DO NOT USE, USE 120200	PROF FT	UOD01	Expense				
3	UOD01	120299	01/01/1951	Α	E	COMPENSATED ABSENCES	COMP ABSEN	UOD01	Expense				
4	UOD01	120300	01/01/1951	Α	E	PROFESSIONAL STAFF PART-TIME	PROF PT	UOD01	Expense				
5	UOD01	120400	01/01/1951	А	E	SUPPLEMENTAL PAY - PROFESSIONA	SUPPL PR	UOD01	Expense				
6	UOD01	120500	01/01/1951	А	E	OFF-CAMPUS - PROFESSIONAL	OFF-CMP PR	UOD01	Expense				
7	UOD01	120700	01/01/1951	А	E	DISABILITY PAY PROFESSIONALS	DISABILITY	UOD01	Expense				
8	UOD01	120800	05/04/2010	A	E	POST DOC/FACULTY FELLOW	POSTDOC	UOD01	Expense				

### **Reordering Criteria**

The above results include Accounts with a **Status** of "I", even though one criterion says **EFF\_STATUS equal to** "**A**". The order of the criteria caused this problem; in this case it was the placement of the "OR condition". The EFF\_STATUS criterion must be moved above the ACCOUNT criterion that has the OR condition.

10. Click on Criteria tab and click Reorder Criteria button

Records Quer	y Expressions Prompts Fields	Criteria Having	View SQL Run									
Query Name: EL	LELL_CLASS_CRITERIA D	escription: query c	ass exercise	S Fee	d							
Add Criteria Group Criteria Reorder Criteria												
Criteria			Customize   Find   🗖   🛗	First 🚺 1-5 of 5 🚺 Last								
Logical	Expression1	Condition Type	Expression 2	Edit Delete								
~	A.EFFDT - Effective Date	Eff Date <=	Current Date	Edit –								
AND 🗸	A.ACCOUNT_TYPE - Account Type	equal to	E	Edit 📃								
OR 🗸	A.ACCOUNT - Account	like	14%	Edit 📃								
AND	A.EFF_STATUS - Status as of Effective Date	equal to	A	Edit –								
AND 🗸	A.SETID - SetID	equal to	B.SETID - SetID	Edit 📃								

### 11. In the Edit Criteria Ordering page, move the A.EFF\_STATUS criterion by typing 2 in New Position

### 12. Click **OK**

Edit Criteria Ordering Reorder criteria by entering position numbers on the left. Rows left blank or assigned a 0 will be automatically assigned a position.												
Edit Criteria Ordering Customize   Find   View All   🖾   🛗 First 🚺 1-5 of 5 💟 Last												
New Position	Position	Expression1	Condition Type	Expression 2								
	1	A.EFFDT - Effective Date	Eff Date <=	Current Date								
	2	A.ACCOUNT_TYPE - Account Type	equal to	E								
	3	A.ACCOUNT - Account	like	14%								
2	4	A.EFF_STATUS - Status as of Effective Date	equal to	A								
	5	A.SETID - SetID	equal to	B.SETID - SetID								
ОК	Cano	el										

13. The **Criteria** tab should look like this:

F	Records Que	ery Expressions Prompts Fields (	Criteria Having	View SQL Run	
	Query Name: E	ELLELL_CLASS_CRITERIA	escription: query c	lass exercise	S Feed -
	Add Criteria	Group Criteria Reorder Criteria			
	Criteria			Customize   Find   🗖   🛗 🛛 First 🗹	1-5 of 5 🚺 Last
	Logical	Expression1	Condition Type	Expression 2	Edit Delete
		A.EFFDT - Effective Date	Eff Date <=	Current Date	Edit –
<	AND 🗸	A.EFF_STATUS - Status as of Effective Date	>equal to	A	Edit –
	AND 💊	A.ACCOUNT_TYPE - Account Type	equal to	E	Edit –
	OR 🗸	A.ACCOUNT - Account	like	14%	Edit –
	AND 💊	A.SETID - SetID	equal to	B.SETID - SetID	Edit –
	Save	Save As <u>New Query</u> Preferences Pro	perties Publish as	Feed New Union	Return To

14. Click the **Run** tab (compare with results on page 40, #9)

Reco	rds Qu	ery Exp	pressions	Prom	npts Fi	elds Criter	ia Having View SQL	Run		
Viev	v All   Rerur	n Query   D	ownload to Ex	(cel	Download	to XML			First	💶 1-100 of 579 🕨 La
	SetID	Account	Eff Date	(St	atus Type	e /	Account Description	Short Desc	SetID	Account Type Descr
1	UOD01	140000	01/01/1951	/ A \	E	(BUDGET O	NLY) SUPPLIES & EXP	S & E BUD	UOD01	Expense
2	UOD01	140101	01/01/1951	А	E	(D)DO NOT	USE, USE 140100	ATHL SUP	UOD01	Expense
3	UOD01	140101	11/12/2004	1	E	(D)DO NOT	USE, USE 140100	ATHL SUP	UOD01	Expense
4	UOD01	141001	01/01/1951	Α	E	(D)DO NOT				pense
5	UOD01	141001	11/12/2004	Α	E	(D)DO NOT	Note that the Sta	<b>tus</b> column		pense
6	UOD01	141001	11/19/2004	1	E	(D)DO NOT	contains some ro	ws with I (Ina	active)	pense
7	UOD01	141201	11/12/2004	1	E	(D)DO NOT	when one criterio	n states		pense
8	UOD01	141201	01/01/1951	A	E	(D)DO NOT				pense
9	UOD01	141401	11/12/2004	$\langle i \rangle$	E	(D)DO NOT	EFF_STATUS equal to A.			pense
1.0	110004			Ÿ	-	(D)DO HOT	There is a problem	n with the cr	itorial	
							niere is u problen	with the th	lenu!	

## **Grouping Criteria**

- 15. Click the Criteria tab
- 16. Click the Group Criteria button

Records	Query	Expressions	Prompts	Fields	Criteria	Having	View SQL	Run					
Query Nan	ne: EL_	_CLASS_JOINS2		ſ	Description	1: query cl	lass exercise			Feed			
Add Crit	Add Criteria Group Criteria Reorder Criteria												
Criteria							Customize   Find	الله القرا	First 🚺 1-5 of	5 🕨 Last			
Logical		Expression1			Condition	Туре	Expression 2		Edit	Delete			
	<b>~</b> ,	A.EFFDT - Effective I	Date		Eff Date	=	Current Date		Edit				
AND	<b>~</b> /	A.EFF_STATUS - Sta	atus as of Effe	ective Date	equal to		A		Edit	-			
AND	<b>~</b> /	A.ACCOUNT_TYPE	- Account Typ	e	equal to		E		Edit	-			
OR	<b>~</b> /	A.ACCOUNT - Accou	unt		like		14%		Edit	-			
AND	<b>~</b> ,	A.SETID - SetID			equal to		B.SETID - Set	D	Edit	-			

17. Add parenthesis as shown below to group the criteria for ACCOUNT\_TYPE and ACCOUNT.

### 18. Click **OK**

Edit Criteri	dit Criteria Grouping											
Use the edit boxes to enter parenthesis for each criteria. Use only the '(' and ')' characters.												
Edit Criteria Grouping Customize   Find   🖽 🛛 First 🚺 1-5 of 5 💟												
Logical	Left Paren	Expression1	Condition Type	Expression 2	Right Paren							
		A.EFFDT - Effective Date	Eff Date <=	Current Date								
AND		A.EFF_STATUS - Status as of Effective Date	equal to	A								
AND (		A.ACCOUNT_TYPE - Account Type	equal to	E								
OR		A.ACCOUNT - Account	like	14%								
AND		A.SETID - SetID	equal to	B.SETID - SetID								
ОК	OK Cancel											

- 19. Click the Run tab
- 20. Grouping the criteria has solved the problem. Note the number of rows returned is far less than on the bottom of page 41.

Re	ecor	ds Qu	iery Ex	pressions	Рго	mpts	s F	ields Criteria Having View SQL	Run						
V	View All   Rerun Query   Download to Excel   Download to XML First 1-100 of 463 Last														
		SetID	Account	Eff Date	Â	atus	Туре	Account Description	Short Desc	SetID	Account Type Descr				
•	1	UOD01	150501	12/01/2004	A		E	(D)DO NOT USE, USE 150500	HAULING	UOD01	Expense				
1	2	UOD01	152301	11/12/2004	А		E	(D)DO NOT USE, USE 152300	BUILDINGS-	UOD01	Expense				
1	3	UOD01	199703	11/12/2004	А		E	(D)DO NOT USE, USE 199700	OP TRSFS	UOD01	Expense				
4	4	UOD01	146900	06/21/2011	А		E	(D)PRT SPT-EMPLYEE-FICA-NO1099	DON'T USE	UOD01	Expense				
1	5	UOD01	149814	01/01/1951	Α		E	1743 FUNDING FOR UD (EXPENSE)	1743 FUND	UOD01	Expense				
(	6	UOD01	121600	01/01/1951	А		E	ACADEMIC CENTER DIRECTORS	ACD CT DIR	UOD01	Expense				
1	7	UOD01	142850	01/01/1951	А		E	ACADEMIC TECHNOLOGY SERVICES	ATS	UOD01	Expense				
1	3	UOD01	158700	01/01/1951	А		E	ACCRETION EXP (G/A USE ONLY)	ACCRETION	UOD01	Expense				
9	9	UOD01	164022	01/01/1951	A		E	ACOUSTICAL CEILINGS	ACOUS CEIL	UOD01	Expense				

21. Click Fields tab, <u>Save As</u> link, and OK button to save your query.

# **Changing a Column Label**

- 22. Click the **Fields** tab.
- 23. Click the Edit button across from the A.DESCR Description entry.

Records Query Expressions Prompts Fie	elds 🔾	Criteria	На	iving	View SQL Run							
Query Name: ELLELL_CLASS_CRITERIA Description: query class exercise												
View field properties, or use field as criteria in query statement.												
Fields				Custo	mize   Find   View All   🗷	Firs 🖬	st 🚺 1-9 of	9 🕨 Last				
Col Record.Fieldname	Format	<u>Ord</u>	<u>XLAT</u>	<u>Agg</u>	Heading Text	Add Criteria	Edit	Delete				
1 A.SETID - SetID	Char5				SetID	94	Edit	-				
2 A.ACCOUNT - Account	Char10	1			Account	9 <mark>4</mark>	Edit	-				
3 A.EFFDT - Effective Date	Date				Eff Date	9	Edit	-				
4 A.EFF_STATUS - Status as of Effective Date	Char1		N		Status	9	Edit	-				
5 A.ACCOUNT_TYPE - Account Type	Char1				Туре	9	Edit	-				
6 A.DESCR - Description	Char30				Descr	9. (	Edit	_				
7 A.DESCRSHORT - Short Description	Char10				Short Desc	9	Edit	-				
8 B.SETID - SetID	Char5				SetID	9	Edit	-				
9 B.DESCR - Description	Char30				Descr	94	Edit	-				

24. On the Edit Field Properties page:

- Heading box click the radio button for Text
- Heading Text field delete the existing text and type: Account Description
- Click OK

Edit Field Properties Field Name: A.DESCR - Description	n
Heading No Heading ORFT Short Text ORFT Long Heading Text: Account Description *Unique Field Name: A.DESCR OK Cancel	Aggregate None Sum Count Min Max Average

25. Click the **Run** tab.

Note how long it takes the query to run.

You should see a page similar to the following:

Reco	rds Que	ery Exp	ressions	Prompts	Field	s Criteria Having View SQL Run	)		
Viev	v All   Rerun	Query   Do	First	1-100 of	579 🕑 <u>Las</u>				
	SetID	Account	Eff Date	Status	Туре	Account Description	Short Desc	SetID	Descr
1	UOD01	120200	01/01/1951	Α	E	PROFESSIONAL STAFF FULL-TIME	PROF FT	UOD01	Expense
2	UOD01	120299	01/01/1951	Α	E	COMPENSATED ABSENCES	COMP ABSEN	UOD01	Expense
3	UOD01	120300	01/01/1951	Α	E	PROFESSIONAL STAFF PART-TIME	PROF PT	UOD01	Expense
4	UOD01	120400	01/01/1951	Α	E	SUPPLEMENTAL PAY - PROFESSIONA	SUPPL PR	UOD01	Expense
5	UOD01	120500	01/01/1951	Α	E	OFF-CAMPUS - PROFESSIONAL	OFF-CMP PR	UOD01	Expense
6	UOD01	120700	01/01/1951	Α	E	DISABILITY PAY PROFESSIONALS	DISABILITY	UOD01	Expense
7	UOD01	120800	05/04/2010	Α	E	POST DOC/FACULTY FELLOW	POSTDOC	UOD01	Expense
8	UOD01	121000	01/01/1951	Α	E	CHAIRPERSONS	CHAIRPERSO	UOD01	Expense
9	UOD01	121100	01/01/1951	А	E	FACULTY FULL-TIME (BARGAINING	FACULTY FT	UOD01	Expense

26. Click the **Fields** tab and click the **Save As** link.

Records Query Expressions Prompts Fie	elds (	Criteria	Ha	aving	View SQL Run			
Query Name: ELLELL_CLASS_CRITERIA Description: query class exercise Section Section: Query class exercise								
View field properties, or use field as criteria in query statement.								
Fields				Custo	mize   Find   View All   🗖	l 🔡 🛛 Firs	st 🚺 1-9 of	f 9 🕨 Last
Col Record.Fieldname	Format	<u>Ord</u>	<u>XLAT</u>	<u>Agg</u>	Heading Text	Add Criteria	Edit	Delete
1 A.SETID - SetID	Char5				SetID	94	Edit	-
2 A.ACCOUNT - Account	Char10	1			Account	<b>%</b>	Edit	-
3 A.EFFDT - Effective Date	Date				Eff Date	9	Edit	-
4 A.EFF_STATUS - Status as of Effective Date	Char1		N		Status	9	Edit	-
5 A.ACCOUNT_TYPE - Account Type	Char1				Туре	94	Edit	-
6 A.DESCR - Description	Char30				Account Description	<b>%</b>	Edit	-
7 A.DESCRSHORT - Short Description	Char10				Short Desc	<b>%</b>	Edit	-
8 B.SETID - SetID	Char5				SetID	<b>%</b>	Edit	-
9 B.DESCR - Description	Char30				Descr	<b>%</b>	Edit	-
See Save As New Query Preferences	Prope	rties	Publis	h as F	eed <u>New Union</u>			Return To Sea

27. Highlight the existing text in the **Query** name field. Type: **xxx\_class\_joins** (where **xxx** represents your initials).

### 28. Click **OK**.

--End of Exercise-

### **Reordering Fields**

You can easily arrange the order of rows and columns as you would like them to appear when you run a query. In the following exercise, you will follow steps to reorder fields in the query you are creating.

### **Exercise 13—How to Reorder Fields**

1. If necessary, click the **Fields** tab. You should see a page similar to the following:

Records Query Expressions Prompts Fie	elds 🚺 🤇	Criteria	Ha	aving	View SQL Run				
Query Name: ELLELL_CLASS_JOINS Description: query class exercise ST Feed ~									
View field properties, or use field as criteria in query statement.									
Fields				Custo	omize   Find   View All   🗷	I∣ <u>₩</u> Firs	st 🚺 1-9 of	r 9 🗈 Last	
Col Record.Fieldname	<b>Format</b>	<u>Ord</u>	<u>XLAT</u>	<u>Agg</u>	Heading Text	Add Criteria	Edit	Delete	
1 A.SETID - SetID	Char5				SetID	94	Edit	-	
2 A.ACCOUNT - Account	Char10	1			Account	9	Edit	-	
3 A.EFFDT - Effective Date	Date				Eff Date	9	Edit	-	
4 A.EFF_STATUS - Status as of Effective Date	Char1		N		Status	9	Edit	-	
5 A.ACCOUNT_TYPE - Account Type	Char1				Туре	°f	Edit	-	
6 A.DESCR - Description	Char30				Account Description	P <mark>4</mark>	Edit	-	
7 A.DESCRSHORT - Short Description	Char10				Short Desc	9	Edit	-	
8 B.SETID - SetID	Char5				SetID	9	Edit	-	
9 B.DESCR - Description	Char30				Descr	P.	Edit	-	
Save Save As New Query Preferences	Prope	r <u>ties</u>	Publis	h as F	eed <u>New Union</u>			Return To Se	

2. Click the **Reorder/Sort** Reorder/Sort button.

You should see the Edit Field Ordering page similar to the following:

Edit Field C	Ordering			
Reorder colun number. Char or enter a 0.	nns by ent ige the ord	ering column numbers on the left. Columns left blank or a ler by number by entering numbers on the right. To remov	ssigned a 0 will be auto e an order by number, l	matically assigned a leave the field blank
Edit Field Ord	dering	Customize   Find   View	All 🗖 🛗 🛛 First 🖡	1-9 of 9 🕨 Last
New Column	Column	Record.Fieldname	Order By Descending	New Order By
	1	A.SETID - SetID		
	2	A.ACCOUNT - Account	1	1
	3	A.EFFDT - Effective Date		
	4	A.EFF_STATUS - Status as of Effective Date		
	5	A.ACCOUNT_TYPE - Account Type		
	6	A.DESCR - Description		
	7	A.DESCRSHORT - Short Description		
	8	B.SETID - SetID		
	9	B.DESCR - Description		
ОК		Cancel		

The first column labeled **New Column** determines the left to right order of the columns.

3. Type the values 1, 2 and 3 in this column as shown in the following sample page:

enter a 0. lit Field Ord	lerina				
ew Column	Column	Customize   Find   View	Order By	Descending	1-9 of 9 Last New Order By
	1	A.SETID - SetID			
(1	) 2	A.ACCOUNT - Account	1		1
	3	A.EFFDT - Effective Date			
	4	A.EFF_STATUS - Status as of Effective Date			
	5	A.ACCOUNT_TYPE - Account Type			
2	6	A.DESCR - Description			
3	5 7	A.DESCRSHORT - Short Description			
	8	B.SETID - SetID			
	9	B.DESCR - Description			

The right column labeled **New Order By** determines how to sort *rows of data*.

(Note: PS sorts numbers before alpha characters.)

4. Sort the rows so that is **A.EFF\_STATUS – Status as of Effective Date** the first row and **A.ACCOUNT -Account** is the second row by typing the values as shown below:

Edit Field O Reorder colum number. Chan, or enter a 0	ordering ons by entr ge the ord	ering column numbers on the left. Columns left blank or a er by number by entering numbers on the right. To remov	ssigned a ( e an order	) will be autom by number, le	natically assigned a eave the field blank
Edit Field Ordering		Customize   Find   View	AIL 🗖 🛔	🛛 🛛 🖬	1-9 of 9 🚺 Last
New Column	Column	Record.Fieldname	Order By	Descending	New Order By
	1	A.SETID - SetID			
1	2	A.ACCOUNT - Account	1		2
	3	A.EFFDT - Effective Date			
	4	A.EFF_STATUS - Status as of Effective Date			
	5	A.ACCOUNT_TYPE - Account Type			
2	6	A.DESCR - Description			
3	7	A.DESCRSHORT - Short Description			
	8	B.SETID - SetID			
	9	B.DESCR - Description			
ОК		Cancel			

5. Click **OK**.

- 6. Click on Criteria tab
- 7. Remove the criterion for **A. EFF\_STATUS equal to A** using the delete button

Records	Quer	y Expressions Prompts Fields (	Criteria Having	View SQL Run	
Query Nam	ne: El	LELL_CLASS_JOINS D	escription: query c	S Feed -	
Add Crite	eria	Group Criteria Reorder Criteria			
Criteria				Customize   Find   🗖   🏙	First 🚺 1-5 of 5 🚺 Last
Logical		Expression1	Condition Type	Expression 2	Edit Delete
	~	A.EFFDT - Effective Date	Eff Date <=	Current Date	Edit
AND	~	A.EFF_STATUS - Status as of Effective Date	equal to	A	Edit
AND	~	A.ACCOUNT_TYPE - Account Type	equal to	E	Edit
OR	~	A.ACCOUNT - Account	like	14%	Edit –
AND	~	A.SETID - SetID	equal to	B.SETID - SetID	Edit 📃
Save		Save As New Query Preferences Pro	perties Publish as	Feed New Union	Return T

- 8. Click the **Run** tab.
- 9. You should see a page similar to the following results.

Record	ds Que	ry Expressions Prompts Fields Criteria	a Having Vi	iew SC	Run				
View	All   Rerun	Query   Download to Excel   Download to XML				F	irst 🔳	1-100 of §	579 🕨 Last
	Account	Account Description	Short Desc	SetID	Eff Date	Status	Туре	SetID	Descr
1	120200	PROFESSIONAL STAFF FULL-TIME	PROF FT	UOD01	01/01/1951	А	E	UOD01	Expense
2	120299	COMPENSATED ABSENCES	COMP ABSEN	UOD01	01/01/1951	А	E	UOD01	Expense
3	120300	PROFESSIONAL STAFF PART-TIME	PROF PT	UOD01	01/01/1951	Α	E	UOD01	Expense
4	120400	SUPPLEMENTAL PAY - PROFESSIONA	SUPPL PR	UOD01	01/01/1951	А	E	UOD01	Expense
5	120500	OFF-CAMPUS - PROFESSIONAL	OFF-CMP PR	UOD01	01/01/1951	Α	E	UOD01	Expense
6	120700	DISABILITY PAY PROFESSIONALS	DISABILITY	UOD01	01/01/1951	Α	E	UOD01	Expense
7	120800	POST DOC/FACULTY FELLOW	POSTDOC	UOD01	05/04/2010	Α	E	UOD01	Expense
8	121000	CHAIRPERSONS	CHAIRPERSO	UOD01	01/01/1951	А	E	UOD01	Expense
9	121100	FACULTY FULL-TIME (BARGAINING	FACULTY FT	UOD01	01/01/1951	А	E	UOD01	Expense
10	121200	FACULTY PART-TIME	FACULTY PT	UOD01	01/01/1951	А	E	UOD01	Expense
11	121300	FACULTY SUMMER SUPPLEMENT	FAC SMR	UOD01	01/01/1951	Α	E	UOD01	Expense
12	121400	SUPPLEMENTAL PAY-FACULTY	SUPPL FAC	UOD01	01/01/1951	А	E	UOD01	Expense
13	121500	OFF CAMPUS FACULTY	OFF CMP FC	UOD01	01/01/1951	Α	E	UOD01	Expense
14	121600	ACADEMIC CENTER DIRECTORS	ACD CT DIR	UOD01	01/01/1951	Α	E	UOD01	Expense
15	121700	SALARIED STAFF - TEACHING	SAL ST TC	UOD01	01/01/1951	А	E	UOD01	Expense
16	121800	SUMMER FAC ADMIN/RESEARCH	SMR FAC	UOD01	01/01/1951	Α	E	UOD01	Expense
17	121900	SUMR FAC-NO RETIREMENT	SUMR FAC	UOD01	01/01/1951	А	E	UOD01	Expense
18	122200	GRAD TUIT CHG ONLY(O/H)	GRD TUIT	UOD01	01/01/1951	Α	E	UOD01	Expense

Note that the columns are now in a new order and that the rows of data are sorted by Status (A's first and then I's) and then by Account.

- 10. Click the Fields tab.
- 11. Click the Save As link.
- 12. Click **OK**.

--End of Exercise--

### **Aggregate Functions and Having Criteria**

An aggregate function is a special type of operator that returns a single value based on multiple rows of data. When your query includes one or more aggregate functions, PS Query collects related rows and displays a single row that summarizes their contents.

For example, you might want to sum the Amount for each Chartfield1 (Purpose) in the UOD\_TRANS\_DTL record. That is, you want your results to have one row for each unique Purpose and to display the sum of Amount for each Purpose. You would not want multiple rows for each Purpose, even though the UOD\_TRANS\_DTL record has many such multiple rows.

#### Exercise 14—How to Use Aggregate Functions, Part 1 (Using "Sum")

In this exercise, you will create a new query to illustrate a simple use of the Aggregate function. You will sum the Amount for each Purpose in the UOD\_TRANS\_DTL record.

- 1. Navigate to the Query Manager Search page. (Click Reporting Tools, then click Query Manager)
- 2. Click the **<u>Create New Query</u>** link

Query Manager							
Enter any information you have and click Search. Leave fields blank for a list of all values.							
Find an Existing Query							
*Search By: Query Name V begins with							
Search Advanced Search							
Find an Existing Query   Create New Query							

- 3. The Find an Existing Record Search page will appear
- 4. In the **Search For** field, type: **UOD TRANS** and then click **Search**.
- 5. Click the Add Record link for the record named UOD\_TRANS\_DTL



- 6. A list of fields in the record will be displayed. Click the check box next to the following 7 fields:
  - FISCAL\_YEAR Fiscal Year
  - ACCOUNTING\_PERIOD Accounting Period
  - ACCOUNT Account
  - CHARTFIELD1 Purpose
  - LEDGER Ledger (not shown in picture, you will have to scroll down.)
  - AMOUNT Amount (not shown in picture, you will have to scroll down.)
  - UOD\_CHRTFLD1\_DESCR Description (not shown in picture, you will have to scroll down.)

Records	Query Expressions Prompts Fields Criteria	Having View SQL Run
Query Name:	New Unsaved Query Desc	ription:
Click folder ne records by cli	ext to record to show fields. Check fields to add to query. Unchecking the records tab. When finished click the fields tab.	ck fields to remove from query. Add additional $\frac{2}{2}$
Chosen Rec	ords	
Alias Recor	d	
🗁 a uod_	TRANS_DTL - UOD Transaction Detail GL	Hierarchy Join –
	Check All Uncheck All	
Fields		
	➢ BUSINESS UNIT - Business Unit	9.
	FISCAL_YEAR - Fiscal Year	9
	ACCOUNTING_DT - Accounting Date	94
	ACCOUNTING_PERIOD - Accounting Period	94
	▷ ACCOUNT - Account	Join GL ACCOUNT TBL -
	▷ DEPTID - Department	Join DEPT TBL -
		Departments
	FUND_CODE - Fund Code	Join FUND TBL - Fund Table Y
	CLASS_FLD - Class Field	Join CLASS CF TBL - Class V4
	▷ PROGRAM_CODE - Program Code	Join PROGRAM_TBL -
	BUDGET_REF - Budget Reference	Program Table Join BUD REF TBL - Budget 👫
	➢ AFFILIATE INTRA1 - Fund Affiliate	Reference Table
	CHARTFIELD1 - Purpose	Join CHARTFIELD1 TBL -
	CHARTFIELD2 - Source	Chartfield1 Join CHARTFIELD2 TBL -

- 7. Click the **Fields** tab to confirm that the seven fields have been added.
- 8. Click the **Criteria** tab.
- 9. Click the Add Criteria button.

Note - This is the alternative way to add criteria, especially when a field was NOT selected in the Query tab to display in your query results.

Records Que	ery Expre	ssions Pro	mpts Fields	Criteria	Having \	view SQL	Run	
Query Name: N	New Unsaved	Query		Descript	ion:			
Add Criteria	No criteria	a have been ad	ded yet.					
Save	Save As	New Query	Preferences	Properties	Publish as Fee	d <u>New I</u>	<u>Union</u>	

10. In the **Choose Record and Field** box, click the magnifying glass.

Edit Criteria Properties	
Choose Expression 1 Type © Field ○ Expression	Expression 1 Choose Record and Field Record Alias.Fieldname:
*Condition Type:	equal to V
Choose Expression 2	Expression 2
	Define Constant
O Field O Expression	Constant:
Constant	
O Prompt	
O Subquery	

11. You should see a page that looks this:

Select a r	record to show fields for	Customize   Find   🚨   🛗 First	🛾 1 of 1 🖸 Las				
Alias	Record	Record Description	Show Fields				
A	UOD_TRANS_DTL	UOD Transaction Detail GL	Show Field				
Select a f	field <u>Custon</u> ESS UNIT - Business Unit	vize   <u>Find   View All</u>   <sup>III</sup>   <sup>IIII</sup> First 🚺 1-50 of 55 🔽 <u>Last</u>					
A.FISCAL	L YEAR - Fiscal Year						
A.ACCOUNTING DT - Accounting Date							
A.ACCOUNTING PERIOD - Accounting Period							
A.ACCOUNT - Account							

- 12. Click the A.BUSINESS\_UNIT Business Unit.
- 13. Keep the  ${\mbox{Condition Type}}$  field as "equal to."
- 14. In the **Define Constant** box, type: **UOD01**. Your page should look like this:

Edit Criteria Properties	
Choose Expression 1 Type © Field ○ Expression	Expression 1 Choose Record and Field Record Alias.Fieldname:  A.BUSINESS_UNIT - Business Uni
*Condition Type: Choose Expression 2	equal to V Expression 2
Type Field Expression Constant Prompt Subquery	Define Constant Constant: UOD01
OK	

15. Click **OK** 

Your Criteria page will look like this:

	Records Query	Expressions Pro	ompts Fields	Criteria	Havir	ng View SC	L Run			
	Query Name: Nev	w Unsaved Query		Descriptio	on:					Feed -
	Add Criteria	Group Criteria								
	Criteria					Customize	<u>Find</u>   🗖   🖁	First	🚺 <sub>1 of 1</sub>	Last
L .	Logical	Expression1		Condition Typ	<u>e</u>	Expression 2			Edit	Delete
	×	A.BUSINESS_UNIT - Bu	usiness Unit	equal to		UOD01			Edit	-
	Save	Save As <u>New Query</u>	Preferences	Properties	Publish	as Feed	New Union			Return 1

16. Click on the **Fields** tab, you will be adding criteria for these three fields:

- Fiscal Year
- Accounting Period
- Chartfield1 Purpose

Records Query Expressions Prompts Fields Criteria Having View SQL Run								
Query Name: New Unsaved Query Description:								
View field properties, or use field as criteria in query state	View field properties, or use field as criteria in query statement. Reorder / Sort							
Fields				Custo	mize   Find   View All   🎚	al 🛗 Fin	st 🚺 1-6 o	f 6 🕨 Last
Col Record.Fieldname	Format	<u>Ord</u>	<u>XLAT</u>	Agg	Heading Text	Add Criteria	Edit	Delete
1 A.FISCAL_YEAR - Fiscal Year	Num4.0				Year	94	Edit	-
2 A.ACCOUNTING_PERIOD - Accounting Period	Num3.0				Period	9.	Edit	-
3 A.ACCOUNT - Account	Char10				Account	94	Edit	-
4 A.CHARTFIELD1 - Purpose	Char10				Purpose	9.	Edit	-
5 A.AMOUNT - Amount	SNm25.3				Amount	94	Edit	-
6 A.UOD_CHRTFLD1_DESCR - Description	Char30				Descr	9	Edit	-

17. The following are examples of adding criteria to the three fields:

Edit Criteria Properties Choose Expression 1 Type Field Expression	Expression 1 Choose Record and Field Record Alias.Fieldname: A.FISCAL_YEAR - Fiscal Year
*Condition Type: Choose Expression 2 Type Field Expression © Constant Prompt Subquery OK Cancel	equal to Expression 2 Define Constant Constant: 2013

Edit Criteria Properties	
Choose Expression 1 Type Field Expression	Expression 1 Choose Record and Field Record Alias.Fieldname: A.ACCOUNTING_PERIOD - Accounti
*Condition Type: Choose Expression 2 Type Field Expression Constant Prompt Subquery	equal to  Expression 2 Define Constant Constant: 1 Q

For the Purpose criterion:

- Condition Type select like
- **Define Constant** enter a partial **Purpose** code with the wildcard % so that your results may have multiple Purpose codes (Enter a **Purpose** for which you have view access!)

Edit Criteria Properties			
Choose Expression 1 Type Field Expression	Expression 1 Choose Record and Field Record Alias.Fieldname: A.CHARTFIELD1 - Purpose		
*Condition Type: Choose Expression 2 Type Constant Prompt	like     V       Expression 2       Define Constant       Constant	IMPORTANT I Define Consta enter MAST11 Purpose you h	NOTE! ant – do not 12%, type a nave access to.
OK Cancel			

18. Click the **Run** tab. Your results will be different (though similar) to this:

Re	Records Query Expressions Prompts Fields Criteria Having View SQ Run								
V	/iew All	Rerun	Query   D	ownload to I	Excel   Download to X	ML Ledger	Amount	First	1-100 of 698
	1	2013	1	140000	MAST112111	BEGBUD	5000.000	CEOE-LEWES HONORS DAY	
	2	2013	1	122600	MAST112112	ACTUALS	931.250	CEOE GRADUATE SUPPORT	
;	3	2013	1	122600	MAST112112	ACTUALS	1004.170	CEOE GRADUATE SUPPORT	
	4	2013	1	122600	MAST112112	ACTUALS	1004.170	CEOE GRADUATE SUPPORT	
1	5	2013	1	122600	MAST112112	ACTUALS	931.250	CEOE GRADUATE SUPPORT	
	6	2013	1	122600	MAST112112	ACTUALS	1004.170	CEOE GRADUATE SUPPORT	
	7	2013	1	122600	MAST112112	ACTUALS	1004.170	CEOE GRADUATE SUPPORT	

Note the number of rows that are returned. If you scroll through the data, you will see multiple rows with the same Purpose and Account. You may also see multiple values in the **Ledger** column (ACTUALS, BEGBUD).

19. Click the **Fields** tab and then click the **Edit** button on **A.AMOUNT - Amount**.

Records Query Expressions Prompts Fields Criteria Having View SQL Run								
Query Name: EL_CLASS_AGGR_SUM Description: Seed -								
View field properties, or use field as criteria in query statement. Reorder / Sorl								/ Sorl
Fields				Custo	mize   Find   View All   🗔	( 🔡 🛛 Firs	st 🚺 1-7 of	7 🖿 Last
Col Record.Fieldname	<u>Format</u>	<u>Ord</u>	<u>XLAT</u>	Agg	Heading Text	Add Criteria	Edit	Delete
1 A.FISCAL_YEAR - Fiscal Year	Num4.0				Year	94	Edit	-
2 A.ACCOUNTING_PERIOD - Accounting Period	Num3.0				Period	94	Edit	-
3 A.ACCOUNT - Account	Char10				Account	9	Edit	-
4 A.CHARTFIELD1 - Purpose	Char10				Purpose	9	Edit	-
5 A.LEDGER - Ledger	Char10				Ledger	94	Edit	-
6 A.AMOUNT - Amount	SNm25.3				Amount	94 🤇	Edit	E
7 A.UOD_CHRTFLD1_DESCR - Description	Char30				Descr	94	Edit	-

- 20. You should see a page like this. In the **Aggregate** box, click **Sum**.
- 21. Click **OK**

Edit Field Properties							
Field Name: A.AMOUNT - Amount							
Heading	Aggregate						
No Heading <ul> <li>RFT Short</li> <li>Text</li> <li>RFT Long</li> </ul> Heading Text:           Amount           *Unique Field Name:	None Sum Count Min Max Average						
OK Cancel							

22. Click the **Run** tab. Your page should look like this:

Reco	Records Query Expressions Prompts Fields Criteria Having View SQL Run						
Vie	w All   Rerun	Query   [	Download to	Excel   Download to >	KML Lodger	Sum Amount	First 1-100 of 114 Last
	rear	Penod	Account	Purpose	Leager	Sum Amount	Descr
1	2013	1	120200	MAST112115	BEGBUD	313749.000	SMSP SUPPORT
2	2013	1	120200	MAST112115	ACTUALS	6837.380	SMSP SUPPORT
3	2013	1	120200	MAST112124	ACTUALS	17218.040	CEOE-UNIV SPON RESEARCH
4	2013	1	120200	MAST112125	ACTUALS	719.400	CEOE-OTHER RSRCH MATCHING
5	2013	1	120200	MAST112126	ACTUALS	4907.240	CEOE-SEA GRANT RSRCH MATCHING
6	2013	1	120200	MAST112129	ACTUALS	824.060	CEOE - FACULTY SERVICE

Note that now there is only one row for each **Purpose/Account /Ledger** combination and there are fewer rows returned than in the previous exercise.

- 23. Click on Fields tab and then Save As link.
- 24. In the Query name type: **xxx\_class\_aggr\_sum** (where **xxx** represents your initials). Click **OK**.

### Exercise 15—How to Use Aggregate Functions, Part 2 (Using "Count")

In this exercise, you will use the aggregate function in a query with more fields. If you want to group your data by account and see subtotals of total amount for each fiscal year and accounting period combination, you would use the following steps:

- You should be in the query named xxx\_class\_aggr\_sum (where xxx represents your initials). If not, navigate to the Query Manager Search page and enter your initials the Search For field and click the Search button. Select the query from the list by clicking on the name.
- 2. Click the **Criteria** tab. You should see a page similar to the following:

Re	cords Quer	y Expressions Prompts Fields	Criteria Having	View SQL Run	
Qı	uery Name: EL	CLASS_AGGR_SUM D	escription:		S Feed
	Add Criteria	Group Criteria Reorder Criteria			
С	riteria			Customize   Find   🗖   🛗	First 🚺 1-4 of 4 🚺 Last
L	ogical	Expression1	Condition Type	Expression 2	Edit Delete
	~	A.BUSINESS_UNIT - Business Unit	equal to	UOD01	Edit –
F	AND 🗸	A.FISCAL_YEAR - Fiscal Year	equal to	2013	Edit 📃
4		A.ACCOUNTING_PERIOD - Accounting Period	equal to	1	Edit –
F	AND 🗸	A.CHARTFIELD1 - Purpose	like	MAST112%	Edit –
	Save	Save As New Query Preferences Pro	perties Publish as	Feed New Union	Return

- 3. Edit the criteria on the **A.ACCOUNTING\_PERIOD Accounting Period** field by clicking the **Edit** button on that criterion.
- 4. Change the criteria properties to match the following:

This criterion will return results for all accounting periods (1-12 and both adjustment periods, 991 and 992).

Edit Criteria Properties			
Choose Expression 1	Expression 1		
1300	Choose Record and Field		
S Field	Record Alias.Fieldname:		
O Expression	A.ACCOUNTING_PERIOD - Accounti		
*Condition	not equal to		
Choose Expression 2	Expression 2	Accounti	ng Period 999
Туре	Define Constant	contains	the system-
O Field		generated	d entries to close
O Expression	Constant: 999	the fiscal	year and should
Constant		not be ind	cluded.
OPrompt			
Subquery			
OK			

5. Click the **Run** tab

Note the number of rows that are returned. Also note the multiple rows for some **Account** values.

Records	Que	ery Ex	pressions	Prompts Fi	ields Criteria	Having View SQ	Run
View Al	I   <u>Rerun</u>	Query   E	Download to	Excel   Download	to XML		First 101-200 of 739 Last
	Year	Period	Account	Purpose	Ledger	Sum Amount	Descr
101	2013	1	154800	MAST112115	ACTUALS	5123.450	SMSP SUPPORT
102	2013	1	154800	MAST112118	ACTUALS	15.000	PHYSICAL OCEAN INSTRUCTION
103	2013	1	190000	MAST112115	BEGBUD	-546705.000	SMSP SUPPORT
104	2013	1	190000	MAST112128	BEGBUD	-7000.000	CEOE-LEWES COAST DAY
105	2013	1	190000	MAST112167	BEGBUD	836504.000	RTRMNTS-SGBNF-HULL INS ALLO
106	2013	1	R00100	MAST112139	ACTUALS	-122580.000	REV GRAD TUIT CEOE FT RES FLL
107	2013	1	R00100	MAST112142	ACTUALS	-18156.000	REV GRAD TUIT CEOE PT RES FLL
108	2013	1	R00100	MAST112153	ACTUALS	-8614.000	REV MASTER SUSTAIN CEOE
109	2013	1	R00200	MAST112141	ACTUALS	-967020.000	REV GRAD TUIT CEOE FT NRES FLL

- 6. Click the **Fields** tab.
- 7. Click the **Edit** button <u>Edit</u> on the **ACCOUNTING\_PERIOD Account Period** row.

Records Query Expressions Prompts Fie	elds C	iteria	На	ving	View SQL Run	1		
Query Name: ELLELL_CLASS_AGGR_SUM Description:								
View field properties, or use field as criteria in query statement.								
Fields				Custor	mize   Find   View All   🖄	l 🛗 🛛 Firs	st 🚺 1-6 of 6 🚺 L	ast
Col Record.Fieldname	Format	<u>Ord</u>	<u>XLAT</u>	<u>Agg</u>	Heading Text	Add Criteria	Edit Delete	
1 A.FISCAL_YEAR - Fiscal Year	Num4.0				Year	94	Edit -	
2 A.ACCOUNTING_PERIOD - Accounting Period	Num3.0				Period	94	Edit –	
3 A.ACCOUNT - Account	Char10				Account	94	Edit –	
4 A.CHARTFIELD1 - Purpose	Char10				Purpose	94	Edit –	
5 A.AMOUNT - Amount	SNm25.3			Sum	Sum Amount	94	Edit –	
6 A.UOD_CHRTFLD1_DESCR - Description	Char30				Descr	94	Edit –	
Save Save As New Query Preferences	Propert	ies	Publist	n as Fe	eed <u>New Union</u>		Return	n To S

- 8. You should see the Edit Fields Properties page.
- 9. In the **Aggregate** box, click **Count**.
- 10. Click **OK**

Edit Field Properties							
Field Name: A.ACCOUNT - Account							
Heading	Aggregate						
<ul> <li>No Heading ● RFT Short</li> <li>○ Text ○ RFT Long</li> <li>Heading Text:</li> <li>Account</li> <li>*Unique Field Name:</li> <li>A.ACCOUNT</li> </ul>	<ul> <li>None</li> <li>Sum</li> <li>Count</li> <li>Min</li> <li>Max</li> <li>Average</li> </ul>						
OK Cancel							

11. Click the **Run** tab. Note that you now have fewer rows returned.

You now have one row for each unique combination of Fiscal Year, Accounting Period, Ledger and Purpose. In other words, you have *grouped* by FISCAL\_YEAR, ACCOUNTING\_PERIOD, LEDGER and PURPOSE to get a total amount.

Record	s Qu	iery E	xpressions Pro	mpts Fields	Criteria Hav	ving View SQL	Run
							_
View A	<u> All   Reru</u>	n Query	Download to Excel	Download to XM	L		First 1-100 of 259
	Year	Period	Count Account	Purpose	Ledger	Sum Amount	Descr
1	2013	1	1	MAST112111	BEGBUD	5000.000	CEOE-LEWES HONORS DAY
2	2013	9	2	MAST112111	ACTUALS	388.800	CEOE-LEWES HONORS DAY
3	2013	11	4	MAST112111	ACTUALS	4608.640	CEOE-LEWES HONORS DAY
4	2013	1	24	MAST112112	ACTUALS	20742.680	CEOE GRADUATE SUPPORT
5	2013	1	2	MAST112112	BEGBUD	335277.000	CEOE GRADUATE SUPPORT
6	2013	2	1 62	MAST112112	ACTUALS	43767.270	CEOE GRADUATE SUPPORT
7	2013	3	47	MAST112112	ACTUALS	20367.990	CEOE GRADUATE SUPPORT
8	2013	4	59	MAST112112	ACTUALS	25257.940	CEOE GRADUATE SUPPORT

#### Note:

The results show a *count* of the number of Accounts used in transactions (instead of the returning the *values* of Account); one row for each unique combination of Purpose, Fiscal Year, Accounting Period and Ledger.

12. Click the Fields tab

Records Query Expressions Prompts Fie	elds C	riteria	Ha	ving	View SQL Run		
Query Name: EL_CLASS_AGGR_SUM_X Description: class template Exercise 15 Seed -							
View field properties, or use field as criteria in query state	ment.					ļ	Reorder / Sorl
Fields				Custor	nize   Find   View All   🗖	Firs	st 🚺 1-7 of 7 🚺 Last
Col Record.Fieldname	Format	<u>Ord</u>	<u>XLAT</u>	<u>Agg</u>	Heading Text	Add Criteria	Edit Delete
1 A.FISCAL_YEAR - Fiscal Year	Num4.0				Year	94	Edit –
2 A.ACCOUNTING_PERIOD - Accounting Period	Num3.0				Period	9	Edit -
3 A.ACCOUNT - Account	Char10		$\langle$	Count	Count Account	94	Edit -
4 A.CHARTFIELD1 - Purpose	Char10	1			Purpose	9	Edit –
5 A.LEDGER - Ledger	Char10				Ledger	94	Edit -
6 A.AMOUNT - Amount	SNm25.3			Sum	Sum Amount	9	Edit -
7 A.UOD_CHRTFLD1_DESCR - Description	Char30				Descr	94	Edit –
Save Save As New Query Preferences	Proper	ties	Publis	n as Fe	ed <u>New Union</u>		Return To S

- 13. Click the Save As link.
- 14. In the **Query** name field and type: **xxx\_class\_aggr\_count** (where **xxx** represents your initials).
- 15. Click **OK**.

--End of Exercise--

### Using PS "Having" Criteria

Having is specifically used when a criterion is added to an *aggregated* field, such as a sum. Suppose you only wanted to see rows for accounts where the **Sum Amount** was greater than zero. You want to put criteria on an aggregated field. PeopleSoft calls this condition "Having Criteria."

### Exercise 16—How to Use Having Criteria

- 1. If necessary, click the Fields tab.
- 2. Click the Add Criteria icon on of the A.AMOUNT Amount row.

R	eco	rds Query Expressions Prompts Fie	elds C	riteria	На	ving	View SQL Run	1		
Qu	Query Name: EL_CLASS_AGGR_COUNT_X Description: class template Exercise 15 Seed ~									
Vi	View field properties, or use field as criteria in query statement.									
Fie	elds	5				Custon	nize   Find   View All   🗖	Firs	it 🚺 1-7 of	7 💵 Last
Co	ol I	Record.Fieldname	Format	Ord	<u>XLAT</u>	Agg	Heading Text	Add Criteria	Edit	Delete
	1 A	A.FISCAL_YEAR - Fiscal Year	Num4.0				Year	°f	Edit	-
	2 A	A.ACCOUNTING_PERIOD - Accounting Period	Num3.0				Period	94	Edit	-
	3 A	A.ACCOUNT - Account	Char10			Count	Count Account	94	Edit	-
	4 A	A.CHARTFIELD1 - Purpose	Char10	1			Purpose	9	Edit	-
	5 A	A.LEDGER - Ledger	Char10				Ledger	94	Edit	-
	6 A	A.AMOUNT - Amount	SNm25.3		$\langle$	Sum	Sum Amount	94	Edit	-
	7 A	A.UOD_CHRTFLD1_DESCR - Description	Char30				Descr	94	Edit	-

- 3. Click the drop-down arrow next to **Condition Type** and click greater than.
- 4. In the **Define Constant** box, type: **0.**

Edit Having Criteria Prop	erties
Choose Expression 1 Type	Expression 1
<ul> <li>Field</li> <li>Expression</li> </ul>	Choose Record and Field Record Alias.Fieldname:
*Condition Type: Choose Expression 2 Type	greater than V Expression 2
<ul> <li>Field</li> <li>Expression</li> <li>Constant</li> <li>Prompt</li> <li>Subquery</li> </ul>	Constant 0
OK	9

- 5. Click **OK**.
- 6. Click the **Criteria** tab.

### **Note**: This criterion does NOT appear on the **Criteria** page.

Records Que	ry Expressions Prompts Fields	Criteria Having	View SQL Run	
Query Name: El	L_CLASS_AGGR_COUNT_X	Description: class te	mplate Exercise 15	S Feed
Add Criteria	Group Criteria Reorder Criteria			
Criteria			Customize   Find   🔟   🛗 F	irst 🚺 1-4 of 4 🚺 Last
Logical	Expression1	Condition Type	Expression 2	Edit Delete
~	A.BUSINESS_UNIT - Business Unit	equal to	UOD01	Edit –
AND 🗸	A.FISCAL_YEAR - Fiscal Year	equal to	2013	Edit 📃
AND V	A.ACCOUNTING_PERIOD - Accounting Period	not equal to	999	Edit –
AND 🗸	A.CHARTFIELD1 - Purpose	like	MAST112%	Edit –

7. Click the **Having** tab.

**Note**: This criteria DOES appear on the **Having** page. Criteria on aggregated fields appear on this page.

Records Query Expressions Prompts	Fields Criteria H	aving View SQL Run	
Query Name: ELLELL_CLASS_AGGR_COUNT	Description:		S Feed
Add Having Criteria Group Having Criteria	a		
Having Criteria		<u>Customize</u>   <u>Find</u>   🌌   🛗	First 🚺 1 of 1 🚺 Last
Logical Expression1	Condition Type	Expression 2	Edit Delete
A.AMOUNT - Amount	greater than	0	Edit

8. Click the Run tab. (Sometimes adding "Having Criteria" will give you fewer rows of data.)

Notice that the **Sum Amount** column only contains rows where the amounts are greater than 0.

Reco	rds Qu	ery E	xpressions Pron	npts Fields	Criteria Hav	ving View SQL	Run	
Viev	v All   Rerur	n Query	Download to Excel	Download to XML			First 1-100 of 1	65 🕨 Last
	Year	Period	Count Account	Purpose	Ledger	Sum Amount	Descr	
1	2013	1	1	MAST112111	BEGBUD	5000.000	CEOE-LEWES HONORS DAY	
2	2013	9	2	MAST112111	ACTUALS	388.800	CEOE-LEWES HONORS DAY	
3	2013	11	4	MAST112111	ACTUALS	4608.640	CEOE-LEWES HONORS DAY	
4	2013	1	24	MAST112112	ACTUALS	20742.680	CEOE GRADUATE SUPPORT	
5	2013	1	2	MAST112112	BEGBUD	335277.000	CEOE GRADUATE SUPPORT	
6	2013	2	62	MAST112112	ACTUALS	43767.270	CEOE GRADUATE SUPPORT	
7	2013	3	47	MAST112112	ACTUALS	20367.990	CEOE GRADUATE SUPPORT	
8	2013	4	59	MAST112112	ACTUALS	25257.940	CEOE GRADUATE SUPPORT	
9	2013	5	53	MAST112112	ACTUALS	24514.270	CEOE GRADUATE SUPPORT	

- 9. Click the **Fields** tab and click the **Save As** link.
- 10. Click OK.

--End of Exercise--

### **Defining Expressions**

Query Manager allows you to create expressions two different ways: by adding criteria and by defining your own in the Expressions tab. You will use the Expression tab when you need to do more to than is available in the Criteria Properties dialog box.

We will look at the following four types of expressions:

- Numerical manipulation
- Substring
- Concatenate
- Decode

### Numerical Manipulation

If you want to add a column to your query that shows a 5% increase in total amount, you would use the following steps:

Exercise 17—How to Use Numerical Manipulation

- 1. Click Query Manager in the Navigation bar
- 2. Click the Create New Query link

Query Manager
Enter any information you have and click Search. Leave fields blank for a list of all values.  Find an Existing Query Create New Query  *Search By: Query Name  begins with  Search Advanced Search
Find an Existing Query   Create New Query

- 3. Find an Existing Record in the begins with field, type: UOD T and then click Search
- 4. Click the **Add Record** link on the first record, **UOD\_TRANS\_DTL UOD Transaction Detail GL** This is one of the key reporting tables (records) in UD Financials

Records Query Expressions	Prompts Fields Criter	ia Having	View SQL Run
Query Name: New Unsaved Query	Descri	otion:	
Find an Existing Record			
*Search By: Record Name	✓ begins with UOD_T		
Search Advanced Search			
Second December			
Search Results			
Record	Customize   Find   View All	📔 🛛 First 🗳	1-3 of 3 🚨 Last
Recname		Add Record	Show Fields
UOD_TRANS_DTL - UOD Transaction E	)etail GL	Add Record	Show Fields
UOD_TRANS_NOTEB - UOD Trans Det	ail Notes BackUp	Add Record	Show Fields
UOD_TRN_NOTE_VW - UOD Transacti	on Detail GL	Add Record	Show Fields

- 5. A list of the 50 fields in the record will be displayed. Select the following 7 fields:
  - FISCAL\_YEAR Fiscal Year
  - ACCOUTING\_PERIOD Accounting Period
  - ACCOUNT Account
  - DEPTID Department
  - FUND\_CODE Fund Code
  - CHARTFIELD1 Purpose
  - **AMOUNT Amount** (you must scroll down)

Records Query Expressions Prompts Fields Criteria Having View SQL Run	
Query Name: New Unsaved Query Description:	
Click folder next to record to show fields. Check fields to add to query. Uncheck fields to remove from query. Add additional	₽¢
records by clicking the records tab. When finished click the fields tab.	
Aliae Decord	
A UOD TRANS DTL - UOD Transaction Detail GI	
Fields <u>Find View All</u> First 1-50 of 55 Last	
D BUSINESS_UNIT - Business Unit	
FISCAL_YEAR - Fiscal Year	
ACCOUNTING_DT - Accounting Date	
ACCOUNT - ACCOUN	
DEPTID - Department Join DEPT TBL - 74	
FUND_CODE - Fund Code     Join FUND_TBL - Fund Table %	
CLASS_FLD - Class Field Join CLASS_CF_TBL - Class 🗣	
PROGRAM_CODE - Program Code     Join PROGRAM_TBL -	
Program Table Join BUD GET REF - Budget Reference Join BUD REF TBL - Budget 😤	
Reference Table	
AFFILIATE_INTRA1 - Fund Affiliate	
CHARTFIELD1 - Purpose Join CHARTFIELD1 IBL - 74 Chartfield1	
CHARTFIELD2 - Source Join CHARTFIELD2 TBL - Chartfield2	
	1
DISTRIB_LINE_NUM - Distribution Line	
TRANS_SOURCE - Transaction Source	
LEDGER - Ledger	
JRNL_LN_REF - Journal Line Reference	
AMOUNT - Amount	
STATISTIC_AMOUNT - Statistic Amount	
DESCR - Description	
TRANSACTION DATE Transaction Date	
UOD ACCOUNT DESC - Description	

- 6. Click the **Fields** tab and click the **Save As** link.
- 7. In the **Query** field, type: **xxx\_class\_expressions** (**xxx** represents your initials).
- 8. Click **OK**.

- 8. Add Criteria for the following fields:
  - Fiscal Year equal to 2014
  - Accounting Period equal to 4

• **CHARTFIELD1** - **Purpose** equal to a Purpose on which you are an Administrator (a Purpose you can view or approve). For example ADMN 112114 (the letters must be UPPER CASE).

Records Query Expressions Prompts Fie	elds C	riteria	На	ving	View SQL Run				
Query Name: ELLEN_CLASS_EXPRESSIONS Description:									
View field properties, or use field as criteria in query statement.									
Fields				<u>Custo</u>	mize   Find   View All   🗷	🛙 📔 🛛 Firs	st 🚺 1-7 of	f 7 🚺 Last	
Col Record.Fieldname	Format	Ord	<u>XLAT</u>	<u>Agg</u>	Heading Text	Add Criteria	Edit	Delete	
1 A.FISCAL_YEAR - Fiscal Year	Num4.0				Year (	P.	Edit	-	
2 A.ACCOUNTING_PERIOD - Accounting Period	Num3.0				Period	94	Edit	-	
3 A.ACCOUNT - Account	Char10				Account	94	Edit	-	
4 A.DEPTID - Department	Char10				Dept	<b>%</b>	Edit	-	
5 A.FUND_CODE - Fund Code	Char5				Fund	94	Edit	-	
6 A.CHARTFIELD1 - Purpose	Char10				Purpose (	94	Edit	-	
7 A.AMOUNT - Amount	SNm25.3				Amount	°4	Edit	-	

9. Click the **Expressions** tab. And then click the **Add Expression** button.

Records Query	Expressions Pr	ompts Field	s Criteria	Having View	SQL Run
Query Name: ELLEN_	CLASS_EXPRESSIO	ONS	Descript	ion:	
Add Expression	No expressions have	been defined ye	et.		
Save Save	As <u>New Query</u>	Preferences	Properties	Publish as Feed	New Union

10. You will see a page like this:

Edit Expression Properties		
*Expression Type:		
Character V	Length:	1
Aggregate Function	Decimals:	
Expression Text:		
Add Prompt Add Field		
OK Cancel		

- 11. In the Expression Type box, select Signed Number
- 12. Change the Length field to 15
- 13. Change the **Decimals** field to **2**
- 14. Click the **Add Field** link

Edit Expression Properties		
*Expression Type:	Longth:	
	Decimale:	
Aggregate Function	Decimais:	
Add Prompt Add Field		
OK Cancel		

15. Scroll down to find the A.AMOUNT - Amount link and then click on it.

Se	elect a field	ł			
	Select a reco	ord to show fields for	(	Customize   Find   🗖   🛗	First 🚺 1 of 1 🚺 Last
	<u>Alias</u>	Record	Record Description		Show Fields
	A	UOD_TRANS_DTL	UOD Transaction De	etail GL	Show Fields
	Select a field <u>A.BUSINESS</u> <u>A.FISCAL Y</u> <u>A.ACCOUNT</u> <u>A.ACCOUNT</u>	Customi <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>Customi</u> <u>C</u>	ze   Find   View All   <sup>I II</sup>   Period	Hirst 🚺 1-50 of 55	Last
	A.ACCOUNT A.DEPTID - I	<u>- Account</u> Department			

A.TRANS SOURCE - Transaction Source
A.LEDGER - Ledger
A.JRNL LN REF - Journal Line Reference
A.AMOUNT - Amount
A.STATISTIC AMOUNT - Statistic Amount
A.DESCR - Description
A.ACCOUNT TYPE - Account Type
A.TRANSACTION DATE - Transaction Date
A.UOD ACCOUNT DESC - Description
A.UOD DEPTID DESCR - Description
A.UOD FUNDCODE DESCR - Description

16. You will be back at the Edit Expressions Properties page, where you've added **A.AMOUNT** to the **Expression Text** box:

Edit Expression Properties		
*Expression Type:		15
Signed Number	Length:	10
Aggregate Function	Decimals:	2
Expression Text:		
A.AMOUNT		
Add Prompt Add Field		
OK Cancel		

17. At the end of the existing text in the **Expression Text** box, type: **\*1.05** This will add 5% to the amount.

Edit Expression Properties		
*Expression Type: Signed Number	Length:	15
Aggregate Function	Decimals:	2
Expression Text:		
A.AMOUNT*1.05		
Add Prompt Add Field		
OK Cancel		

- 18. Click OK.
- 19. Click the Use as Field link

This expression is now treated like any other field; you can put criteria on it, rename it, etc. This will take you to the **Fields** tab.

Records Que	ery Expre	essions Pr	ompts Field	s Criteria	Having	View SQL	Run		
Query Name: [	ELLEN_CLAS	S_EXPRESSI	ONS	Descripti	ion:				Feed
Add Expression	n								
Expressions L	ist				<u>c</u>	Customize   Find		First 🚺 1 of	1 🕨 Last
Expression Text					<u> </u>	<u>Jse as Field</u>	Add Criteria	Edit	Delete
A.AMOUNT*1.0	)5					Jse as Field	94	Edit	-
Save	Save As	New Query	Preferences	Properties	Publish as Fee	d <u>New U</u>	nion		Return

- 20. Note that you have a new field called **A.AMOUNT\*1.05**.
- 21. Click the **Edit** button for this field.

Records Query Expressions Prompts F	ields C	riteria	Ha	iving	View SQL Run	]			
Query Name: ELLEN_CLASS_EXPRESSIONS Description:									
View field properties, or use field as criteria in query statement.									
Fields				Custo	mize   Find   View All	l 🔡 🛛 Firs	st 🚺 1-8 of 8 🚺 Last		
Col Record.Fieldname	<b>Format</b>	Ord	<u>XLAT</u>	<u>Agg</u>	Heading Text	Add Criteria	Edit Delete		
1 A.FISCAL_YEAR - Fiscal Year	Num4.0				Year	94	Edit –		
2 A.ACCOUNTING_PERIOD - Accounting Period	Num3.0				Period	9	Edit –		
3 A.ACCOUNT - Account	Char10				Account	9	Edit –		
4 A.DEPTID - Department	Char10				Dept	9	Edit –		
5 A.FUND_CODE - Fund Code	Char5				Fund	9	Edit –		
6 A.CHARTFIELD1 - Purpose	Char10				Purpose	9	Edit -		
7 A.AMOUNT - Amount	SNm25.3				Amount	9	Edit -		
8 A.AMOUNT*1.05	SNm13.2				A.AMOUNT*1.05	94 (	Edit –		

22. Verify that the **Heading** box is set to **Text**.

23. In the Heading Text field delete the existing text and type: 5% Projected Increase

Edit Field Properties Field Name: A.AMOUNT*1.05	
Heading	Aggregate
No Heading       RFT Short         Text       RFT Long         Heading Text:       5% Projected Increase         *Unique Field Name:       EXPR8_8	<ul> <li>None</li> <li>Sum</li> <li>Count</li> <li>Min</li> <li>Max</li> <li>Average</li> </ul>
OK	

24. Click **OK**. Click the **Run** tab. You should see a page similar to the following:

cord	ts Que	ny Exq	pressions Pr	ompta 🛛 Fi	elds Criteri	a Having View SQL	Run		
ion )	AI   Rerun	Query   D	ownload to Exce	I Download	to XML			1-10	r 1 1
ou i	Al   <u>Rerun</u>	Ouery   D Period	ownload to Exce Account	E Download	to XML Fund	Рыгром	Amount	5% Projected Increa	<del>61</del> 2 100

- 25. Click the Fields tab.
- 26. Click the **Save As** link. (If you have already done so, name the query **xxx\_class\_expressions**, where **xxx** represents your initials). Click **OK**.

#### --End of Exercise--

### Substring

You can create a field that includes only certain digits of an existing field by using the substring expression. In the next exercise, you will use a substring expression to view digits 5 and 6 of the **Chartfield1 - Purpose** field.

### Exercise 18—How to Use the Substring Expression

- 1. From the **Query Manager** "Find an Existing Query" page, open the query named **XXX\_CLASS\_AGGR\_SUM** (where **XXX** represents your initials).
- 2. Click on the **Criteria** tab and click on the **Edit** button on the **A. CHARTFIELD1 Purpose** row.

Records Que	ry Expressions Prompts Fields	Criteria Having	View SQL Run					
Query Name: ELLEN_CLASS_AGGR_SUM Description: class template Exercise 15								
Add Criteria	Add Criteria Group Criteria Reorder Criteria							
Criteria			Customize   Find   🗖   🛗	First 🚺 1-4 of 4 🚺 Last				
Logical	Expression1	Condition Type	Expression 2	Edit Delete				
~	A.BUSINESS_UNIT - Business Unit	equal to	UOD01	Edit -				
AND 🗸	A.FISCAL_YEAR - Fiscal Year	equal to	2013	Edit 🖃				
AND 🗸	A.ACCOUNTING_PERIOD - Accounting Period	equal to	1	Edit –				
AND 🗸	A.CHARTFIELD1 - Purpose	like	MAST112%	Edit				

- 3. Change the value in the Constant field to **XXXX%** (where XXXX represent the acronym of the Purpose(s) for which you have administrator access rights).
- 4. Verify that the **Condition Type** is "like." And click **OK**.

Edit Criteria Properties	
Choose Expression 1 Type Field Expression	Expression 1 Choose Record and Field Record Alias.Fieldname: A.CHARTFIELD1 - Purpose
*Condition Type: Choose Expression 2 Type © Constant ○ Prompt	Like   Expression 2   Define Constant   Constant:   STGP%
OK Cancel	

- 5. Click the **Expressions** tab
- 6. Click the **Add Expression** button



- 7. In the Expression Type, click Character if it is not already selected
- 8. Change the Length to 2
- 9. Click the Add Field link

Edit Expression Properties		
*Expression Type: Character	Length:	2
Aggregate Function	Decimals:	
Expression Text:		
Add Prompt Add Field		
OK Cancel		

10. Click A.CHARTFIELD1 - Purpose

elect a f	ïeld						
Select a	record to show fields for	<u>Customiz</u>	elFind	1 of 1 🕨 Last			
Alias	Record	Record Description		Show Fields			
Α	UOD_TRANS_DTL	UOD Transaction Detail GL		Show Fields			
Select a	field <u>Cust</u>	omize   Find   View All   🗖   🛗	First 🚺 1-50 of 55 🕨 Last				
A.BUSIN	ESS_UNIT - Business Unit						
A.FISCA	L YEAR - Fiscal Year						
A.ACCO	UNTING DT - Accounting Da	ate					
A.ACCO	UNTING PERIOD - Account	ing Period					
A.ACCO	UNT - Account						
A.DEPTI	D - Department						
A.FUND	CODE - Fund Code						
A.CLASS	FLD - Class Field						
A.PROG	RAM CODE - Program Code	2					
A.BUDG	ET REF - Budget Reference						
A.AFFILIATE_INTRA1 - Fund Affiliate							
A.CHAR	TFIELD1 - Purpose						
A.CHAR	TFIELD2 - Source						
A.CHAR	TFIELD3 - UD Chartfield						
A.PROJE	ECT ID - Project						

You will create an expression to extract the 5<sup>th</sup> and 6<sup>th</sup> characters from the Purpose codes.

- 11. Click in the **Expression Text** box and type this in *front* of A.CHARTFIELD1: **%substring(**
- 12. Type this *after* A.CHARTFIELD1: **, 5 , 2**)

This text tells Query to start at the 5<sup>th</sup> character of **A.CHARTFIELD1** and to extract two characters. Your page should look like this:

Edit Expression Properties	
*Expression Type: Character	Length: 2 Decimals:
%substring(A.CHARTFIELD1,5,2)	Note: There are NO spaces in the expression.
Add Prompt Add Field OK Cancel	

- 13. Click **OK**.
- 14. Click the Use as Field link.

Records Query Expressions Prompts	Fields Criteria Having View SQL Run	
Query Name: ELLEN_CLASS_AGGR_SUM	Description: class template Exercise 15	Feed -
Add Expression		
Expressions List	Customize   Find   💹   🗰	First 🚺 1 of 1 🕨 Last
Expression Text	Use as Field Add Criteria	Edit Delete
%substring(A.CHARTFIELD1,5,2)	Use as Field 94	Edit –

15. You will be on the Fields tab, note the new field in the list. Click the Edit button for %substring(A.CHARTFIELD1,5,2)

6	Records Query Expressions Prompts Fields Criteria Having View SQL Run								
	Query Name: ELLEN_CLASS_AGGR_SUM Description: class template Exercise 15 Seed -								
L	View field properties, or use field as criteria in query statement. Reorder / Sorl								
L	Fields				Custo	omize   Find   View All   🗖	First First	st 🚺 1-8 of	8 🕨 Last
L	Col Record.Fieldname	Format	<u>Ord</u>	<u>XLAT</u>	<u>Agg</u>	Heading Text	Add Criteria	Edit	Delete
L	1 A.FISCAL_YEAR - Fiscal Year	Num4.0				Year	9	Edit	-
L	2 A.ACCOUNTING_PERIOD - Accounting Period	Num3.0				Period	<b>%</b>	Edit	-
L	3 A.ACCOUNT - Account	Char10				Account	9	Edit	-
L	4 A.CHARTFIELD1 - Purpose	Char10				Purpose	9	Edit	-
L	5 A.LEDGER - Ledger	Char10				Ledger	9	Edit	-
L	6 A.AMOUNT - Amount	SNm25.3			Sum	Sum Amount	9	Edit	-
	7 A.UOD_CHRTFLD1_DESCR - Description	Char30				Descr	94	Edit	-
k	8 %substring(A.CHARTFIELD1,5,2)	Char2				%substring (A.CHARTFIELD1,5,2)	92 (	Edit	

16. In the **Heading Text** box, change the text to: **Purpose 5, 6** 

Edit Field Properties							
Field Name: %substring(A.CHARTFIELD1,5,2)							
Heading	Aggregate						
No Heading       RFT Short         Image: Text       RFT Long         Heading Text:       Purpose 5, 6         *Unique Field Name:       EXPR8_8	<ul> <li>None</li> <li>Sum</li> <li>Count</li> <li>Min</li> <li>Max</li> <li>Average</li> </ul>						
OK Cancel							

- 17. Click **OK**.
- 18. Click the **Save As** link.
- 19. Rename this query **xxx\_class\_substring** (where **xxx** represents your initials).
- 20. Click **OK**.
- 21. Click the Run tab.

Red	cords	Query	Expression	ons Prompts	Fields C	riteria Havin	g View SQL Run	
Vie	ew All   E	erun Que	ry   Downlo	ad to Excel   Dowr	lload to XML			First 🔳 1-94 of 94 🕨 Last
	Year	Period	Account	Purpose	Ledger	Sum Amount	Descr	Purpose 5, 6
1	2013	1	125200	STGP912416	ACTUALS	1600.000	ICE HOCKEY CLUB	91
2	2013	1	126000	STGP912115	ACTUALS	374.000	THE REVIEW	91
3	2013	1	129500	STGP912416	ACTUALS	126.400	ICE HOCKEY CLUB	91
4	2013	1	130100	STGP912439	ACTUALS	-393.800	CATHOLIC CAMPUS MINISTRY	91
5	2013	1	140140	STGP912115	ACTUALS	75.000	THE REVIEW	91
6	2013	1	140140	STGP912352	ACTUALS	1254.930	GREEK AFFAIRS	91
7	2013	1	140140	STGP912375	ACTUALS	800.000	ALPHA KAPPA ALPHA	91
8	2013	1	140140	STGP912439	ACTUALS	2855.110	CATHOLIC CAMPUS MINISTRY	91
9	2013	1	141900	STGP912338	ACTUALS	2.490	RSA	91

--End of Exercise--

### Concatenate (combines multiple fields into one)

Using the concatenate expression, you can see the Fiscal Year and Accounting Period fields together as one field.

**Exercise 19—How to Concatenate Fields** 

- 1. Open the query named XXX\_CLASS\_AGGR\_SUM (where XXX represents your initials)
- 2. Click the Expressions tab
- 3. Click the Add Expression button

Records Query Expre	essions	ompts Field	ls Criteria	Having Viev	v SQL Run
Query Name: ELLELL_CLA	SS_AGGR_SU	м_х	Descript	ion:	
Add Expression No exp	pressions have	been defined ye	et.		
Save Save As	New Query	Preferences	Properties	Publish as Feed	New Union

- 4. In the Expression Type box, choose Character if it is not already selected
- 5. Change the Length to 15.
- 6. Click the Add Field link.

Edit Expression Properties		
*Expression Type: Character	Length:	15
Aggregate Function	Decimals:	
Expression Text:		
Add Prompt Add Field		
OK Cancel		

#### 7. Click A.FISCAL\_YEAR - Fiscal Year

s	elect a fiel	d				
	Select a rec	ord to show fields for	Customize   Find	First	and the state an	
	Alias	Record	Record Description		Show Fields	
	A	UOD_TRANS_DTL	UOD Transaction Detail GL		Show Fields	
<	Select a field A.BUSINES A.FISCAL Y A.ACCOUN A.ACCOUN	d <u>Customiz</u> S UNIT - Business Unit (EAR - Fiscal Year TING DT - Accounting Date TING PERIOD - Accounting F	e   Find   View All   🖾   👬 First 🖡	Note: can sele record(s) of ye limited to usin already select	ect any field in our query. You ng fields that yo ed for your qu	the are not ou have ery.

- 8. In the Edit Expression Properties page, click the Add Field link again.
- 9. This time click **A.ACCOUNTING\_PERIOD Accounting Period**.

to show fields for <u>ecord</u> OD_TRANS_DTL	Customize       Find       Image: Customize       Find       Image: Customize       First       Image: Customize       Image: Customize <th< th=""><th>1 of 1 Last Show Fields Show Fields</th></th<>	1 of 1 Last Show Fields Show Fields
ecord OD_TRANS_DTL	Record Description UOD Transaction Detail GL	Show Fields Show Fields
OD_TRANS_DTL	UOD Transaction Detail GL	Show Fields
<u>Customize</u> JNIT - Business Unit R - Fiscal Year <del>O DT - Accounting Date</del> G PERIOD - Accounting Pe	<u>Find</u>   <u>View All</u>   <u>E</u>   <u>H</u> First <b>C</b> 1-50 of 55 <u>Last</u>	
	Customize NIT - Business Unit R - Fiscal Year 3 DT - Accounting Date 3 PERIOD - Accounting P Account	Customize   Find   View All   Image: First Section 1.50 of 55 Last         NIT - Business Unit       First Section 1.50 of 55 Last         R - Fiscal Year       Section 1.50 of 55 Last         S DT - Accounting Date       Section 1.50 of 55 Last         Accounting Period       Account

10. In the **Expression Text** box, type: **%concat** between the two field names as shown below.

Edit Expression Properties				
*Expression Type: Character	Length:		15	
□ Aggregate Function	Decimals:			
Expression Text:				
A.FISCAL_YEAR %concat A.ACCOUNTIN	IG_PERIOD	>		
Add Prompt Add Field		No be <b>%c</b>	te there fore an conca	e are spaces d after t
OK Cancel				

### 11. Click **OK**

12. Click the **Use as Field** link

Records Query	/ Expre	ssions Pro	ompts Field	ls Criteria	Having	View SQL	Run		
Query Name: EL	LELL_CLAS	S_AGGR_SU	M_X	Descripti	ion:				Feed -
Add Expression									
Expressions List	t				<u>c</u>	Customize   Find	l™ I ₪	First 🚺 1 o	f 1 🖸 Last
Expression Text						Jse as Field	Add Criteria	Edit	Delete
A.FISCAL_YEAR	%concat A.	ACCOUNTING	G_PERIOD			Jse as Field	94	Edit	-
Save	Save As	New Query	Preferences	Properties	Publish as Fee	d New U	Inion		Return To

- 13. This will take you to the Field tab
- 14. Click the Edit button for the new field of A.FISCAL\_YEAR %concat A.ACCOUNTING\_PERIOD.

	Rec	ords Query Expressions Prompts Field	s Crite	eria	Havir	ng	View SQL Run			
G	Quei	y Name: ELLELL_CLASS_AGGR_SUM_X	Descri	ption	:				6	Feed -
	Viev	v field properties, or use field as criteria in query stateme	ent.						Reorder	r / Sorl
F	-ielo	ls			<u>c</u>	ustomiz	ze   Find   View All   🖟	Tin:	st 🚺 1-8 o	f 8 🚺 Last
	<u>Col</u>	Record.Fieldname	Format	<u>Ord</u>	<u>XLAT</u>	<u>Agg</u>	Heading Text	Add Criteria	Edit	Delete
	1	A.FISCAL_YEAR - Fiscal Year	Num4.0				Year	9	Edit	-
	2	A.ACCOUNTING_PERIOD - Accounting Period	Num3.0				Period	9.	Edit	-
	3	A.ACCOUNT - Account	Char10				Account	9	Edit	-
	4	A.CHARTFIELD1 - Purpose	Char10				Purpose	9	Edit	-
	5	A.LEDGER - Ledger	Char10				Ledger	94	Edit	-
	6	A.AMOUNT - Amount	SNm25.3			Sum	Sum Amount	9	Edit	-
	7	A.UOD_CHRTFLD1_DESCR - Description	Char30				Descr	94	Edit	-
	8	A.FISCAL_YEAR %concat A.ACCOUNTING_PERIOD	Char15				A.FISCAL_YEAR %concat A.ACCOUN	94 (	Edit	

15. In the Heading Text box, change text to: FY AcctgPeriod

Edit Field Properties	
Field Name: A.FISCAL_YEAR %c	oncat A.ACCOUNTING_PERIOD
Heading	Aggregate
No Heading       RFT Short            • Text       RFT Long         Heading Text:       FY AcctgPeriod         *Unique Field Name:       EXPR8_8	<ul> <li>None</li> <li>Sum</li> <li>Count</li> <li>Min</li> <li>Max</li> <li>Average</li> </ul>
OK Cancel	

### 16. Click **OK**.

- 17. Click the Save As link.
- 18. In **Query** field, rename this query **xxx\_class\_concat** (where **xxx** represents your initials).
- 19. Click **OK**.
- 20. Click the **Criteria** tab.
- 21. Make sure the criteria on CHARTFIELD1, FISCAL\_YEAR and ACCOUNTING\_PERIOD are limited to one or just few values. This query uses the UOD\_TRANS\_DTL record, selecting too many values will have an adverse effect on the system resources.

Records Query Expression	s Prompts Fields (	Criteria Laving	View QL Run	
Query Name: ELLELL_CLASS_C	ONCAT_X D	escription:		Feed
Add Criteria Group Criteria	Reorder Criteria			
Criteria			Customize   Find   🗖   🛗	First 🚺 1-4 of 4 🚺 Last
Logical Expression1		Condition Type	Expression 2	Edit Delete
A.BUSINESS_U	NIT - Business Unit	equal to	UOD01	Edit 📃
AND A.FISCAL_YEA	R - Fiscal Year	equal to	2013	Edit –
AND A.ACCOUNTING	3_PERIOD - Accounting	equal to	1	Edit –
AND V A.CHARTFIELD	1 - Purpose	like	MAST112%	Edit -
Save Save As Ne	w Query Preferences Proj	perties Publish as	Feed New Union	Return

### 22. Click the Run tab

Reco	rds (	Query	Expressio	ns Prompts	Fields Crit	eria Having	View SQL Run	
View	r All   <u>Re</u>	run Quer	y   <u>Downloa</u>	id to Excel   Down	load to XML			First 🗹 1-24 of 24 🕨 Last
	Year	Period	Account	Purpose	Ledger	Sum Amount	Descr	FY AcctgPeriod
1	2013	1	143000	MAST112113	ACTUALS	5.000	SMSP-LEWES INSTRUCTION SUPP	20131
2	2013	1	140600	MAST112115	ACTUALS	29.960	SMSP SUPPORT	20131
3	2013	1	141000	MAST112115	ACTUALS	46.120	SMSP SUPPORT	20131
4	2013	1	144300	MAST112115	ACTUALS	-126.380	SMSP SUPPORT	20131
5	2013	1	145000	MAST112115	ACTUALS	-416.790	SMSP SUPPORT	20131
6	2013	1	145600	MAST112115	ACTUALS	127.830	SMSP SUPPORT	20131
7	2013	1	147700	MAST112115	ACTUALS	-62.060	SMSP SUPPORT	20131
8	2013	1	148300	MAST112115	ACTUALS	110.000	SMSP SUPPORT	20131
9	2013	1	148500	MAST112115	ACTUALS	340.180	SMSP SUPPORT	20131
10	2013	1	145900	MAST112116	ACTUALS	8.310	CEOE IT OPERATIONS	20131
11	2013	1	148400	MAST112116	ACTUALS	692.000	CEOE IT OPERATIONS	20131
12	2013	1	149600	MAST112116	ACTUALS	-69.990	CEOE IT OPERATIONS	20131

Note that this new concatenated field is difficult to read. See the next page for an alternative that makes it more understandable. Note: The following is an alternative way of writing a concatenation expression. It will also demonstrate adding a dash (-) in between the two fields to make the new field easier to read.

- 23. Click on the Expressions tab
- 24. Click the **Edit** button on the **A.FISCAL\_YEAR %CONCAT A.ACCOUNTING\_PERIOD** row.

Records Query Expressions Prompts Fiel	lds Criteria Having	View SQL F	Run		
Query Name: ELLELL_CLASS_CONCAT_X	Description:				Feed -
Add Expression					
Expressions List		Customize   Find	<u>الا</u> ا 🖪	First 🚺 1 of	1 🗈 Last
Expression Text		Use as Field	Add Criteria	Edit	Delete
A.FISCAL_YEAR %concat A.ACCOUNTING_PERIOD		Use as Field	94	Edit	-

25. Omit the **%concat** and replace it with || on either side of a dash in single quotes.

Your expression will now be A.FISCAL\_YEAR || '-' || A.ACCOUNTING\_PERIOD -

There are spaces before and after both sets of the ||.

26. Click the **OK** button.

Character			15
Character	•	Length:	10
Aggregat	e Function	Decimals:	
Expression	Fext:		
A.FISCAL_Y	AR    '-'    A.ACCOUNTING	PERIOD	$\mathbf{\Sigma}$

The | (pipes) character is found on your keyboard above the Enter key on the same key as the backslash.

27. Click the **Run** tab. Notice that the new concatenated field now has a dash in it.

Rec	ords	Query	Expression	ns Prompts	Fields Cr	riteria Having	View SQL Run			
Vie	ew All   <u>R</u> e	erun Quer	y   <u>Downloa</u>	d to Excel   Downlo	ad to XML			First	1-24 of 24 🔍 Las	st
	Year	Period	Account	Purpose	Ledger	Sum Amount	Descr		FY AcctgPeriod	
1	2013	1	143000	MAST112113	ACTUALS	5.000	SMSP-LEWES INSTRUCTION SUPP		2013-1	N
2	2013	1	140600	MAST112115	ACTUALS	29.960	SMSP SUPPORT		2013-1	$  \rangle$
3	2013	1	141000	MAST112115	ACTUALS	46.120	SMSP SUPPORT		2013-1	
4	2013	1	144300	MAST112115	ACTUALS	-126.380	SMSP SUPPORT		2013-1	
5	2013	1	145000	MAST112115	ACTUALS	-416.790	SMSP SUPPORT		2013-1	
6	2013	1	145600	MAST112115	ACTUALS	127.830	SMSP SUPPORT		2013-1	1/
7	2013	1	147700	MAST112115	ACTUALS	-62.060	SMSP SUPPORT		2013-1	$\boldsymbol{V}$
8	2013	1	148300	MAST112115	ACTUALS	110.000	SMSP SUPPORT		2013-1	

28. Go to Fields tab, click Save As link and click OK

--End of Exercise-

# Decode ("if" statements)

Decode allows you to create a field whose value is conditional upon a logical expression. For example, you may want to create a field that is populated with **Amount** under certain conditions and is blank under other conditions. The general format is the following:

DECODE (statement to evaluate, thing to evaluate statement against, value if true, value if false).

### Exercise 20—How to Use Decode

In this exercise, we will create a field called "basic budget amount." If the Fund is OPBAS (Operating Basic Budget), then return the **Amount**. Otherwise, return zero.

- 1. Go to Query Manager and open XXX\_CLASS\_SUBSTRING (where XXX represents your initials)
- 2. Click the Query tab click the show Fields icon 庄 to display the fields
- 3. Click on the FUND\_CODE Fund Code check box to add this field to your query

Record Query prompts Fields Criteria Having View SQL Run										
Query Name: ELLELL_CLASS_SUBSTRING_X Description:										
Click folder next to record to show fields. Check fields to add to query. Uncheck fields to remove from query. Add additional records by clicking the records tab. When finished click the fields tab.	ĝ.									
Chosen Records										
Alias Record										
A UOD_TRANS_DTL - UOD Transaction Detail GL										
Check All Uncheck All										
Fields Find   View All First 🚺 1-50 of 55 🕨 Last										
DUSINESS_UNIT - Business Unit										
🔽 📴 FISCAL_YEAR - Fiscal Year 🧖										
🗌 🗁 ACCOUNTING_DT - Accounting Date 🧣										
🖌 🗁 ACCOUNTING_PERIOD - Accounting Period 🌱										
ACCOUNT - Account										
DEPTID - Department										
FUND_CODE - Fund Code										
CLASS_FLD - Class Field <u>Join CLASS_CF_TBL - Class</u>										

- 4. Click the Criteria tab
- 5. Change two criteria by clicking the **Edit** buttons:
  - Accounting Period to equal to 2
  - Purpose to like with your acronym with the % wildcard (e.g. UNIV%)

Records Que	ry Expressions Prompts Fields	Criteria Having	View SQL Run	
Query Name: E	LLELL_CLASS_SUBSTRING_X	Description:		Feed
Add Criteria	Group Criteria Reorder Criteria			
Criteria			Customize   Find   🗖   🛗	First 🚺 1-4 of 4 D Last
Logical	Expression1	Condition Type	Expression 2	Edit Delete
· · · · ·	A.BUSINESS_UNIT - Business Unit	equal to	UOD01	Edit –
AND 🗸	A.FISCAL_YEAR - Fiscal Year	equal to	2013	Edit –
	A.ACCOUNTING_PERIOD - Accounting Period	equal to	2	Edit
AND 🗸	A.CHARTFIELD1 - Purpose	like	UNIV%	Edit

6. Click the **Expressions** tab and then click the **Add Expression** button

Records Query Expressions Prompts Fields Criteria Having	View SQL Run
Query Name: ELLELL_CLASS_SUBSTRING_X Description:	S Feed
Add Expression	
Expressions List	Customize   Find   🖾   🛗 First 🚺 1 of 1 🖸 Last
Expression Text	Use as Field Add Criteria Edit Delete
%substring(A.CHARTFIELD1,5,2)	Use as Field 🗣 🔄 Edit

- 7. In Expression Type select Number
- 8. Change Length to 15 and Decimals to 2.

In the Expression Text box, type: decode (A. FUND\_CODE, 'OPBAS', A. AMOUNT, 0)

Edit Expression Properties	
*Expression Type: Number  Aggregate Function Expression Text: decode(A.FUND_CODE,'OPBAS',A.AM	Length: 15 Decimals: 2 OUNT,0)
Add Promot Add Field	There are NO spaces in this text.
OK Cancel	

9. Click **OK**.

10. Click the Use As Field link for the new field decode(A.FUND\_CODE,'OPBAS',A.AMOUNT,0).

Records Query Expressions Prompts Fields	Criteria Having	View SQL	Run	
Query Name: ELLELL_CLASS_SUBSTRING_X	Description:			S Feed ▼
Add Expression				
Expressions List		Customize   Find	🛛 📔 🛛 Fin	st 🚺 1-2 of 2 🚺 Last
Expression Text		Use as Field	Add Criteria	Edit Delete
%substring(A.CHARTFIELD1,5,2)		Use as Field	<b>%</b>	Edit –
decode(A.FUND_CODE,'OPBAS',A.AMOUNT,0)		Use as Field	9	Edit

11. This opens the Fields tab

12. Click the Edit button for decode(A.FUND\_CODE,'OPBAS',A.AMOUNT,0).

R	Records Query Expressions Prompts Fields Criteria Having View SQL Run										
Q	Query Name: ELLELL_CLASS_SUBSTRING_X Description:										
v	View field properties, or use field as criteria in query statement.										
Fi	Fields Customize   Find   View All   🔤   🛗 First 🚺 1-10 of 10 🔽 Last										
<u>c</u>	ol	Record.Fieldname	<u>Format</u>	<u>Ord</u>	<u>XLAT</u>	Agg	Heading Text	Add Criteria	Edit	Delete	
	1	A.FISCAL_YEAR - Fiscal Year	Num4.0				Year	94	Edit	-	
	2	A.ACCOUNTING_PERIOD - Accounting Period	Num3.0				Period	9	Edit	-	
	3	A.ACCOUNT - Account	Char10				Account	9	Edit	-	
	4	A.CHARTFIELD1 - Purpose	Char10				Purpose	94	Edit	-	
	5	A.LEDGER - Ledger	Char10				Ledger	94	Edit	-	
	6	A.AMOUNT - Amount	SNm25.3			Sum	Sum Amount	94	Edit	-	
	7	A.UOD_CHRTFLD1_DESCR - Description	Char30				Descr	94	Edit	-	
	8	%substring(A.CHARTFIELD1,5,2)	Char2				Purpose 5, 6	<b>%</b>	Edit	-	
	9	A.FUND_CODE - Fund Code	Char5				Fund	9	Edit	-	
	10	decode(A.FUND_CODE,'OPBAS',A.AMOUNT,0)	Num13.2				decode (A.FUND_CODE,'OPBAS',A.A	94 (	Edit		

13. In the Heading Text box, change the text to: Basic Bgt Amt

Edit Field Properties									
Field Name: decode(A.FUND_CODE,'OPBAS',A.AMOUNT,0)									
Heading	Aggregate								
<ul> <li>No Heading</li> <li>RFT Short</li> <li>Text</li> <li>RFT Long</li> <li>Heading Text:</li> <li>Basic Budget Amt</li> <li>*Unique Field Name:</li> <li>EXPR10_10</li> </ul>	<ul> <li>None</li> <li>Sum</li> <li>Count</li> <li>Min</li> <li>Max</li> <li>Average</li> </ul>								
OK Cancel									

### 14. Click **OK**

15. Click the Run tab.

*OOOOOPS* – an error!

Records Qu	uery Expressions Prompts Fields Criteria Having View SQL Run
	This "group function" error means there's a problem with a sum on one of the fields.
Rerun Query A SQL error occ Error in running	curred. Please consult your system log for details. g query because of SQL Error, Code=934, Message=ORA-00934; group function is not allowed here (50,380)

16. Click the Fields tab

The problem is the **Sum** on the **A.AMOUNT** field - it conflicts with the decode field and is not needed, since the decode expression also involves the A.AMOUNT field.

17. Delete the **A.AMOUNT** field with the 🖃 button

18. Add the sum to the "decode" field instead - click the Edit button on the "DECODE" field

Records Query	Expressions Prompts	ields Cr	iteria	На	wing	View SQL Ru	1		
Query Name: ELLELL_CLASS_DECODE_X Description:									
View field properties, or use field as criteria in query statement.									
Fields				<u>Cu</u>	stomize	e   Find   View All   🗖	First	1-10 of 1	o 🗈 Last
Col Record.Fieldna	me	<u>Format</u>	<u>Ord</u>	<u>XLAT</u>	Aqq	Heading Text	Add Criteria	Edit	Delete
1 A.FISCAL_YEA	R - Fiscal Year	Num4.0				Year	94	Edit	-
2 A.ACCOUNTIN	G_PERIOD - Accounting Period	Num3.0				Period	9	Edit	-
3 A.ACCOUNT - /	Account	Char10				Account	94	Edit	-
4 A.CHARTFIELD	)1 - Purpose	Char10				Purpose	9	Edit	-
5 A.LEDGER - Le	dger	Char10				Ledger	9	Edit	-
6 A.AMOUNT - Ar	nount	SNm25.3			Sum	Sum Amount	94	Edit	$\bigcirc$
7 A.UOD_CHRTF	LD1_DESCR - Description	Char30				Descr	94	Edit	-
8 %substring(A.C	CHARTFIELD1,5,2)	Char2				Purpose 5, 6	9	Edit	-
9 A.FUND_CODE	- Fund Code	Char5				Fund	9	Edit	-
10 DECODE(A.FU	ND_CODE,'OPBAS',A.AMOUNT,0)	Num13.2				Basic Budget Amt	<b>%</b>	Edit	-

- 19. In the Aggregate box, click Sum
- 20. Click **OK**

Edit Field Properties								
Field Name: DECODE(A.FUND_CODE,'OPBAS',A.AMOUNT,0)								
Heading	Aggregate							
<ul> <li>No Heading</li> <li>RFT Short</li> <li>Text</li> <li>RFT Long</li> <li>Heading Text:</li> <li>Basic Budget Amt</li> <li>*Unique Field Name:</li> <li>EXPR10_10</li> <li>OK</li> <li>Cancel</li> </ul>	<ul> <li>None</li> <li>Sum</li> <li>Count</li> <li>Min</li> <li>Max</li> <li>Average</li> </ul>							

21. Click the Run tab

Notice only the rows with the Fund Code of **OPBAS** have an amount in the **Basic Budget Amt** column.

Record	ds Q	uery	Express	sions Prom	pts Fiel	ds Criteria Having View SQ	LRun	)		
View	<u>All   Reru</u>	in Quei	ry   <u>Downlo</u>	oad to Excel   D	ownload to )	<u>(ML</u>			First 🔳	1-100 of 122 🕨 Last
	Year F	Period	Account	Purpose	Ledger	Descr	Pu	rpose 5, 6	Fund	Basic Budget An t
1	2013	1	146000	UNIV112166	ACTUALS	INDIRECT COST/CASB	11		OPBAS	2500.00
								_/		
82	2013	1	144300	UNIV112535	ACTUALS	CHRYSLER OPERATIONAL COSTS	11		OPBAS	133.50
83	2013	1	148500	UNIV112535	ACTUALS	CHRYSLER OPERATIONAL COSTS	11		OPBAS	180.04
84	2013	1	151800	UNIV112535	ACTUALS	CHRYSLER OPERATIONAL COSTS	11		OPBAS	188.45
85	2013	1	154800	UNIV112535	ACTUALS	CHRYSLER OPERATIONAL COSTS	11		OPBAS	105.00
86	2013	1	149000	UNIV175181	ACTUALS	SPECIAL TUIT HLDG	17		OPBAL	0.00
87	2013	1	154800	UNIV175191	ACTUALS	DIVERSITY TASK FORCE	17		OPBAL	0.00
88	2013	1	144600	UNIV175216	ACTUALS	R/E FIN OFC YEAR END ENTRIES	17		OPBAL	0.00

- 22. Click the Save As link.
- 23. In **Query** field, rename this query **xxx\_class\_decode** (where **xxx** represents your initials).
- 24. Click OK.

--End of Exercise-

### **Running Query Results to Excel**

You can run results from queries to Microsoft Excel. In the next exercise, you will run your query results from the previous exercise to Excel. There are three ways to download query results to Excel:

- Query Viewer search page
- Query Manager search page
- Run tab in Query Manager

Exercise 21—How to Run Query Results to Excel from Query Viewer or Query Manager

- 1. Open Query Manager or Query Viewer
- 2. Find the query you want to download and click the Excel link

#### Query Viewer search page:

Query Viewer								
Enter any information you have and click Search. Leave fields blank for a list of all values.								
*Search By: Query Name	begins with	ELL						
Search Advanced Search								
Search Results	Search Results							
*Folder View: All Folders	~							
Query			Customize   Fi	nd   View	All 🚺	1 🖩 👘	First 🚺 1-21	of 21 🚺 Last
Query Name	Description	<u>Owner</u>	<u>Folder</u>	Run to HTML	Run to	Run to XML	<u>Schedule</u>	Add to Favorites
ELLELL_CLASS_AGGR_SUM_X		Private		HTML	Excel	XML	Schedule	Favorite
ELLELL_CLASS_CRITERIA	query class exercise	Private		HTML	Excel	XML	Schedule	Favorite
ELLELL_CLASS_DECODE		Private		<u>HTML</u>	Excel	XML	Schedule	Favorite
ELLELL_CLASS_JOINS	query class exercise	Private		<u>HTML</u>	Excel	<u>XML</u>	Schedule	Favorite

#### Query Manager search page:

Query	Query Manager							
Enter an	y information you have and click Search. I	eave fields blank for a list of	all values.					
	Find an Existing Query   Create New Query							
*Search By: Query Name V begins with ELL								
Se	arch Advanced Search							
Searc	h Results							
	*Folder View: All Folders	$\checkmark$						
Ch	eck All Uncheck All		*Action: Cho	)ose		G	D	
Query			Custom	<u>iize   Fir</u>	nd   View /	AII 🗖 I	<u>н</u> г	First 🚺 1-21 of 21 🚺 Last
<u>Select</u>	<u>Query Name</u>	<u>Descr</u>	Owner Folder	<u>Edit</u>	Run to HTML	Run to	Run to XML	<u>Schedule</u>
	ELLELL_CLASS_AGGR_SUM_X		Private	<u>Edit</u>	HTM	Excel	XIIL	Schedule
	ELLELL_CLASS_CRITERIA	query class exercise	Private	<u>Edit</u>	HTML	Excel	<u>XML</u>	Schedule
	ELLELL_CLASS_DECODE		Private	<u>Edit</u>	<u>HTML</u>	Excel	<u>XML</u>	Schedule
	ELLELL_CLASS_JOINS	query class exercise	Private	<u>Edit</u>	<u>HTML</u>	Excel	<u>XML</u>	Schedule
	ELLELL_CLASS_SUBSTRING_X		Private	<u>Edit</u>	HTML	Excel	<u>XML</u>	Schedule

3. When this dialog box appears, click Save

Internet Explorer	×
What do you want to do with q From: wafinprd.nss.udel.edu	.xls?
<ul> <li>Open</li> <li>The file won't be saved automatic</li> </ul>	ally.
Save	
→ Save as	
	Cancel

4. Click **Open** when this message appears at the bottom of your screen:

The $\sigma(I)$ vis download has completed	( -	Onen		Open folder	View downloads	1
The q (7) his download has completed.		open	)	opentolder	view downloads	

5. Save this new Excel document and rename it something meaningful to you.

#### Run tab in Query Manager:

1. From the Query Manager search page, click the Edit link on the query you want to download

Query Manager						
Enter any information you have and click Search. I	Leave fields blank for a list of	all values.				
Find an Existing Query   Create New Query						
*Search By: Query Name	✓ begins with	ELL				
Search Advanced Search						
Search Results						
*Folder View: All Folders	$\checkmark$					
Check All Uncheck All		*Action: Cho	00se V	Go		
Query Customize   Find   View All   🕮   🗰 First 🚺 1-21 of 21 🔟 Last						
Select Query Name	<u>Descr</u>	Owner Folder	Edit <u>Run to</u> HTML	Run to Excel	<u>Run to</u> <u>XML</u>	<u>Schedule</u>
ELLELL_CLASS_AGGR_SUM_X		Private	Edit HTML	Excel	XML	Schedule
ELLELL_CLASS_CRITERIA	query class exercise	Private	Edit HTML	Excel	<u>XML</u>	Schedule
ELLELL_CLASS_DECODE		Private	Edit HTML	Excel	<u>XML</u>	Schedule

2. Click the **Run** tab and then click the **Download to Excel** link

R	Records Query Expressions Prompts Fields Criteria Having View SQL Run							
\	/iew	All   <u>Reru</u>	In Query	Download to	o Excel   Download	I to XML		First 🖪 1-94 of 94 🕨 Last
		Year	Period	Account	Purpose	Ledger	Sum Amount	Descr
	1	2013	1	144300	STGP912111	ACTUALS	1258.890	STUDENT GOVERNMENT ASSOCIATION
	2	2013	1	154800	STGP912111	ACTUALS	30.000	STUDENT GOVERNMENT ASSOCIATION
:	3	2013	1	R17900	STGP912111	ACTUALS	-675.020	STUDENT GOVERNMENT ASSOCIATION
	4	2013	1	R17900	STGP912112	ACTUALS	-66.000	AM SOC MECH ENGINEERS
1	5	2013	1	145000	STGP912113	ACTUALS	1225.000	DE RUGBY CLUB

3.	When	this dialog	box app	ears, d	click Save
----	------	-------------	---------	---------	------------



4. Click Open when this message appears at the bottom of your screen:

The q (7).xls download has completed.	Open	Open folder	View downloads	×
---------------------------------------	------	-------------	----------------	---

5. Save this new Excel document and rename it something meaningful to you.

End of Exercise	e
-----------------	---

### **Using the Query Viewer**

The **Query Viewer** is a read-only version of the **Query Manager**. It allows Security Administrators to provide read-only access to users who only need to view or print queries.

The Query Viewer enables you to do the following:

- Search for a query
- Preview a query
- Run a query
- Print a query

#### To Use the Query Viewer to Search for a Query

Log in to PS as you normally do. From the **Menu** box, click **Reporting Tools**. Click **Query**. Click **Query** Viewer. In the **Search For** field, type the name of the query you want to find.

#### To Use the Query Viewer to Preview a Query

When you preview a query, the results are displayed in the current browser window.
Log in to PS as you normally do.
From the Menu box, click Reporting Tools.
Click Query.
Click Query Viewer.
In the Search For field, type the name of the query you want to find.
Click the name of the query you want to view.
Download the results to an Excel spreadsheet.

### To Use the Query Viewer to Run a Query

When you run a query, the results are displayed in a new browser window.
Log in to PS as you normally do.
From the Menu box, click Reporting Tools.
Click Query.
Click Query Viewer.
In the Search For field, type the name of the query you want to find.
Click the HTML link to run the query.
Download the results to an Excel spreadsheet.

#### To Use the Query Viewer to Print a Query

Log in to PS as you normally do. From the **Menu** box, click **Reporting Tools**. Click **Query**. Click **Query** Viewer. In the **Search For** field, type the name of the query you want to find. Run the query. Click the **Print** button for the browser program you use. (Or, select **File | Print** from the browser's **Menu** bar.) The query will print on your default printer.

If you choose to download the query to Excel or another program, you can print the query using that program's print functions.

# Appendix

Sort button	Click the Sort button once to list fields in alphabetical order. Click the button again to return to original sort.
Alias	The alias name that the program automatically assigns to the chosen records.
Hierarchy Join	Click this link to join a child table to its parent table.
Check All Fields	Click this button to check all fields in the record. Once you select a field, the program automatically adds it to the query and you can view it on the Fields page. This button does not appear when the field names are hidden.
Uncheck All Fields	Click this button to clear all fields in the record.
Field Names	Select the box located to the left of each field that you want to add to your query content.
Related Record Join	Click this link to join two records based on a shared field.
Expand All Records	Click this button to view all fields in the records. This button appears only when there is more than one record listed.
Collapse All Records	Click this button to hide all fields in the records. This button appears only when there is more than one record listed.
Format	Field type and length for each field listed.
Ord (order)	Shows one or more fields selected to sort your query output. If the field is the first sort field, a 1 appears, and the program sorts rows based on this field first. The second sort field selected is numbered 2, and so on. A descending sort order can also be specified. The letter D appears if sorting fields in descending order is selected.
XLAT (translate)	Specifies which translate value you want to appear in the query results: <i>N</i> (none), <i>S</i> (short), or <i>L</i> (long). The table you're querying may include fields that use the Translate table. If so, the field itself contains a short code of some kind, for which the Translate table provides a set of corresponding values. For example, if the table includes an EFF_STATUS field, the value is <i>A</i> or <i>I</i> , which the Translate table translate table. If so, the field itself contains a start code of some kind, for which the Translate table provides a set of corresponding values. For example, if the table includes an EFF_STATUS field, the value is <i>A</i> or <i>I</i> , which the Translate table translate table. If a field has values on the Translate table, a letter appears in the XLAT column for that field.
	In your query results, you might want to display the translated value rather than the code (for example, <i>Active</i> instead of <i>A</i> ). To tell PS Query to make this substitution specify <i>L</i> as the translate value. Translate tables are effective-dated, so you must select which effective date to use for it. For most tables, PS Query defaults to the current date, meaning that it uses the currently active list of Translate table values. However, if the table you're querying is also effective-dated, PS Query uses the value in the EFFDT field for a row. That is, for each row the query returns, PS Query uses the Translate table values that were active as of that row's effective date.
	<ul> <li>If neither of these effective date options are what you want, you have two more:</li> <li>If the table you're querying includes another date field, you can use the value in that field as the effective date for Translate table values. Click the Edit button and then select the Field option, and then select the field name from the drop-down list box.</li> <li>Use an expression to set the effective date for the Translate table. For example, enter a fixed effective date or prompt the user for one.</li> </ul>
Agg (aggregate)	Aggregate function for each field listed.
Heading Text	The heading assigned to appear at the top of the column for the query output for each field listed.
Edit	Click this button to format the query output (for example, to change column headings, display translate table values in place of codes, or specify a sort order).
ReOrder/Sort	Click this button to display the Edit Field Ordering page, which enables you change the column order and/or sort order for multiple fields.

# Terms and Buttons Used with Fields (from PeopleBooks online documentation)

## Standard Criteria used with UDO\_TRANS\_DTL Table

This query, EZQ\_TRANS\_NONBUDPURPNOPO, was written to return transactions for a given Purpose for a range of accounting periods. It *excludes* budget entries and Purchase Order transactions that are not yet expenses.

ĺ	EZQ_TRANS_NONBUDPURPNOPO	
This is what the prompts look like:		
Favorites Main Menu > Reporting Tools > Query >	Query Manager	
Records Query Expressions Prompts B	ields Criteria Having View SQL R	Run
Query Name: EZQ_TRANS_NONBUDPURPNOPO	Description: Non Budget Trans No PO F	Purp Seed
Add Criteria Group Criteria Reorder Crite	ria	
Criteria		Maria 10
Logical Expression1	Condition Type Expression 2	Edit Delete
A.BUSINESS_UNIT - Business Unit	equal to UOD01	Edit –
AND A.CHARTFIELD1 - Purpose	equal to :1	Edit –
A.FISCAL_YEAR - Fiscal Year	between :2 AND :4	Edit –
A.FISCAL_YEAR*1000 +A.ACCOUNTING_PERIOD	not less than (:2*1000)+:3	Edit
A.FISCAL_YEAR*1000 +A.ACCOUNTING_PERIOD	not greater than (:4*1000)+:5	Edit
A.STATISTICS_CODE - Statistics C	ode not in list ('ENU', 'ENP')	Edit –
AND A.ACCOUNTING_PERIOD - Account Period	ting not equal to 0	Edit
AND A.ACCOUNTING_PERIOD - Account Period	ting not equal to 999	Edit
AND V (A.LEDGER - Ledger	equal to ACTUALS	Edit –
OR ALEDGER - Ledger	equal to '')	Edit
AND A.JOURNAL ID - Journal ID	not oqual to U	Edit

These are the explanations for the six "standard" criteria:

- **STATISTICS\_CODE not in list 'ENU','ENP'** This excludes any transaction used to record endowment "units".
- ACCOUNTING\_PERIOD not equal to 0 and ACCOUNTING\_PERIOD not equal to 999 These two criteria exclude the two accounting periods used in the system fiscal year end close process.
- LEDGER equal to ACTUALS or LEDGER equal to ' ' (blank) These two criteria ensure that the results do not include budget transactions.
- JOURNAL\_ID not equal to '' (blank) This excludes Purchase Order transactions that create just obligations, but not actual expenses. (As a PO is expensed the transactions will be in the results because the Ledger will be ACTUALS.)