



Oracle Application Express: Developing Database Web Applications Hands-On-Labs Guide

Unit 6: Managing and Customizing Interactive Reports

This exercise includes two sets of hands-on-labs. Both HOL 6-1 and HOL 6-2 utilize the Hardware application that you created in HOL 5-2.

HOL 6-1: Using an Interactive Report: In this lab, you customize and use an interactive report as an end user.

HOL 6-2: Customizing an Interactive Report as a Developer: In this lab, as a developer, you customize an interactive report for your end users.

Labs HOL 6-3 through HOL 6-6 use the Demo Projects application.

HOL 6-3: Saving the Team Members Interactive Report: In this lab, as a developer, you save the Demo Proj Team Members interactive report as the alternative default report.

HOL 6-4: Customizing the Projects Interactive Report: In this lab, as a developer, you modify the source query, create a new column link, and customize the display of the Demo Projects interactive report.

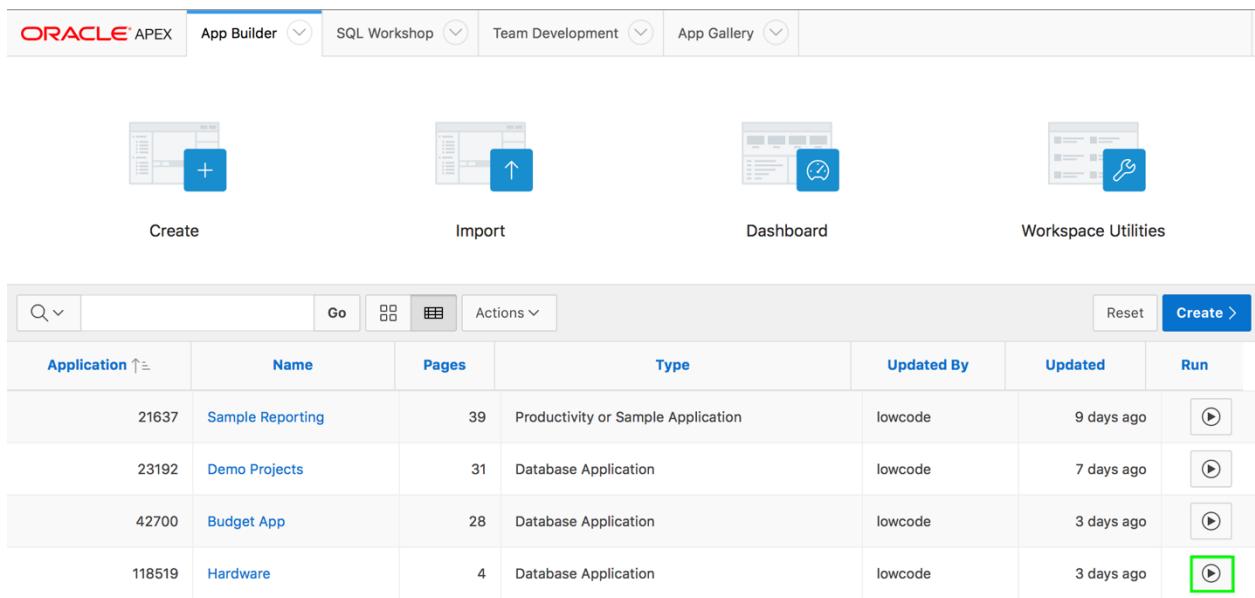
HOL 6-5: Customizing the Milestones Interactive Report: In this lab, you modify the source query, and customize the Demo Proj Milestones interactive report.

HOL 6-6: Customizing the Tasks Interactive Report: In this lab, you customize the display of the Demo Proj Tasks interactive report.

HOL 6-1: Using an Interactive Report

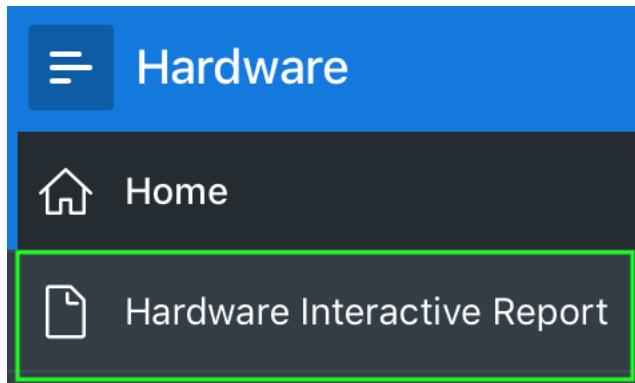
- First, you run the Hardware application. Navigate to **App Builder**. If you are in the report view, click the **Run** button for **Hardware**.

Alternatively, if you are in the icon view, click **Hardware** and then click **Run Application**.



Application ↑↓	Name	Pages	Type	Updated By	Updated	Run
21637	Sample Reporting	39	Productivity or Sample Application	lowcode	9 days ago	
23192	Demo Projects	31	Database Application	lowcode	7 days ago	
42700	Budget App	28	Database Application	lowcode	3 days ago	
118519	Hardware	4	Database Application	lowcode	3 days ago	

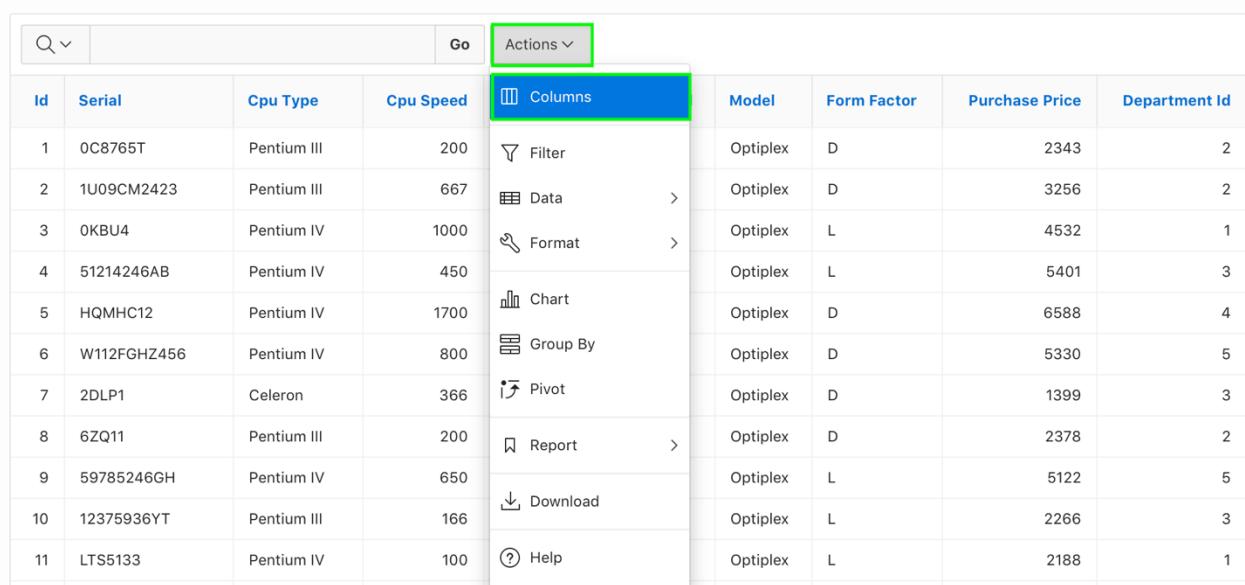
- In the navigation menu, click **Hardware Interactive Report**.



- You do not want to display the Id and Form Factor columns in the report. Also, you want the Purchase Date column to display just before the Purchase Price column. Perform the following steps:

- Click **Actions** and select **Columns**.

Hardware Interactive Report



				Actions				
Id	Serial	Cpu Type	Cpu Speed	Columns	Model	Form Factor	Purchase Price	Department Id
1	OC8765T	Pentium III	200	Filter	Optiplex	D	2343	2
2	1U09CM2423	Pentium III	667	Data	Optiplex	D	3256	2
3	OKBU4	Pentium IV	1000	Format	Optiplex	L	4532	1
4	51214246AB	Pentium IV	450	Chart	Optiplex	L	5401	3
5	HQMHC12	Pentium IV	1700	Group By	Optiplex	D	6588	4
6	W112FGHZ456	Pentium IV	800	Pivot	Optiplex	D	5330	5
7	2DLP1	Celeron	366	Report	Optiplex	D	1399	3
8	6ZQ11	Pentium III	200	Download	Optiplex	D	2378	2
9	59785246GH	Pentium IV	650		Optiplex	L	5122	5
10	12375936YT	Pentium III	166		Optiplex	L	2266	3
11	LTS5133	Pentium IV	100	Help	Optiplex	L	2188	1

- b) The Select Columns dialog appears. The columns on the right are displayed, and the columns on the left are hidden. Select **Id** and **Form Factor** in Display in Report group, and click the **Remove** icon.

Select Columns



Do Not Display	Display in Report
	<input checked="" type="checkbox"/> Id
	<input type="checkbox"/> Serial
	<input type="checkbox"/> Cpu Type
	<input type="checkbox"/> Cpu Speed
	<input type="checkbox"/> Purchase Date
	<input type="checkbox"/> Brand
	<input type="checkbox"/> Model
	<input checked="" type="checkbox"/> Form Factor
	<input type="checkbox"/> Purchase Price
	<input type="checkbox"/> Department Id

Do Not Display

Display in Report

Id
Serial
Cpu Type
Cpu Speed
Purchase Date
Brand
Model
Form Factor
Purchase Price
Department Id

Cancel Apply

- c) You can reorder the displayed columns using the arrows on the far right.
Select **Purchase Date** in the Display in Report group and click the **Down** arrow twice.
Then, click **Apply**.

Select Columns



Do Not Display	Display in Report
<p>Id</p> <p>Form Factor</p>	<p>Serial</p> <p>Cpu Type</p> <p>Cpu Speed</p> <p>Purchase Date</p> <p>Brand</p> <p>Model</p> <p>Purchase Price</p> <p>Department Id</p>

Navigation icons: Left, Right, Double Left, Double Right, Up, Down.

Cancel

Apply

Select Columns

Do Not Display

Serial
Cpu Type
Cpu Speed
Brand
Model
Purchase Date
Purchase Price
Department Id

Display in Report

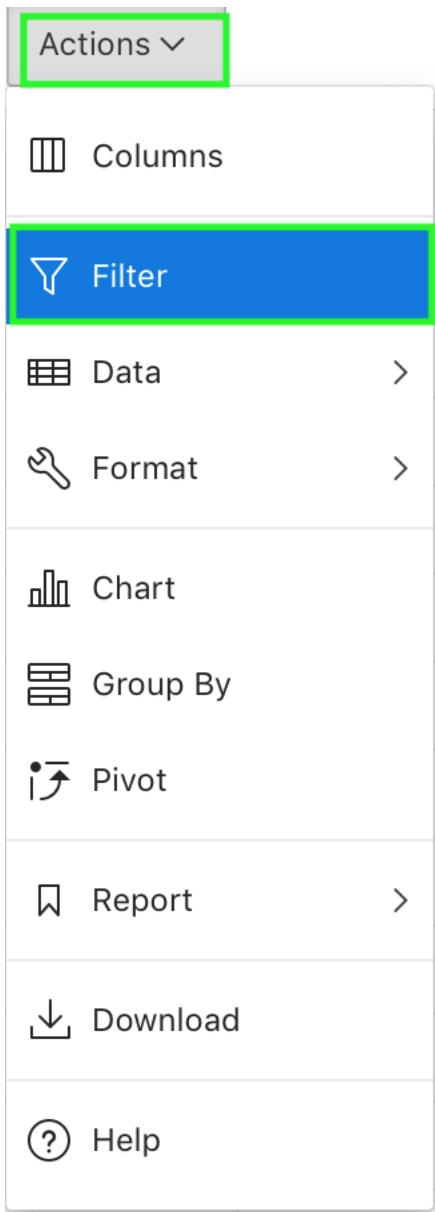
Cancel **Apply**

d) The changes you made to the interactive report display are reflected now.

Serial	Cpu Type	Cpu Speed	Brand	Model	Purchase Date	Purchase Price	Department Id
0C8765T	Pentium III	200	Dell	Optiplex	10/9/2004	2343	2
1U09CM2423	Pentium III	667	Dell	Optiplex	6/1/2005	3256	2
OKBU4	Pentium IV	1000	Dell	Optiplex	5/12/2001	4532	1
51214246AB	Pentium IV	450	Dell	Optiplex	6/14/2001	5401	3
HQMHC12	Pentium IV	1700	Dell	Optiplex	6/15/2002	6588	4
W112FGHZ456	Pentium IV	800	Dell	Optiplex	1/12/2001	5330	5
2DLP1	Celeron	366	Dell	Optiplex	4/1/2005	1399	3
6ZQ11	Pentium III	200	Dell	Optiplex	10/24/2004	2378	2
59785246GH	Pentium IV	650	Dell	Optiplex	3/20/2000	5122	5
12375936YT	Pentium III	166	Dell	Optiplex	3/1/2004	2266	3
LTS5133	Pentium IV	100	Dell	Optiplex	1/1/2004	2188	1
A492CSL7E265	Pentium IV	750	Dell	Optiplex	6/23/2005	5066	6

4. You want to create filters on the report. First, you want to filter the report to display rows which meet the criteria Purchase Price \geq 5330. Within these filtered results, you then create another filter to display rows with Cpu Type is Pentium III. Perform the following steps:

- a) Click **Actions** and select **Filter**.



- b) For Filter Type, select **Column**.

For Column, select **Purchase Price**, for Operator, select \geq and select **5330** from the Expression list.

Notice that this list of values for Expression is determined automatically, based on all the values in the Purchase Price column.

Then, click **Apply**.

Filter

Column Operator Expression

Purchase Price >= 5330

Cancel Apply

- c) The filter is applied now. You can have more than one filter on a report. If you decide that you want to disable a particular filter, you can click the check box to disable the filter. In this lab, you want to add another filter on the Cpu Type column.

Hardware Interactive Report

Serial	Cpu Type	Cpu Speed	Brand	Model	Purchase Date	Purchase Price	Department Id
51214246AB	Pentium IV	450	Dell	Optiplex	6/14/2001	5401	3
HQMHC12	Pentium IV	1700	Dell	Optiplex	6/15/2002	6588	4
W112FGHZ456	Pentium IV	800	Dell	Optiplex	1/12/2001	5330	5
9875H879	Pentium IV	850	Dell	Optiplex	10/5/2001	5446	5
H098OIUP296	Pentium IV	1700	Dell	Optiplex	4/27/2002	6477	4
FL4Q321	Pentium III	2400	Dell	Optiplex	12/10/2002	6267	2
54HFLDSEG77	Pentium III	466	Dell	Optiplex	6/14/2003	5401	6
90DSLFR7	Pentium III	366	Dell	Optiplex	6/15/2002	6588	3
88LDKSUE	PowerPC G4	450	Dell	Optiplex	4/8/2001	5330	6

- d) Click the **Actions** menu and select **Filter**.

Hardware Interactive Report

Serial	Cpu Type	Cpu Speed	Purchase Date	Purchase Price	Department Id
51214246AB	Pentium IV	450	6/14/2001	5401	3
HQMHC12	Pentium IV	1700	6/15/2002	6588	4
W112FGHZ456	Pentium IV	800	1/12/2001	5330	5
9875H879	Pentium IV	850	10/5/2001	5446	5
H098OIUP296	Pentium IV	1700	4/27/2002	6477	4
FL4Q321	Pentium III	2400	12/10/2002	6267	2
54HFLDSEG77	Pentium III	466	6/14/2003	5401	6
90DSLFR7	Pentium III	366	6/15/2002	6588	3
88LDKSUE	PowerPC G4	450	4/8/2001	5330	6

- e) Select **Cpu Type** for Column, select **=** for Operator and select **Pentium III** from the Expression list.
Click **Apply**.

Column	Operator	Expression
Cpu Type	=	Pentium III

Cancel **Apply**

- f) Notice that two filters are applied now. The rows displayed are fewer now because they are only the rows that meet both the filter criteria. You can remove each filter by clicking the Remove Filter icon, next to the filter you want to remove.
Click the **Remove Filter** icon next to both the filters

Hardware Interactive Report

Serial	Cpu Type	Cpu Speed	Brand	Model	Purchase Date	Purchase Price	Department Id
FL4Q321	Pentium III	2400	Dell	Optiplex	12/10/2002	6267	2
54HFLDSEG77	Pentium III	466	Dell	Optiplex	6/14/2003	5401	6
9ODSLFR7	Pentium III	366	Dell	Optiplex	6/15/2002	6588	3

1 - 3

5. Both the filters are now removed, and you see that all the rows are displayed. You can also create a row filter.
 - a) Click **Actions**, and select **Filter**.
 - b) You want to create a filter which selects a row when both the following conditions are true:
Cpu Type = 'Pentium III'
Purchase Price >= 5330
 Select **Row** for Filter Type.
 Enter **Row Filter** for Name.
 Click **Cpu Type** under Columns and then click **=** from Functions / Operators.
 Enter **'Pentium III'**.
 Click **AND** under Functions / Operators. Click **Purchase Price** under Columns and then click **>=** under Functions / Operators. Enter **5330**.
 Click **Apply**.

Filter

Column Row

Name
Row Filter

Filter Expression
C ='Pentium III' AND I >=5330

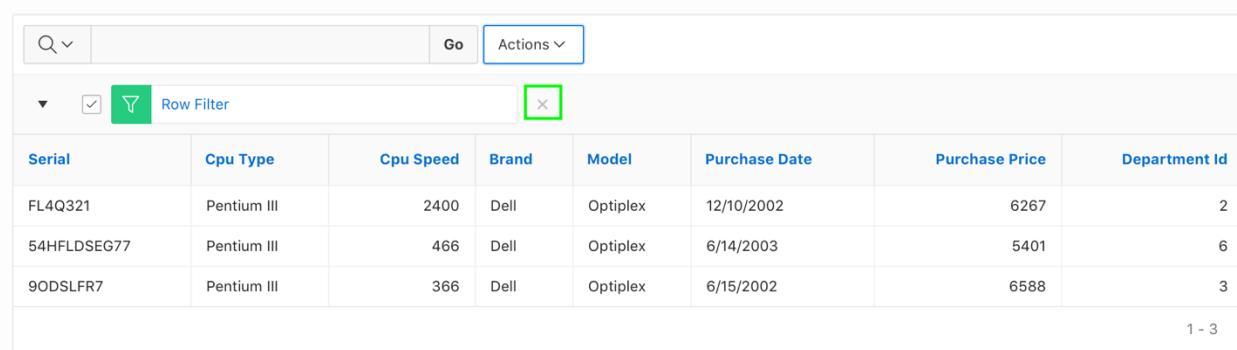
Columns	Functions / Operators
C. Cpu Type	<=
D. Cpu Speed	=
E. Purchase Date	>
F. Brand	>=
G. Model	ABS
H. Form Factor	ADD_MONTHS
I. Purchase Price	AND

Cancel Apply

- c) The row filter is applied now. Click the **Remove Filter** icon to remove the filter.

Home \

Hardware Interactive Report



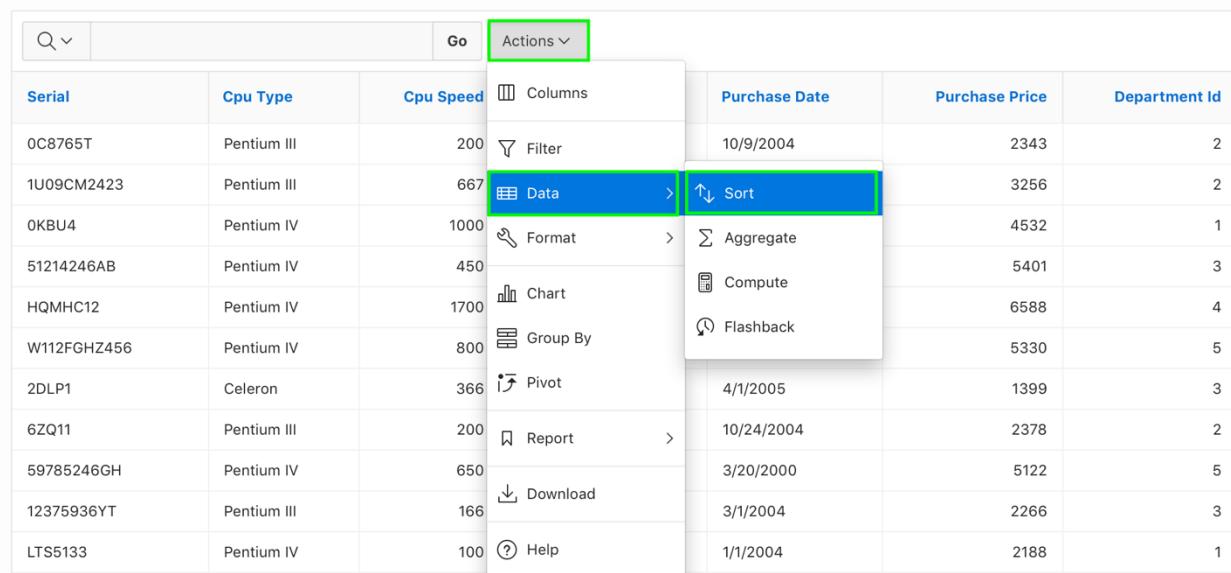
								Actions
Serial	Cpu Type	Cpu Speed	Brand	Model	Purchase Date	Purchase Price	Department Id	
FL4Q321	Pentium III	2400	Dell	Optiplex	12/10/2002	6267	2	
54HFLDSEG77	Pentium III	466	Dell	Optiplex	6/14/2003	5401	6	
9ODSLFR7	Pentium III	366	Dell	Optiplex	6/15/2002	6588	3	

1 - 3

6. You want to sort the report on the Purchase Price column.

- a) Select **Actions > Data > Sort**.

Hardware Interactive Report



Serial	Cpu Type	Cpu Speed	Purchase Date	Purchase Price	Department Id
0C8765T	Pentium III	200	10/9/2004	2343	2
1U09CM2423	Pentium III	667		3256	2
OKBU4	Pentium IV	1000		4532	1
51214246AB	Pentium IV	450		5401	3
HQMHC12	Pentium IV	1700		6588	4
W112FGHZ456	Pentium IV	800		5330	5
2DLP1	Celeron	366		1399	3
6ZQ11	Pentium III	200	10/24/2004	2378	2
59785246GH	Pentium IV	650	3/20/2000	5122	5
12375936YT	Pentium III	166	3/1/2004	2266	3
LTS5133	Pentium IV	100	1/1/2004	2188	1

- b) Select **Purchase Price** for Column and click **Apply**.

Sort



	Column	Direction	Null Sorting
1	Purchase Price ▾	Ascending ▾	Default ▾
2	- Select Column ▾	Ascending ▾	Default ▾
3	- Select Column ▾	Ascending ▾	Default ▾
4	- Select Column ▾	Ascending ▾	Default ▾
5	- Select Column ▾	Ascending ▾	Default ▾
6	- Select Column ▾	Ascending ▾	Default ▾

Cancel

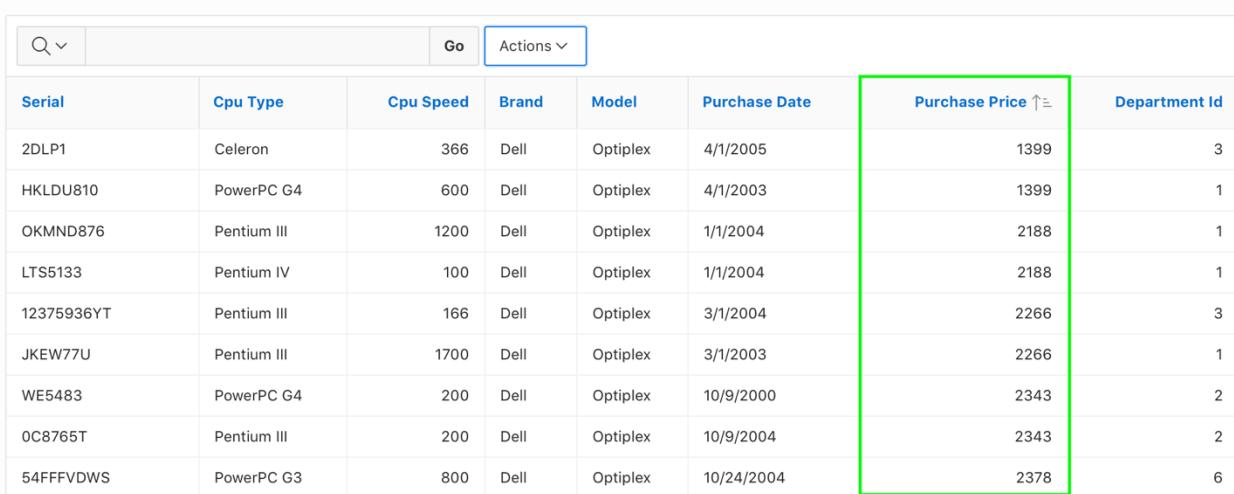
Apply

- c) The report is now sorted in the ascending order of Purchase Price.

Note: The sort indicator is located next to the columns that are sorted.

The arrow indicates whether it is in ascending or descending order. To change the sort to descending order, you can click on the sort ascending icon in the header for Purchase Price and it will change to sort descending.

Hardware Interactive Report

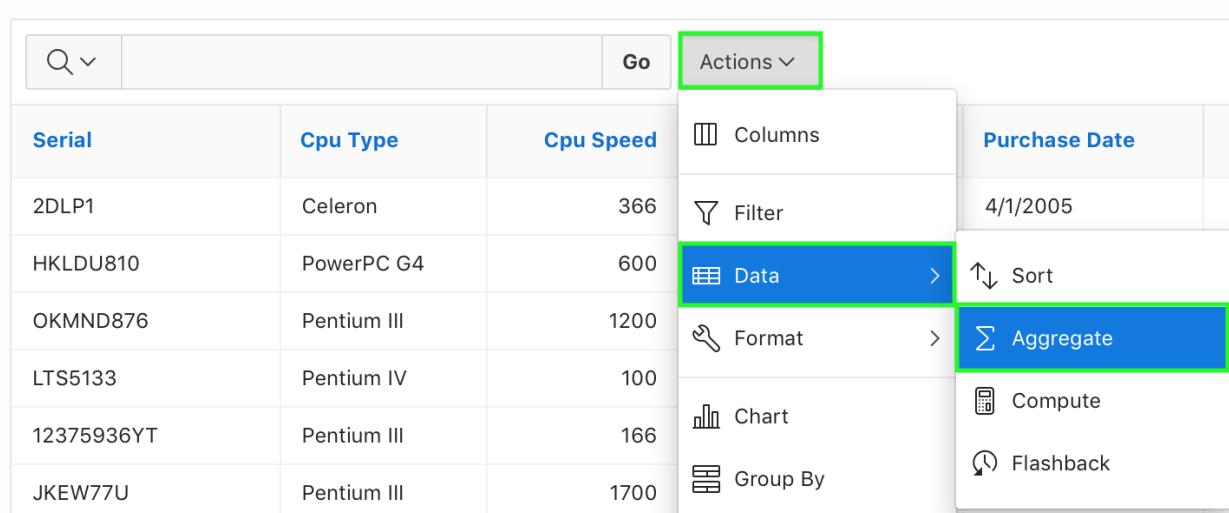


Serial	Cpu Type	Cpu Speed	Brand	Model	Purchase Date	Purchase Price ↑↓	Department Id
2DLP1	Celeron	366	Dell	Optiplex	4/1/2005	1399	3
HKLDU810	PowerPC G4	600	Dell	Optiplex	4/1/2003	1399	1
OKMND876	Pentium III	1200	Dell	Optiplex	1/1/2004	2188	1
LTS5133	Pentium IV	100	Dell	Optiplex	1/1/2004	2188	1
12375936YT	Pentium III	166	Dell	Optiplex	3/1/2004	2266	3
JKEW77U	Pentium III	1700	Dell	Optiplex	3/1/2003	2266	1
WE5483	PowerPC G4	200	Dell	Optiplex	10/9/2000	2343	2
0C8765T	Pentium III	200	Dell	Optiplex	10/9/2004	2343	2
54FFFVDWS	PowerPC G3	800	Dell	Optiplex	10/24/2004	2378	6

7. Create an aggregation against the Purchase Price column. You want to display the sum of the purchase price.

a) Select **Actions > Data > Aggregate**.

Hardware Interactive Report



Serial	Cpu Type	Cpu Speed	Purchase Date
2DLP1	Celeron	366	4/1/2005
HKLDU810	PowerPC G4	600	
OKMND876	Pentium III	1200	
LTS5133	Pentium IV	100	
12375936YT	Pentium III	166	
JKEW77U	Pentium III	1700	

b) In the Aggregate dialog, select **Sum** for Function, **Purchase Price** for Column. Click **Apply**.

Aggregate



Aggregation

- New Aggregation -

Function

Sum

Column

Purchase Price

Cancel

Apply

- c) The aggregate function is applied on the column. Notice that the sum of purchase price is displayed at the end of the report under the column.

Hardware Interactive Report							
Serial	Cpu Type	Cpu Speed	Brand	Model	Purchase Date	Purchase Price ↑↓	Department Id
59785246GH	Pentium IV	650	Dell	Optiplex	3/20/2000	5122	5
8UJJDSLKN	Pentium III	850	Dell	Optiplex	3/20/2000	5122	4
KLJH98798YUTU	Pentium III	1200	Dell	Optiplex	6/12/2002	5170	5
BHDYO87	Pentium IV	600	Dell	Optiplex	10/27/2001	5276	3
W112FGHZ456	Pentium IV	800	Dell	Optiplex	1/12/2001	5330	5
88LDKSUE	PowerPC G4	450	Dell	Optiplex	4/8/2001	5330	6
54HFLDSEG77	Pentium III	466	Dell	Optiplex	6/14/2003	5401	6
51214246AB	Pentium IV	450	Dell	Optiplex	6/14/2001	5401	3
9875H879	Pentium IV	850	Dell	Optiplex	10/5/2001	5446	5
FL4Q321	Pentium III	2400	Dell	Optiplex	12/10/2002	6267	2
H098OILUP296	Pentium IV	1700	Dell	Optiplex	4/27/2002	6477	4
HQMHC12	Pentium IV	1700	Dell	Optiplex	6/15/2002	6588	4
9ODSLFR7	Pentium III	366	Dell	Optiplex	6/15/2002	6588	3
							148061

8. In the report, you want to include purchase price calculated with tax. The computation you want to make is Purchase Price * 1.05. You create a computed column in the interactive report.

- a) Select **Actions > Data > Compute**.

Serial	Cpu Type	Cpu Speed	Purchase Date
2DLP1	Celeron	366	4/1/2005
HKLDU810	PowerPC G4	600	
OKMND876	Pentium III	1200	
LTS5133	Pentium IV	100	
12375936YT	Pentium III	166	
JKEW77U	Pentium III	1700	

b) The Compute dialog appears.

For Column Label, enter **Price with Tax** and select **\$5,234.10** for Format Mask.

For Computation Expression, click **Purchase Price** under Columns. Click ***1.05** under Keypad.

Click **Apply**.

Compute



Computation

- New Computation -

Column Label

Price with Tax

Format Mask

FML999G999G999G999G990D00

Computation Expression

I *1.05

► Examples

Columns
C. Cpu Type
D. Cpu Speed
E. Purchase Date
F. Brand
G. Model
H. Form Factor
I. Purchase Price
J. Department Id

Keypad			
()	'	
7	8	9	-
4	5	6	+
1	2	3	*
0	.	/	
space			

Functions / Operators
!=
<
<=
=
>
>=
ABS
ADD_MONTHS

Cancel

Apply

c) The new computed column Price with Tax now appears in the report.

Serial	Cpu Type	Cpu Speed	Brand	Model	Purchase Date	Purchase Price ↑↓	Department Id	Price with Tax
2DLP1	Celeron	366	Dell	Optiplex	4/1/2005		1399	\$1,468.95
HKLDU810	PowerPC G4	600	Dell	Optiplex	4/1/2003		1399	\$1,468.95
OKMND876	Pentium III	1200	Dell	Optiplex	1/1/2004		2188	\$2,297.40
LTS5133	Pentium IV	100	Dell	Optiplex	1/1/2004		2188	\$2,297.40
12375936YT	Pentium III	166	Dell	Optiplex	3/1/2004		2266	\$2,379.30
JKEW77U	Pentium III	1700	Dell	Optiplex	3/1/2003		2266	\$2,379.30
WE5483	PowerPC G4	200	Dell	Optiplex	10/9/2000		2343	\$2,460.15
0C8765T	Pentium III	200	Dell	Optiplex	10/9/2004		2343	\$2,460.15

9. Create a Control Break on the Cpu Type column.

a) Select **Actions > Format > Control Break**.

Home \ Hardware Interactive Report

Serial	Cpu Type	Cpu Speed	Brand		Date	Purchase Price ↑
2DLP1	Celeron	366	Dell			1399
HKLDU810	PowerPC G4	600	Dell			1399
OKMND876	Pentium III	1200	Dell			2188
LTS5133	Pentium IV	100	Dell			2188
12375936YT	Pentium III	166	Dell			2266
JKEW77U	Pentium III	1700	Dell			2266
WE5483	PowerPC G4	200	Dell			2343

b) In the Control Break dialog, select **Cpu Type** for Column, and click **Apply**.

Control Break



	Column	Status
1	Cpu Type	Enabled
2	- Select Column -	Enabled
3	- Select Column -	Enabled
4	- Select Column -	Enabled
5	- Select Column -	Enabled
6	- Select Column -	Enabled

Cancel

Apply

- c) The control break is applied now. Notice that the aggregation that you created in a previous step appears at the end of each control break.

Cpu Type : Celeron							
Serial	Cpu Speed	Brand	Model	Purchase Date	Purchase Price ↑	Department Id	Price with Tax
2DLP1	366	Dell	Optiplex	4/1/2005	1399	3	\$1,468.95
					1399		
Cpu Type : Pentium III							
Serial	Cpu Speed	Brand	Model	Purchase Date	Purchase Price	Department Id	Price with Tax
OKMND876	1200	Dell	Optiplex	1/1/2004	2188	1	\$2,297.40
JKEW77U	1700	Dell	Optiplex	3/1/2003	2266	1	\$2,379.30
12375936YT	166	Dell	Optiplex	3/1/2004	2266	3	\$2,379.30
0C8765T	200	Dell	Optiplex	10/9/2004	2343	2	\$2,460.15
6ZQ11	200	Dell	Optiplex	10/24/2004	2378	2	\$2,496.90

10. You want to highlight those rows with Price with Tax values less than \$2300. You add the highlighting to rows while continuing with the control break that you created in the previous step.

- a) Select **Actions > Format > Highlight**.

Hardware Interactive Report

The screenshot shows an Oracle Application Express interactive report interface. At the top, there is a search bar, a 'Go' button, and a 'Actions' button, which is highlighted with a green box. Below the search bar, there is a filter section for 'Cpu Type' with a checked checkbox. The main area displays two sections of data:

- Cpu Type : Celeron**: Contains one row with columns: Serial (2DLP1), Cpu Speed (366), Brand (Dell), Model (Optiplex), and Purchase Price (2188).
- Cpu Type : Pentium III**: Contains six rows with columns: Serial, Cpu Speed, Brand, Model, and Purchase Price.

A context menu is open over the first section ('Cpu Type : Celeron'). The 'Actions' menu item is highlighted with a green box. Within this menu, the 'Highlight' option is also highlighted with a blue box. Other menu items include 'Columns', 'Filter', 'Data', 'Format', 'Chart', 'Group By', 'Pivot', 'Report', 'Download', and 'Help'.

Serial	Cpu Speed	Brand	Model	Purchase Price
2DLP1	366	Dell	Optiplex	2188

Serial	Cpu Speed	Brand	Model	Purchase Price
OKMND876	1200	Dell	Optiplex	2266
JKEW77U	1700	Dell	Optiplex	2266
12375936YT	166	Dell	Optiplex	2343
0C8765T	200	Dell	Optiplex	2378
6ZQ11	200	Dell	Optiplex	10/24/2004

- b) In the Highlight dialog, enter **Price with Tax less than \$2400** for Name.
 Select **yellow** for Background Color and **red** for Text Color.
 For Highlight Condition: Select ****Price with Tax** column, and **<** Operator. Enter **2400** for Expression.
 Click **Apply**.

Highlight

Sequence: 10, Name: Price with Tax less than \$2400, Highlight Type: Row, Enabled: Yes.

Highlight Style:

- Background Color: #FFF5CE, Text Color: #F44336.
- Preview shows the letter 'Aa' in red on a yellow background.

Highlight Condition:

- Column: **Price with Tax, Operator: <, Expression: 2400.

Buttons: Cancel, Apply.

c) Notice that the rows that meet the condition are highlighted now.

Filter: Cpu Type (Celeron), Price with Tax less than \$2400.

Cpu Type : Celeron

Serial	Cpu Speed	Brand	Model	Purchase Date	Purchase Price ↑	Department Id	Price with Tax
2DLP1	366	Dell	Optiplex	4/1/2005	1399	3	\$1,468.95
					1399		

Cpu Type : Pentium III

Serial	Cpu Speed	Brand	Model	Purchase Date	Purchase Price	Department Id	Price with Tax
OKMND876	1200	Dell	Optiplex	1/1/2004	2188	1	\$2,297.40
JKEW77U	1700	Dell	Optiplex	3/1/2003	2266	1	\$2,379.30
12375936YT	166	Dell	Optiplex	3/1/2004	2266	3	\$2,379.30
OC8765T	200	Dell	Optiplex	10/9/2004	2343	2	\$2,460.15

11. In your interactive report, you want to include a Chart to display the total Price with Tax for each Cpu Type. Your interactive report should include both the Report and Chart views to toggle.

a) Select Actions > Chart.

Hardware Interactive Report

The screenshot shows an Oracle Application Express page with an interactive report. The report displays hardware data grouped by Cpu Type. The first group is 'Cpu Type : Celeron' with one row: Serial 2DLP1, Cpu Speed 366, Brand Dell, Model Optiplex. The second group is 'Cpu Type : Pentium III' with three rows: OKMND876 (1200), JKEW77U (1700), and 12375936YT (166), all from Dell and Optiplex.

Serial	Cpu Speed	Brand	Model
2DLP1	366	Dell	Optiplex
OKMND876	1200	Dell	Optiplex
JKEW77U	1700	Dell	Optiplex
12375936YT	166	Dell	Optiplex

A context menu is open on the right, with the following options:

- Actions
- Chart
- Columns
- Filter
- Data
- Format
- Group By
- Pivot
- Report
- Download
- Help

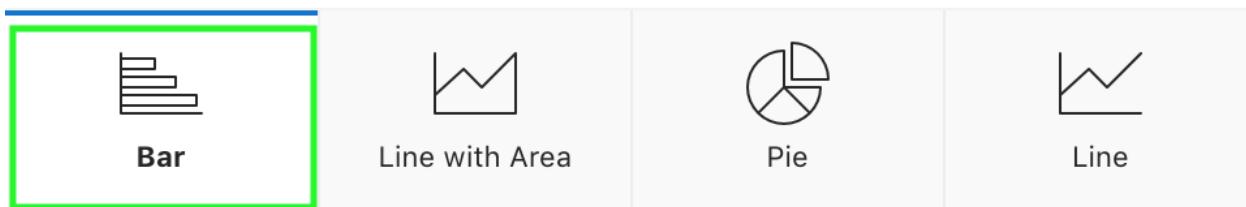
The 'Actions' and 'Chart' options are highlighted with green boxes.

b) In the Chart dialog, select / enter the following:

- Chart Type: **Bar**
- Label: **Cpu Type**
- Value: ****Price with Tax**
- Function: **Sum**
- Axis Title for Label: **Cpu Type**
- Axis Title for Value: **Price with Tax**

Click **Apply**.

Chart



Label

Cpu Type

Axis Title for Label

Cpu Type

Value

**Price with Tax

Axis Title for Value

Price with Tax

Function

Sum

Orientation

Vertical

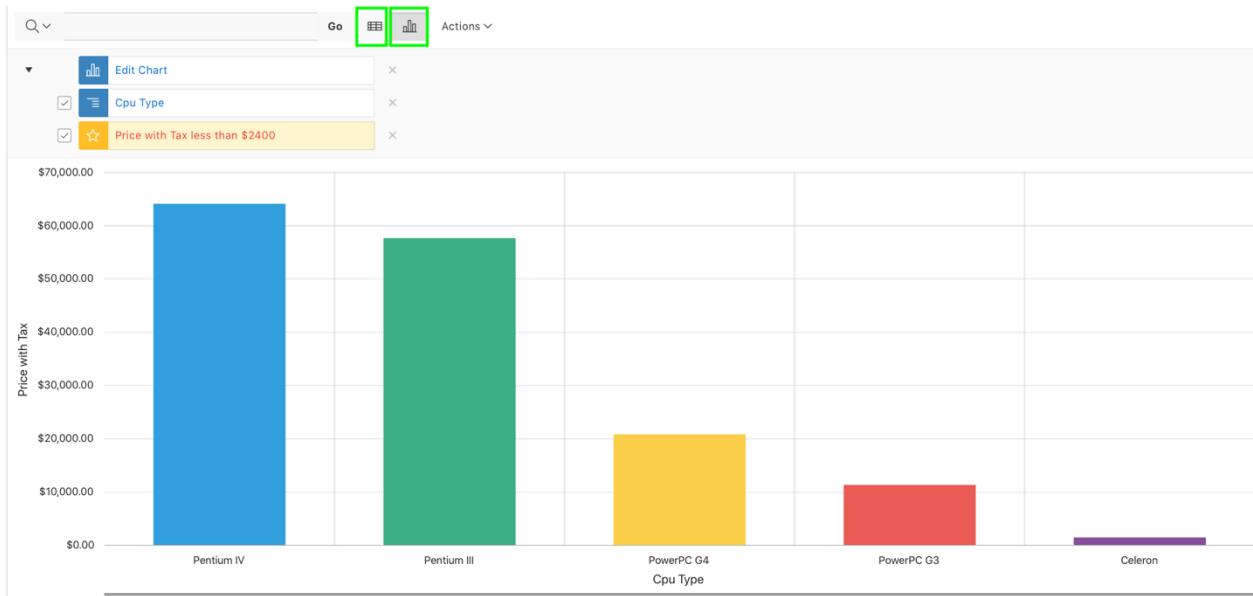
Sort

Default

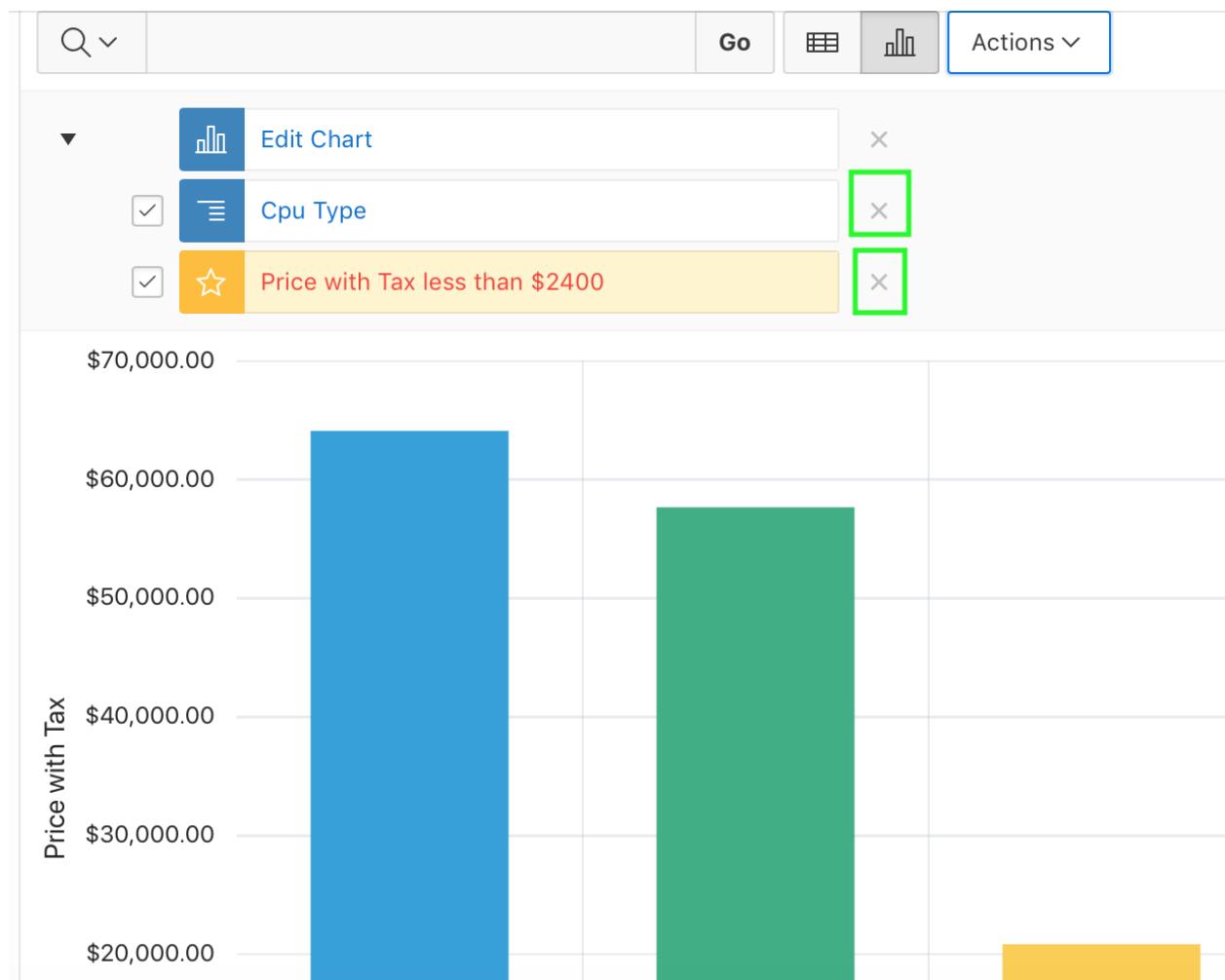
Cancel

Apply

- c) The chart is created. Toggle between the View Chart and View Report.



- d) You want to remove the control break and the highlighting. Click the X icon for both the filters.



12. Create a Group By report to display each Cpu Type with the total purchase price.

- a) Click **View Report**.
Select **Actions > Group By**.

Hardware Interactive Report

Serial	Cpu Type	Cpu Speed	Brand	Model	
2DLP1	Celeron	366	Dell	Optiplex	
HKLDU810	PowerPC G4	600	Dell	Optiplex	
OKMND876	Pentium III	1200	Dell	Optiplex	
LTS5133	Pentium IV	100	Dell	Optiplex	
12375936YT	Pentium III	166	Dell	Optiplex	
JKEW77U	Pentium III	1700	Dell	Optiplex	
WE5483	PowerPC G4	200	Dell	Optiplex	
0C8765T	Pentium III	200	Dell	Optiplex	
54FFFVDWS	PowerPC G3	800	Dell	Optiplex	
6ZQ11	Pentium III	200	Dell	Optiplex	
XA9042NUFLO	PowerPC G3	333	Dell	Optiplex	

b) In the Group By dialog enter / select the following:

- Group By Column: **Cpu Type**
- Function: **Sum**
- Column: **Purchase Price**
- Label: **Total Price**
- Format Mask: **\$5,234.10**

Make sure you enable **Sum** and click **Apply**.

Group By



1 Cpu Type

Add Group By Column

Functions	Column	Label	Format Mask	Sum
1 Sum	Purchase Price	Total Price	FML999G999G99	<input checked="" type="checkbox"/>
Add Function				

Cancel **Apply**

- c) The Group By report is created. You also see the sum of the purchase price. Notice that the icon for View Group By is also added.

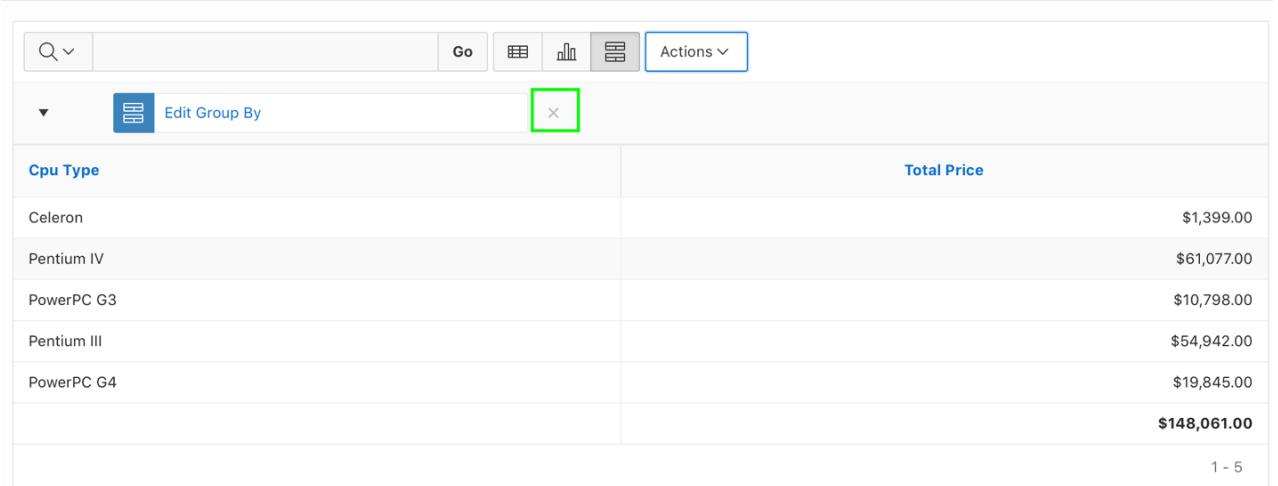
Q ▾ Go Actions ▾

▼ Edit Group By X

Cpu Type	Total Price
Celeron	\$1,399.00
Pentium IV	\$61,077.00
PowerPC G3	\$10,798.00
Pentium III	\$54,942.00
PowerPC G4	\$19,845.00
	\$148,061.00

1 - 5

- d) Click the X to the right of Edit Group By to remove the filter.

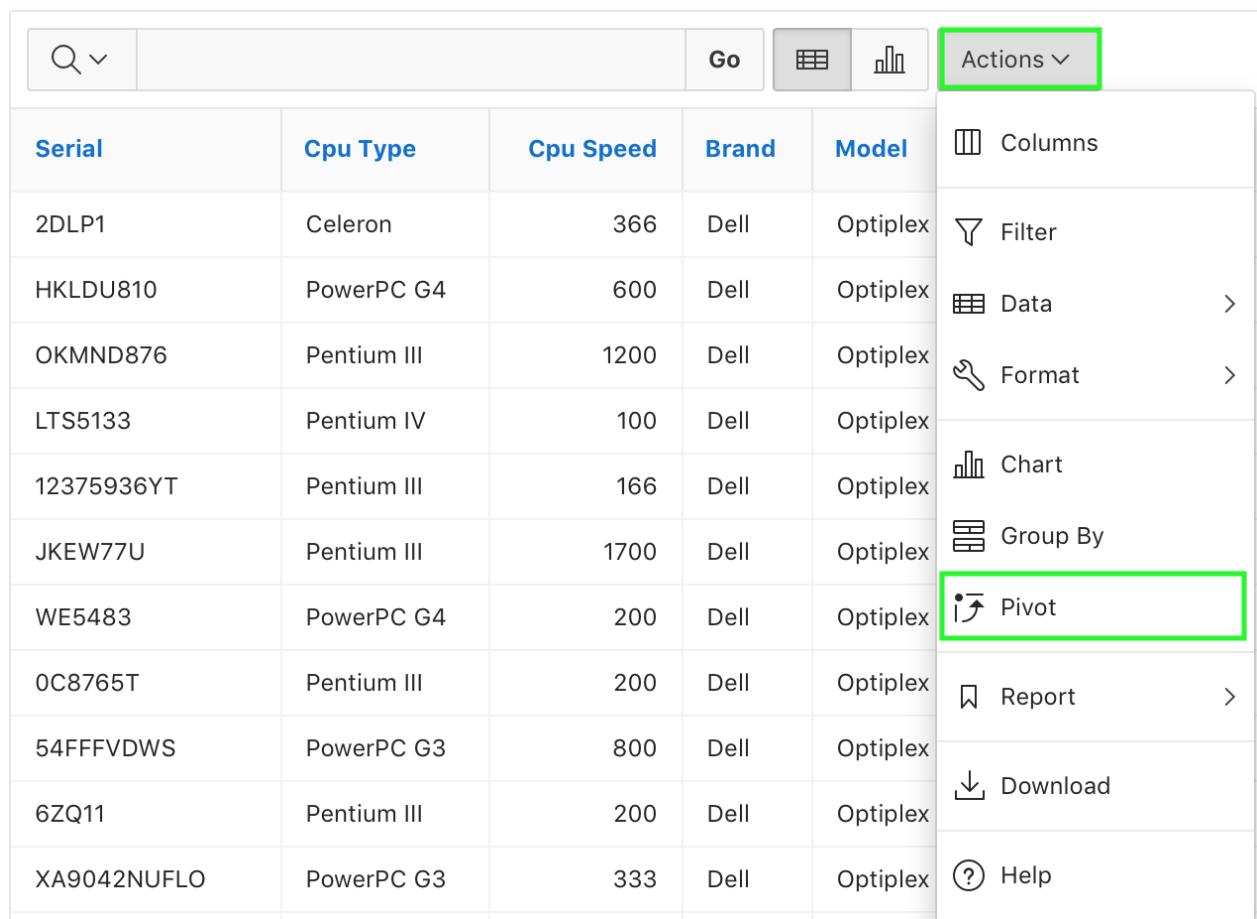


A screenshot of an Oracle Application Express report page. The top navigation bar includes a search field, a 'Go' button, and several icons for actions like edit, group by, and refresh. Below the header is a toolbar with a dropdown, a 'Edit Group By' button, and a close button. The main content area is a table with two columns: 'Cpu Type' and 'Total Price'. The data rows are Celeron (\$1,399.00), Pentium IV (\$61,077.00), PowerPC G3 (\$10,798.00), Pentium III (\$54,942.00), and PowerPC G4 (\$19,845.00). A summary row at the bottom shows a total of \$148,061.00. The page footer indicates 1 - 5 pages.

Cpu Type	Total Price
Celeron	\$1,399.00
Pentium IV	\$61,077.00
PowerPC G3	\$10,798.00
Pentium III	\$54,942.00
PowerPC G4	\$19,845.00
	\$148,061.00

13. You want to display the count of each Cpu Type that are available with each department. The results should be in a crosstab format. Create a Pivot Report.

a) Click **Actions > Pivot**.



A screenshot of an Oracle Application Express report page. The top navigation bar includes a search field, a 'Go' button, and several icons for actions like edit, group by, and refresh. Below the header is a toolbar with a dropdown, a 'Columns' button, a 'Filter' button, a 'Data' button, a 'Format' button, a 'Chart' button, a 'Group By' button, a 'Pivot' button (which is highlighted with a green box), a 'Report' button, a 'Download' button, and a 'Help' button. The main content area is a table with columns: Serial, Cpu Type, Cpu Speed, Brand, and Model. The data rows are: 2DLP1 (Celeron, 366, Dell, Optiplex), HKLDU810 (PowerPC G4, 600, Dell, Optiplex), OKMND876 (Pentium III, 1200, Dell, Optiplex), LTS5133 (Pentium IV, 100, Dell, Optiplex), 12375936YT (Pentium III, 166, Dell, Optiplex), JKEW77U (Pentium III, 1700, Dell, Optiplex), WE5483 (PowerPC G4, 200, Dell, Optiplex), 0C8765T (Pentium III, 200, Dell, Optiplex), 54FFFVDWS (PowerPC G3, 800, Dell, Optiplex), 6ZQ11 (Pentium III, 200, Dell, Optiplex), and XA9042NUFLO (PowerPC G3, 333, Dell, Optiplex).

Serial	Cpu Type	Cpu Speed	Brand	Model	Actions
2DLP1	Celeron	366	Dell	Optiplex	Columns
HKLDU810	PowerPC G4	600	Dell	Optiplex	Filter
OKMND876	Pentium III	1200	Dell	Optiplex	Data >
LTS5133	Pentium IV	100	Dell	Optiplex	Format >
12375936YT	Pentium III	166	Dell	Optiplex	Chart
JKEW77U	Pentium III	1700	Dell	Optiplex	Group By
WE5483	PowerPC G4	200	Dell	Optiplex	Pivot
0C8765T	Pentium III	200	Dell	Optiplex	Report >
54FFFVDWS	PowerPC G3	800	Dell	Optiplex	Download
6ZQ11	Pentium III	200	Dell	Optiplex	
XA9042NUFLO	PowerPC G3	333	Dell	Optiplex	Help

b) In the Pivot dialog enter / select:

- Pivot Column: **Cpu Type**
- Row Column: **Department Id**
- Functions: **Count**
- Column: **Cpu Type**

Click **Apply**.

Pivot

Pivot Columns

1 Cpu Type

Add Pivot Column

Row Columns

1 Department Id

Add Row Column

Functions	Column	Label	Format Mask	Sum
1 Count	Cpu Type			<input type="checkbox"/>

Add Function

Cancel **Apply**

c) The Pivot report is displayed, and a View Pivot icon is created.

Edit Pivot					
	Celeron	Pentium III	Pentium IV	PowerPC G3	PowerPC G4
Department Id	Count Cpu Type				
3	1	2	2	1	1
6	0	2	3	2	1
1	0	2	2	0	2
2	0	6	0	0	1
4	0	1	2	1	1
5	0	1	3	0	0

1 - 6

14. You want to save the report with all the customization.

a) Select Actions > Report > Save Report.

The screenshot shows a report page with a grid of data. At the top right, there is an 'Actions' dropdown menu. A sub-menu is displayed with several options: 'Filter', 'Data', 'Format', 'Pivot', 'Report' (which is highlighted with a green box), 'Save Report' (which is highlighted with a blue box), 'Download', 'Reset', and 'Help'. The main report area shows data for CPU types across different departments.

	Celeron	Pentium III	
Department Id	Count Cpu Type	Count Cpu Type	
3	1	2	
6	0	2	
1	0	2	
2	0	6	
4	0	1	
5	0	1	

b) Enter **My Report** for Name and click **Apply**.

The dialog box has a title 'Save Report' with a close button. It contains two input fields: 'Name' with the value 'My Report' and 'Description' which is empty. At the bottom are 'Cancel' and 'Apply' buttons, with 'Apply' being highlighted with a blue box.

15. A drop-down list automatically appears with the report you just created being selected. You can view the default primary report.

You want to reset the Primary Report back to the default settings and remove any customizations that you have made so far.

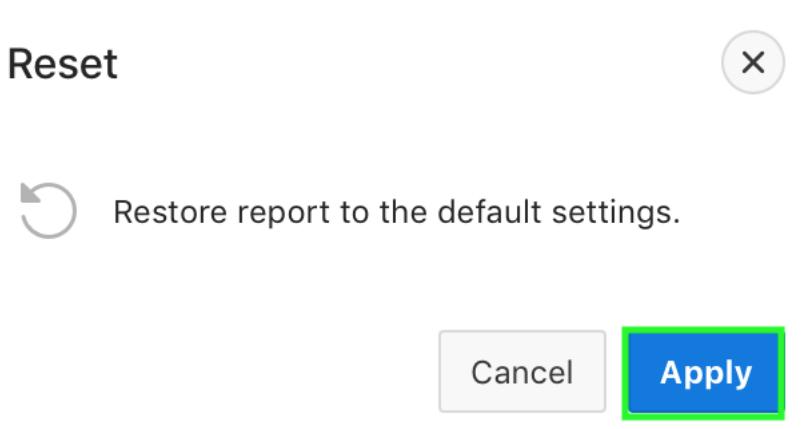
- a) Select **Primary Report** from the Reports drop down list. The primary report is now displayed. You can make any changes to this report and it will not be reflected in the 'My Report' private report you just created.

- b) Select **Actions >Report > Reset**.

The screenshot shows a report page with a table displaying data about CPU types across different departments. A context menu is open from the 'Actions' dropdown, and the 'Reset' option is highlighted with a green box.

Department Id	Celeron		Pentium III		Pentium IV	
	Count Cpu Type					
3		1		2		2
6		0		2		3
1		0		2		2
2		0		6		0
4		0		1		2
5		0		1		3

- c) In the Reset dialog, click **Apply**.



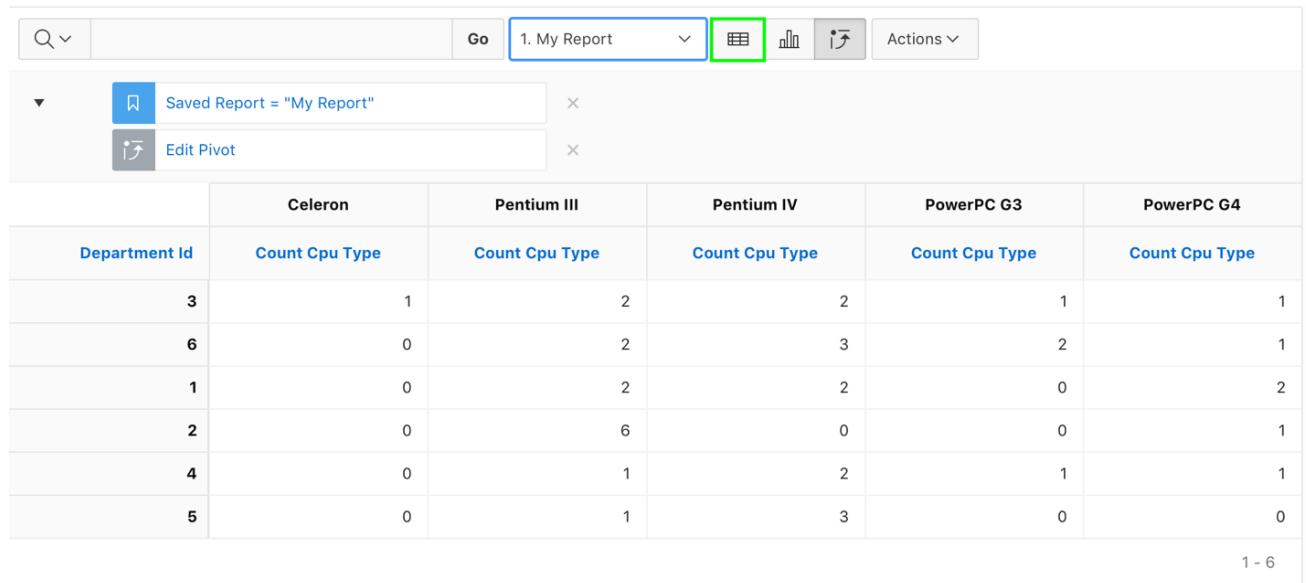
- d) From the Reports drop down list, select **My Report**.

The screenshot shows a report page with a table displaying computer hardware details. A context menu is open from the 'Actions' dropdown, and the 'Reports' option is selected. Within the 'Reports' dropdown, the '1. My Report' option is highlighted with a green box.

ID	Serial	Cpu Type	Cpu Speed	Manufacture Date	Brand	Model	Form Factor	Purchase Price	Department Id
1	OC8765T	Pentium III	200	10/9/2004	Dell	Optiplex	D	2343	2
2	1U09CM2423	Pentium III	667	6/1/2005	Dell	Optiplex	D	3256	2
3	OKBU4	Pentium IV	1000	5/12/2001	Dell	Optiplex	L	4532	1
4	51214246AB	Pentium IV	450	6/14/2001	Dell	Optiplex	L	5401	3
5	HQMHC12	Pentium IV	1700	6/15/2002	Dell	Optiplex	D	6588	4
6	W112FGHZ456	Pentium IV	800	1/12/2001	Dell	Optiplex	D	5330	5

16. You want to download the customized report as a CSV.

a) Click **View Report**.

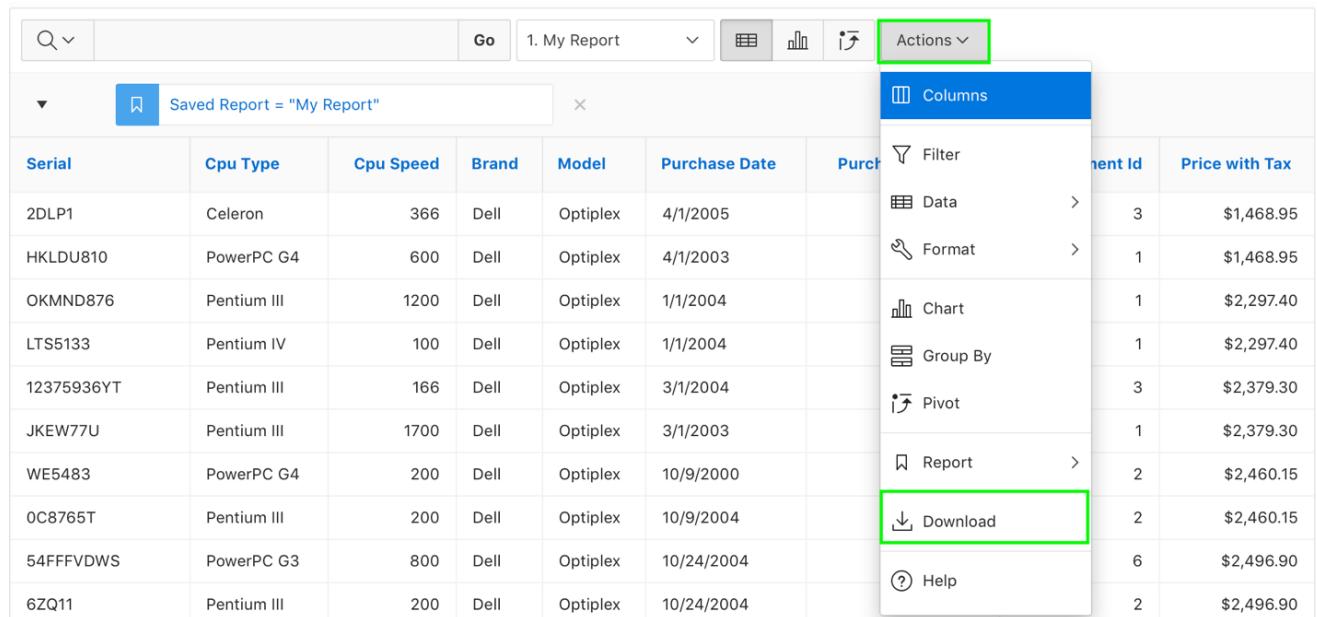


The screenshot shows a report titled "1. My Report". The interface includes a search bar, a "Go" button, and a dropdown menu. Below the header are two buttons: "Saved Report = "My Report"" and "Edit Pivot", both with a green box around them. The main content is a pivot table with columns for Celeron, Pentium III, Pentium IV, PowerPC G3, and PowerPC G4. The rows represent Department Ids (3, 6, 1, 2, 4, 5). The table shows counts of CPU types for each department. At the bottom right, there is a page number "1 - 6".

	Celeron	Pentium III	Pentium IV	PowerPC G3	PowerPC G4
Department Id	Count Cpu Type				
3	1	2	2	1	1
6	0	2	3	2	1
1	0	2	2	0	2
2	0	6	0	0	1
4	0	1	2	1	1
5	0	1	3	0	0

1 - 6

b) Select **Actions > Download**.



The screenshot shows a report titled "1. My Report". The interface includes a search bar, a "Go" button, and a dropdown menu. Below the header are two buttons: "Saved Report = "My Report"" and "Edit Pivot". A context menu is open over the data, with "Actions" highlighted with a green box. The menu options include "Columns", "Filter", "Data", "Format", "Chart", "Group By", "Pivot", "Report", "Download" (which is also highlighted with a green box), and "Help". The main content is a table of computer components with columns for Serial, Cpu Type, Cpu Speed, Brand, Model, Purchase Date, and Price with Tax. The table lists various components like Dell Optiplex models with their respective details and prices.

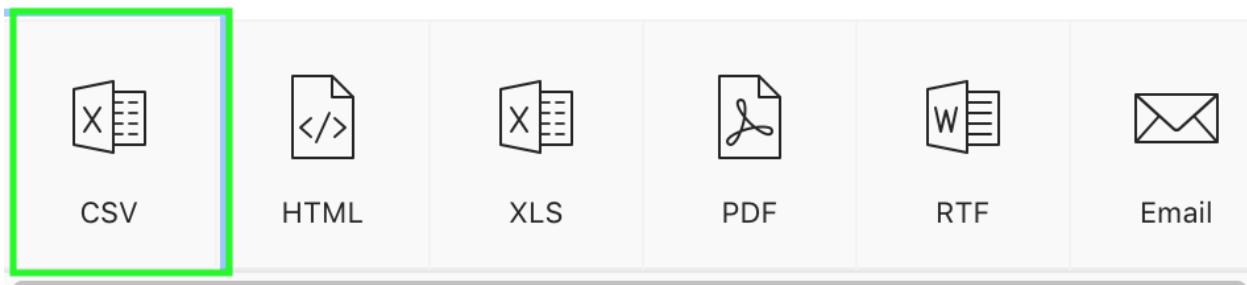
Serial	Cpu Type	Cpu Speed	Brand	Model	Purchase Date	Purch...	Item Id	Price with Tax
2DLP1	Celeron	366	Dell	Optiplex	4/1/2005		3	\$1,468.95
HKLDU810	PowerPC G4	600	Dell	Optiplex	4/1/2003		1	\$1,468.95
OKMND876	Pentium III	1200	Dell	Optiplex	1/1/2004		1	\$2,297.40
LTS5133	Pentium IV	100	Dell	Optiplex	1/1/2004		1	\$2,297.40
12375936YT	Pentium III	166	Dell	Optiplex	3/1/2004		3	\$2,379.30
JKEW77U	Pentium III	1700	Dell	Optiplex	3/1/2003		1	\$2,379.30
WE5483	PowerPC G4	200	Dell	Optiplex	10/9/2000		2	\$2,460.15
0C8765T	Pentium III	200	Dell	Optiplex	10/9/2004		2	\$2,460.15
54FFFVDWS	PowerPC G3	800	Dell	Optiplex	10/24/2004		6	\$2,496.90
6ZQ11	Pentium III	200	Dell	Optiplex	10/24/2004		2	\$2,496.90

c) In the Download dialog, select **CSV**.

Download



Choose report download format



d) The report is now downloaded as a CSV.

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
1	Serial	Cpu Type	Cpu Speed	Brand	Model	Purchase Date	Purchase Price	Department	Price with Tax									
2	2DLP1	Celeron	366	Dell	Optiplex	04/01/05	1399	3	\$1,468.95									
3	HKLDU818	PowerPC G4	600	Dell	Optiplex	04/01/03	1399	1	\$1,468.95									
4	OKMND876	Pentium III	1200	Dell	Optiplex	01/01/04	2188	1	\$2,297.40									
5	LTS5133	Pentium IV	100	Dell	Optiplex	01/01/04	2188	1	\$2,297.40									
6	12375936YT	Pentium III	166	Dell	Optiplex	03/01/04	2266	3	\$2,379.30									
7	JKEW77U	Pentium III	1700	Dell	Optiplex	03/01/03	2266	1	\$2,379.30									
8	WE5483	PowerPC G4	200	Dell	Optiplex	10/09/00	2343	2	\$2,460.15									
9	OC8765T	Pentium III	200	Dell	Optiplex	10/09/04	2343	2	\$2,460.15									
10	54FFFDWWS	PowerPC G3	800	Dell	Optiplex	10/24/2000	2378	6	\$2,496.90									
11	6ZQ11	Pentium III	200	Dell	Optiplex	10/24/2004	2378	2	\$2,496.90									
12	XA9042NUF1	PowerPC G3	333	Dell	Optiplex	4/13/2001	2650	6	\$2,782.50									
13	OK765KL5L5	PowerPC G3	450	Dell	Optiplex	09/08/00	2870	4	\$3,013.50									
14	UVI03GAJQ	PowerPC G3	466	Dell	Optiplex	11/02/01	2900	3	\$3,045.00									
15	QT6547PLPS	PowerPC G4	800	Dell	Optiplex	06/01/02	3200	3	\$3,360.00									
16	1U090CM242	Pentium III	667	Dell	Optiplex	06/01/05	3256	2	\$3,418.80									
17	YUE08884	Pentium III	667	Dell	Optiplex	06/01/05	3256	2	\$3,418.80									
18	6901B475	Pentium III	366	Dell	Optiplex	12/03/05	3321	2	\$3,487.05									
19	QT16039PLP	PowerPC G4	800	Dell	Optiplex	07/12/02	3773	1	\$3,961.65									
20	QT1030FH	PowerPC G4	667	Dell	Optiplex	01/10/02	3800	4	\$3,990.00									
21	LKM7D99	Pentium IV	1000	Dell	Optiplex	05/12/03	4532	6	\$4,758.60									
22	OK8U4	Pentium IV	1000	Dell	Optiplex	05/12/01	4532	1	\$4,758.60									
23	A492CSLE2	Pentium IV	750	Dell	Optiplex	6/23/2005	5066	6	\$5,319.30									
24	3171ZL1345	Pentium IV	850	Dell	Optiplex	8/17/2001	5119	6	\$5,374.95									
25	GFDU65454C	Pentium III	450	Dell	Optiplex	10/24/2001	5120	6	\$5,376.00									
26	59785246GH	Pentium IV	650	Dell	Optiplex	3/20/2000	5122	5	\$5,378.10									
27	8UJUDSLK	Pentium III	850	Dell	Optiplex	3/20/2000	5122	4	\$5,378.10									
28	KLJH98798VY	Pentium III	1200	Dell	Optiplex	06/12/02	5170	5	\$5,428.50									
29	BHDY087	Pentium IV	600	Dell	Optiplex	10/27/2001	5276	3	\$5,539.80									
30	W112FGH24	Pentium IV	800	Dell	Optiplex	01/12/01	5330	5	\$5,596.50									

17. You want to make some more customization to your interactive report. From the Reports drop down list, select **Primary Report**.

Hardware Interactive Report

The screenshot shows a web-based interactive report interface. At the top, there's a navigation bar with a search field, a 'Go' button, and a dropdown menu. The dropdown menu is open, showing options: 'Default', '1. Primary Report' (which is highlighted in blue), 'Private', and '1. My Report' (which has a checkmark next to it). Below the menu are several icons: a grid, a chart, a magnifying glass, and an 'Actions' dropdown. A tooltip below the icons says 'Saved Report = "My Report"'. The main area is a table with columns: Serial, Cpu Type, Cpu Speed, Brand, Model, Purchase Date, and Purchase Price. The table contains two rows of data.

Serial	Cpu Type	Cpu Speed	Brand	Model	Purchase Date	Purchase Price ↑=
2DLP1	Celeron	366	Dell	Optiplex	4/1/2005	1399
HKLDU810	PowerPC G4	600	Dell	Optiplex	4/1/2003	1399

18. To customize the report, you now use the column heading menu instead of using the Actions menu. The report is currently sorted in ascending order of Purchase Price. You want the report to be sorted in the descending order of Department Id.

a) Click the **Department Id** header and select **Sort Descending**.

The screenshot shows the same report interface, but now the 'Department Id' column header has a context menu open. The menu includes options for sorting (↑=, ↓=), filtering (Filter...), and other actions. The '↓=' option is highlighted with a green box. The menu also shows a list of department IDs: 1, 2, 3, 4, and 5, with 'Sort Descending' selected.

Id	Serial	Cpu Type	Cpu Speed	Purchase Date	Brand	Model	Form Factor	Purchase Price	Department Id
1	0C8765T	Pentium III	200	10/9/2004	Dell	Optiplex	D		
2	1U09CM2423	Pentium III	667	6/1/2005	Dell	Optiplex	D		
3	OKBU4	Pentium IV	1000	5/12/2001	Dell	Optiplex	L		
4	51214246AB	Pentium IV	450	6/14/2001	Dell	Optiplex	L		
5	HQMHC12	Pentium IV	1700	6/15/2002	Dell	Optiplex	D		
6	W112FGHZ456	Pentium IV	800	1/12/2001	Dell	Optiplex	D		
7	2DLP1	Celeron	366	4/1/2005	Dell	Optiplex	D		
8	6ZQ11	Pentium III	200	10/24/2004	Dell	Optiplex	D		

b) The report is now sorted in the descending order of Department Id.

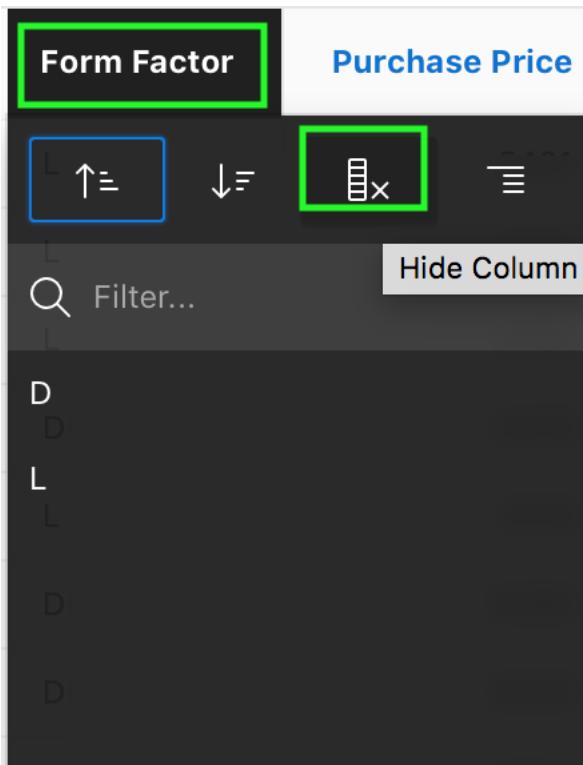
Q v				Go	1. Primary Report	Actions			
Id	Serial	Cpu Type	Cpu Speed	Purchase Date	Brand	Model	Form Factor	Purchase Price	Department Id ↓=
30	54HFLDSEG77	Pentium III	466	6/14/2003	Dell	Optiplex	L	5401	6
29	LKM7D9J	Pentium IV	1000	5/12/2003	Dell	Optiplex	L	4532	6
22	GFDU654540IU	Pentium III	450	10/24/2001	Dell	Optiplex	L	5120	6
34	54FFFVDWS	PowerPC G3	800	10/24/2004	Dell	Optiplex	D	2378	6
13	3J17JZL1345	Pentium IV	850	8/17/2001	Dell	Optiplex	L	5119	6
12	A492CSLZE265	Pentium IV	750	6/23/2005	Dell	Optiplex	D	5066	6
32	88LDKSUE	PowerPC G4	450	4/8/2001	Dell	Optiplex	D	5330	6
25	XA9042NUFLO	PowerPC G3	333	4/13/2001	Dell	Optiplex	L	2650	6
21	KLJH98798YUTU	Pentium III	1200	6/12/2002	Dell	Optiplex	L	5170	5
6	W112FGHZ456	Pentium IV	800	1/12/2001	Dell	Optiplex	D	5330	5

19. You do not want the Id and Form Factor columns in the report.

a) Click the **Id** header and select **Hide Column**.

The screenshot shows a table with columns: Id, Serial, Cpu Type, Purchase Date, Brand, Model, Form Factor, Purchase Price, and Department Id. The 'Id' column header is highlighted with a green box. A context menu is open over the 'Id' column, with the 'Hide Column' option highlighted by a green box. Other options in the menu include 'Reorder', 'Filter...', and 'Search'. The table body shows various computer configurations and their details.

b) Click the **Form Factor** header and select **Hide Column**.

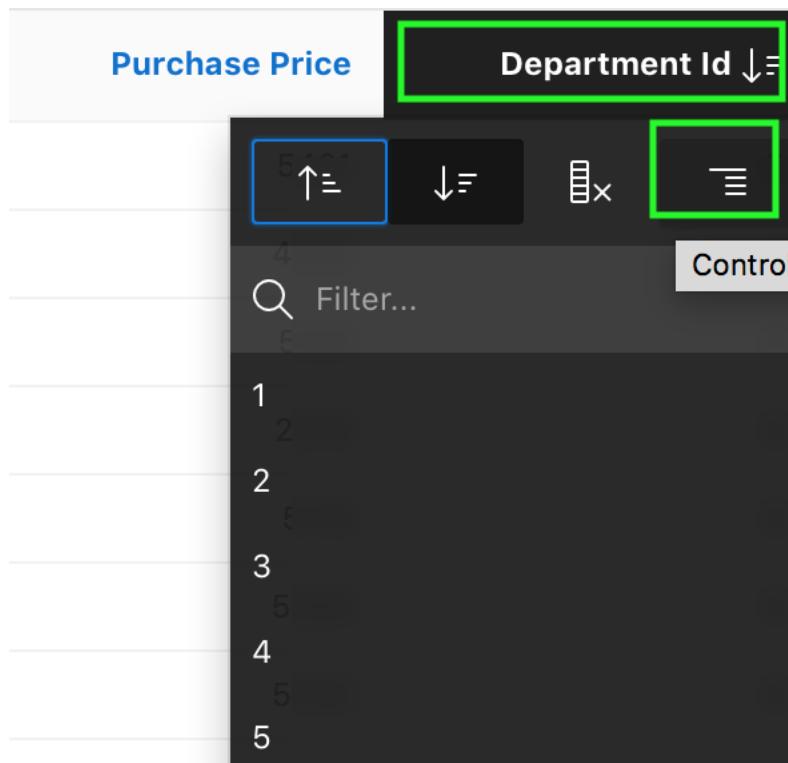


c) Your report now looks like:

Q ▾		Go		1. Primary Report ▾		Actions ▾	
Serial	Cpu Type	Cpu Speed	Purchase Date	Brand	Model	Purchase Price	Department Id ↴
54HFLDSEG77	Pentium III	466	6/14/2003	Dell	Optiplex	5401	6
LKM7D9J	Pentium IV	1000	5/12/2003	Dell	Optiplex	4532	6
GFDU654540IU	Pentium III	450	10/24/2001	Dell	Optiplex	5120	6
54FFFVDWS	PowerPC G3	800	10/24/2004	Dell	Optiplex	2378	6
3J17JZL1345	Pentium IV	850	8/17/2001	Dell	Optiplex	5119	6
A492CSLZE265	Pentium IV	750	6/23/2005	Dell	Optiplex	5066	6
88LDKSUE	PowerPC G4	450	4/8/2001	Dell	Optiplex	5330	6
XA9042NUFLO	PowerPC G3	333	4/13/2001	Dell	Optiplex	2650	6

20. Create a control break on the Department Id.

a) Click the **Department Id** header and select **Control Break**.



b) The control break is now applied.

Department Id : 6						
Serial	Cpu Type	Cpu Speed	Purchase Date	Brand	Model	Purchase Price
54HFLDSEG77	Pentium III	466	6/14/2003	Dell	Optiplex	5401
LKM7D9J	Pentium IV	1000	5/12/2003	Dell	Optiplex	4532
GFDU65454OIU	Pentium III	450	10/24/2001	Dell	Optiplex	5120
54FFFVDWS	PowerPC G3	800	10/24/2004	Dell	Optiplex	2378
3J17JZL1345	Pentium IV	850	8/17/2001	Dell	Optiplex	5119
A492CSLZE265	Pentium IV	750	6/23/2005	Dell	Optiplex	5066
88LDKSUE	PowerPC G4	450	4/8/2001	Dell	Optiplex	5330
XA9042NUFLO	PowerPC G3	333	4/13/2001	Dell	Optiplex	2650
Department Id : 5						
Serial	Cpu Type	Cpu Speed	Purchase Date	Brand	Model	Purchase Price
KLJH98798YUTU	Pentium III	1200	6/12/2002	Dell	Optiplex	5170

21. You want to save the customizations made from step 18 through 20. You save the report as a Named Report.

a) Select **Actions > Report > Save Report**.

The screenshot shows a report grid titled "1. Primary Report". The grid displays hardware information for Department ID 6. The columns are: Serial, Cpu Type, Cpu Speed, Purchase Date, Model, and Purchase Price. The "Actions" dropdown menu is open, and the "Save Report" option is highlighted with a green box.

Serial	Cpu Type	Cpu Speed	Purchase Date	Model	Purchase Price
54HFLDSEG77	Pentium III	466	6/14/2003	Optiplex	5401
LKM7D9J	Pentium IV	1000	5/12/2003	Optiplex	4532
GFDU654540IU	Pentium III	450	10/24/2001	Optiplex	5120
54FFFVDWS	PowerPC G3	800	10/24/2004	Optiplex	2378
3J17JZL1345	Pentium IV	850	8/17/2001	Optiplex	5119
A492CSLZE265	Pentium IV	750	6/23/2005	Optiplex	5066
88LDKSUE	PowerPC G4	450	4/8/2001	Optiplex	5330
XA9042NUFLO	PowerPC G3	333	4/13/2001	Optiplex	2650

- b) The Save Report dialog appears. For Save, select **As Named Report**, enter **Departments Hardware Report** for Name. Click **Apply**.

Save Report



Save (Only displayed for developers)

As Named Report



Name

Departments Hardware Report

Description

Cancel

Apply

- c) The report is saved and is now available in the Reports drop down list.

Hardware Interactive Report

The screenshot shows the Oracle Application Express interface for a hardware interactive report. At the top, there's a search bar, a 'Go' button, and a dropdown menu labeled 'Actions'. Below the search bar, there's a 'Saved Report' section with a link to 'Departments Hardware Report' and a 'Department Id' filter. The main content area displays a table titled 'Department Id : 6' with columns: Serial, Cpu Type, Cpu Speed, Purchase Date, Brand, Model, and Purchase Price. The table contains three rows of data.

Serial	Cpu Type	Cpu Speed	Purchase Date	Brand	Model	Purchase Price
54HFLDSEG77	Pentium III	466	6/14/2003	Dell	Optiplex	5401
LKM7D9J	Pentium IV	1000	5/12/2003	Dell	Optiplex	4532
GFDU654540IU	Pentium III	450	10/24/2001	Dell	Optiplex	5120

22. You want to reset the primary report to default settings now.

- From the Reports down list, select **Primary Report**.
- Select **Actions > Report > Reset**.
- In the Reset dialog, click **Apply**.

The primary report is now restored to default settings. The customizations you made to your private reports are available.

Hardware Interactive Report

The screenshot shows the Oracle Application Express interface for a hardware interactive report. At the top, there's a search bar, a 'Go' button, and a dropdown menu labeled 'Actions'. Below the search bar, there's a 'Saved Report' section with a link to 'Departments Hardware Report' and a 'Department Id' filter. The main content area displays a table with columns: Id, Serial, Cpu Type, Cpu Speed, Purchase Date, Brand, Model, Form Factor, Purchase Price, and Department Id. The table contains eight rows of data.

Id	Serial	Cpu Type	Cpu Speed	1. Departments Hardware Report			Form Factor	Purchase Price	Department Id
				2. My Report					
1	0C8765T	Pentium III	200	10/9/2004	Dell	Optiplex	D	2343	2
2	1U09CM2423	Pentium III	667	6/1/2005	Dell	Optiplex	D	3256	2
3	OKBU4	Pentium IV	1000	5/12/2001	Dell	Optiplex	L	4532	1
4	51214246AB	Pentium IV	450	6/14/2001	Dell	Optiplex	L	5401	3
5	HQMHC12	Pentium IV	1700	6/15/2002	Dell	Optiplex	D	6588	4
6	W112FGHZ456	Pentium IV	800	1/12/2001	Dell	Optiplex	D	5330	5
7	2DLP1	Celeron	366	4/1/2005	Dell	Optiplex	D	1399	3
8	6ZQ11	Pentium III	200	10/24/2004	Dell	Optiplex	D	2378	2

HOL 6-2: Customizing an Interactive Report as a Developer

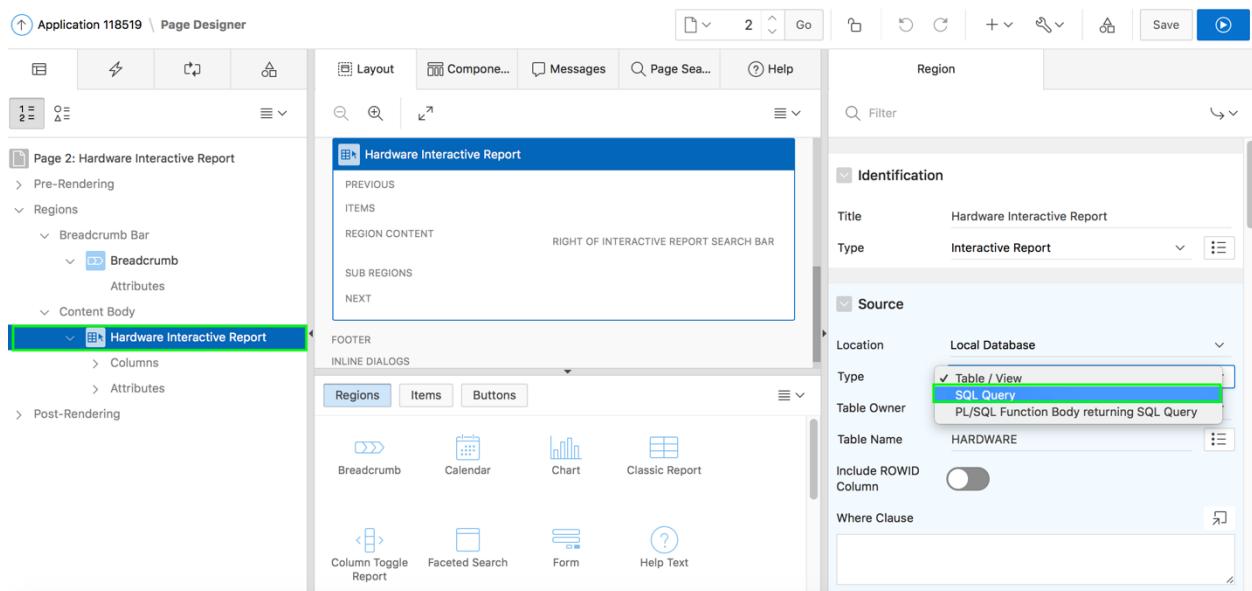
In this lab, you edit an interactive report in page designer and customize it for end users.

- First, view the Hardware Interactive Report in page designer. In the Developer Toolbar, click **Edit Page <n>**.



- You do not want the Id and Form Factor columns to be displayed in the interactive report for end users. Modify the report source query.

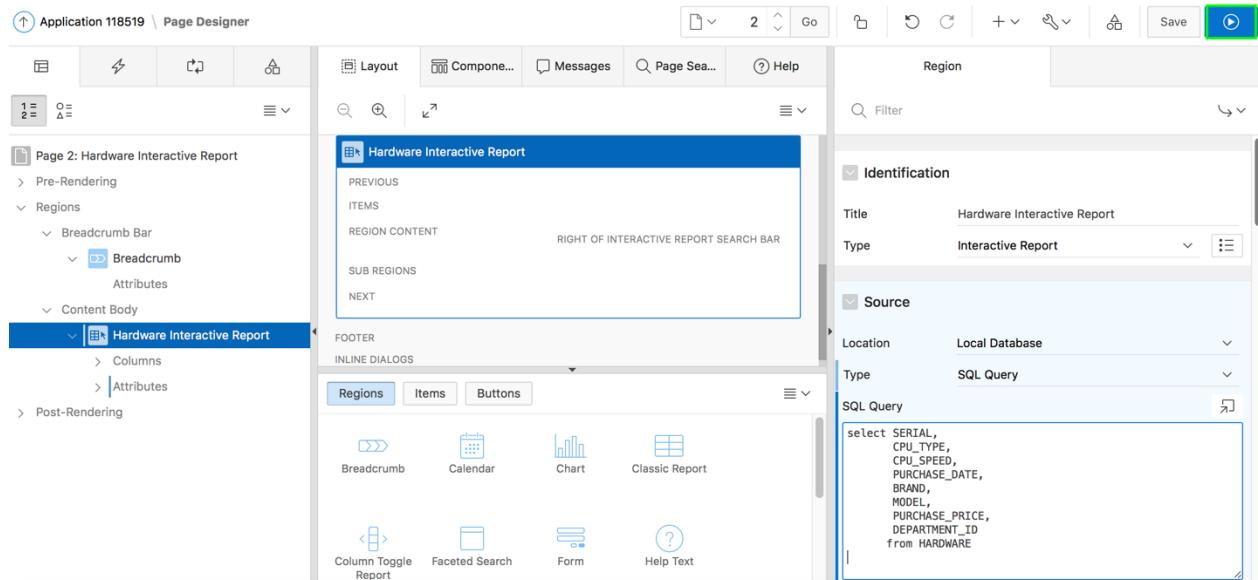
- In the page designer, under **Rendering > Regions**, select **Hardware Interactive Report**. In the property editor, locate **Source**. The Source is Table / View. Change the Type to **SQL Query**.



- Copy and paste the following SQL into SQL Query.

```
select SERIAL,
       CPU_TYPE,
       CPU_SPEED,
       PURCHASE_DATE,
       BRAND,
       MODEL,
       PURCHASE_PRICE,
       DEPARTMENT_ID
  from HARDWARE
```

- Click **Save and Run Page**.



- d) Your interactive report now looks like:

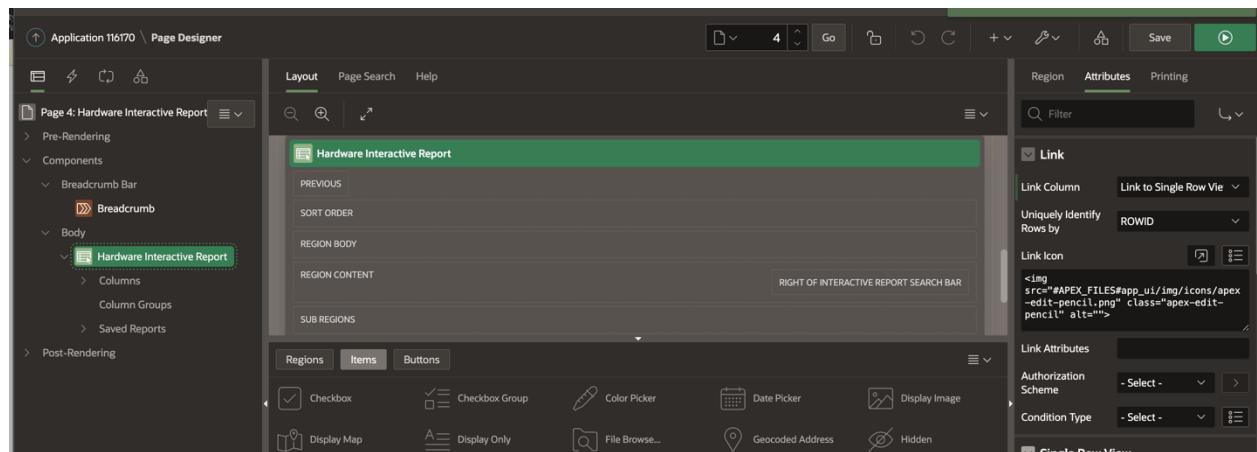
Hardware Interactive Report

Q ▾		Go		1. Primary Report		Actions ▾	
Serial	Cpu Type	Cpu Speed	Purchase Date	Brand	Model	Purchase Price	Department Id
0C8765T	Pentium III	200	10/9/2004	Dell	Optiplex	2343	2
1U09CM2423	Pentium III	667	6/1/2005	Dell	Optiplex	3256	2
OKBU4	Pentium IV	1000	5/12/2001	Dell	Optiplex	4532	1
51214246AB	Pentium IV	450	6/14/2001	Dell	Optiplex	5401	3
HQMHC12	Pentium IV	1700	6/15/2002	Dell	Optiplex	6588	4
W112FGHZ456	Pentium IV	800	1/12/2001	Dell	Optiplex	5330	5
2DLP1	Celeron	366	4/1/2005	Dell	Optiplex	1399	3
6ZQ11	Pentium III	200	10/24/2004	Dell	Optiplex	2378	2
59785246GH	Pentium IV	650	3/20/2000	Dell	Optiplex	5122	5
12375936YT	Pentium III	166	3/1/2004	Dell	Optiplex	2266	3
LTS5133	Pentium IV	100	1/1/2004	Dell	Optiplex	2188	1

3. When the end users click an edit icon for a specified row, they should be directed to a page which shows the column values for that row. The interactive report currently does not have a link column. Modify your interactive report to have a link to single row view.

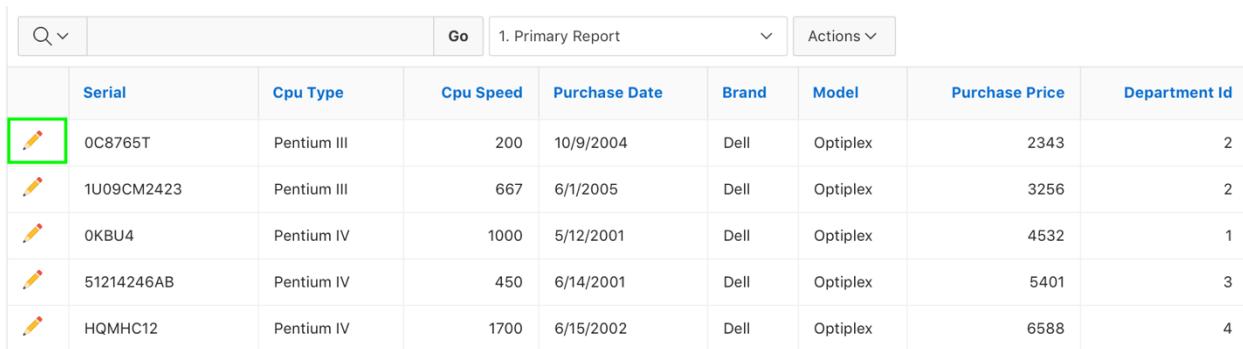
In the Developer Toolbar, click **Edit Page <n>**.

- a) Under Rendering, navigate to **Hardware Interactive Report** and select **Attributes**.



- b) The attributes are now listed in the property editor. Under Link, for Link Column, select **Link to Single Row View**. Click **Save and Run Page**.

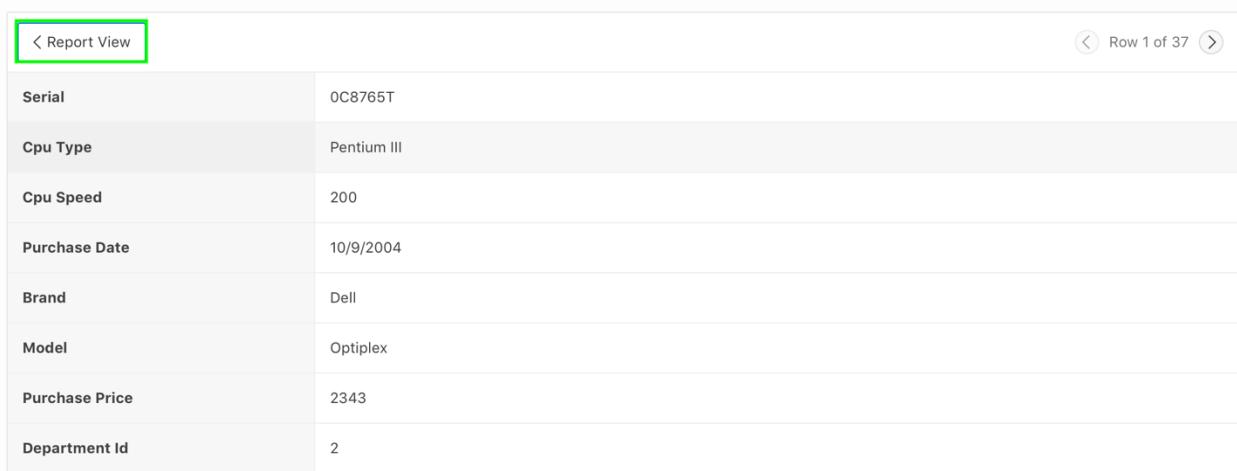
- c) In the report, click the edit icon (pencil) for any row.



		Go		1. Primary Report		Actions		
	Serial	Cpu Type	Cpu Speed	Purchase Date	Brand	Model	Purchase Price	Department Id
	0C8765T	Pentium III	200	10/9/2004	Dell	Optiplex	2343	2
	1U09CM2423	Pentium III	667	6/1/2005	Dell	Optiplex	3256	2
	OKBU4	Pentium IV	1000	5/12/2001	Dell	Optiplex	4532	1
	51214246AB	Pentium IV	450	6/14/2001	Dell	Optiplex	5401	3
	HQMHC12	Pentium IV	1700	6/15/2002	Dell	Optiplex	6588	4

d) The single row view is displayed. Click **Report View** button to return to the report.

Hardware Interactive Report

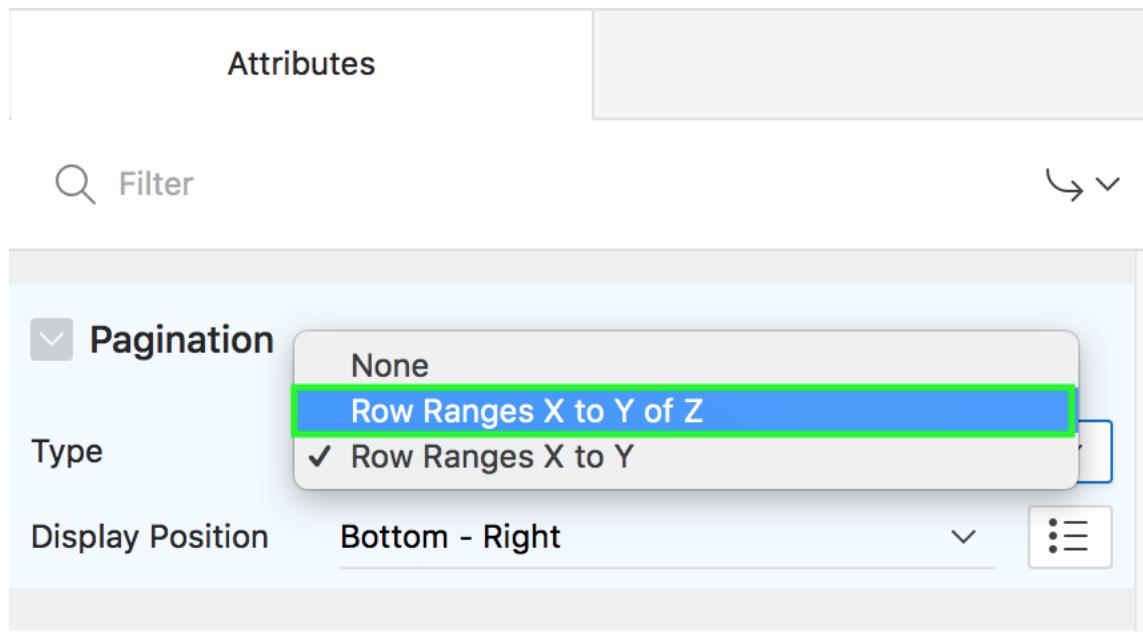


< Report View		Row 1 of 37 >
Serial	0C8765T	
Cpu Type	Pentium III	
Cpu Speed	200	
Purchase Date	10/9/2004	
Brand	Dell	
Model	Optiplex	
Purchase Price	2343	
Department Id	2	

4. The current pagination type of the interactive report is Row Ranges X to Y. You want this to be changed for the end users' display of the report. In the Developer Toolbar, click **Edit Page <n>**.

a) Under Rendering, navigate to **Hardware Interactive Report** and select **Attributes**.

b) In the property editor, locate **Pagination**. For Type, select **Row Ranges X to Y of Z**.



5. You want to customize the display of the Search Bar. End users should be able to select the display of desired number of rows per page.
In the property editor, locate Search Bar. Enable **Rows Per Page Selector**.
Enter **10** for Maximum Rows Per Page.

Attributes

Filter

↶ ↻

Search Bar

Include Search Bar

Search Field

Finder Drop Down

Reports Select List

Rows Per Page Selector

Search Button Label

...

Attributes

Filter ↻ ↽

Search Bar

Include Search Bar

Search Field

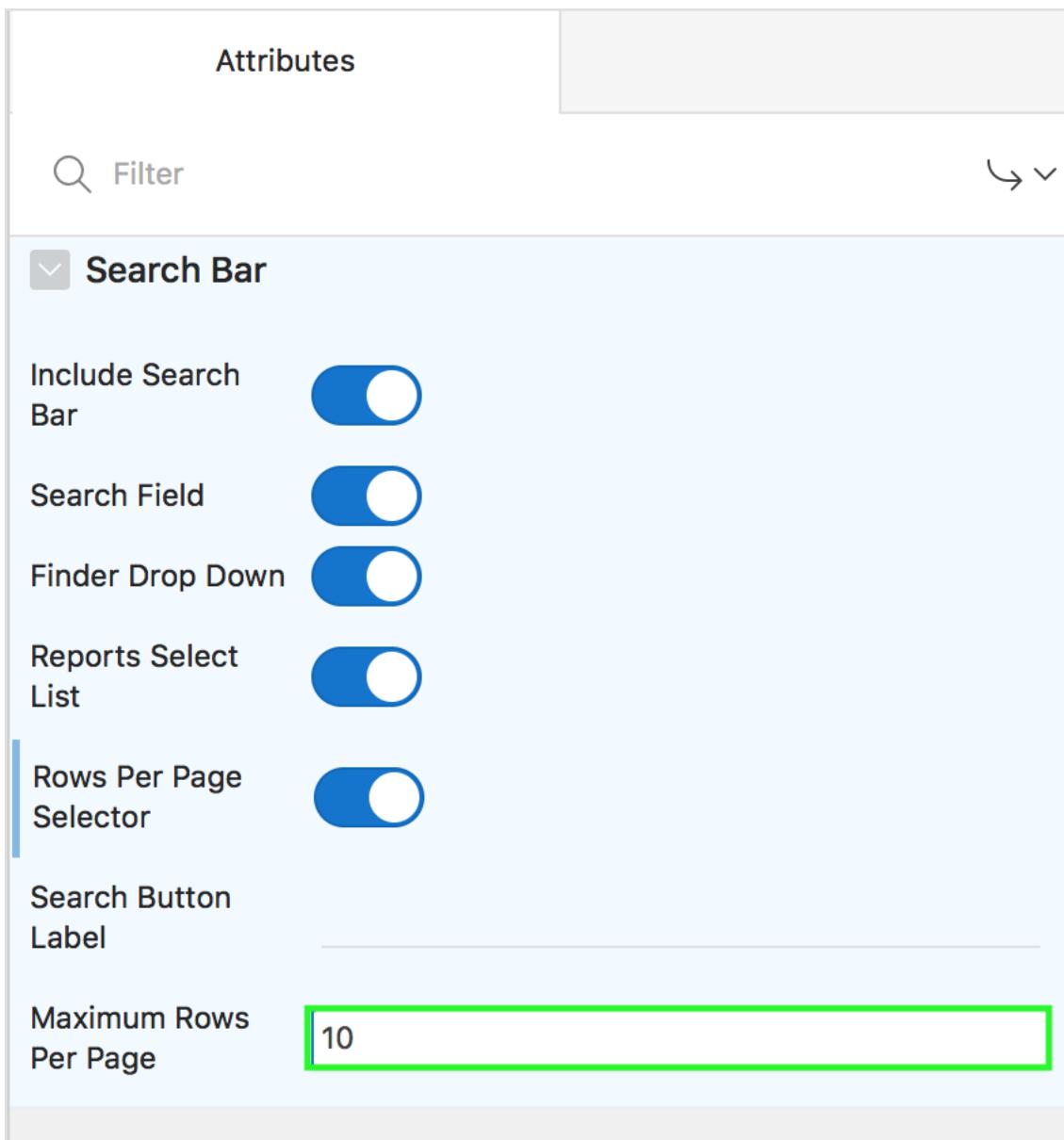
Finder Drop Down

Reports Select List

Rows Per Page Selector

Search Button Label _____

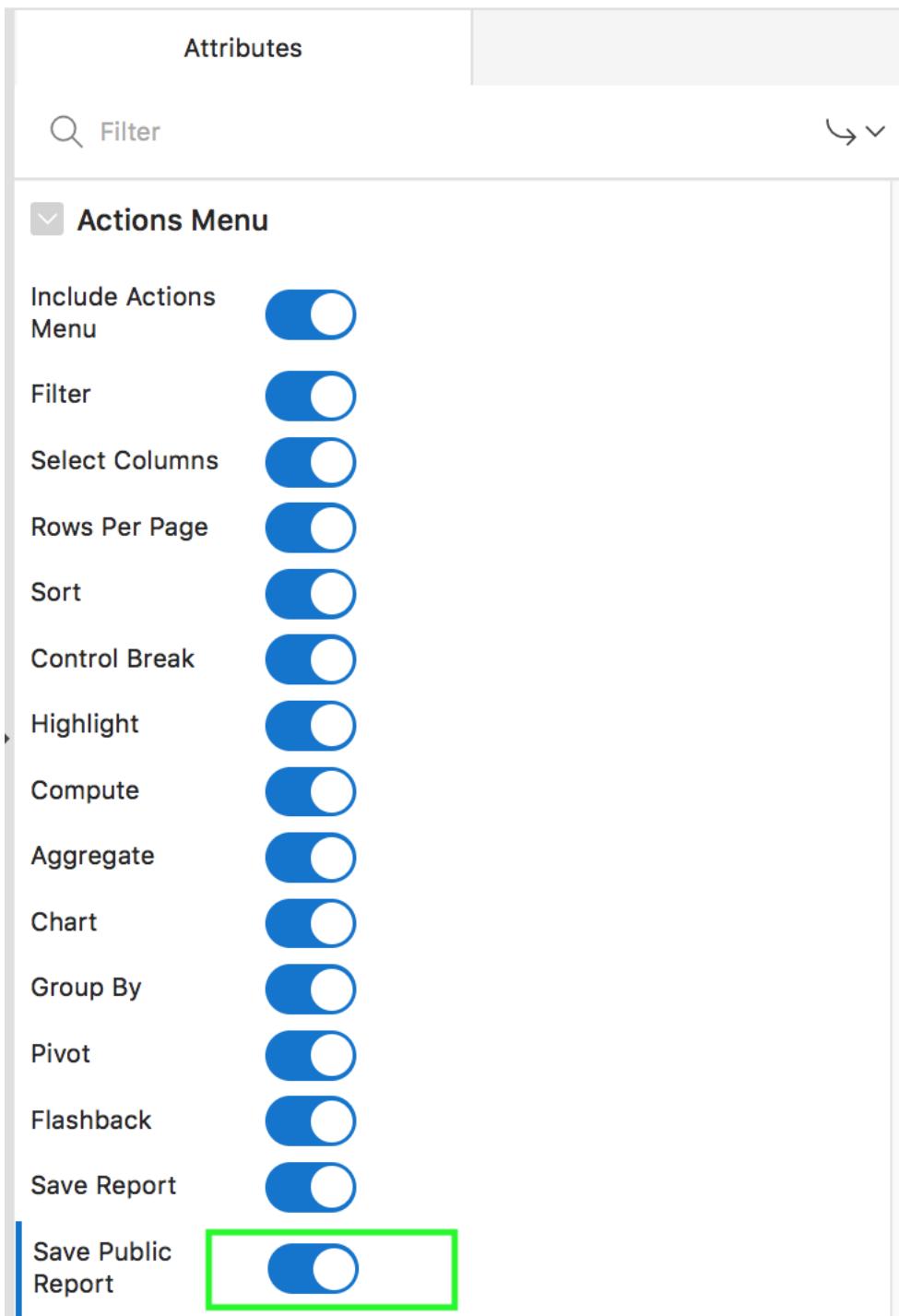
Maximum Rows Per Page



The screenshot shows the 'Attributes' section of the Oracle Application Express property editor. At the top, there's a 'Filter' button and a back/forward navigation icon. Below is a section titled 'Search Bar' with several configuration options: 'Include Search Bar' (on), 'Search Field' (on), 'Finder Drop Down' (on), 'Reports Select List' (on), and 'Rows Per Page Selector' (on). The 'Search Button Label' field is empty. The 'Maximum Rows Per Page' field contains the value '10', which is highlighted with a green border.

6. Currently your interactive report allows end users to save the report as private. However, you also want to make sure that they can save a report as public. Enable this option in the Actions menu.

In the property editor, locate **Actions Menu**. Enable **Save Public Report**.



7. You want to disable the Email and RTF formats in the Download option of the Actions menu. In the property editor, navigate to **Download**. Deselect **Email** and **RTF** download formats.

Download

Download Formats

CSV
 HTML
 Email
 XLS
 PDF
 RTF

CSV Separator _____

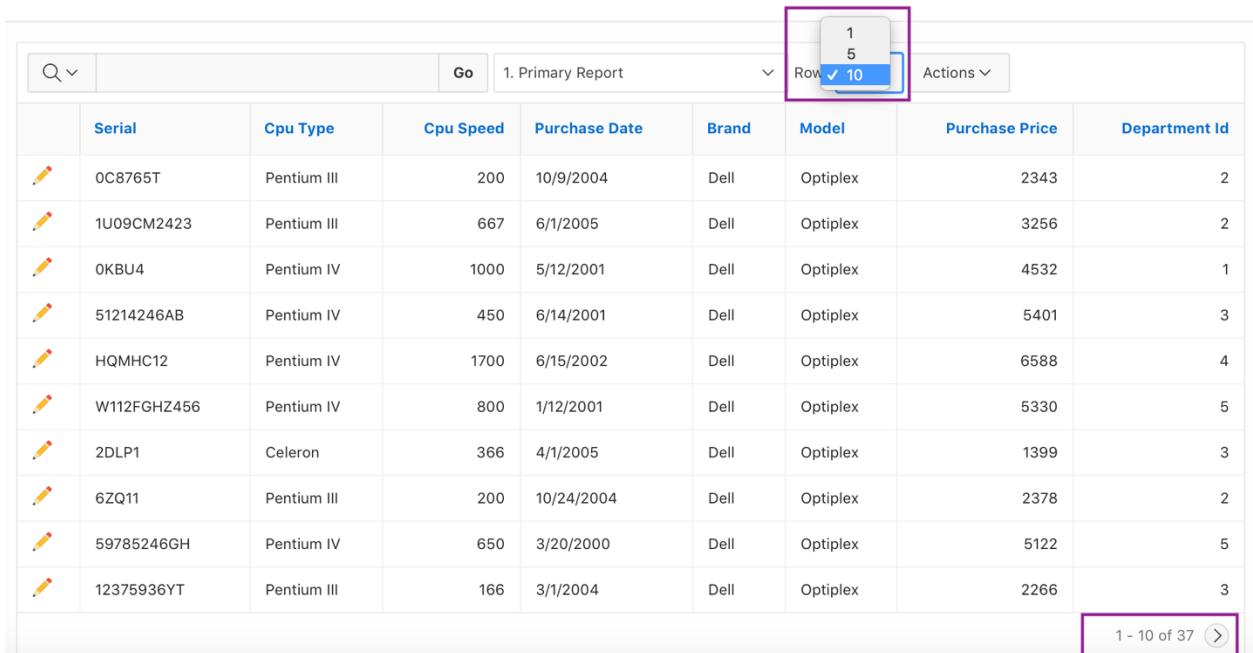
CSV Enclosed By _____

Filename _____

Supplemental Text 

8. Now that you finished the customization for end users, click **Save and Run Page**.
9. Notice that the row selector and the new pagination type are available on the report.

Hardware Interactive Report



	Serial	Cpu Type	Cpu Speed	Purchase Date	Brand	Model	Purchase Price	Department Id
	OC8765T	Pentium III	200	10/9/2004	Dell	Optiplex	2343	2
	1U09CM2423	Pentium III	667	6/1/2005	Dell	Optiplex	3256	2
	OKBU4	Pentium IV	1000	5/12/2001	Dell	Optiplex	4532	1
	51214246AB	Pentium IV	450	6/14/2001	Dell	Optiplex	5401	3
	HQMHC12	Pentium IV	1700	6/15/2002	Dell	Optiplex	6588	4
	W112FGHZ456	Pentium IV	800	1/12/2001	Dell	Optiplex	5330	5
	2DLP1	Celeron	366	4/1/2005	Dell	Optiplex	1399	3
	6ZQ11	Pentium III	200	10/24/2004	Dell	Optiplex	2378	2
	59785246GH	Pentium IV	650	3/20/2000	Dell	Optiplex	5122	5
	12375936YT	Pentium III	166	3/1/2004	Dell	Optiplex	2266	3

10. Select **Actions > Report > Save Report.**

11. The Save Report dialog displays. Notice that the Public check box is now available. For Save, select **As Named Report**, enter **Departments Public Report** for Name. Select the **Public** check box and click **Apply**.

Save Report X

Save (Only displayed for developers)

As Named Report ▼

Name

Departments Public Report

Description

Public

Cancel Apply

12. This report is now saved as a public report and is available in the Reports drop down list.

Home \

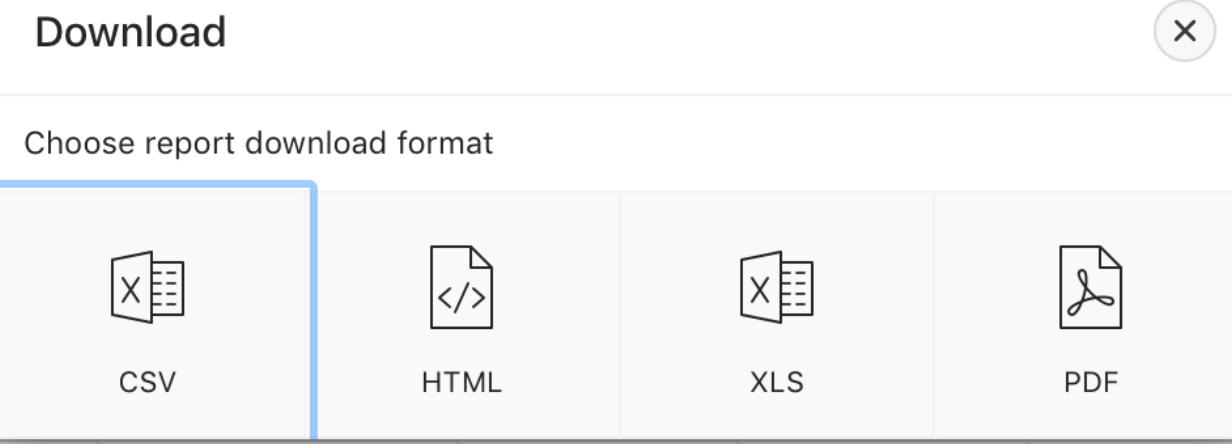
Hardware Interactive Repo

The screenshot shows a report list with a dropdown menu open. The menu items are: Default, 1. Primary Report, Private, 1. Departments Hardware Report, 2. My Report, and Public. The item '1. Departments Public Report' is highlighted with a blue background and a white border. Below the menu is a table with columns: Serial, Cpu Type, Cpu Speed, Purchase Date, Brand, Model, Purchase Price, and Department Id. The table contains 7 rows of hardware data.

Serial	Cpu Type	Cpu Speed	Purchase Date	Brand	Model	Purchase Price	Department Id
0C8765T	Pentium III	200	10/9/2004	Dell	Optiplex	2343	2
1U09CM2423	Pentium III	667	6/1/2005	Dell	Optiplex	3256	2
0KBU4	Pentium IV	1000	5/12/2001	Dell	Optiplex	4532	1
51214246AB	Pentium IV	450	6/14/2001	Dell	Optiplex	5401	3
HQMHC12	Pentium IV	1700	6/15/2002	Dell	Optiplex	6588	4
W112FGHZ456	Pentium IV	800	1/12/2001	Dell	Optiplex	5330	5
2DLP1	Celeron	366	4/1/2005	Dell	Optiplex	1399	3

13. Click **Actions > Download**.

14. Notice that the Email and RTF formats are no longer available. Click Close icon.

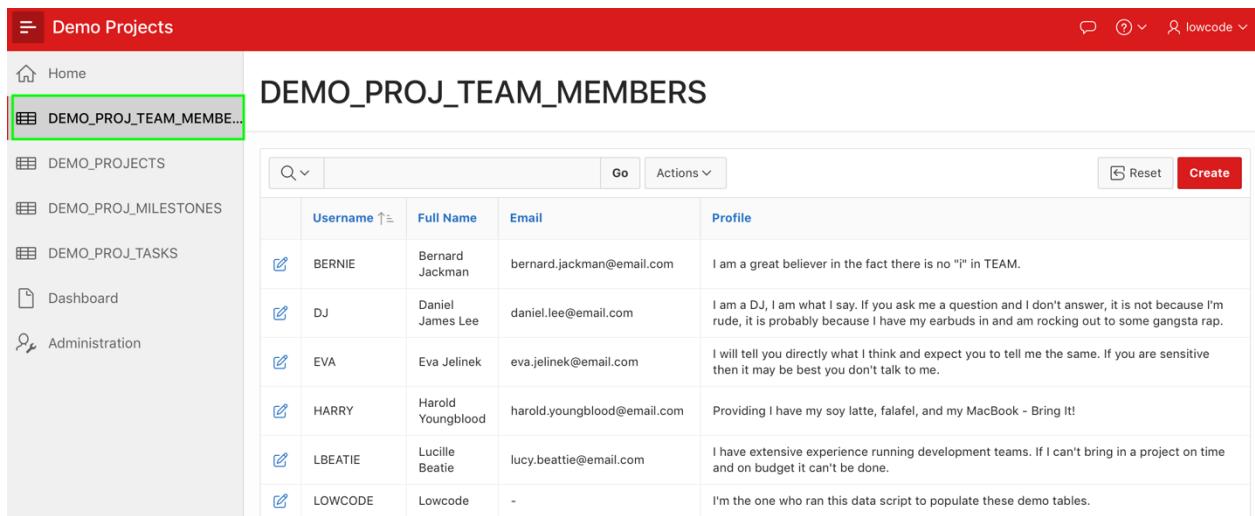


15. From the Reports drop down list, select **Primary Report**.

HOL 6-3: Saving the Team Members Interactive Report

In this lab, you create an alternative default report for the Demo Proj Team Members interactive report.

1. Navigate to **App Builder** and run the **Demo Projects** application.
2. In the navigation menu, select **Demo Proj Team Members**.



The screenshot shows the Oracle Application Express interface for the 'Demo Projects' application. The left sidebar contains a navigation menu with items like 'Home', 'DEMO_PROJECTS', 'DEMO_PROJ_MILESTONES', 'DEMO_PROJ_TASKS', 'Dashboard', and 'Administration'. The main content area is titled 'DEMO_PROJ_TEAM_MEMBERS'. It features a table with the following data:

Username	Full Name	Email	Profile
BERNIE	Bernard Jackman	bernard.jackman@email.com	I am a great believer in the fact there is no "I" in TEAM.
DJ	Daniel James Lee	daniel.lee@email.com	I am a DJ, I am what I say. If you ask me a question and I don't answer, it is not because I'm rude, it is probably because I have my earbuds in and am rocking out to some gangsta rap.
EVA	Eva Jelinek	eva.jelinek@email.com	I will tell you directly what I think and expect you to tell me the same. If you are sensitive then it may be best you don't talk to me.
HARRY	Harold Youngblood	harold.youngblood@email.com	Providing I have my soy latte, falafel, and my MacBook - Bring It!
LBEATIE	Lucille Beattie	lucy.beattie@email.com	I have extensive experience running development teams. If I can't bring in a project on time and on budget it can't be done.
LOWCODE	Lowcode	-	I'm the one who ran this data script to populate these demo tables.

3. You want to save the default report settings for all the users. Click **Actions** and select **Report > Save Report**.

The screenshot shows a table of team members with columns for Username, Full Name, and Email. The table has 7 rows. To the right of the table is a sidebar with actions like Columns, Filter, Data, Format, Chart, Group By, and Pivot. Below the table are buttons for Report, Save Report, Download, Reset, and a large red box highlighting the Save Report button.

	Username	Full Name	Email	
	BERNIE	Bernard Jackman	bernard.jackman@email.com	ever in the fact there is no "i" in TEAM.
	DJ	Daniel James Lee	daniel.lee@email.com	> what I say. If you ask me a question and I don't answer, it is not because I'm only because I have my earbuds in and am rocking out to some gangsta rap.
	EVA	Eva Jelinek	eva.jelinek@email.com	> exactly what I think and expect you to tell me the same. If you are sensitive
	HARRY	Harold Youngblood	harold.youngblood@email.com	est you don't talk to me.
	LBEATIE	Lucille Beatie	lucy.beattie@email.com	my soy latte, falafel, and my MacBook - Bring It!
	LOWCODE	Lowcode	-	experience running development teams. If I can't bring in a project on time
	MADY	Madison Smith	madison.smith@email.com	can't be done.

4. In the Save Report dialog, for Save, select **As Default Report Settings**.
5. Select **Alternative** for Default Report Type, enter Team Members Alternative Report for Name, and click **Apply**.

Save Default Report



The current report settings will be used as the default for all users.

Default Report Type

Primary

Alternative

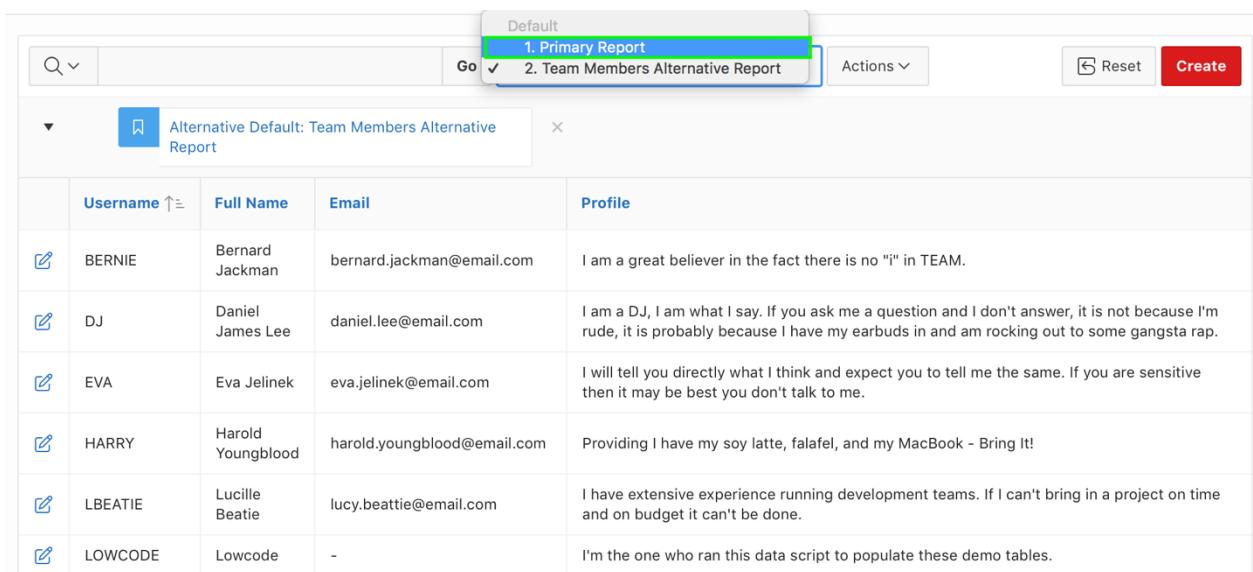
Name

Team Members Alternative Report

Cancel

Apply

6. The alternative default report is now saved for all users. Select **Primary Report** from the list.



The screenshot shows a report page in Oracle Application Express. At the top, there is a navigation bar with a search icon, a 'Go' button with a checked checkbox, and a dropdown menu labeled 'Default' containing two items: '1. Primary Report' (which is highlighted with a green border) and '2. Team Members Alternative Report'. To the right of the dropdown are 'Actions' and 'Reset' buttons, and a red 'Create' button. Below the navigation bar is a header with a bookmark icon and the text 'Alternative Default: Team Members Alternative Report'. The main content area is a table with the following columns: Username, Full Name, Email, and Profile. The table contains six rows of data:

Username	Full Name	Email	Profile
BERNIE	Bernard Jackman	bernard.jackman@email.com	I am a great believer in the fact there is no "i" in TEAM.
DJ	Daniel James Lee	daniel.lee@email.com	I am a DJ, I am what I say. If you ask me a question and I don't answer, it is not because I'm rude, it is probably because I have my earbuds in and am rocking out to some gangsta rap.
EVA	Eva Jelinek	eva.jelinek@email.com	I will tell you directly what I think and expect you to tell me the same. If you are sensitive then it may be best you don't talk to me.
HARRY	Harold Youngblood	harold.youngblood@email.com	Providing I have my soy latte, falafel, and my MacBook - Bring It!
LBEATIE	Lucille Beatie	lucy.beattie@email.com	I have extensive experience running development teams. If I can't bring in a project on time and on budget it can't be done.
LOWCODE	Lowcode	-	I'm the one who ran this data script to populate these demo tables.

HOL 6-4: Customizing the Projects Interactive Report

In this lab, you update the report source query and remove the column link defined on the ID column. Then, you customize the interactive grid by hiding the columns that need not be displayed and creating an aggregation on the Tasks column. You save these customizations for all the users. Navigating back to the page designer, you define a column link on the NAME column.

1. If you are in the application runtime environment, click **Demo Projects** in the navigation menu. Then, in the Developer Toolbar, click **Edit Page 4**.

Project Lead	Name	Description	Status Cd	Completed Date
LBEATIE	Develop Production Partner Portal	Develop the production app that partners can use to work more collaboratively with us.	Assigned	-
LBEATIE	Train Developers on Web development tool	Ensure all developers who will be developing with the new tool get the appropriate training.	Completed	11/29/2019
LOWCODE	Configure Web Development Tool Environment	Determine the hardware and software required to develop with Web development tool.	Completed	11/14/2019
LOWCODE	Develop Partner Portal POC	Develop a proof of concept that partners can use to work more collaboratively with us.	In-Progress	-
MIYAZAKI	Migrate Legacy Applications	Move the data and redevelop the applications currently running on top of legacy servers	In-Progress	-

2. Modify the existing Demo Projects Interactive Report (Page 4) and update the SQL Query associated with the report to add summations for milestones and tasks. Under **Rendering > Regions**, click the **Projects** region.
3. In the Property Editor, under Source, change the Type to **SQL Query**.

4. Click the **Code Editor: SQL Query** button, and copy and paste the following SQL:

```

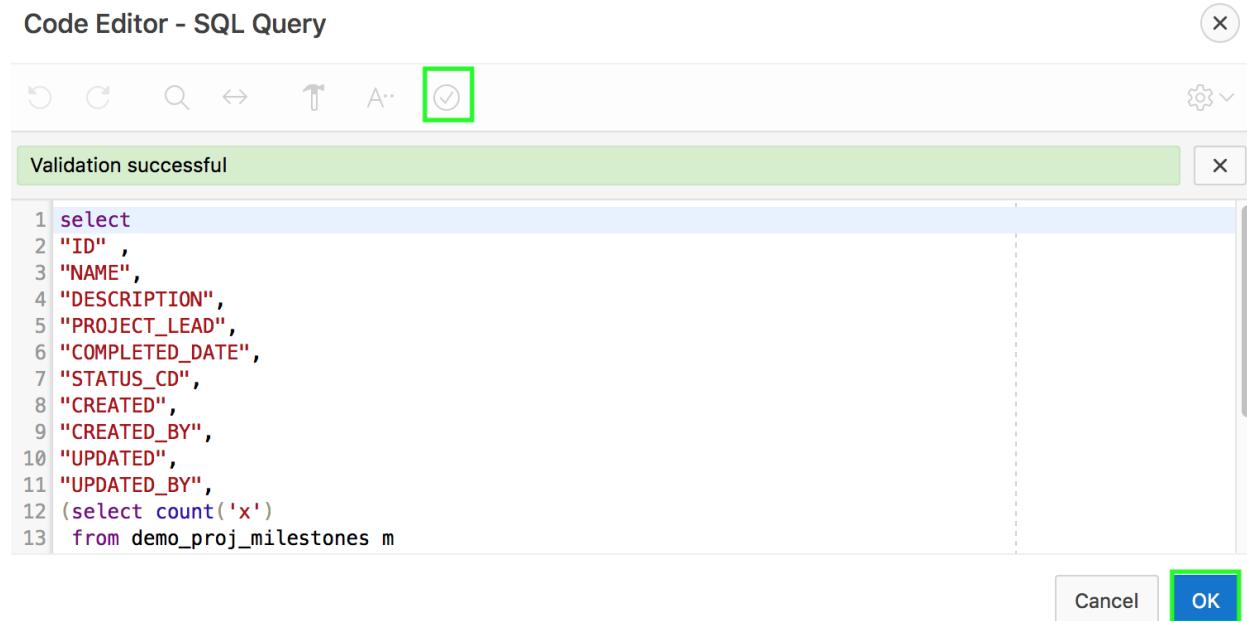
select
  "ID",
  "NAME",
  "DESCRIPTION",
  "PROJECT_LEAD",
  "COMPLETED_DATE",
  
```

```

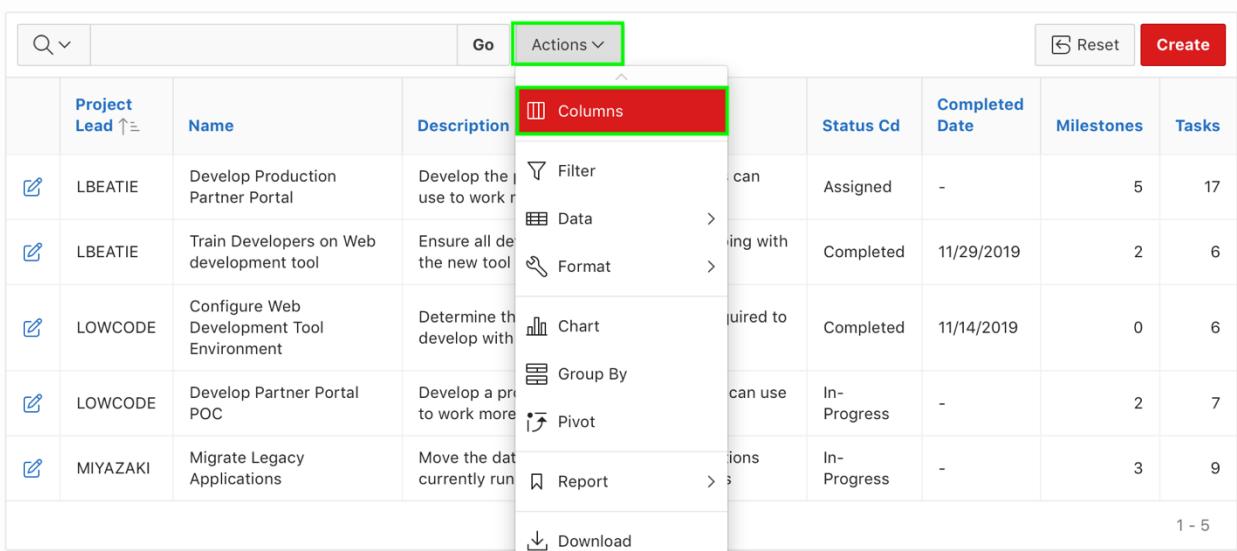
"STATUS_CD",
"CREATED",
"CREATED_BY",
"UPDATED",
"UPDATED_BY",
(select count('x')
  from demo_proj_milestones m
 where m.project_id = p.id
) milestones,
(select count('x')
  from demo_proj_tasks t
 where t.project_id = p.id
) tasks
from "DEMO_PROJECTS" p

```

Click **Validate**. Then, click **OK**.



5. Click **Save and Run Page**.
6. You are now in the application runtime environment. Click **Actions > Columns**.



Project Lead	Name	Description	Status Cd	Completed Date	Milestones	Tasks
LBEATIE	Develop Production Partner Portal	Develop the new partner portal to use to work more efficiently.	can	Assigned	-	5 17
LBEATIE	Train Developers on Web development tool	Ensure all developers are trained on the new tool.	ing with	Completed	11/29/2019	2 6
LOWCODE	Configure Web Development Tool Environment	Determine the best way to develop with the new tool.	quired to	Completed	11/14/2019	0 6
LOWCODE	Develop Partner Portal POC	Develop a proof of concept to work more efficiently.	can use	In-Progress	-	2 7
MIYAZAKI	Migrate Legacy Applications	Move the data from legacy applications currently running.	ions	In-Progress	-	3 9

7. In the Select Columns dialog, under Display in Report, select **Description** and click <.
8. Under Display in Report, select **Project Lead** and click the **Down** arrow one time so that you now see Project Lead immediately after Name. Then, click **Apply**.

Select Columns



Do Not Display

- Created
- Created By
- ID
- Updated
- Updated By
- Description**

Display in Report

- Project Lead**
- Name
- Status Cd
- Completed Date
- Milestones
- Tasks

Cancel
Apply

9. The interactive report would now look like:

	Name	Project Lead ↑=	Status Cd	Completed Date	Milestones	Tasks
	Develop Production Partner Portal	LBEATIE	Assigned	-	5	17
	Train Developers on Web development tool	LBEATIE	Completed	11/29/2019	2	6
	Configure Web Development Tool Environment	LOWCODE	Completed	11/14/2019	0	6
	Develop Partner Portal POC	LOWCODE	In-Progress	-	2	7
	Migrate Legacy Applications	MIYAZAKI	In-Progress	-	3	9

1 - 5

10. You want to define aggregations on the Milestones and Tasks columns. Select **Actions > Data > Aggregate**.

	Name	Status Cd	Completed Date	Milestones	Tasks
	Develop Production Partner Portal	Assigned	-	5	17
	Train Developers on Web development tool			2	6
	Configure Web Development Tool Environment			0	6
	Develop Partner Portal POC			2	7
	Migrate Legacy Applications			3	9

11. In the Aggregate dialog, select **Milestones** for Column, select **Sum** for Function, and click **Apply**.

Aggregate



Aggregation

- New Aggregation -

Function

Sum

Column

Milestones

Cancel

Apply

12. Again, select **Actions > Data > Aggregate**.
13. In the Aggregate dialog, **Tasks** for Column, select **Sum** for Function, and click **Apply**.
14. You want to save the changes made to the primary interactive report. Select **Actions > Report > Save Report**.
For Save, select **As Default Report Settings**.
Select **Primary** for Default Report Type. Click **Apply**. The default report is now saved for all users.
15. You want to now navigate to page designer. In the Developer Toolbar, click **Edit Page 4**.
16. In the Rendering tree, under Region > Projects, select **Attributes**.
17. In the Property Editor, under Link Column, for Link, select **Exclude Link Column**.

The screenshot shows the Oracle Application Express (APEX) developer interface. On the left, the 'Rendering tree' pane shows a hierarchical structure of regions and components for 'Page 4: DEMO_PROJECTS'. The 'Attributes' section is currently selected. In the center, the 'Region Content' pane displays the 'Projects' region, which includes a search bar with 'RESET_REPORT' and 'CREATE' buttons. On the right, the 'Properties' editor is open for the 'Link' column. Under the 'Link' section, the 'Link Column' dropdown is open, and the 'Exclude Link Column' option is highlighted in blue. Other options in the dropdown include 'Link to Single Row View' and 'Link to Custom Target'. The 'Target' field is set to 'Page 5'. The 'Link Icon' field contains the code ''. The 'Link Attributes' and 'Condition Type' sections are also visible.

18. Click **Save and Run Page**.

19. In the Developer Toolbar, click **Edit Page 4**.

20. You want to define a column link on the NAME column. Under Rendering > Regions > Project, expand the **Columns** node. Select **NAME**.

21. In the property editor, under Identification, select **Link** for Type.

The screenshot shows the 'Column' identification page. In the 'Type' section, a dropdown menu is open, displaying several options: Plain Text, Plain Text (based on List of Values), Link, Display Image, Download BLOB, Percent Graph, Remove HTML, and Hidden Column. The 'Link' option is highlighted with a blue background and a green border.

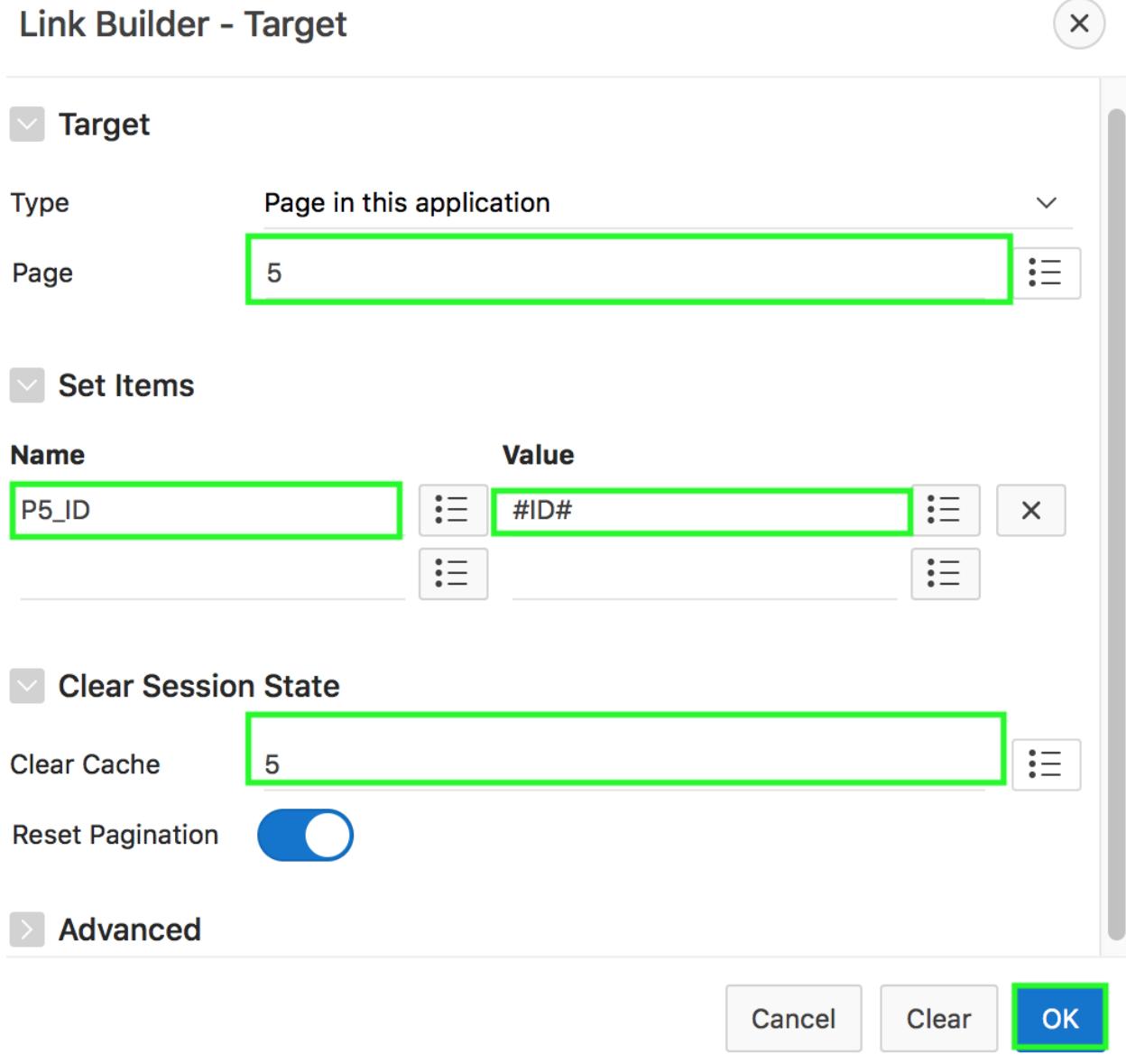
22. Under Link > Target, click **No Link Defined**.

The screenshot shows the 'Link' configuration page. In the 'Target' section, the value 'No Link Defined' is displayed within a red-bordered box.

23. In the Link Builder – Target dialog:

- Page - enter **5**
- Name - select **P5_ID**
- Value - select **ID** (shows as **#ID#**)
- Clear Cache - enter **5**

Click **OK**.



24. Click **Save and Run Page**. The Demo Projects interactive report might now look like:

DEMO_PROJECTS

Q ▾		Go	Actions ▾			<input type="button" value="Reset"/>	<input type="button" value="Create"/>
Name	Project Lead ↑↓	Status Cd	Completed Date	Milestones	Tasks		
Develop Production Partner Portal	LBEATIE	Assigned	-	5	17		
Train Developers on Web development tool	LBEATIE	Completed	11/29/2019	2	6		
Configure Web Development Tool Environment	LOWCODE	Completed	11/14/2019	0	6		
Develop Partner Portal POC	LOWCODE	In-Progress	-	2	7		
Migrate Legacy Applications	MIYAZAKI	In-Progress	-	3	9		
				12	45		
1 - 5							

HOL 6-5 Customizing the Milestones Interactive Report

In this lab, you modify the interactive grid source query. Then, you customize the interactive grid by hiding columns that need not be displayed and sorting the interactive grid on the Due Date column. You also create an aggregation on the Tasks column and save the customizations made to the Primary interactive grid.

1. You are in the application runtime environment. In the navigation menu, click **Demo Proj Milestones**. In the Developer Toolbar, click **Edit Page 6**.

Project ↑	Name	Description	Due Date
Develop Partner Portal POC	Define Requirements	Work with key stakeholders to define the scope of the project, and design screen flow and data requirements.	11/18/2019
Develop Partner Portal POC	Build Proof-of-Concept	Create the initial screens and populate with data so key stakeholders can review proposed solution.	11/25/2019
Develop Production Partner Portal	Complete Phase 1 Development of Partner Portal app	Based on the results of the Beta program, enhance the application to make production ready.	1/7/2020
Develop Production Partner Portal	Perform Beta testing with select Partners	Work with a few key partners to trial Phase 1 of the Partner Portal app.	12/11/2019
Develop Production Partner Portal	Build Phase 1 of Production Partner Portal App	Develop the modules defined in the first phase of the application.	12/3/2019
Develop Production Partner Portal	Define Production App Scope	Based on the results of the POC, define the requirements for the production app.	11/26/2019

2. Modify the existing Milestones Interactive Report and update the SQL Query associated with the report to add a new column. Under **Rendering > Regions**, click the **Proj Milestones** region.

3. In the Property Editor, under Source, for Type, select **SQL Query**.
4. In the Property Editor, click the **Code Editor: SQL Query** button, and copy and paste the following SQL:

```
select
  "ID" ,
  "PROJECT_ID",
  "NAME",
  "DESCRIPTION",
  "DUE_DATE",
  "CREATED",
  "CREATED_BY",
  "UPDATED",
  "UPDATED_BY",
  (select count('x')
   from demo_proj_tasks t
   where t.milestone_id = m.id
  ) tasks
from "DEMO_PROJ_MILESTONES" m
```

5. Click on **Validate** icon. Then, Click **OK**.

Code Editor - SQL Query

```

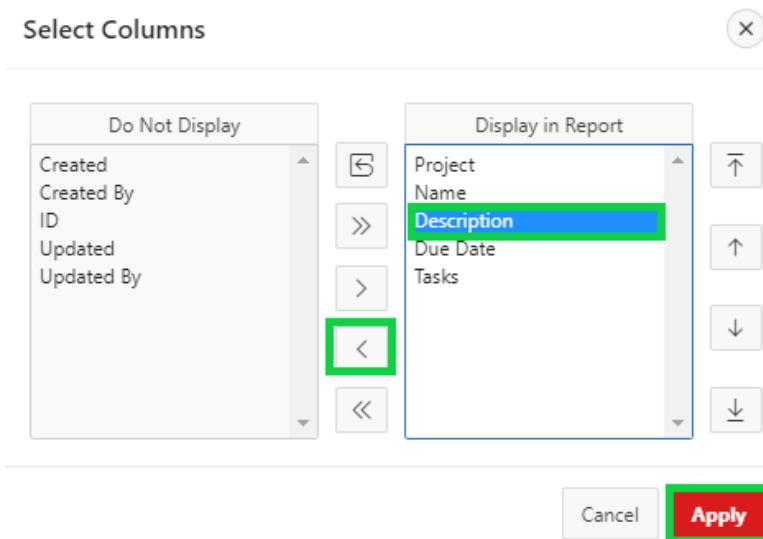
1 select
2 "ID",
3 "PROJECT_ID",
4 "NAME",
5 "DESCRIPTION",
6 "DUE_DATE",
7 "CREATED",
8 "CREATED_BY",
9 "UPDATED",
10 "UPDATED_BY",
11 (select count('x')
12   from demo_proj_tasks t
13  where t.milestone_id = m.id
14 ) tasks
15 from "DEMO_PROJ_MILESTONES" m

```

Validation successful

Cancel **OK**

6. Click **Save and Run Page**.
7. Reconfigure which columns are to be displayed in the interactive report. In the Interactive Report runtime window, click **Actions** and select **Columns**.
8. Under Display in Report, select **Description** and click <. Then, click **Apply**.



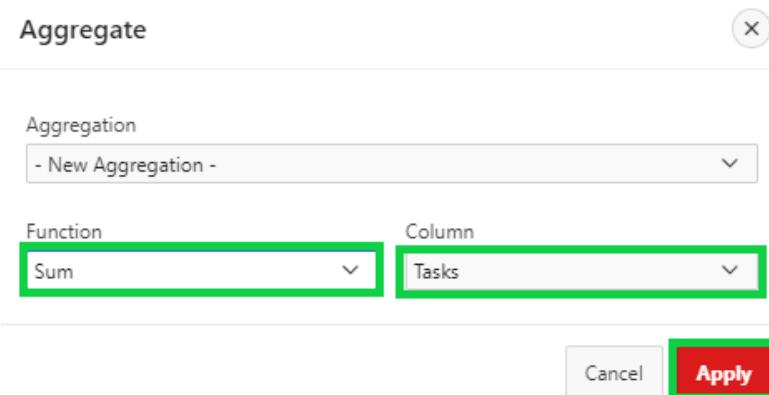
9. Sort the report by Due Date in ascending order. Click the **Due Date** column and in the column heading, click the **Sort Ascending** button.

	Project ↑	Name	Due Date	Tasks
	Develop Partner Portal POC	Define Requirements	↑= ↓= 11/10/2019	3
	Develop Partner Portal POC	Build Proof-of-Concept	11/25/2019	4
	Develop Production Partner Portal	Complete Phase 1 Development of Partner Portal app	1/7/2020	3
	Develop Production Partner Portal	Perform Beta testing with selected partners	Last 2 Years 12/11/2019	3
	Develop Production Partner Portal	Build Phase 1 of Production Partner Portal App	Last Year 12/3/2019	3
	Develop Production Partner Portal	Define Production App Scope	Last Month 11/26/2019	3
	Develop Production Partner Portal	Roll out Phase 1 of Partner Portal App	Last Week 1/11/2020	4
	Migrate Legacy Applications	Redevelop Project Tracking Applications	11/15/2019	3
	Migrate Legacy Applications	Redevelop HR Applications	11/9/2019	3
	Migrate Legacy Applications	Move Data Structures	11/1/2019	3
	Train Developers on Web development tool	Train the Trainers	10/23/2019	5

10. Make the interactive report functional by adding an aggregation. Create an aggregation on the Tasks column.

Click the **Actions** menu and select **Data > Aggregate**.

11. In the Aggregate dialog, Select **Tasks** for Column, and **Sum** for Function. Click **Apply**.



12. You want to save the changes made to the primary interactive grid. Select **Actions > Report > Save Report**.

For Save, select **As Default Report Settings**.

Select **Primary** for Default Report Type. Click **Apply**. The default report is now saved for all users.

13. Your **DEMO_PROJ_MILESTONES** page might look like this.

Project	Name	Due Date	Tasks
Train Developers on Web development tool	Train the Trainers	10/23/2019	5
Train Developers on Web development tool	All Developers Trained	10/27/2019	2
Migrate Legacy Applications	Move Data Structures	11/1/2019	3
Migrate Legacy Applications	Redevelop HR Applications	11/9/2019	3
Migrate Legacy Applications	Redevelop Project Tracking Applications	11/15/2019	3
Develop Partner Portal POC	Define Requirements	11/18/2019	3
Develop Partner Portal POC	Build Proof-of-Concept	11/25/2019	4
Develop Production Partner Portal	Define Production App Scope	11/26/2019	3
Develop Production Partner Portal	Build Phase 1 of Production Partner Portal App	12/3/2019	3
Develop Production Partner Portal	Perform Beta testing with select Partners	12/11/2019	3
Develop Production Partner Portal	Complete Phase 1 Development of Partner Portal app	1/7/2020	3
Develop Production Partner Portal	Roll out Phase 1 of Partner Portal app	1/11/2020	4
			39

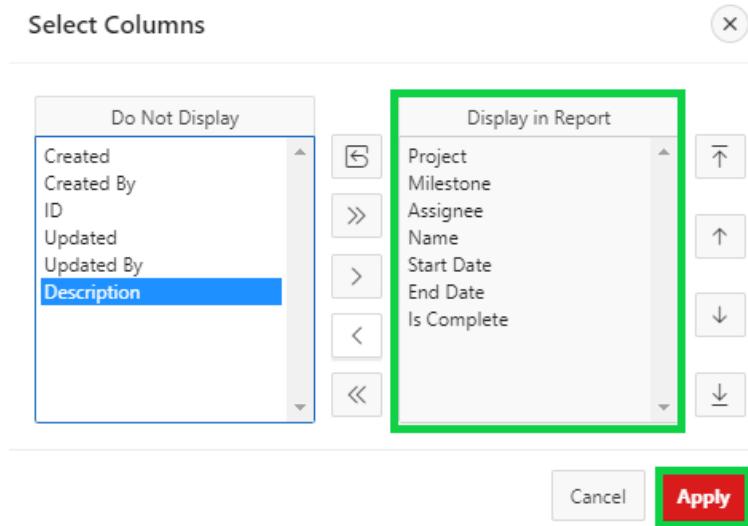
HOL 6-6 Customizing the Tasks Interactive Report

In this lab, you will reconfigure which columns are to be displayed in the Demo Proj Tasks interactive report. Then, you will create control break on two columns, and sort the rows in the ascending order of Start Date. Finally, you will save the default report for all users.

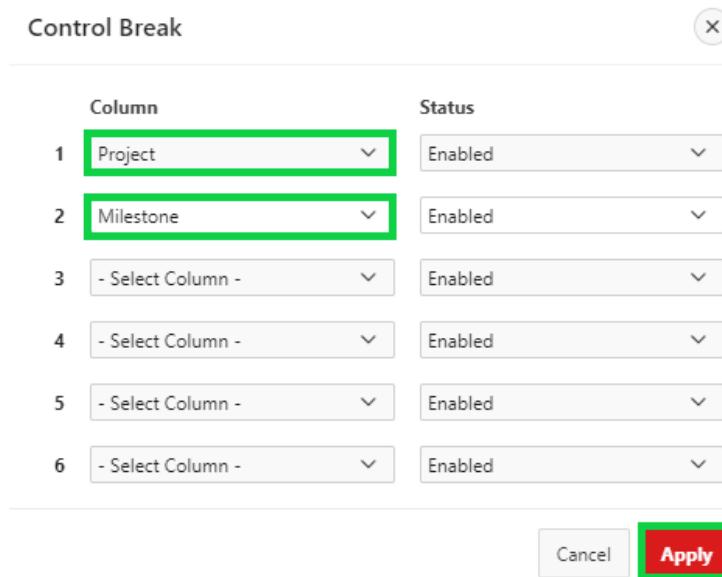
1. You are in the application runtime environment. In the navigation menu, click **Demo Proj Tasks**.
2. Reconfigure which columns are to be displayed in the interactive report. Click **Actions > Columns**.
3. In the Select Columns dialog, under Display in Report, select **Description** and click <.
4. Under Display in Report, the columns should be in the following order:
 - Project
 - Milestone
 - Assignee
 - Name
 - Start Date
 - End Date
 - Is Complete

Make sure to click the up and down buttons to set them accordingly.

Click **Apply**.



5. Group the records by project and milestones.
 - a) Select **Actions > Format > Control Break**.
 - b) In the Control Break dialog, for Column 1, select **Project**.
 - c) For Column 2, select **Milestone**.
 - d) Click **Apply**.



6. Order the records in the ascending order of start date. Select **Actions > Data > Sort**.
7. In the Sort dialog, select **Start Date** for Column 1 and click **Apply**.
8. You want to save the changes made to the primary interactive report. **Select Actions > Report > Save Report**.

For Save, select **As Default Report Settings**.

Select **Primary** for Default Report Type. Click **Apply**. The default report is now saved for all users.

- Your **DEMO_PROJ_TASKS** page might look like this.

Project : Configure Web Development Tool Environment, Milestone :					
	Assignee	Name	Start Date	End Date	Is Complete
<input checked="" type="checkbox"/>	NIMUTHAPA@GMAIL.COM	Identify Server Requirements	10/13/2019	10/14/2019	Y
<input checked="" type="checkbox"/>	MEIYU	Install Web development tool	10/15/2019	10/15/2019	Y
<input checked="" type="checkbox"/>	HARRY	Configure Web Listeners	10/15/2019	10/15/2019	Y
<input checked="" type="checkbox"/>	BERNIE	Configure Web development tool Instance Administration Settings	10/16/2019	10/16/2019	Y
<input checked="" type="checkbox"/>	HARRY	Assign Workspace Administrators	10/17/2019	10/17/2019	N
<input checked="" type="checkbox"/>	MEIYU	Define Workspaces	10/17/2019	10/17/2019	Y

Project : Develop Partner Portal POC, Milestone : Build Proof-of-Concept					
	Assignee	Name	Start Date	End Date	Is Complete
<input checked="" type="checkbox"/>					



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Oracle Corporation
World Headquarters
500 Oracle Parkway
Redwood Shores, CA 94065
U.S.A.

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Worldwide Inquiries:
Phone: +1.650.506.7000
Fax: +1.650.506.7200
oracle.com

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