ORACLE

APPLICATION EXPRESS



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: Customizing the Team Members Interactive Report: In this lab, you modify the source query, and customize the Demo Proj Team Members interactive report.

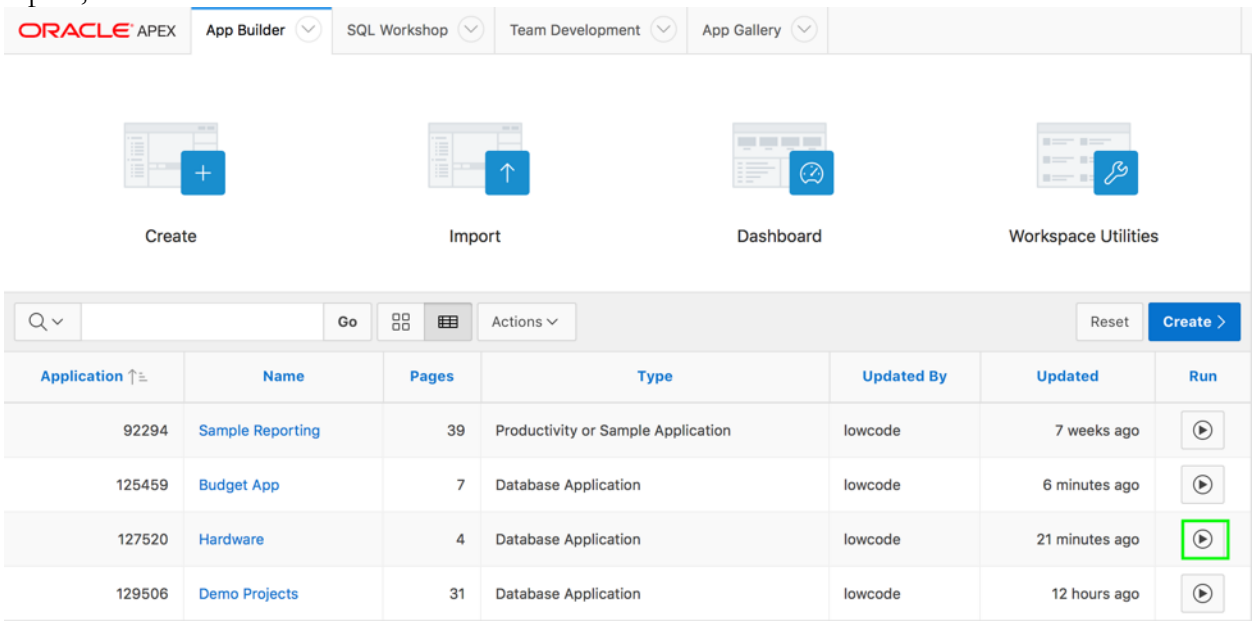
HOL 6-4: Customizing the Projects Interactive Report: In this lab, as a developer, you modify the source query, create a new column link, and customize the display of the Demo Projects interactive report.

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

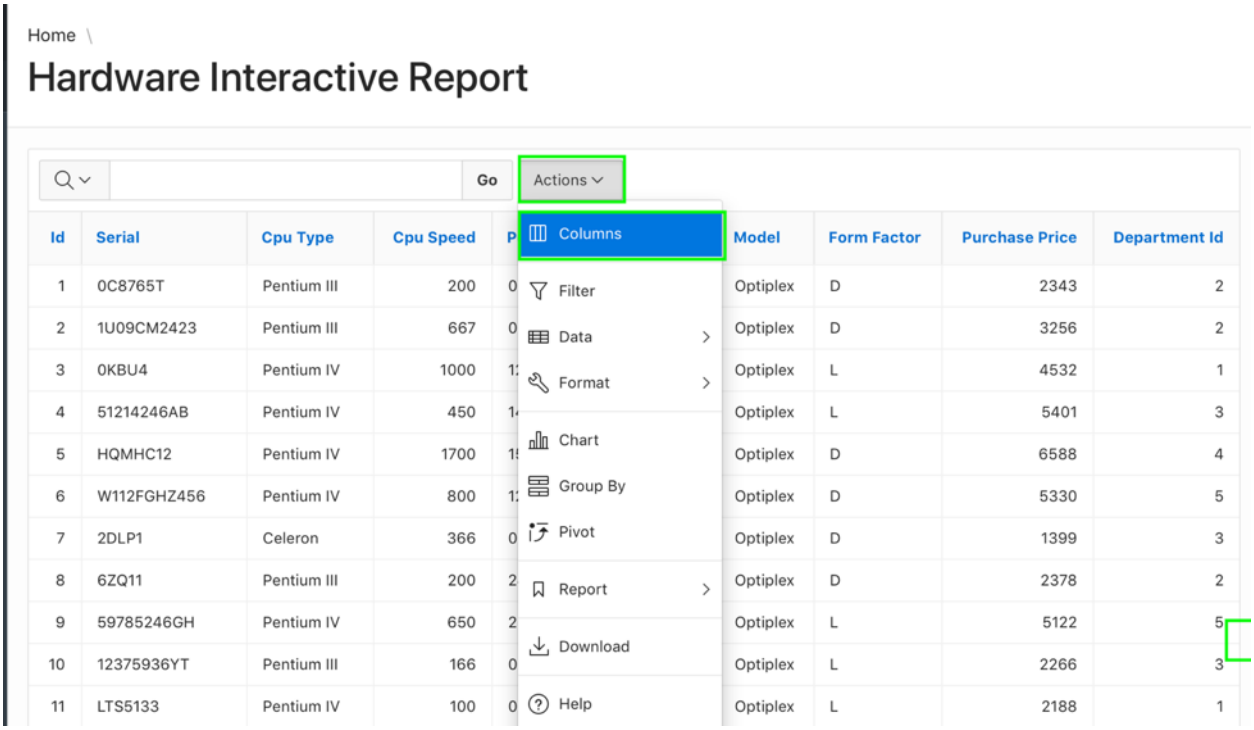
1. First, you run the Hardware application. To do this, navigate to **Application Builder**. In the report, click the **Run** button for **Hardware**.



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

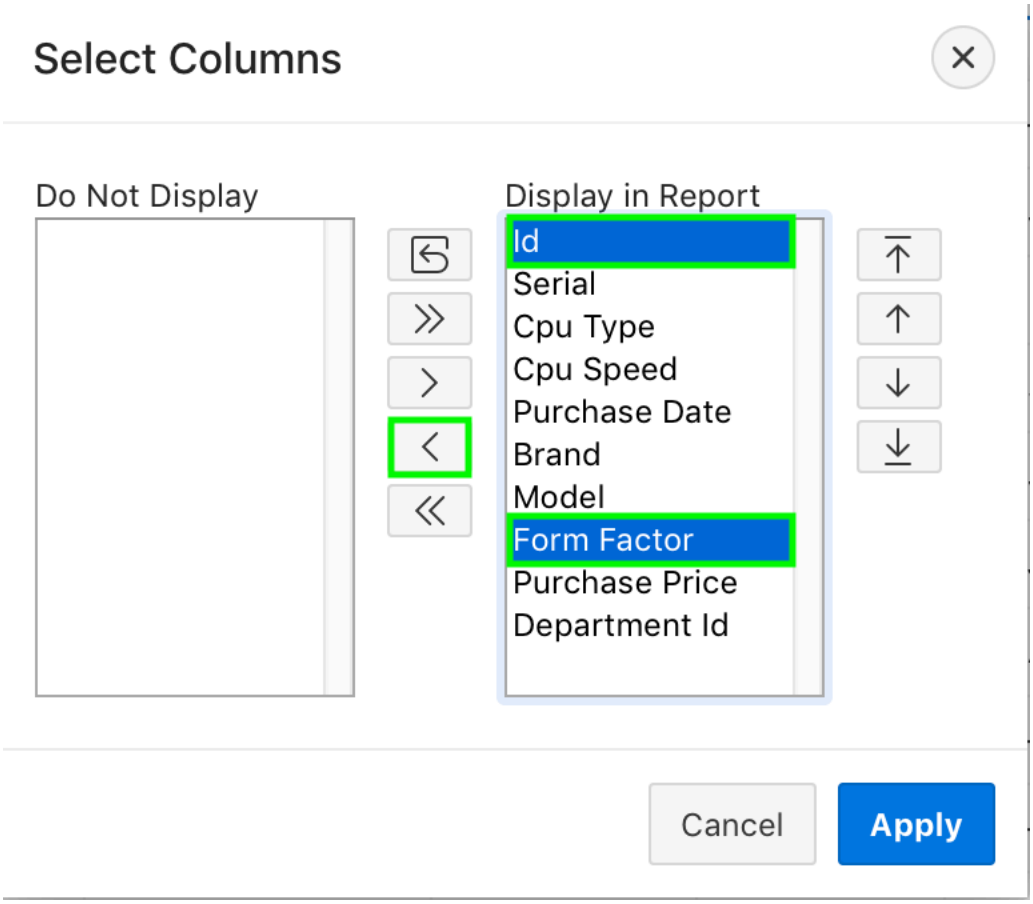
3. You do not want to display the Id and Form Factor columns in the report. Also, you want the Purchase Date column to display just before the Purchase Price column. Perform the following steps:

a) Click **Actions** and select **Columns**.

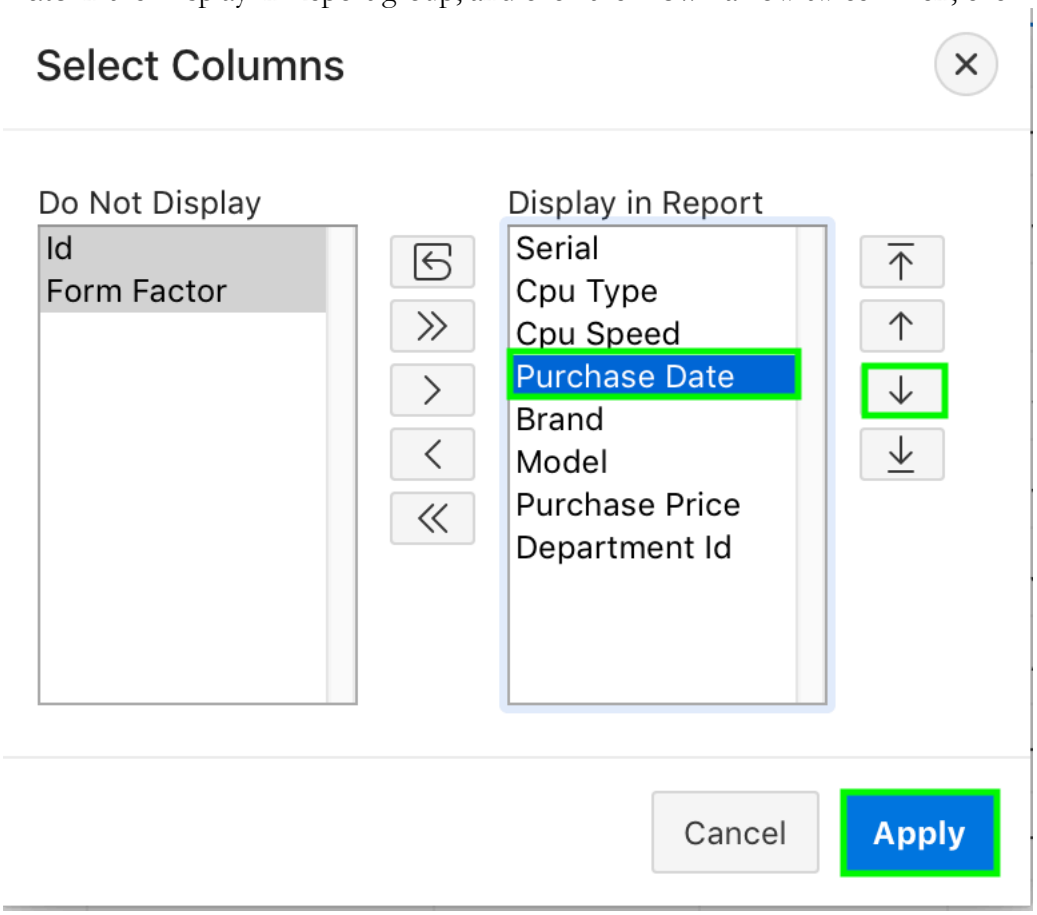


b) The Select Columns dialog appears. The columns on the right are displayed, and the columns on the left are hidden. Select **Id** and **Form Factor** in Display in Report group, and click the

Remove icon.


Select Columns
Do Not Display
Display in Report
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**.



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

Home \ Hardware Interactive Report

Serial	Cpu Type	Cpu Speed	Brand	Model	Purchase Date	Purchase Price	Department Id
QT1030FH	PowerPC G4	667	Dell	Optiplex	10-JAN-02	3800	4
XA9042NUFLO	PowerPC G3	333	Dell	Optiplex	13-APR-01	2650	6
FL4Q321	Pentium III	2400	Dell	Optiplex	10-DEC-02	6267	2
WE5483	PowerPC G4	200	Dell	Optiplex	09-OCT-00	2343	2
YUED8888	Pentium III	667	Dell	Optiplex	01-JUN-05	3256	2
LKM7D9J	Pentium IV	1000	Dell	Optiplex	12-MAY-03	4532	6
54HFLDSEG77	Pentium III	466	Dell	Optiplex	14-JUN-03	5401	6
9ODSLFR7	Pentium III	366	Dell	Optiplex	15-JUN-02	6588	3
88LDKSUE	PowerPC G4	450	Dell	Optiplex	08-APR-01	5330	6
HKLDU810	PowerPC G4	600	Dell	Optiplex	01-APR-03	1399	1
54FFFVDWS	PowerPC G3	800	Dell	Optiplex	24-OCT-04	2378	6
8UJJDSLKN	Pentium III	850	Dell	Optiplex	20-MAR-00	5122	4
JKEW77U	Pentium III	1700	Dell	Optiplex	01-MAR-03	2266	1
OKMND876	Pentium III	1200	Dell	Optiplex	01-JAN-04	2188	1

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 >= 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**.

Home \

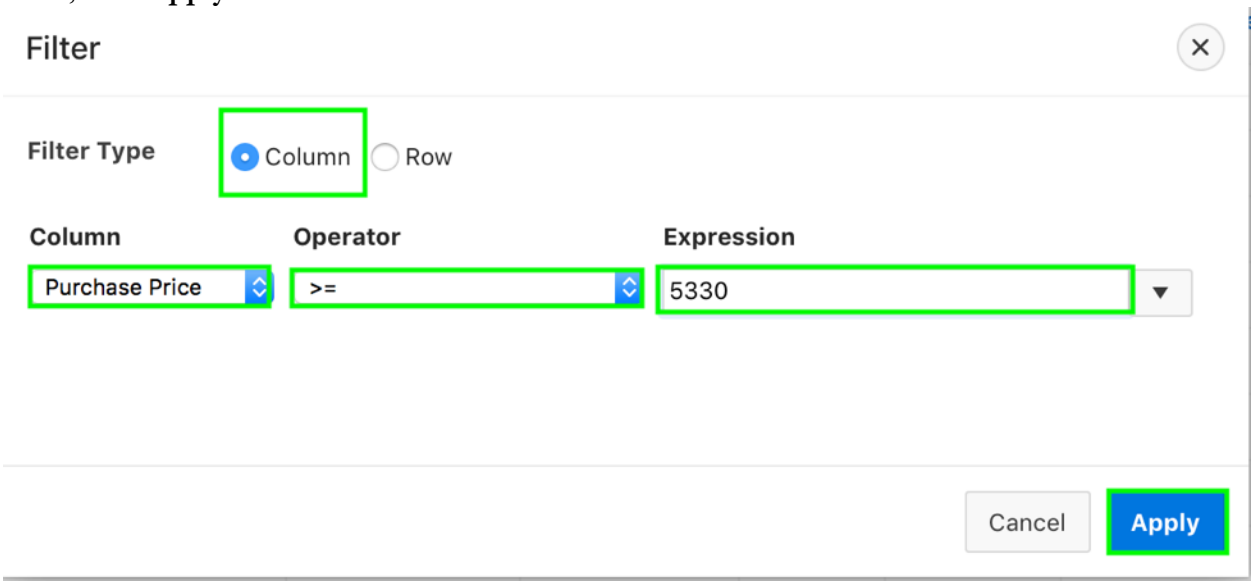
Hardware Interactive Report

Go | Actions

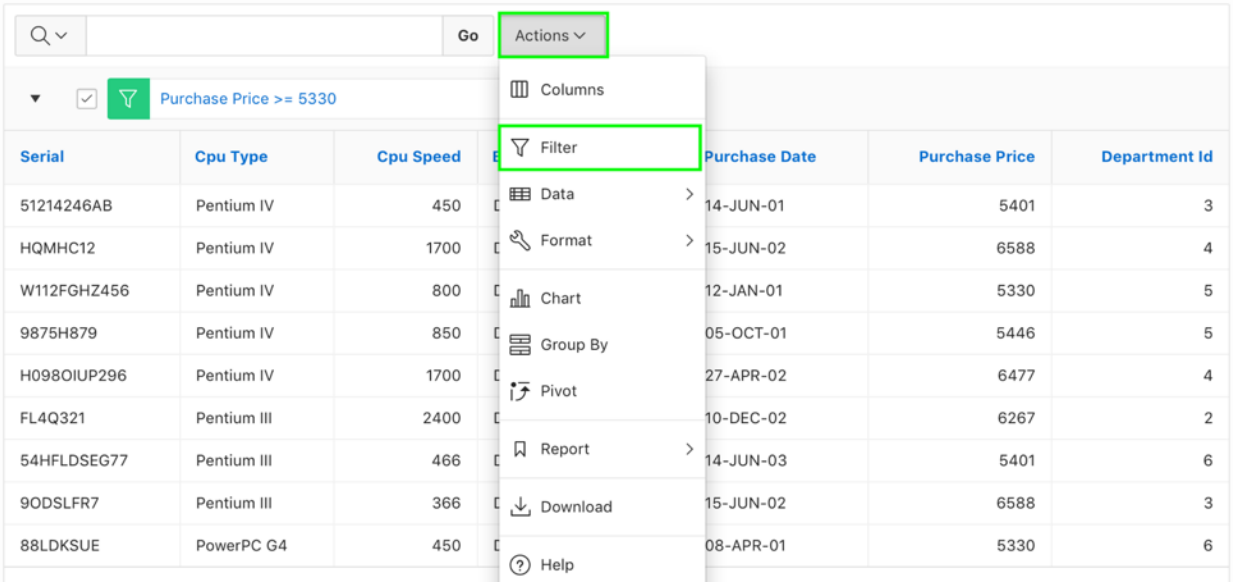
Columns
Filter
Data
Format
Chart
Group By
Pivot
Report
Download
Help

Serial	Cpu Type	Cpu Speed	Purchase Date	Purchase Price	Department Id
0C8765T	Pentium III	200	09-OCT-04	2343	2
1U09CM2423	Pentium III	667	01-JUN-05	3256	2
0KBU4	Pentium IV	1000	12-MAY-01	4532	1
51214246AB	Pentium IV	450	14-JUN-01	5401	3
HQMHC12	Pentium IV	1700	15-JUN-02	6588	4
W112FGHZ456	Pentium IV	800	12-JAN-01	5330	5
2DLP1	Celeron	366	01-APR-05	1399	3
6ZQ11	Pentium III	200	24-OCT-04	2378	2
59785246GH	Pentium IV	650	20-MAR-00	5122	5
12375936YT	Pentium III	166	01-MAR-04	2266	3
LTS5133	Pentium IV	100	01-JAN-04	2188	1

b) For Filter Type, select **Column**.
For Column, select **Purchase Price**, for Operator, select **>=** 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**.

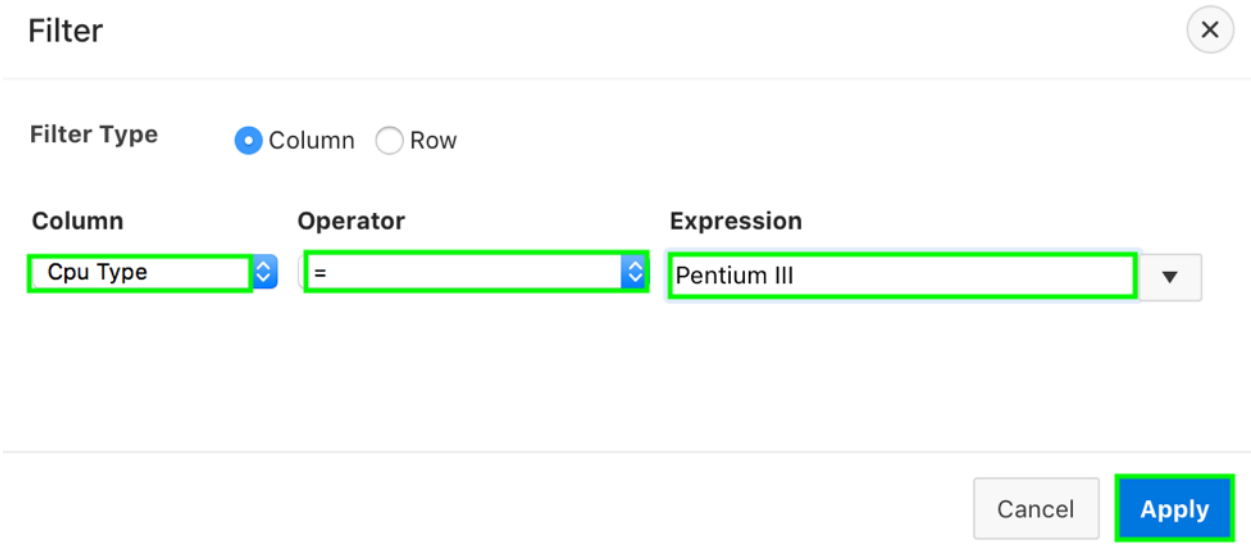


c) The filter is applied now. You can have more than one filter on a report. If you decide that you want to disable a particular filter, you can click the check box to disable the filter.
In this lab, you want to add another filter on the Cpu Type column.
Click the **Actions** menu, and select **Filter**.

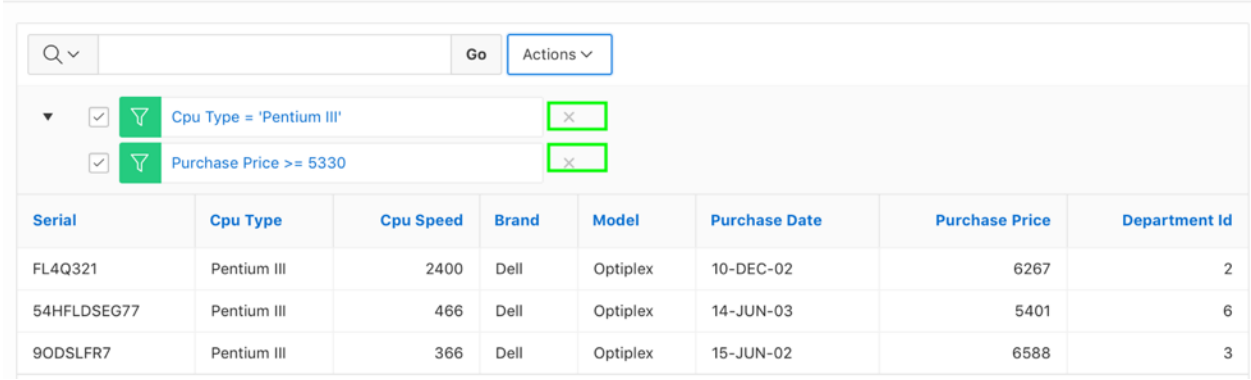


d) Select **Cpu Type** for Column, select **=** for Operator and select **Pentium III** from the Expression list.

Click **Apply**.



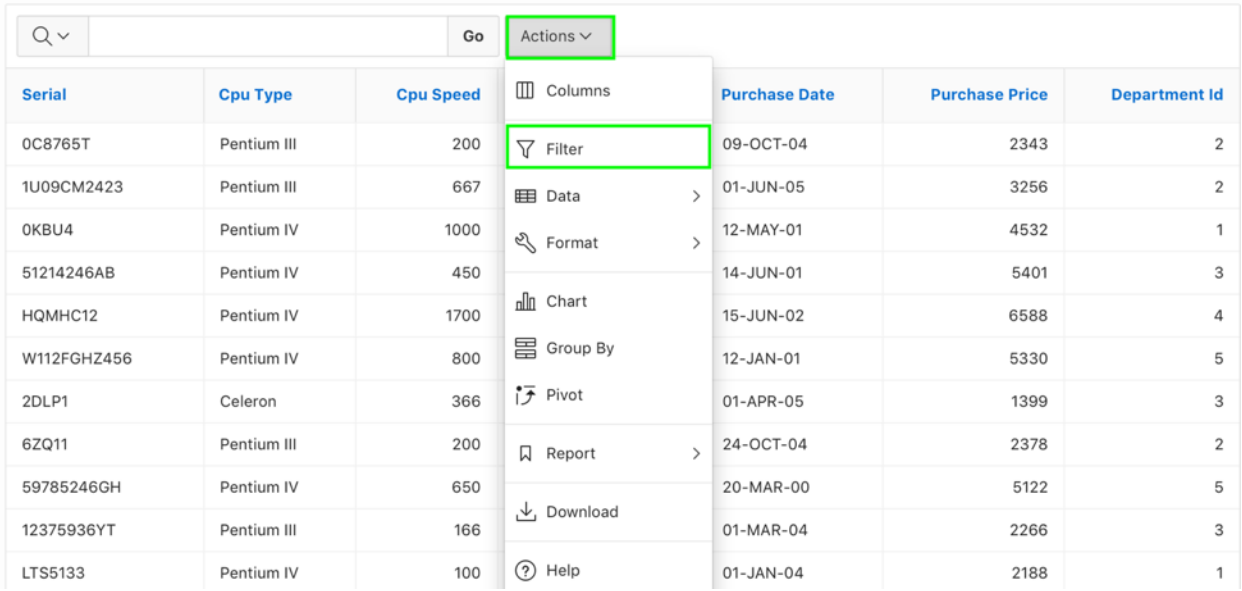
e) Notice that two filters are applied now. The rows displayed are fewer now because they are only the rows that meet both the filter criteria. You can remove each filter by clicking the Remove Filter icon, next to the filter you want to remove.
Click the **Remove Filter** icon next to both the filters.



Serial	Cpu Type	Cpu Speed	Brand	Model	Purchase Date	Purchase Price	Department Id
FL4Q321	Pentium III	2400	Dell	Optiplex	10-DEC-02	6267	2
54HFLDSEG77	Pentium III	466	Dell	Optiplex	14-JUN-03	5401	6
9ODSLFR7	Pentium III	366	Dell	Optiplex	15-JUN-02	6588	3

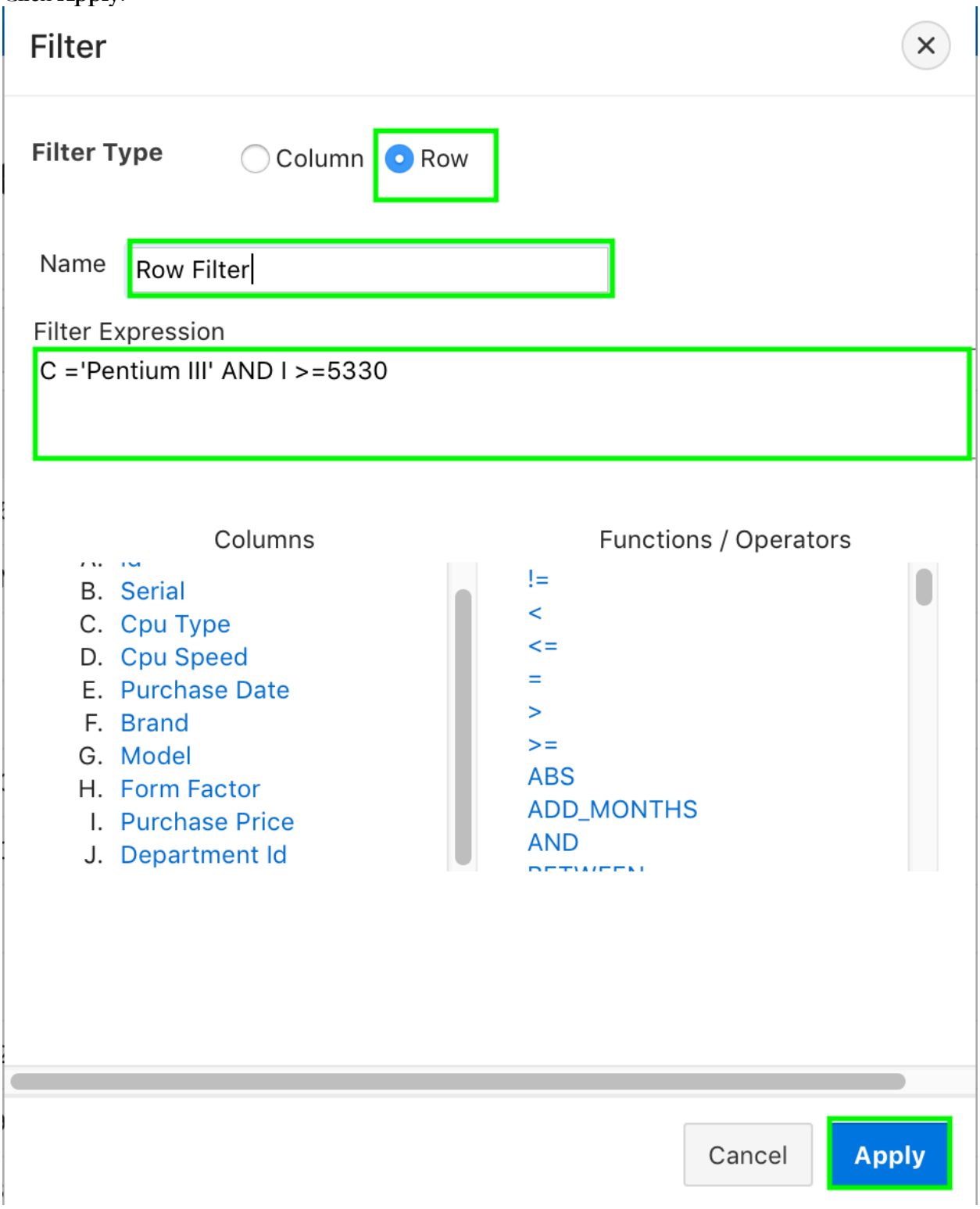
5. Both the filters are now removed, and you see that all the rows are displayed. You can also create a row filter.

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

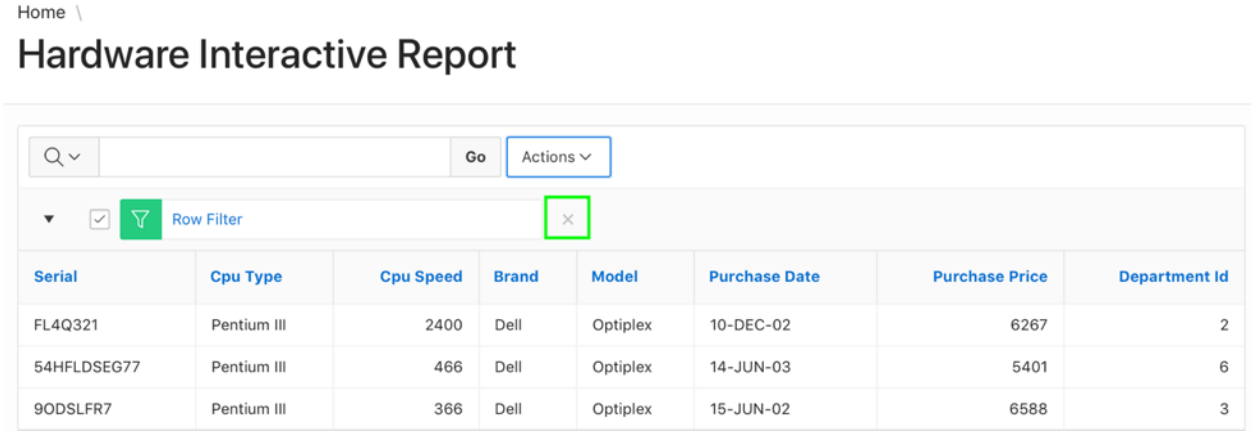


b) You want to create a filter which selects a row when both the following conditions are true:
Cpu Type = 'Pentium III'
Purchase Price >= 5330
Select **Row** for Filter Type.
Enter **Row Filter** for Name.
Click **Cpu Type** under Columns and then click **=** from Functions / Operators. Enter **'Pentium III'**.
Click **AND** under Functions / Operators. Click **Purchase Price** under Columns and then click **>=** under Functions / Operators. Enter **5330**.

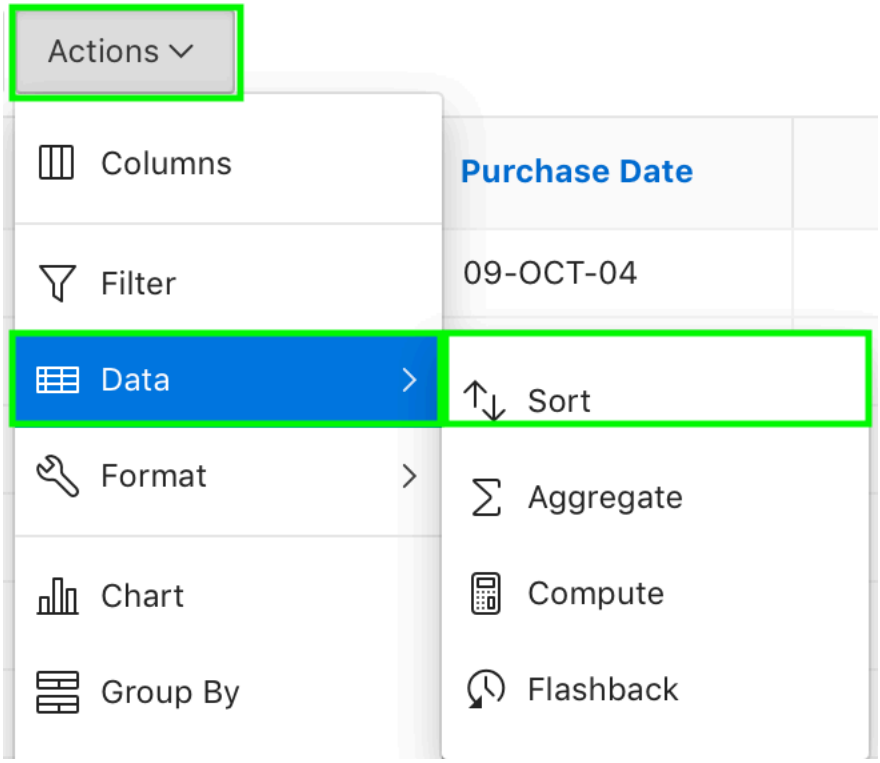
Click **Apply**.


Filter
Filter Type
Column
Row
Name
Row Filter
Filter Expression
C ='Pentium III' AND I >=5330
Columns
B. Serial
C. Cpu Type
D. Cpu Speed
E. Purchase Date
F. Brand
G. Model
H. Form Factor
I. Purchase Price
J. Department Id
Functions / Operators
!=
<
<=
=
>
>=
ABS
ADD_MONTHS
AND
Cancel
Apply

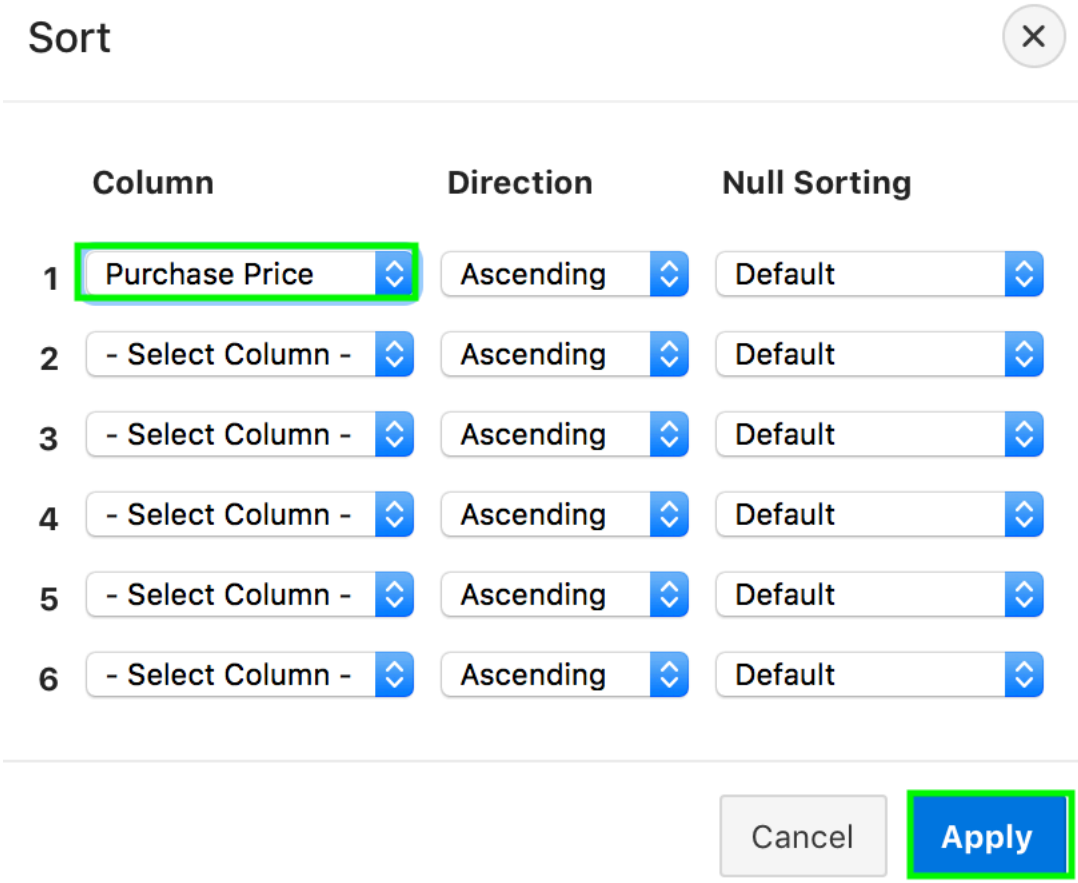
c) The row filter is applied now. Click the Remove Filter icon to remove the filter.



6. You want to sort the report on the Purchase Price column.
   a) Select **Actions > Data > Sort**.

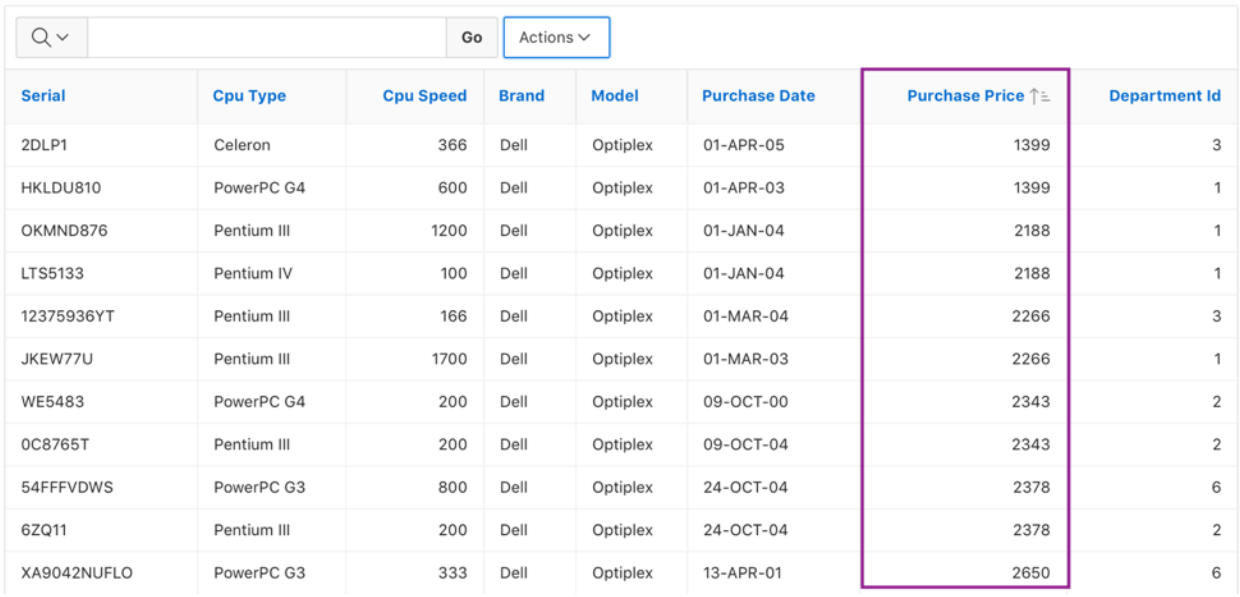


b) Select **Purchase Price** for Column and click **Apply**.



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

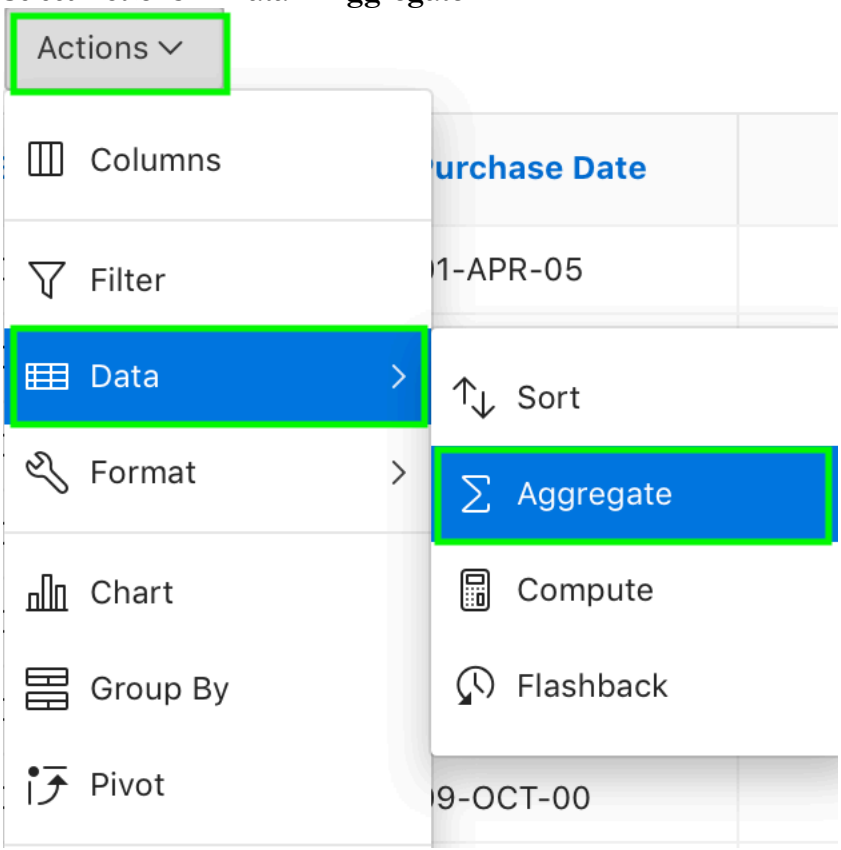
and it will change to sort descending.



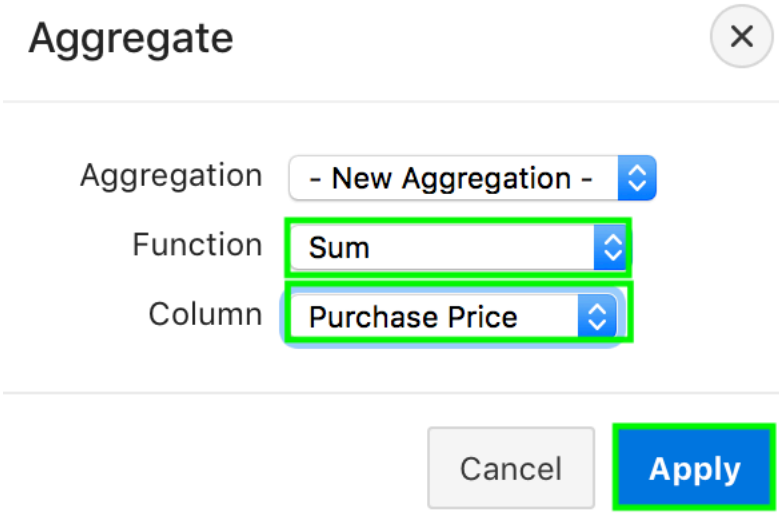
Go Actions

Serial	Cpu Type	Cpu Speed	Brand	Model	Purchase Date	Purchase Price	Department Id
2DLP1	Celeron	366	Dell	Optiplex	01-APR-05	1399	3
HKLDU810	PowerPC G4	600	Dell	Optiplex	01-APR-03	1399	1
OKMND876	Pentium III	1200	Dell	Optiplex	01-JAN-04	2188	1
LTS5133	Pentium IV	100	Dell	Optiplex	01-JAN-04	2188	1
12375936YT	Pentium III	166	Dell	Optiplex	01-MAR-04	2266	3
JKEW77U	Pentium III	1700	Dell	Optiplex	01-MAR-03	2266	1
WE5483	PowerPC G4	200	Dell	Optiplex	09-OCT-00	2343	2
0C8765T	Pentium III	200	Dell	Optiplex	09-OCT-04	2343	2
54FFFVDWS	PowerPC G3	800	Dell	Optiplex	24-OCT-04	2378	6
6ZQ11	Pentium III	200	Dell	Optiplex	24-OCT-04	2378	2
XA9042NUFLO	PowerPC G3	333	Dell	Optiplex	13-APR-01	2650	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**.



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



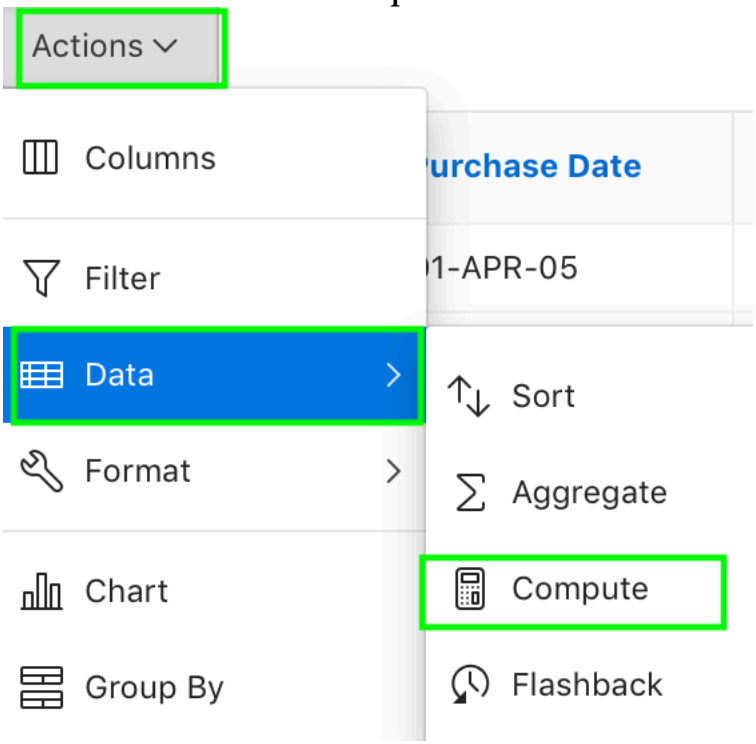
c) The aggregate function is applied on the column. Notice that the sum of purchase price is displayed at the end of the report under the column.

Home \ Hardware Interactive Report

Serial	Cpu Type	Cpu Speed	Brand	Model	Purchase Date	Purchase Price	Department Id
59785246GH	Pentium IV	650	Dell	Optiplex	20-MAR-00	5122	5
8UJJDSLKN	Pentium III	850	Dell	Optiplex	20-MAR-00	5122	4
KLJH98798YUTU	Pentium III	1200	Dell	Optiplex	12-JUN-02	5170	5
BHDYO87	Pentium IV	600	Dell	Optiplex	27-OCT-01	5276	3
W112FGHZ456	Pentium IV	800	Dell	Optiplex	12-JAN-01	5330	5
88LDKSUE	PowerPC G4	450	Dell	Optiplex	08-APR-01	5330	6
54HFLDSEG77	Pentium III	466	Dell	Optiplex	14-JUN-03	5401	6
51214246AB	Pentium IV	450	Dell	Optiplex	14-JUN-01	5401	3
9875H879	Pentium IV	850	Dell	Optiplex	05-OCT-01	5446	5
FL4Q321	Pentium III	2400	Dell	Optiplex	10-DEC-02	6267	2
H098OIUP296	Pentium IV	1700	Dell	Optiplex	27-APR-02	6477	4
HQMHC12	Pentium IV	1700	Dell	Optiplex	15-JUN-02	6588	4
9ODSLFR7	Pentium III	366	Dell	Optiplex	15-JUN-02	6588	3
						148061	

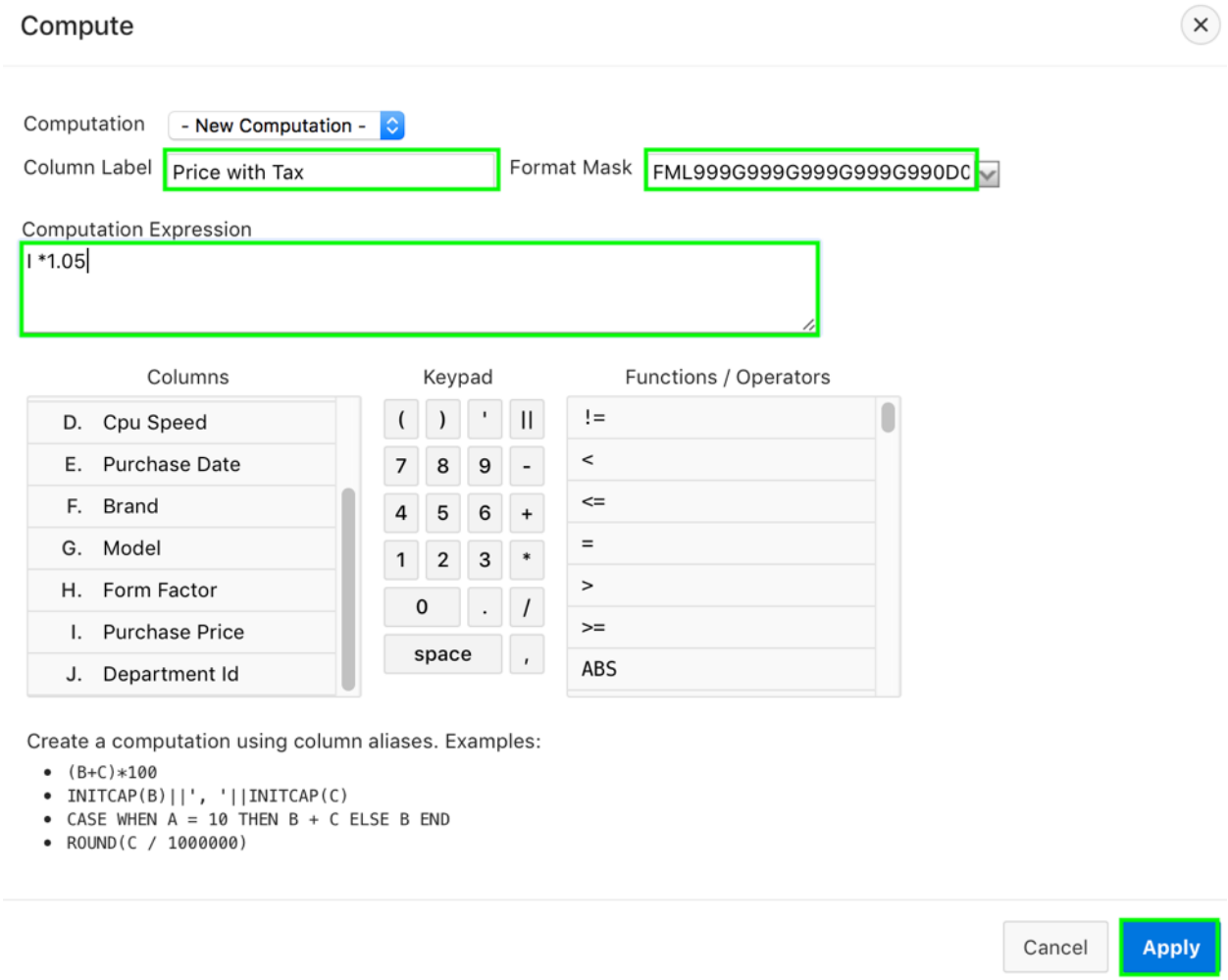
8. In the report, you want to include purchase price calculated with tax. The computation you want to make is Purchase Price * 1.05. You create a computed column in the interactive report.

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

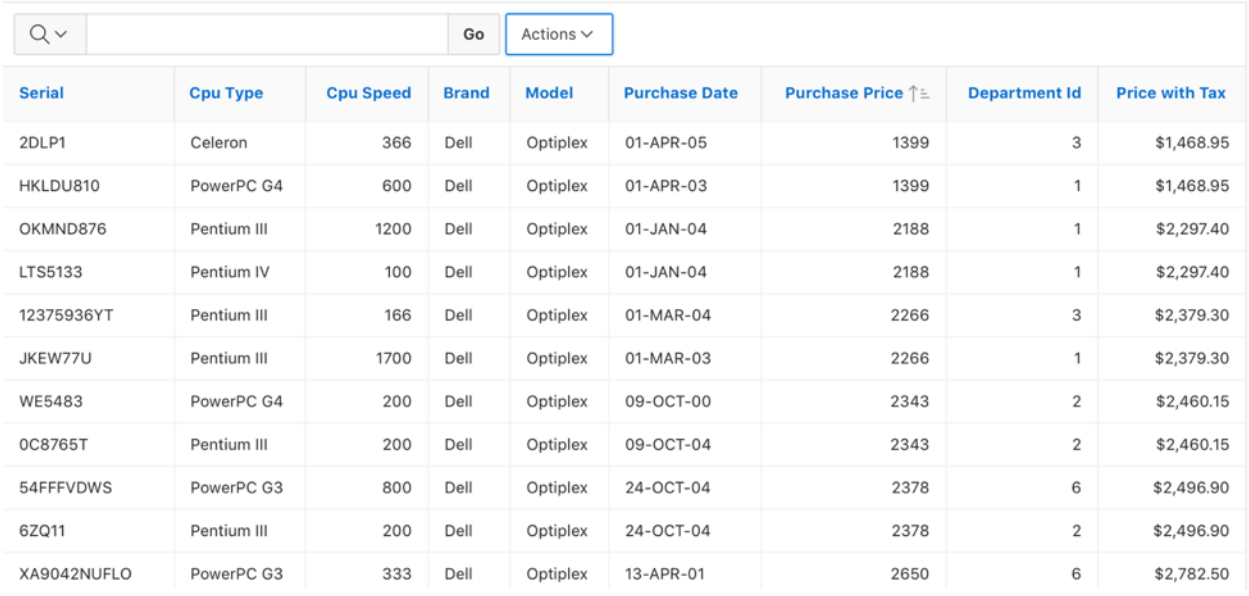


b) The Compute dialog appears.
For Column Heading, enter **Price with Tax** and select **$5,234.10** for Format Mask.
For Computation Expression, click **Purchase Price** under Columns. Click ***1.05** under Keypad.

Click **Apply**.

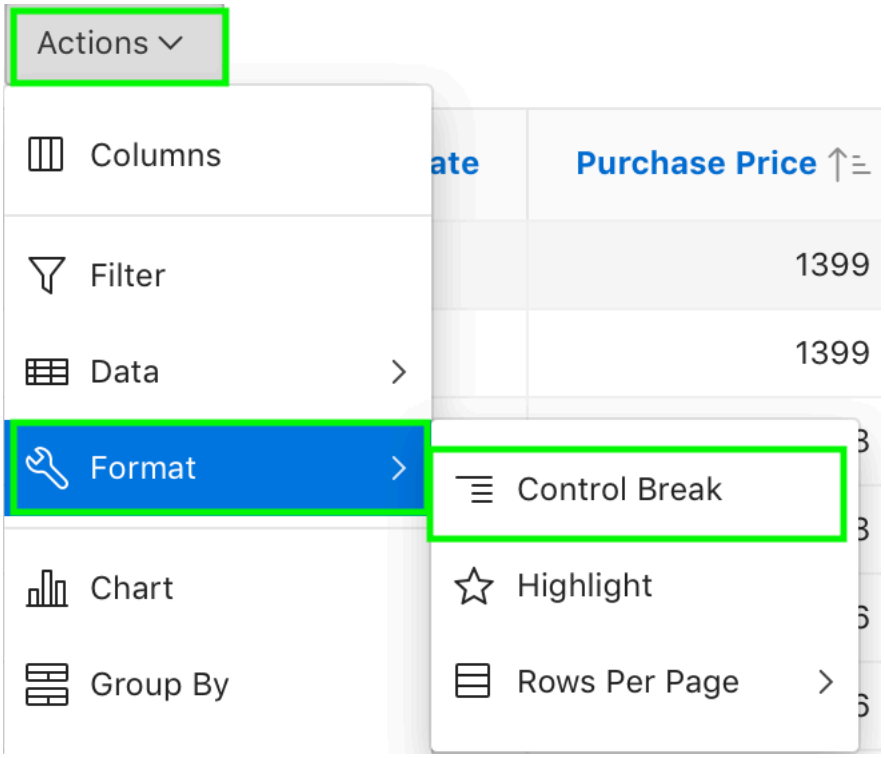


c) The new computed column Price with Tax now appears in the report.

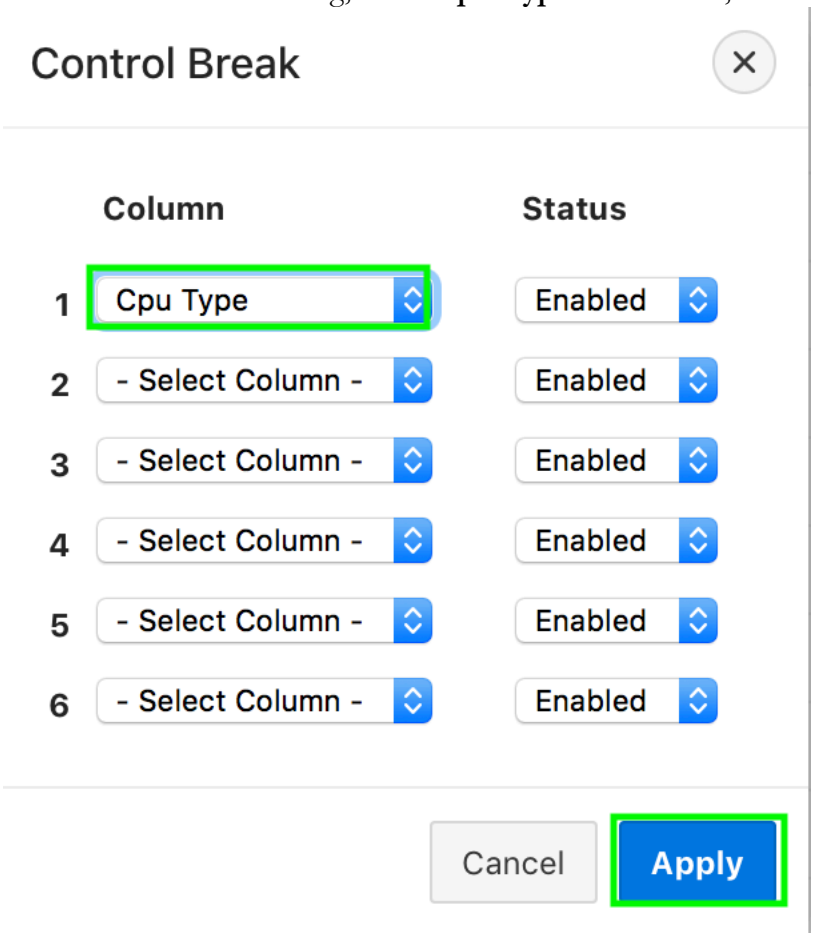


Serial	Cpu Type	Cpu Speed	Brand	Model	Purchase Date	Purchase Price	Department Id	Price with Tax
2DLP1	Celeron	366	Dell	Optiplex	01-APR-05	1399	3	$1,468.95
HKLDU810	PowerPC G4	600	Dell	Optiplex	01-APR-03	1399	1	$1,468.95
OKMND876	Pentium III	1200	Dell	Optiplex	01-JAN-04	2188	1	$2,297.40
LTS5133	Pentium IV	100	Dell	Optiplex	01-JAN-04	2188	1	$2,297.40
12375936YT	Pentium III	166	Dell	Optiplex	01-MAR-04	2266	3	$2,379.30
JKEW77U	Pentium III	1700	Dell	Optiplex	01-MAR-03	2266	1	$2,379.30
WE5483	PowerPC G4	200	Dell	Optiplex	09-OCT-00	2343	2	$2,460.15
0C8765T	Pentium III	200	Dell	Optiplex	09-OCT-04	2343	2	$2,460.15
54FFFVDWS	PowerPC G3	800	Dell	Optiplex	24-OCT-04	2378	6	$2,496.90
6ZQ11	Pentium III	200	Dell	Optiplex	24-OCT-04	2378	2	$2,496.90
XA9042NUFLO	PowerPC G3	333	Dell	Optiplex	13-APR-01	2650	6	$2,782.50

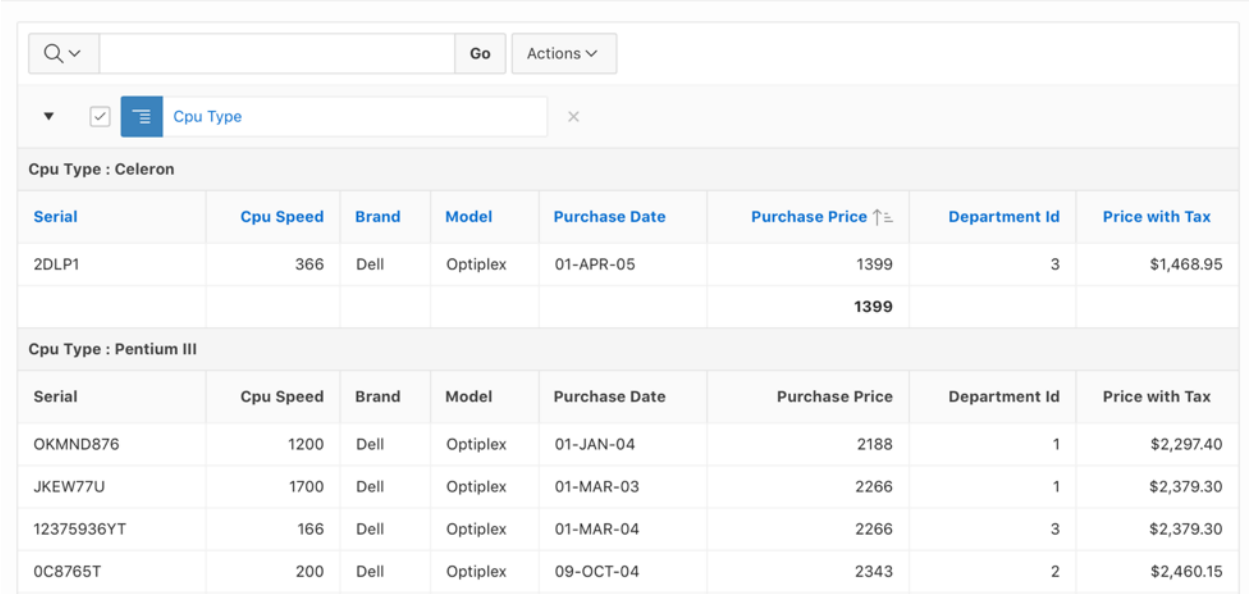
9. Create a Control Break on the Cpu Type column.
   a) Select **Actions > Format > Control Break**.



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



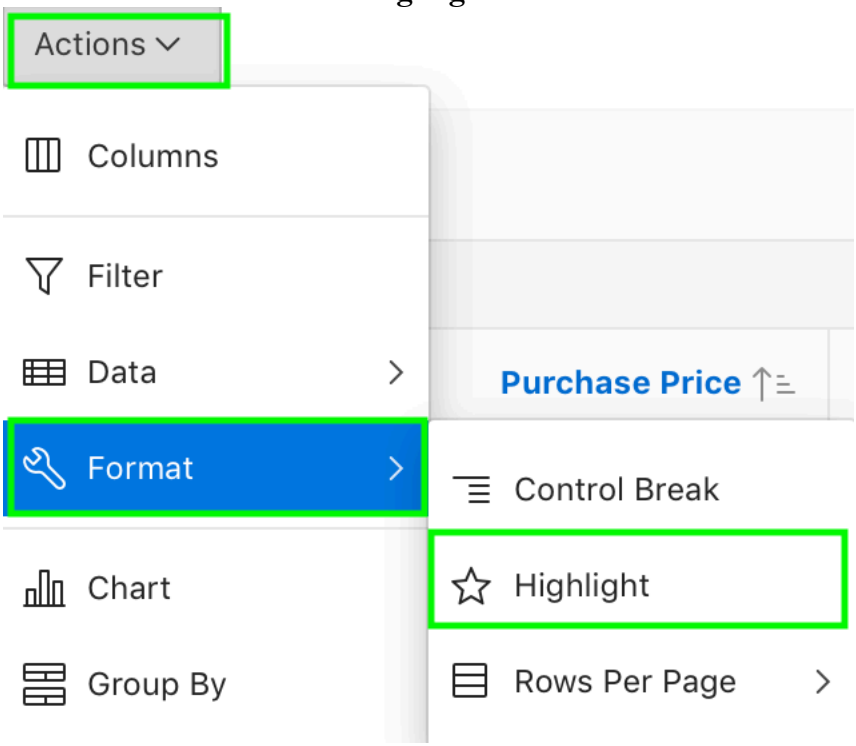
Cpu Type : Celeron

Serial	Cpu Speed	Brand	Model	Purchase Date	Purchase Price	Department Id	Price with Tax
2DLP1	366	Dell	Optiplex	01-APR-05	1399	3	$1,468.95
					1399		

Cpu Type : Pentium III

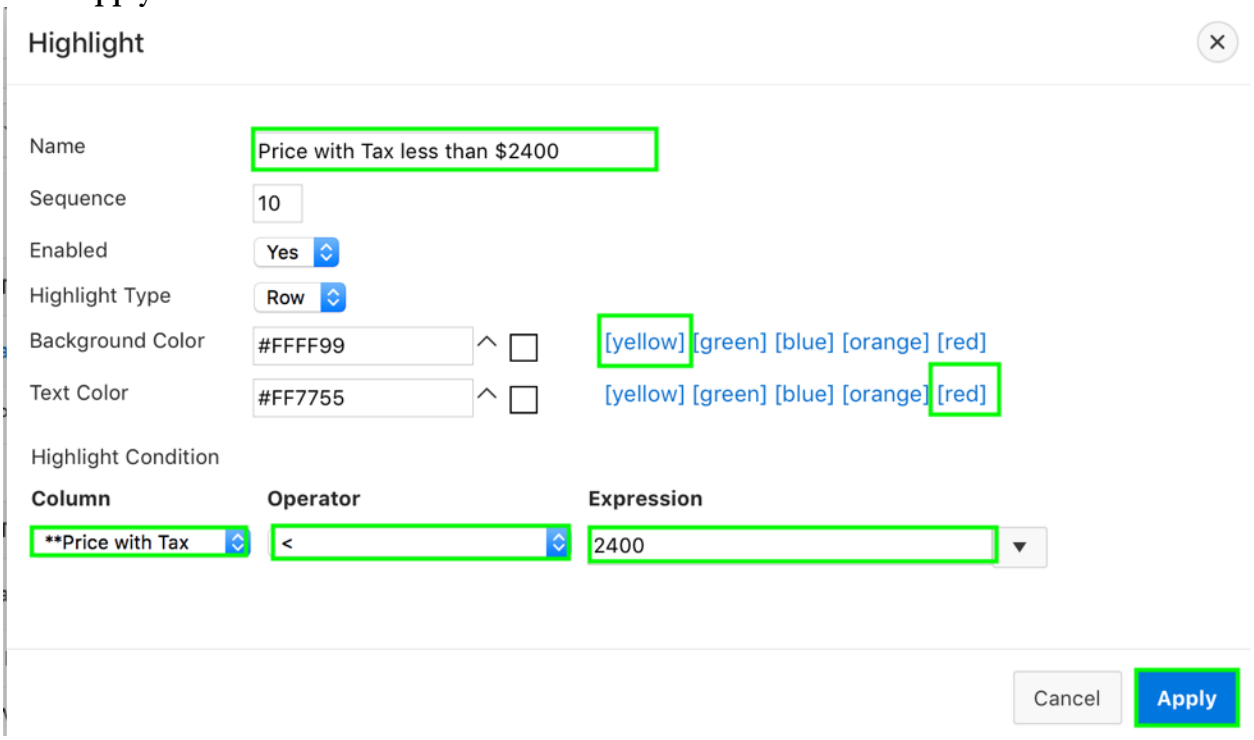
Serial	Cpu Speed	Brand	Model	Purchase Date	Purchase Price	Department Id	Price with Tax
OKMND876	1200	Dell	Optiplex	01-JAN-04	2188	1	$2,297.40
JKEW77U	1700	Dell	Optiplex	01-MAR-03	2266	1	$2,379.30
12375936YT	166	Dell	Optiplex	01-MAR-04	2266	3	$2,379.30
0C8765T	200	Dell	Optiplex	09-OCT-04	2343	2	$2,460.15

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**.

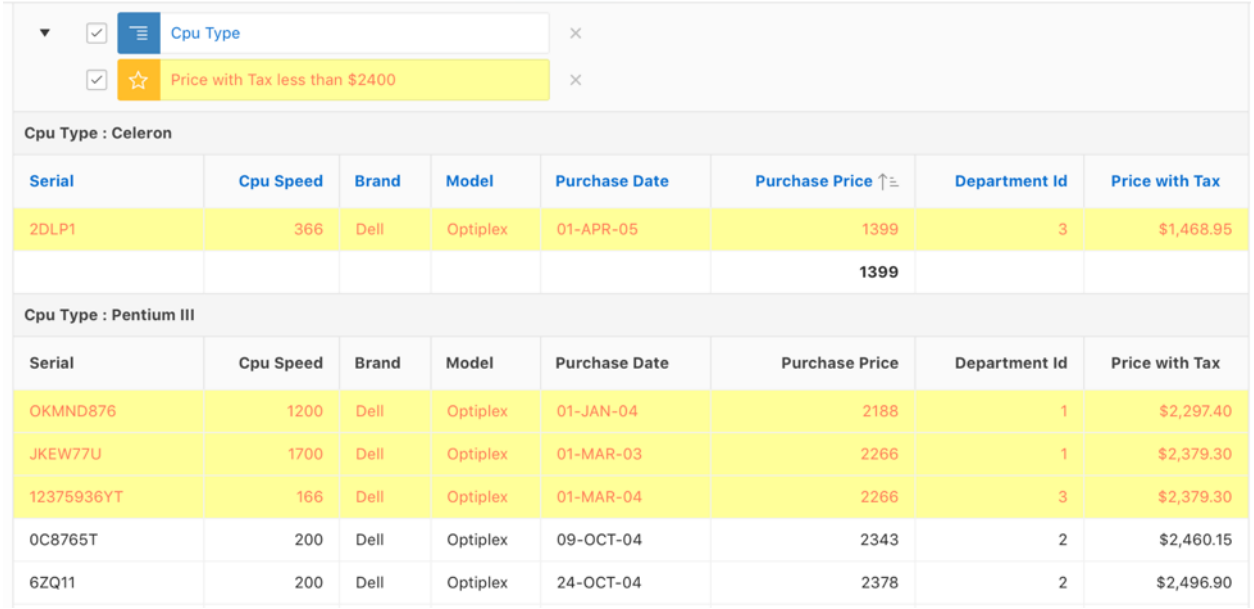


    b) In the Highlight dialog, enter **Price with Tax less than $2400** for Name.
    Select **yellow** for Background Color and **red** for Text Color.
    For Highlight Condition: Select ****Price with Tax** column, and **<** Operator. Enter **2400** for Expression.

Click **Apply**.



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



Cpu Type : Celeron

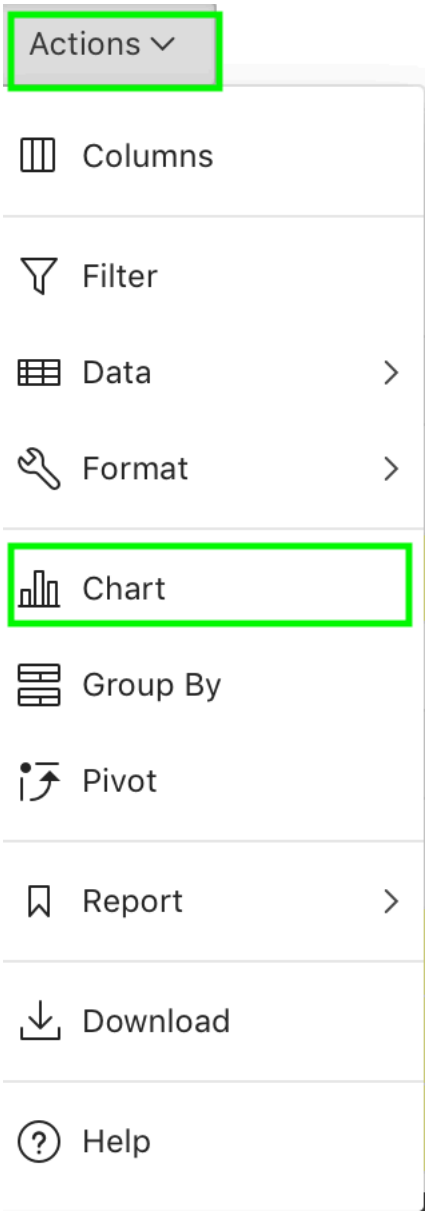
Serial	Cpu Speed	Brand	Model	Purchase Date	Purchase Price	Department Id	Price with Tax
2DLP1	366	Dell	Optiplex	01-APR-05	1399	3	$1,468.95
					1399		

Cpu Type : Pentium III

Serial	Cpu Speed	Brand	Model	Purchase Date	Purchase Price	Department Id	Price with Tax
OKMND876	1200	Dell	Optiplex	01-JAN-04	2188	1	$2,297.40
JKEW77U	1700	Dell	Optiplex	01-MAR-03	2266	1	$2,379.30
12375936YT	166	Dell	Optiplex	01-MAR-04	2266	3	$2,379.30
0C8765T	200	Dell	Optiplex	09-OCT-04	2343	2	$2,460.15
6ZQ11	200	Dell	Optiplex	24-OCT-04	2378	2	$2,496.90

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.

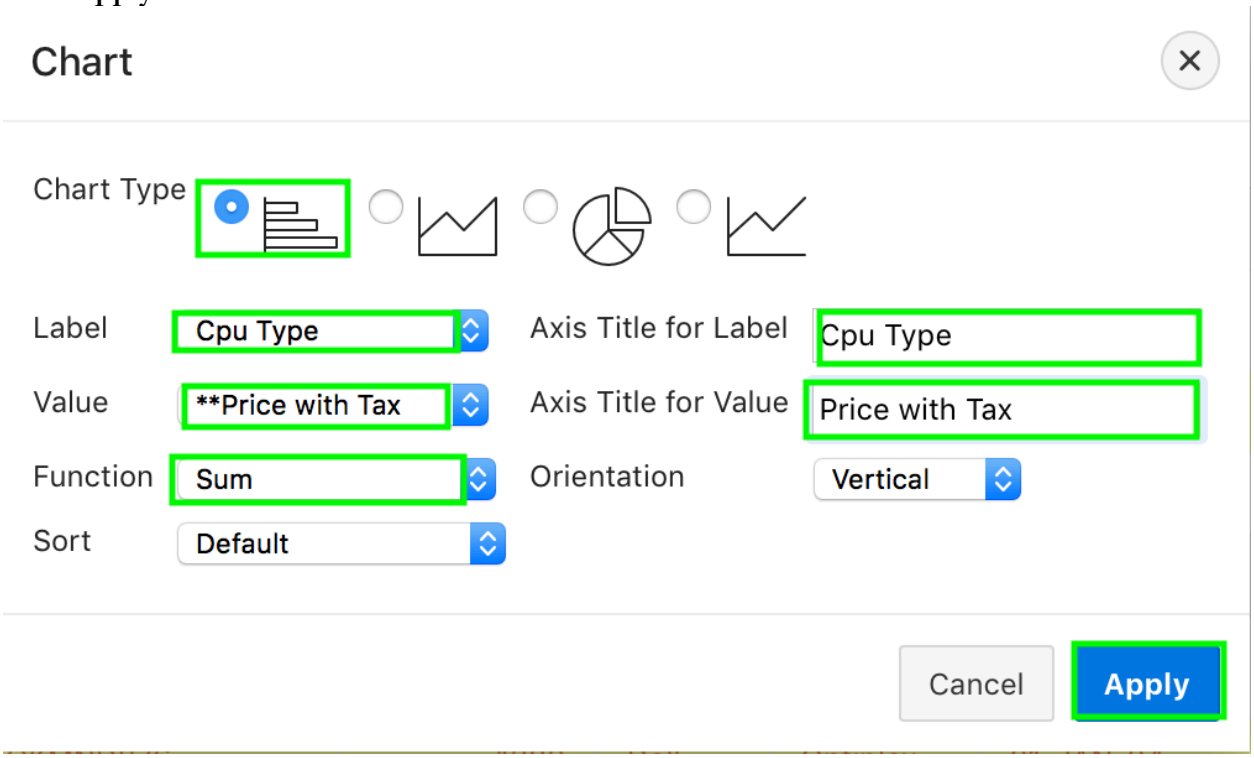
a) Select **Actions > Chart**.



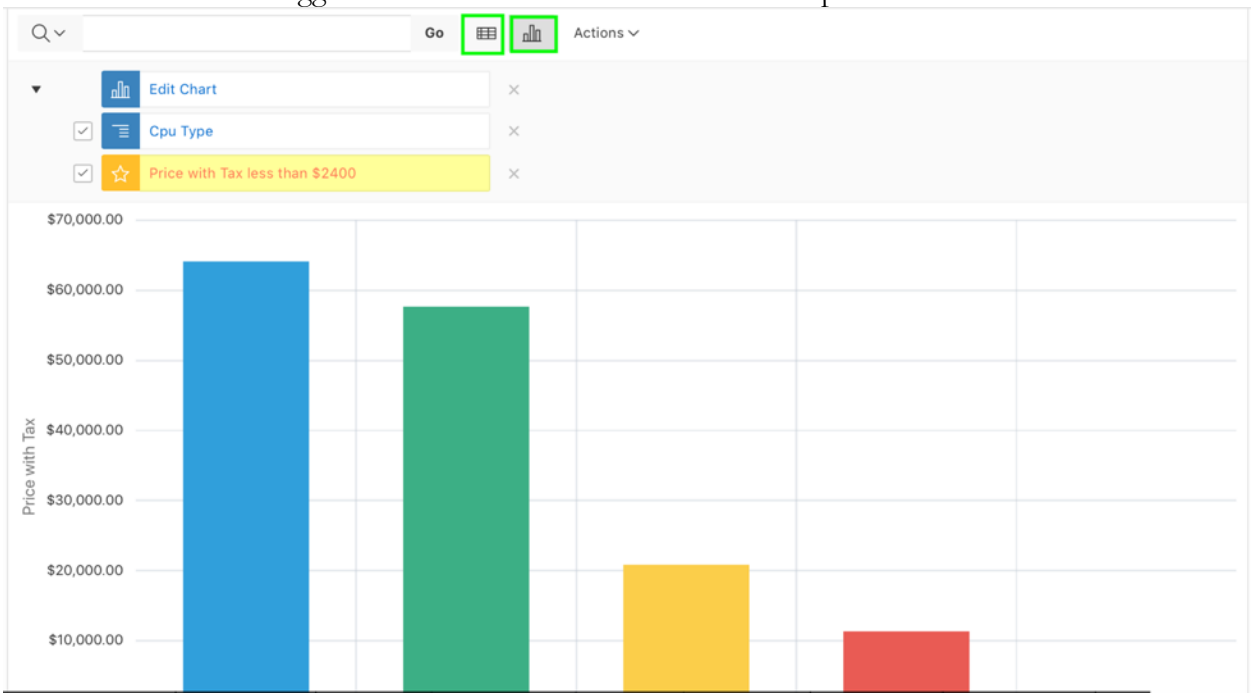
b) In the Chart dialog, select / enter the following:

- 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**

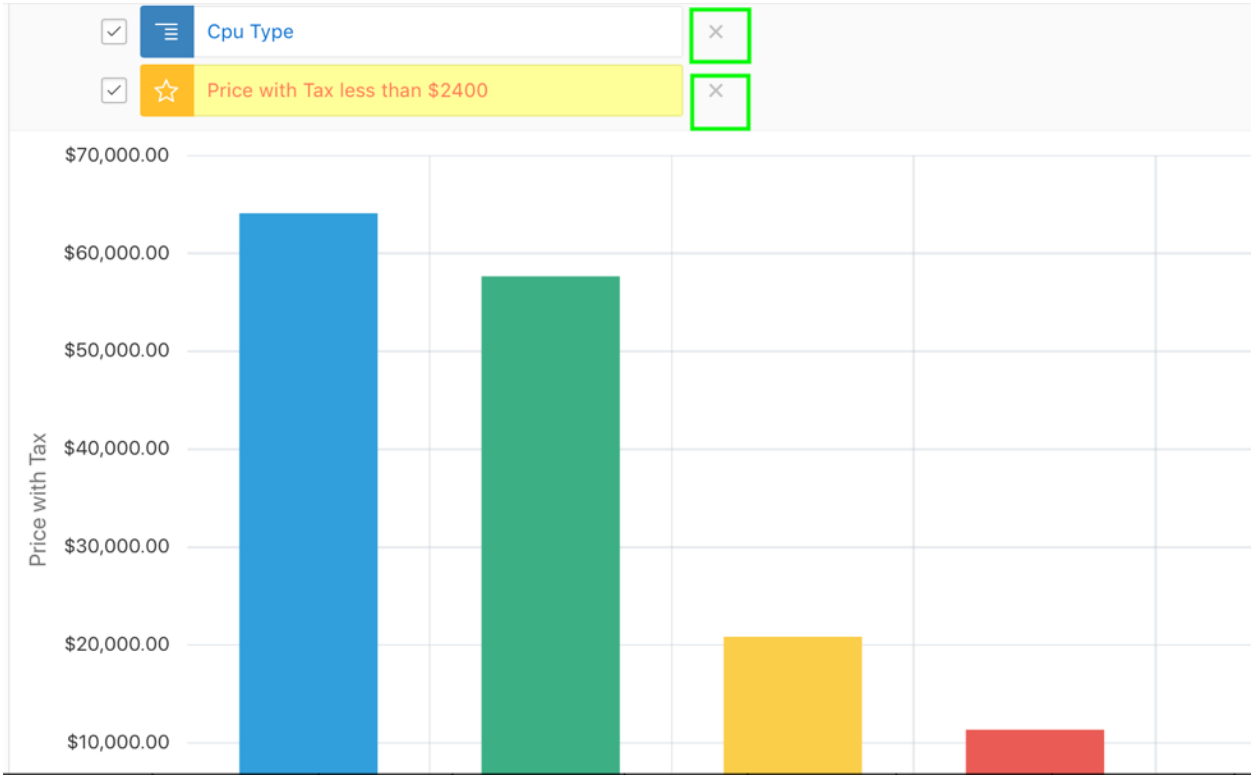
Click **Apply**.



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

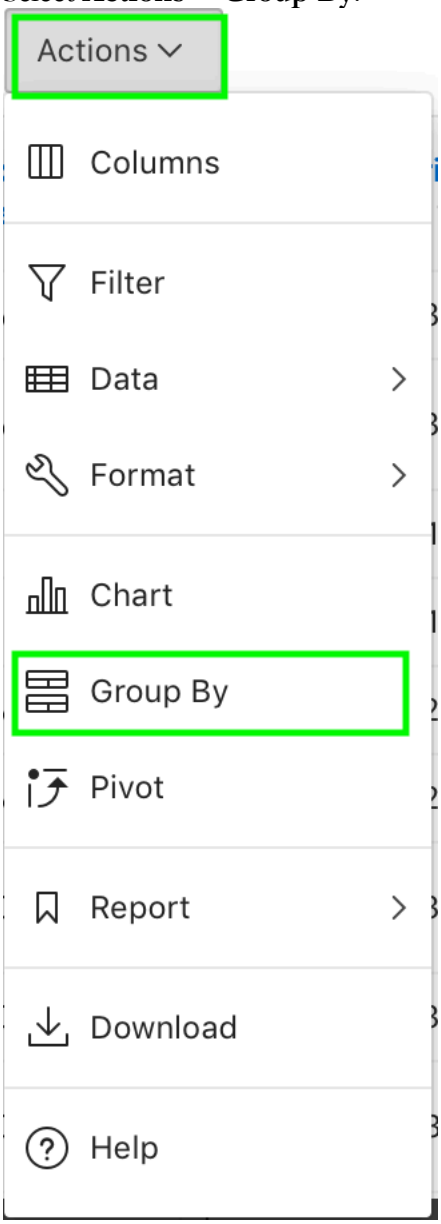


d) You want to remove the control break and the highlighting. Click the X icon for both the filters.



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

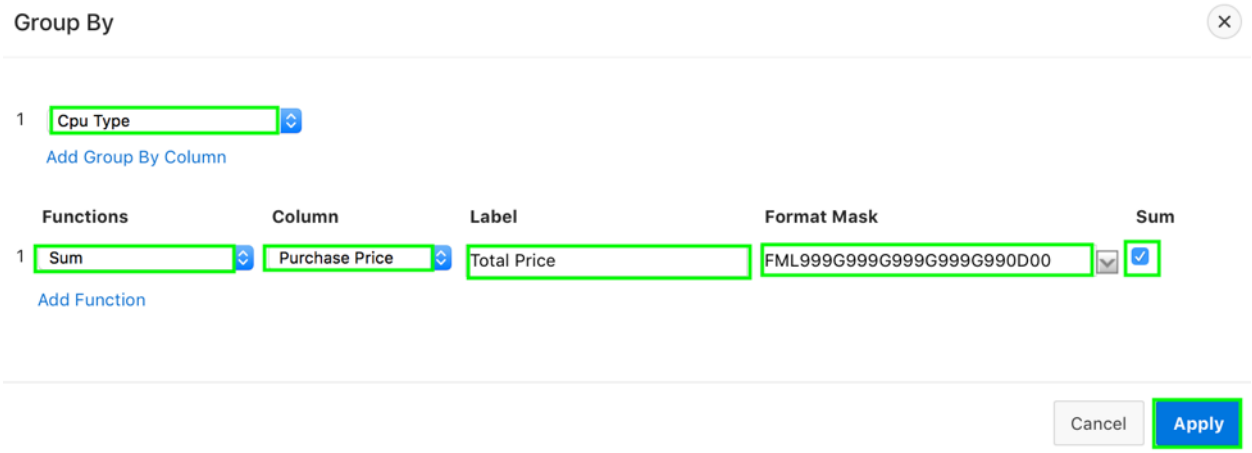
a) Select **Actions > Group By**.



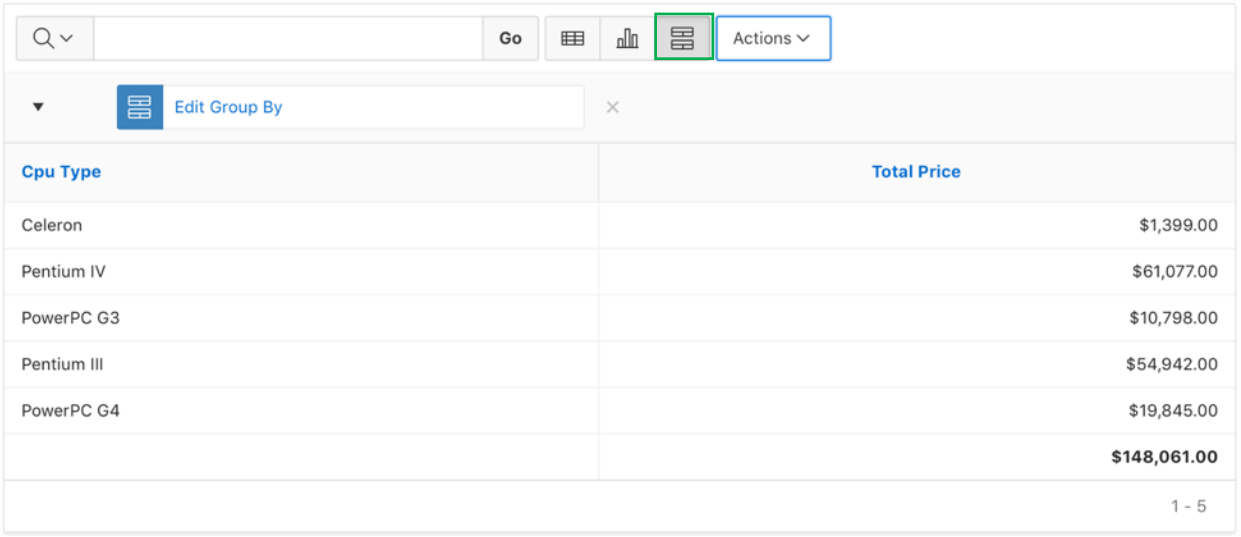
b) In the Group By dialog enter / select:

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

Select the **Sum** check box and click **Apply**.



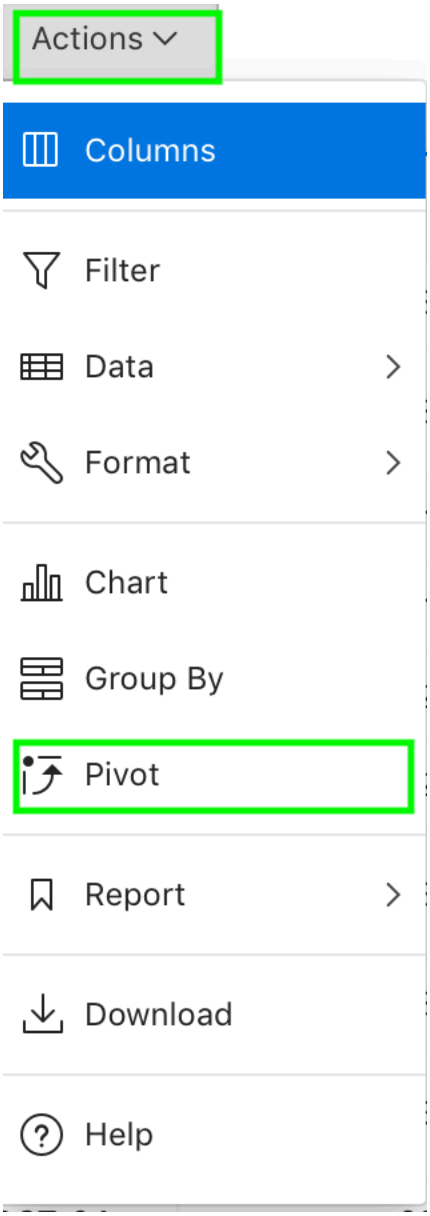
c) The Group By report is created. You also see the sum of the purchase price. Notice that the icon for View Group By is also added.



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

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.

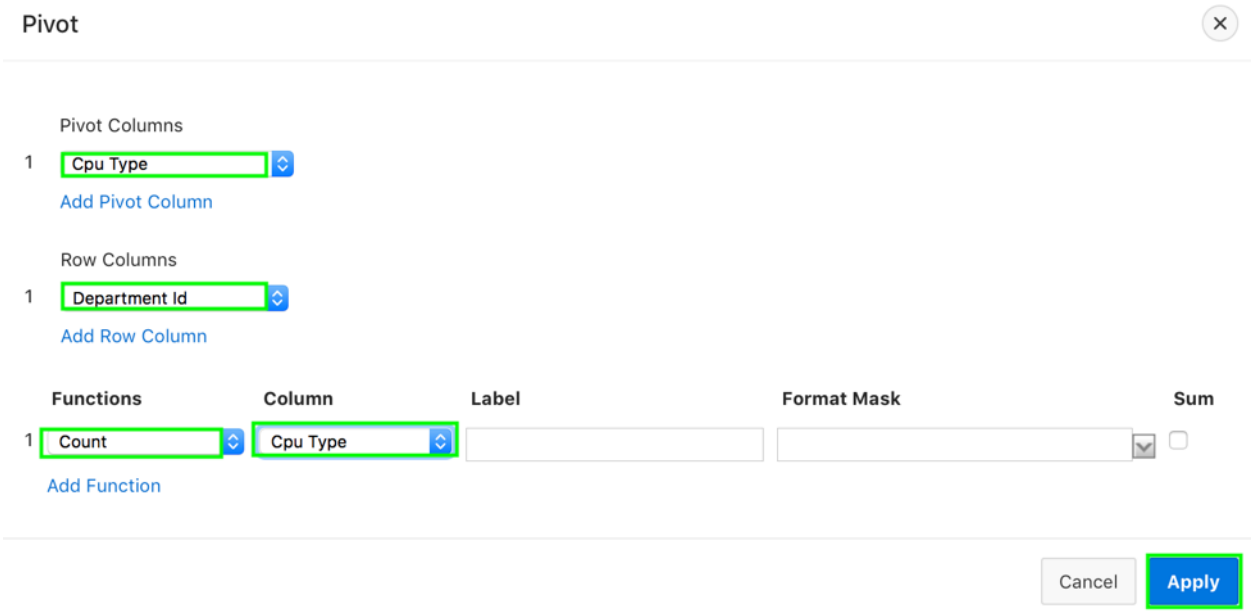
a) Click **Actions > Pivot**.



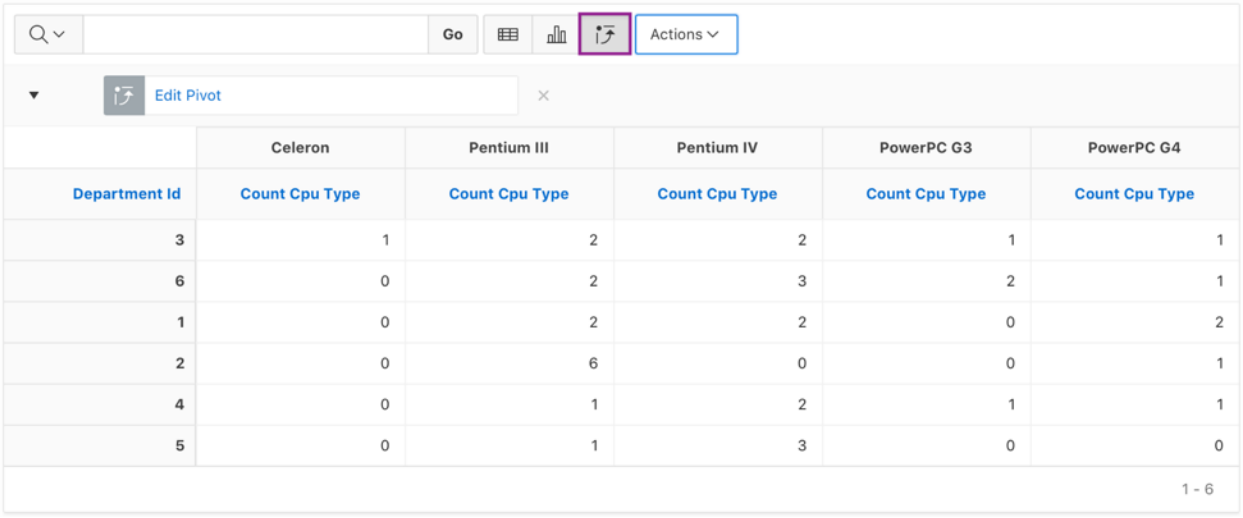
b) In the Pivot dialog enter / select:

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

Click **Apply**.



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

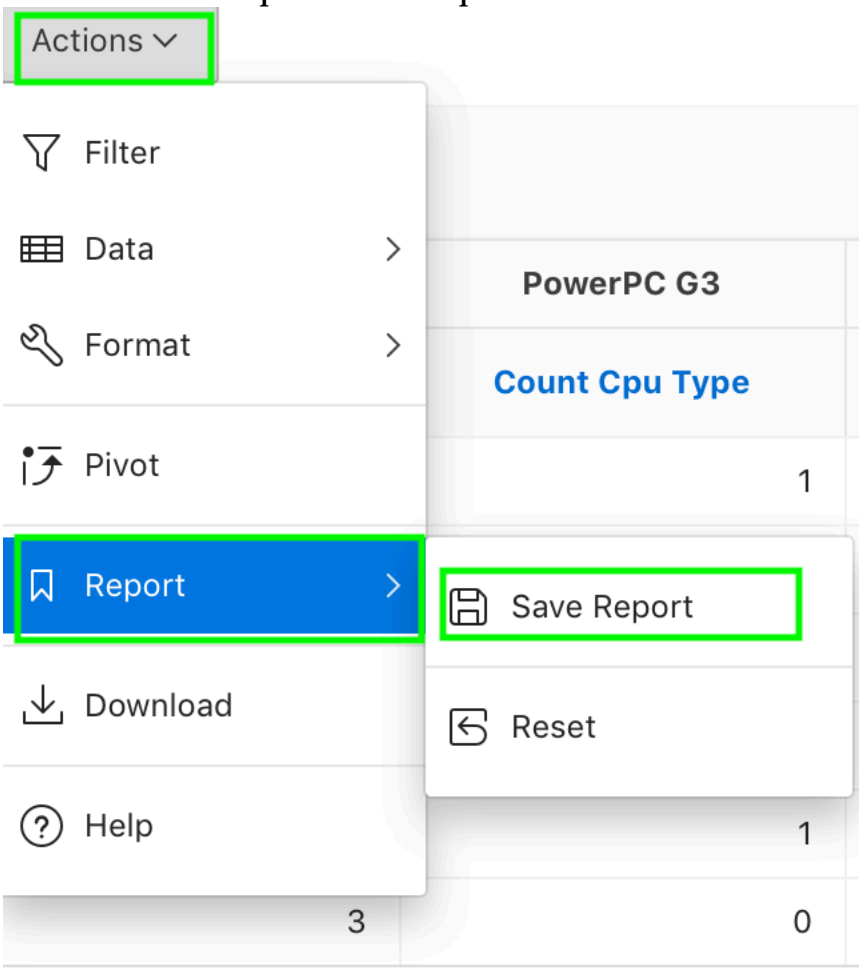


	Celeron	Pentium III	Pentium IV	PowerPC G3	PowerPC G4
Department Id	Count Cpu Type	Count Cpu Type	Count Cpu Type	Count Cpu Type	Count Cpu Type
3	1	2	2	1	1
6	0	2	3	2	1
1	0	2	2	0	2
2	0	6	0	0	1
4	0	1	2	1	1
5	0	1	3	0	0

1 - 6

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

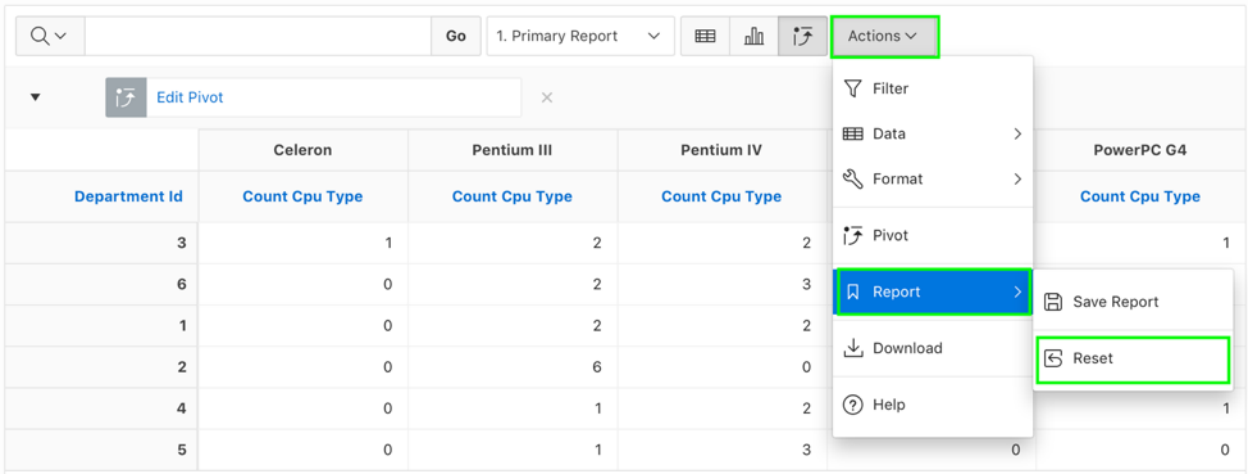
a) Select **Actions > Report > Save Report**.



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

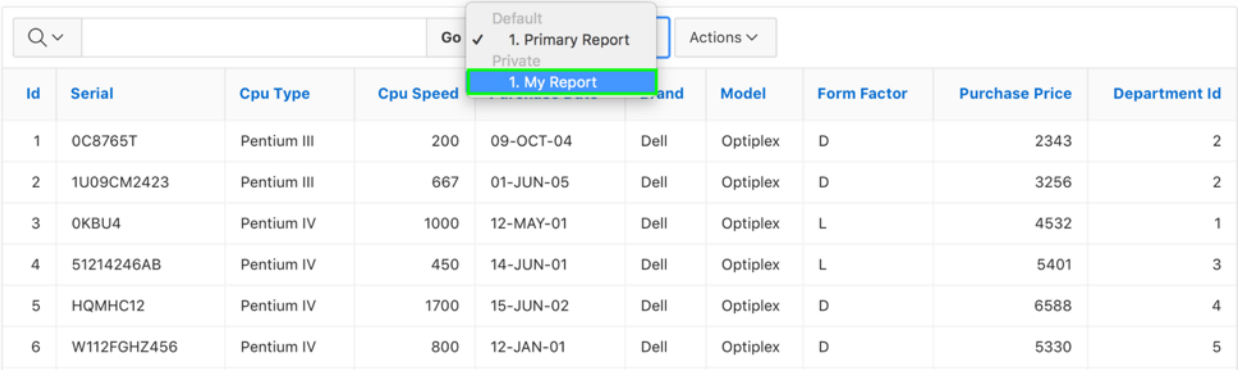
15. A drop down list automatically appears with the report you just created being selected. You can view the default primary report.
    You want to reset the Primary Report back to the default settings and remove any customizations that you have made so far.
    a) Select **Primary Report** from the 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**.



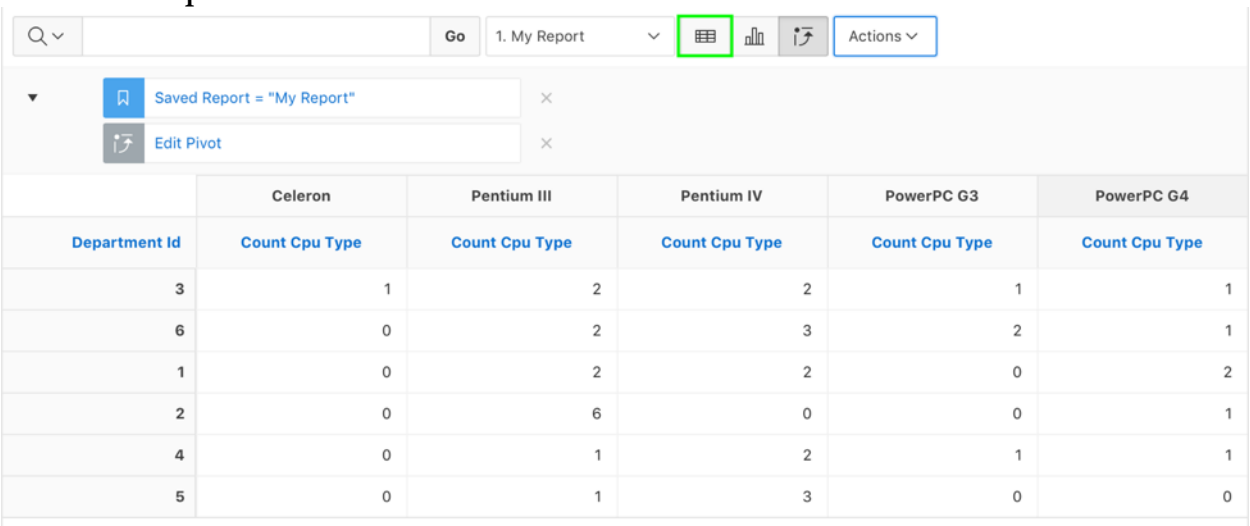
c) In the Reset dialog, click **Apply**.

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

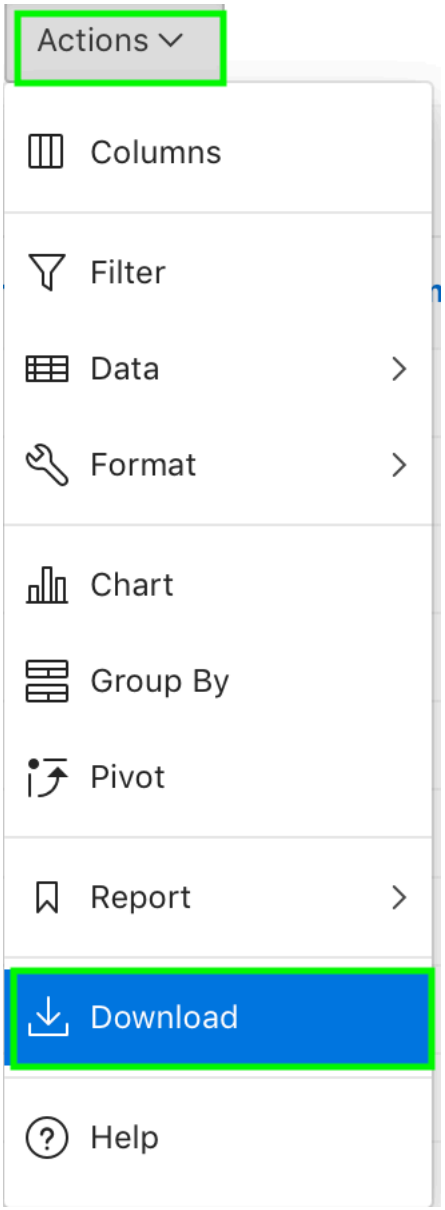


16. You want to download the customized report as a CSV.

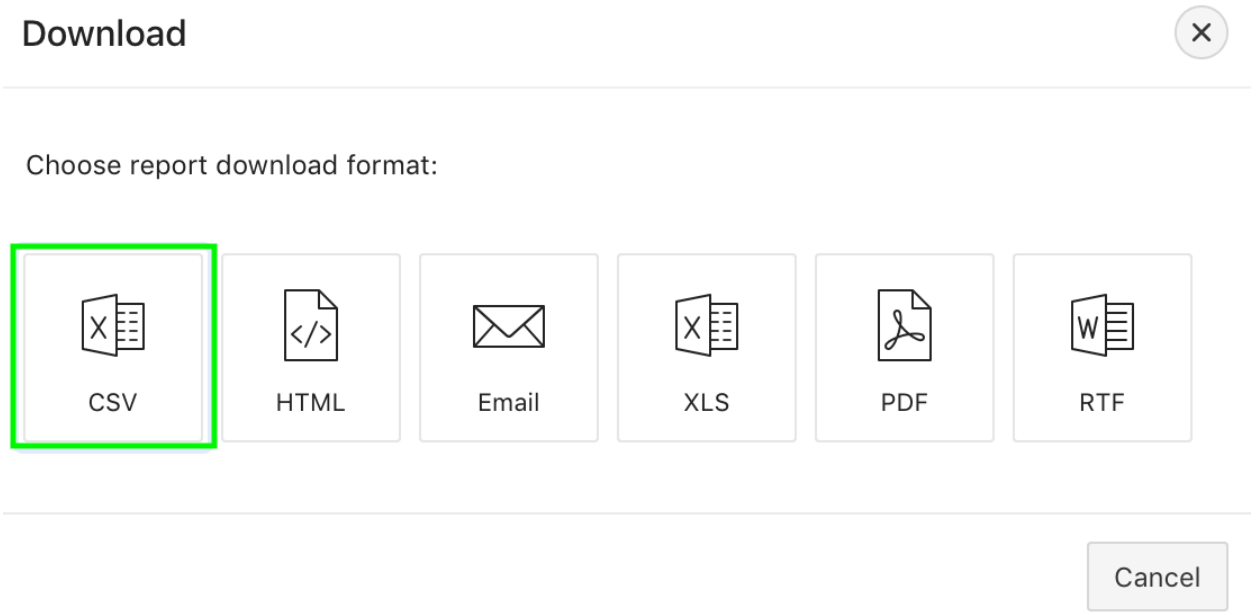
a) Click **View Report**.



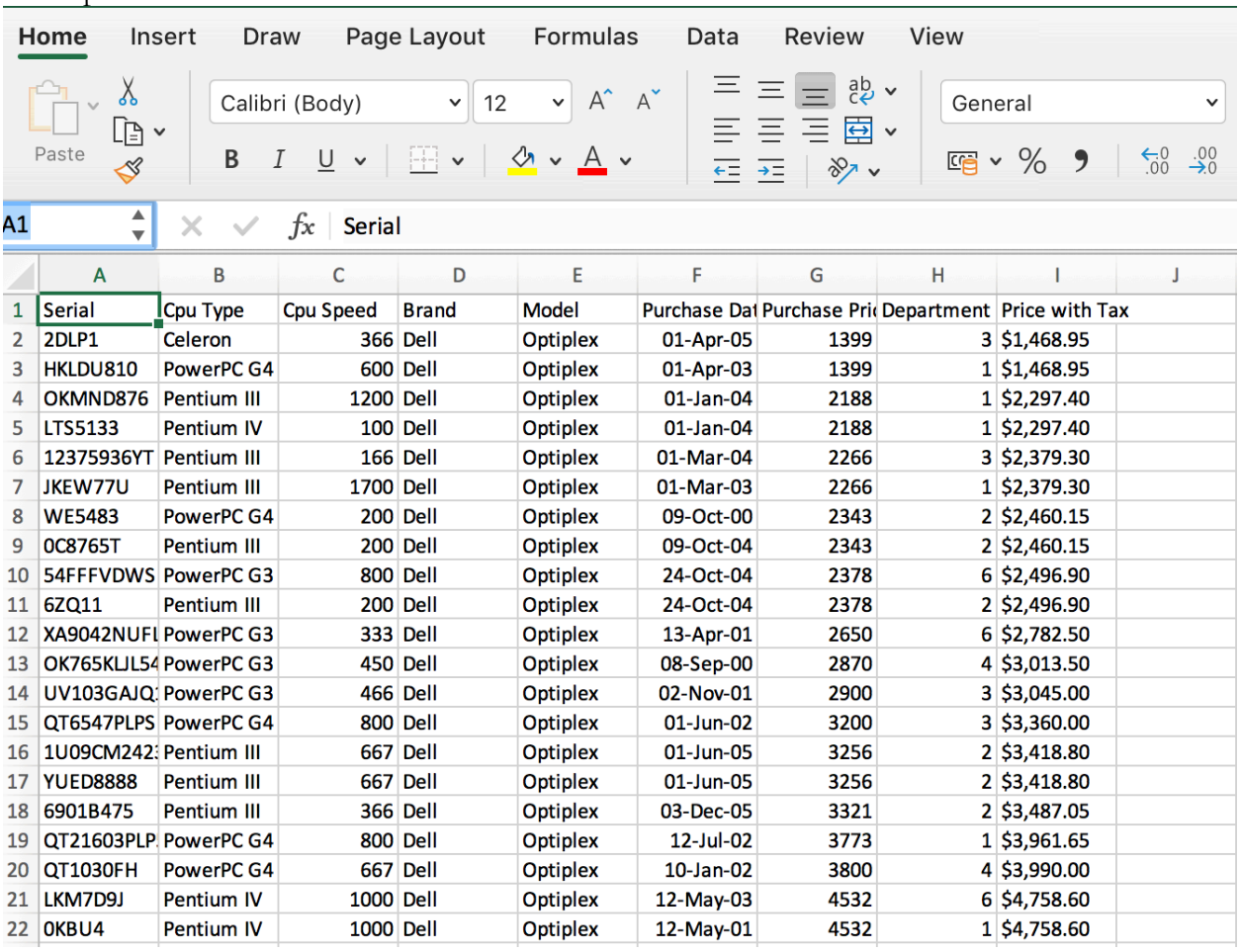
b) Select **Actions > Download**.



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

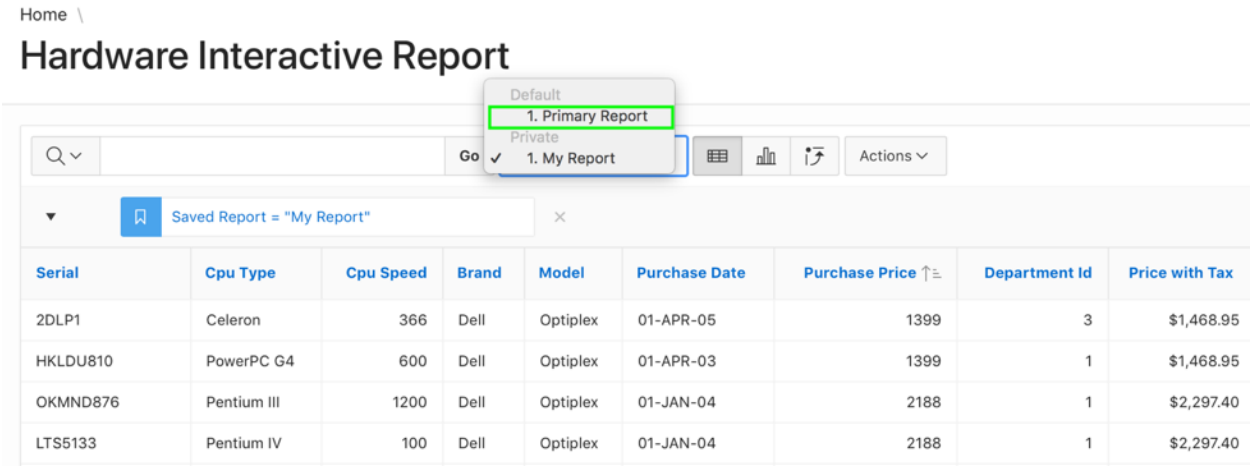


d) The report is now downloaded as a CSV.



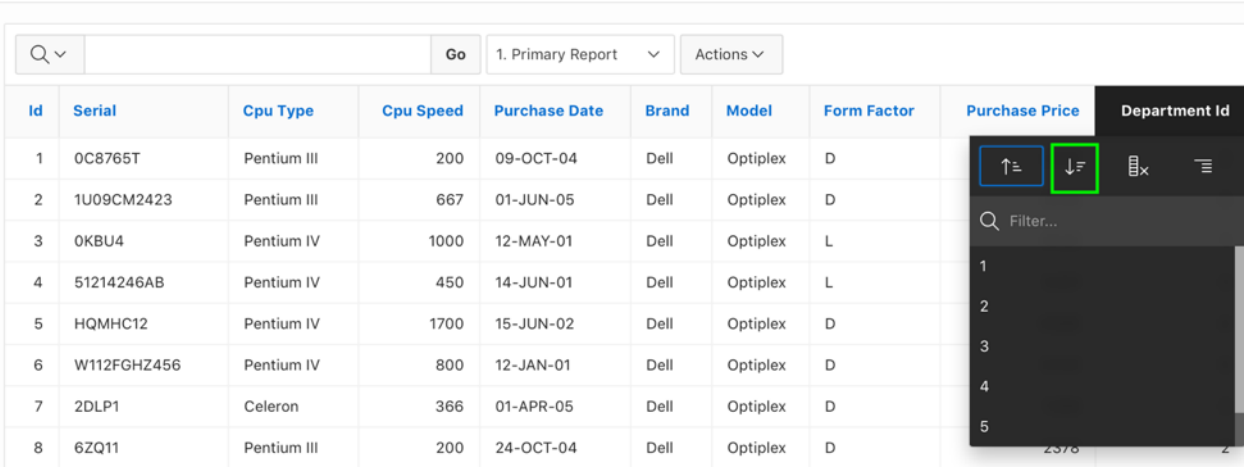
	A	B	C	D	E	F	G	H	I	J
1	Serial	Cpu Type	Cpu Speed	Brand	Model	Purchase Dat	Purchase Pri	Department	Price with Tax	
2	2DLP1	Celeron	366	Dell	Optiplex	01-Apr-05	1399	3	$1,468.95	
3	HKLDU810	PowerPC G4	600	Dell	Optiplex	01-Apr-03	1399	1	$1,468.95	
4	OKMND876	Pentium III	1200	Dell	Optiplex	01-Jan-04	2188	1	$2,297.40	
5	LTS5133	Pentium IV	100	Dell	Optiplex	01-Jan-04	2188	1	$2,297.40	
6	12375936YT	Pentium III	166	Dell	Optiplex	01-Mar-04	2266	3	$2,379.30	
7	JKEW77U	Pentium III	1700	Dell	Optiplex	01-Mar-03	2266	1	$2,379.30	
8	WE5483	PowerPC G4	200	Dell	Optiplex	09-Oct-00	2343	2	$2,460.15	
9	0C8765T	Pentium III	200	Dell	Optiplex	09-Oct-04	2343	2	$2,460.15	
10	54FFFVDWS	PowerPC G3	800	Dell	Optiplex	24-Oct-04	2378	6	$2,496.90	
11	6ZQ11	Pentium III	200	Dell	Optiplex	24-Oct-04	2378	2	$2,496.90	
12	XA9042NUFI	PowerPC G3	333	Dell	Optiplex	13-Apr-01	2650	6	$2,782.50	
13	OK765KLJL54	PowerPC G3	450	Dell	Optiplex	08-Sep-00	2870	4	$3,013.50	
14	UV103GAJQ3	PowerPC G3	466	Dell	Optiplex	02-Nov-01	2900	3	$3,045.00	
15	QT6547PLPS	PowerPC G4	800	Dell	Optiplex	01-Jun-02	3200	3	$3,360.00	
16	1U09CM242	Pentium III	667	Dell	Optiplex	01-Jun-05	3256	2	$3,418.80	
17	YUED8888	Pentium III	667	Dell	Optiplex	01-Jun-05	3256	2	$3,418.80	
18	6901B475	Pentium III	366	Dell	Optiplex	03-Dec-05	3321	2	$3,487.05	
19	QT21603PLP	PowerPC G4	800	Dell	Optiplex	12-Jul-02	3773	1	$3,961.65	
20	QT1030FH	PowerPC G4	667	Dell	Optiplex	10-Jan-02	3800	4	$3,990.00	
21	LKM7D9J	Pentium IV	1000	Dell	Optiplex	12-May-03	4532	6	$4,758.60	
22	0KBU4	Pentium IV	1000	Dell	Optiplex	12-May-01	4532	1	$4,758.60	

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



Serial	Cpu Type	Cpu Speed	Brand	Model	Purchase Date	Purchase Price	Department Id	Price with Tax
2DLP1	Celeron	366	Dell	Optiplex	01-APR-05	1399	3	$1,468.95
HKLDU810	PowerPC G4	600	Dell	Optiplex	01-APR-03	1399	1	$1,468.95
OKMND876	Pentium III	1200	Dell	Optiplex	01-JAN-04	2188	1	$2,297.40
LTS5133	Pentium IV	100	Dell	Optiplex	01-JAN-04	2188	1	$2,297.40

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 to the report to be sorted in the descending order of Department Id.
    a) Click the **Department Id** header and select **Sort Descending**.



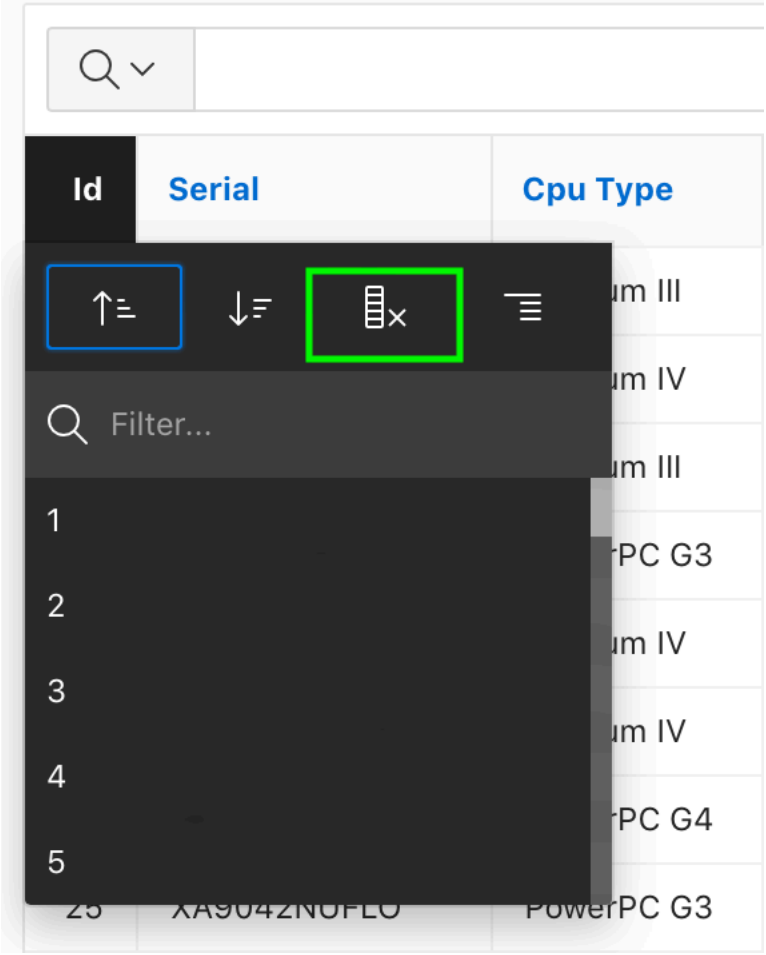
Id	Serial	Cpu Type	Cpu Speed	Purchase Date	Brand	Model	Form Factor	Purchase Price	Department Id
1	0C8765T	Pentium III	200	09-OCT-04	Dell	Optiplex	D		
2	1U09CM2423	Pentium III	667	01-JUN-05	Dell	Optiplex	D		
3	0KBU4	Pentium IV	1000	12-MAY-01	Dell	Optiplex	L		
4	51214246AB	Pentium IV	450	14-JUN-01	Dell	Optiplex	L		
5	HQMHC12	Pentium IV	1700	15-JUN-02	Dell	Optiplex	D		
6	W112FGHZ456	Pentium IV	800	12-JAN-01	Dell	Optiplex	D		
7	2DLP1	Celeron	366	01-APR-05	Dell	Optiplex	D		
8	6ZQ11	Pentium III	200	24-OCT-04	Dell	Optiplex	D		

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

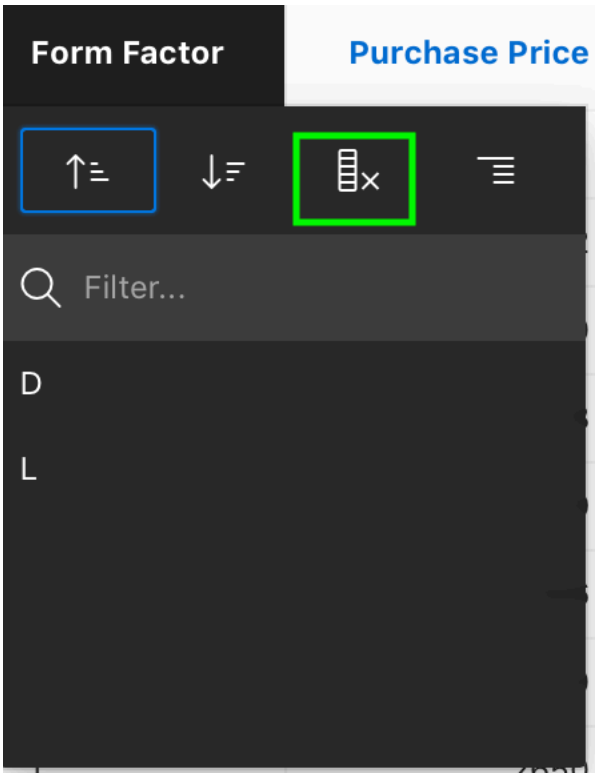
Go | 1. Primary Report | Actions

Id	Serial	Cpu Type	Cpu Speed	Purchase Date	Brand	Model	Form Factor	Purchase Price	Department Id
30	54HFLDSEG77	Pentium III	466	14-JUN-03	Dell	Optiplex	L	5401	6
29	LKM7D9J	Pentium IV	1000	12-MAY-03	Dell	Optiplex	L	4532	6
22	GFDU65454OIU	Pentium III	450	24-OCT-01	Dell	Optiplex	L	5120	6
34	54FFFVDWS	PowerPC G3	800	24-OCT-04	Dell	Optiplex	D	2378	6
13	3J17JZL1345	Pentium IV	850	17-AUG-01	Dell	Optiplex	L	5119	6
12	A492CSLZE265	Pentium IV	750	23-JUN-05	Dell	Optiplex	D	5066	6
32	88LDKSUE	PowerPC G4	450	08-APR-01	Dell	Optiplex	D	5330	6
25	XA9042NUFLO	PowerPC G3	333	13-APR-01	Dell	Optiplex	L	2650	6
21	KLJH98798YUTU	Pentium III	1200	12-JUN-02	Dell	Optiplex	L	5170	5
6	W112FGHZ456	Pentium IV	800	12-JAN-01	Dell	Optiplex	D	5330	5
19	9875H879	Pentium IV	850	05-OCT-01	Dell	Optiplex	L	5446	5

19. You do not want the Id and Form Factor columns in the report.
a) Click the **Id** header and select **Hide Column**.



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



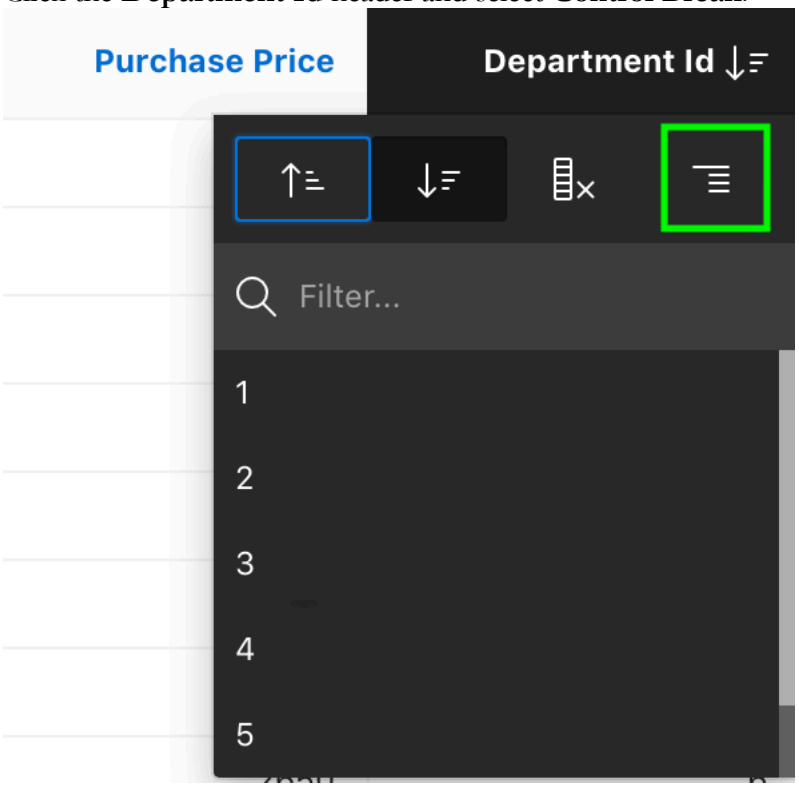
c) Your report now looks like:

Go | 1. Primary Report | Actions

Serial	Cpu Type	Cpu Speed	Purchase Date	Brand	Model	Purchase Price	Department Id
54HFLDSEG77	Pentium III	466	14-JUN-03	Dell	Optiplex	5401	6
LKM7D9J	Pentium IV	1000	12-MAY-03	Dell	Optiplex	4532	6
GFDU65454OIU	Pentium III	450	24-OCT-01	Dell	Optiplex	5120	6
54FFFVDWS	PowerPC G3	800	24-OCT-04	Dell	Optiplex	2378	6
3J17JZL1345	Pentium IV	850	17-AUG-01	Dell	Optiplex	5119	6
A492CSLZE265	Pentium IV	750	23-JUN-05	Dell	Optiplex	5066	6
88LDKSUE	PowerPC G4	450	08-APR-01	Dell	Optiplex	5330	6
XA9042NUFLO	PowerPC G3	333	13-APR-01	Dell	Optiplex	2650	6
KLJH98798YUTU	Pentium III	1200	12-JUN-02	Dell	Optiplex	5170	5
W112FGHZ456	Pentium IV	800	12-JAN-01	Dell	Optiplex	5330	5

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

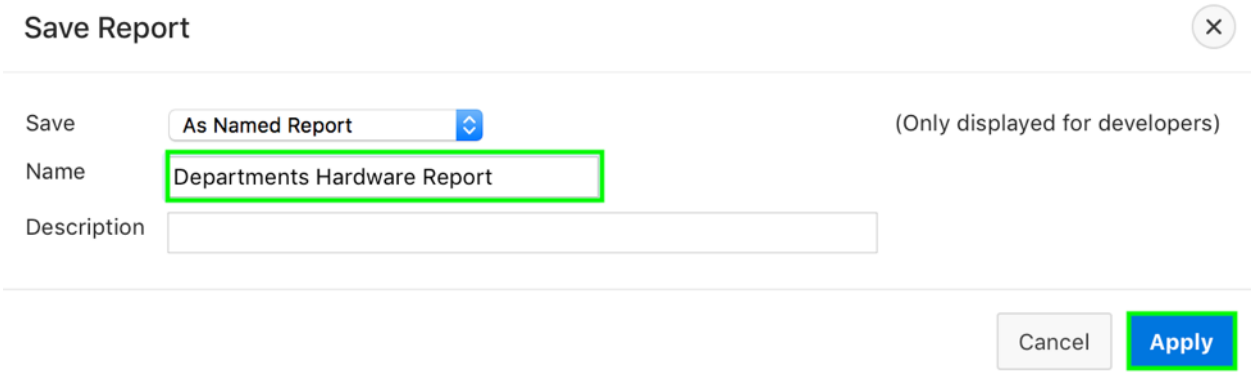
Serial	Cpu Type	Cpu Speed	Purchase Date	Brand	Model	Purchase Price
54HFLDSEG77	Pentium III	466	14-JUN-03	Dell	Optiplex	5401
LKM7D9J	Pentium IV	1000	12-MAY-03	Dell	Optiplex	4532
GFDU65454OIU	Pentium III	450	24-OCT-01	Dell	Optiplex	5120
54FFFVDWS	PowerPC G3	800	24-OCT-04	Dell	Optiplex	2378
3J17JZL1345	Pentium IV	850	17-AUG-01	Dell	Optiplex	5119
A492CSLZE265	Pentium IV	750	23-JUN-05	Dell	Optiplex	5066
88LDKSUE	PowerPC G4	450	08-APR-01	Dell	Optiplex	5330
XA9042NUFLO	PowerPC G3	333	13-APR-01	Dell	Optiplex	2650

Department Id : 5

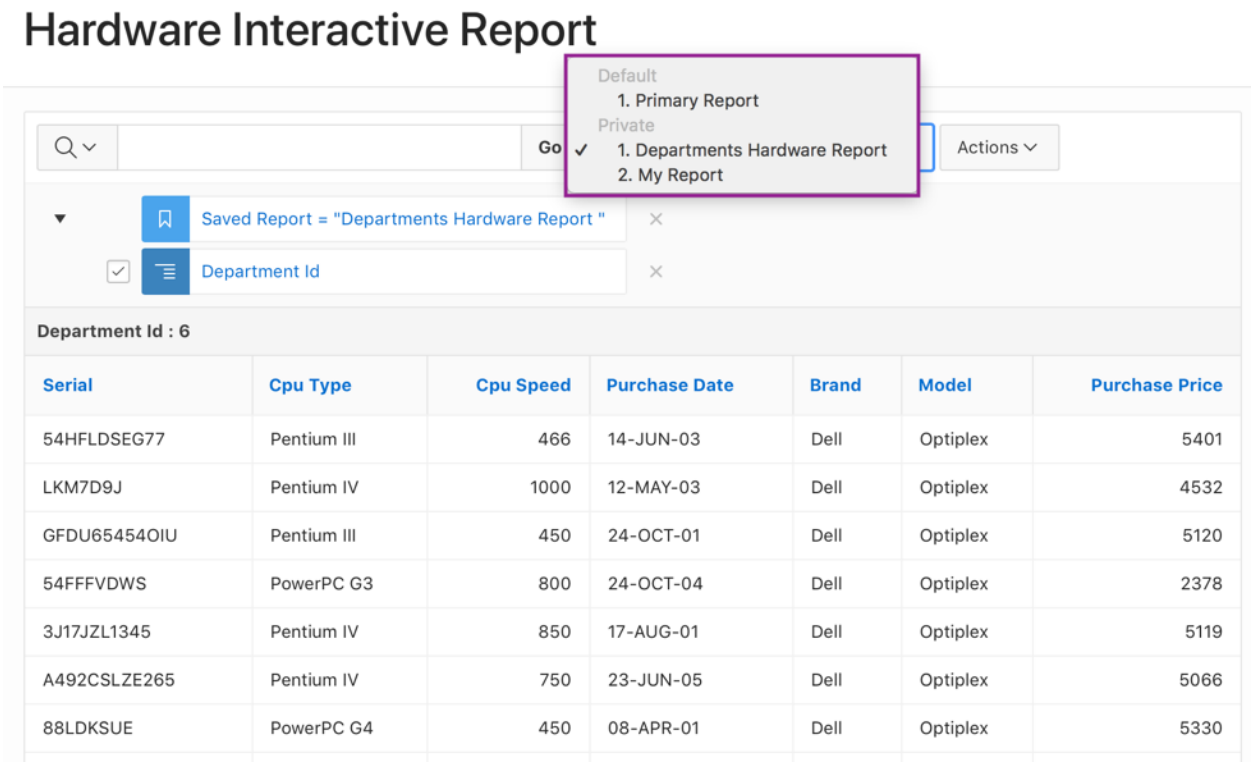
Serial	Cpu Type	Cpu Speed	Purchase Date	Brand	Model	Purchase Price
KLJH98798YUTU	Pentium III	1200	12-JUN-02	Dell	Optiplex	5170
W112FGHZ456	Pentium IV	800	12-JAN-01	Dell	Optiplex	5330
9875H879	Pentium IV	850	05-OCT-01	Dell	Optiplex	5446

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

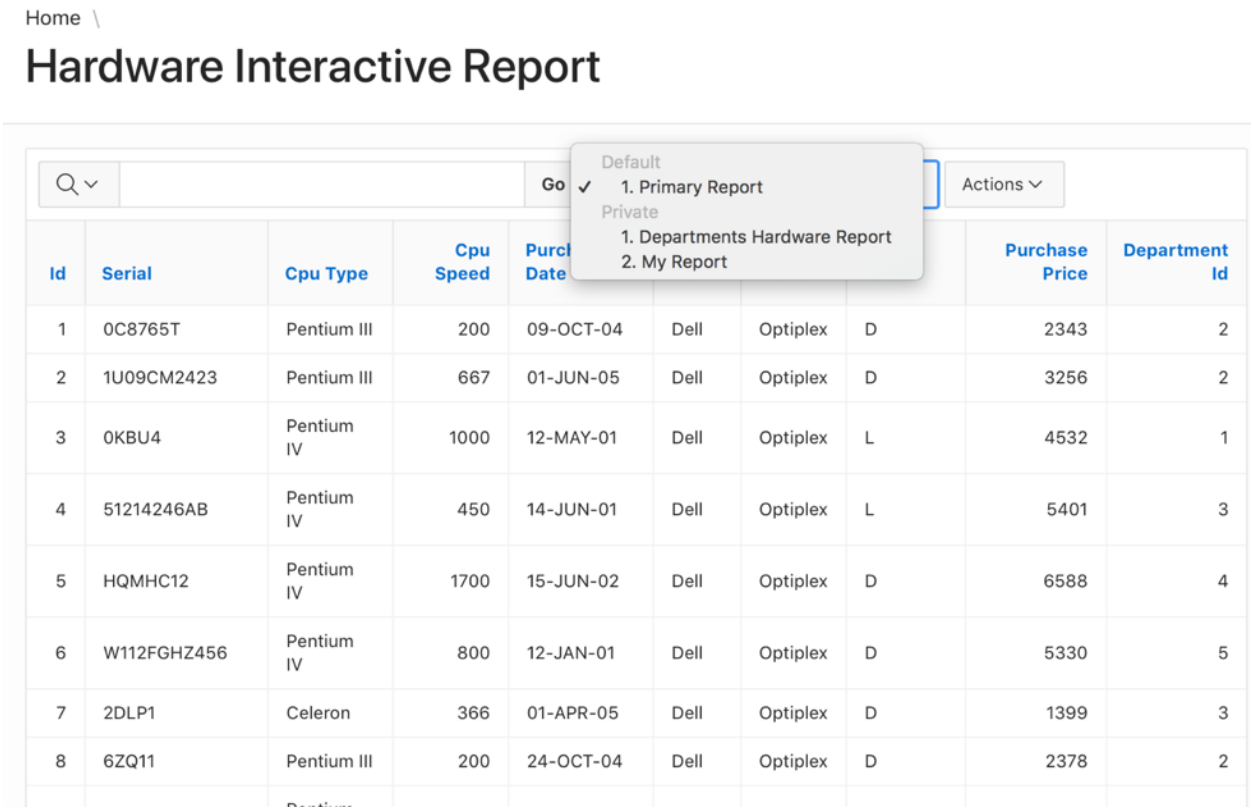
a) Select **Actions > Report > Save Report**.
b) The Save Report dialog appears. For Save, select **As Named Report** and enter **Departments Hardware Report** for Name. Click **Apply**.



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



22. You want to reset the primary report to default settings now.
a) From the Reports down list, select **Primary Report**.
b) Select **Actions > Report > Reset**.
c) In the Reset dialog, click **Apply**.
d) The primary report is now restored to default settings. The customizations you made to your private reports are available.

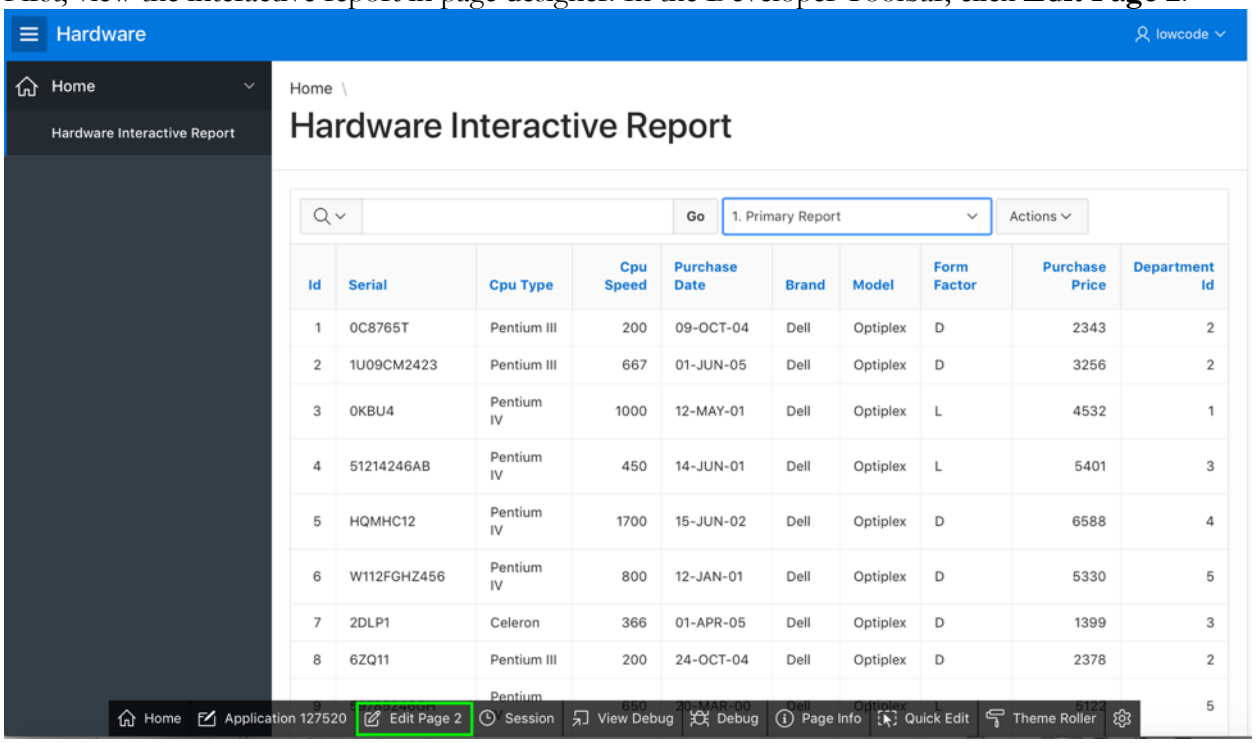


Id	Serial	Cpu Type	Cpu Speed	Purch Date				Purchase Price	Department Id
1	0C8765T	Pentium III	200	09-OCT-04	Dell	Optiplex	D	2343	2
2	1U09CM2423	Pentium III	667	01-JUN-05	Dell	Optiplex	D	3256	2
3	0KBU4	Pentium IV	1000	12-MAY-01	Dell	Optiplex	L	4532	1
4	51214246AB	Pentium IV	450	14-JUN-01	Dell	Optiplex	L	5401	3
5	HQMHC12	Pentium IV	1700	15-JUN-02	Dell	Optiplex	D	6588	4
6	W112FGHZ456	Pentium IV	800	12-JAN-01	Dell	Optiplex	D	5330	5
7	2DLP1	Celeron	366	01-APR-05	Dell	Optiplex	D	1399	3
8	6ZQ11	Pentium III	200	24-OCT-04	Dell	Optiplex	D	2378	2

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

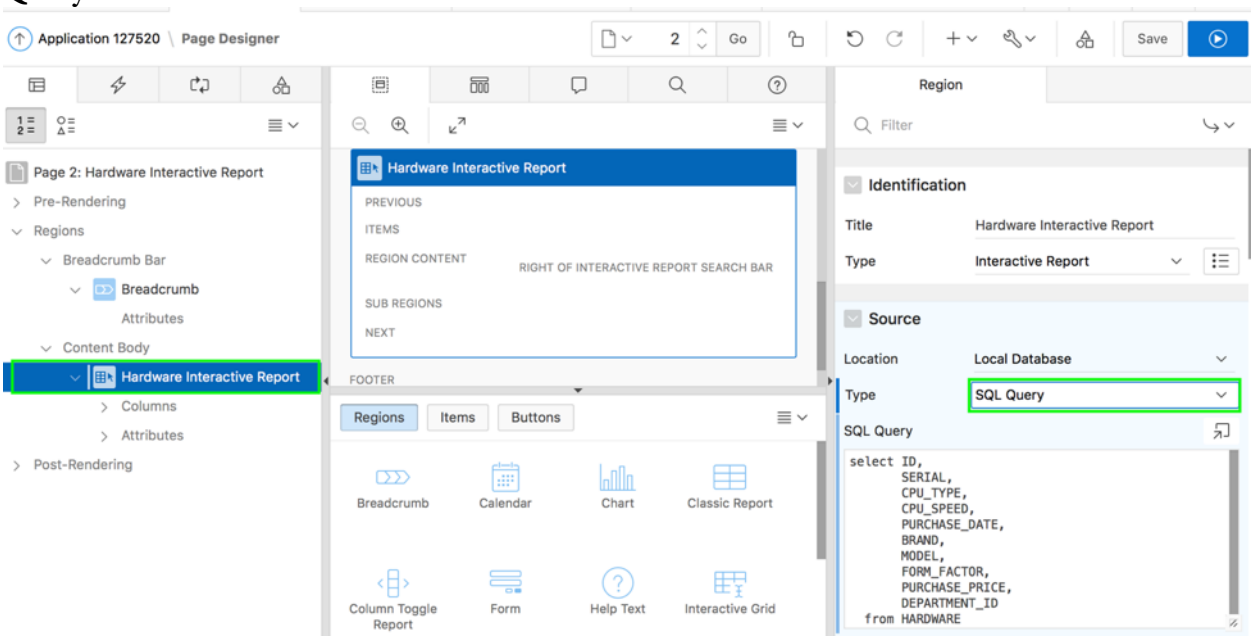
In this lab, you edit an interactive report in page designer and customize it for end users.

1. First, view the interactive report in page designer. In the Developer Toolbar, click **Edit Page 2**.



2. 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.
   a) 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.

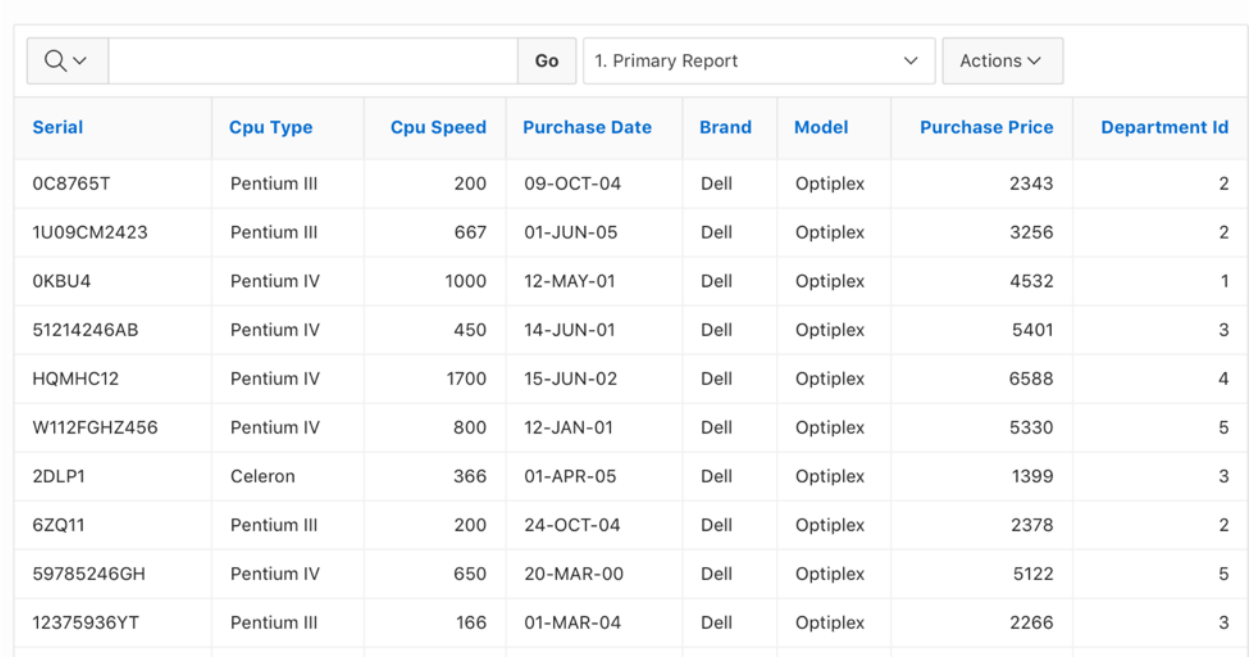


b) Copy and paste the following SQL in to SQL Query.

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

c) Click **Save**. Then, click **Save and Run Page**.

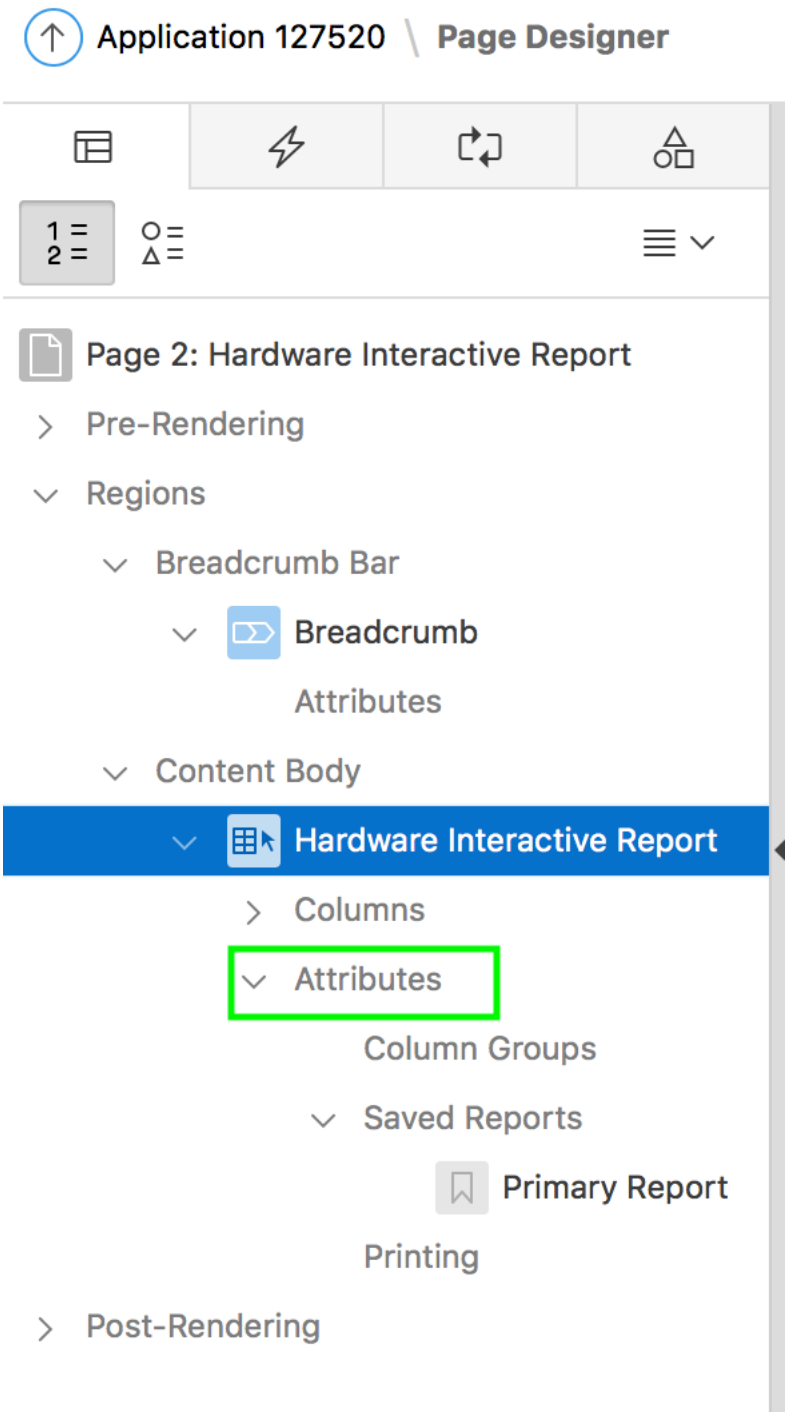
d) Your interactive report now looks like:



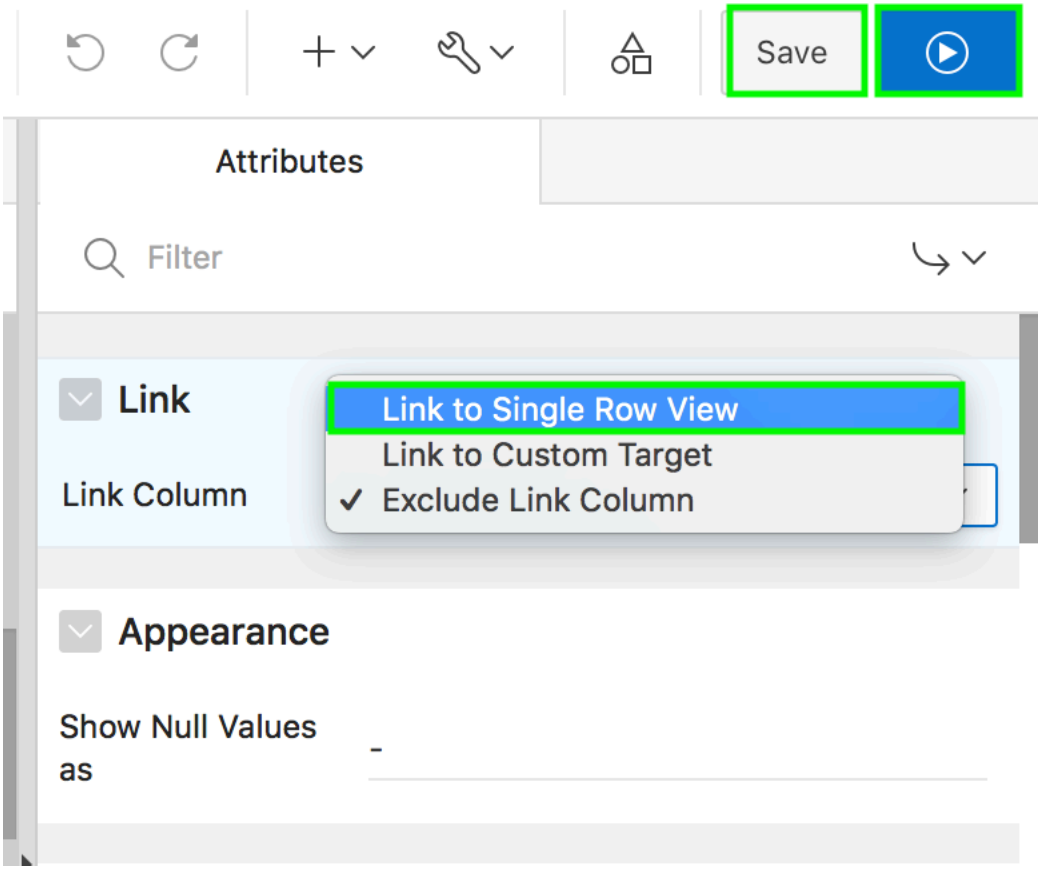
Serial	Cpu Type	Cpu Speed	Purchase Date	Brand	Model	Purchase Price	Department Id
0C8765T	Pentium III	200	09-OCT-04	Dell	Optiplex	2343	2
1U09CM2423	Pentium III	667	01-JUN-05	Dell	Optiplex	3256	2
0KBU4	Pentium IV	1000	12-MAY-01	Dell	Optiplex	4532	1
51214246AB	Pentium IV	450	14-JUN-01	Dell	Optiplex	5401	3
HQMHC12	Pentium IV	1700	15-JUN-02	Dell	Optiplex	6588	4
W112FGHZ456	Pentium IV	800	12-JAN-01	Dell	Optiplex	5330	5
2DLP1	Celeron	366	01-APR-05	Dell	Optiplex	1399	3
6ZQ11	Pentium III	200	24-OCT-04	Dell	Optiplex	2378	2
59785246GH	Pentium IV	650	20-MAR-00	Dell	Optiplex	5122	5
12375936YT	Pentium III	166	01-MAR-04	Dell	Optiplex	2266	3

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 2**.

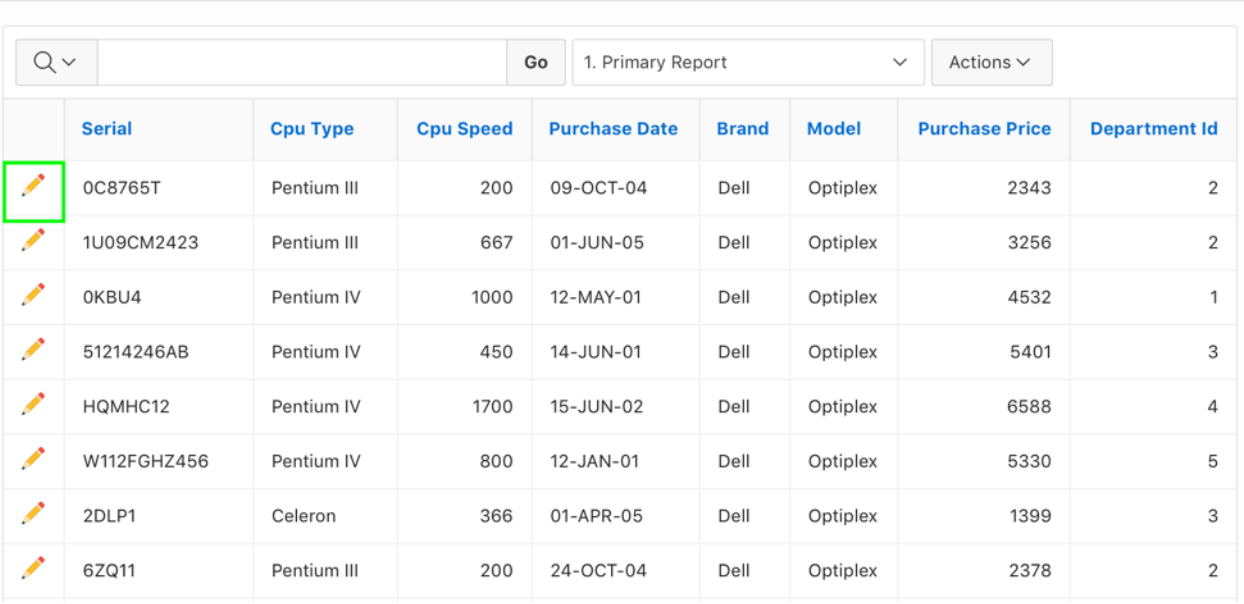
a) Under Rendering, navigate to **Hardware Interactive Report** and select **Attributes**.



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



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

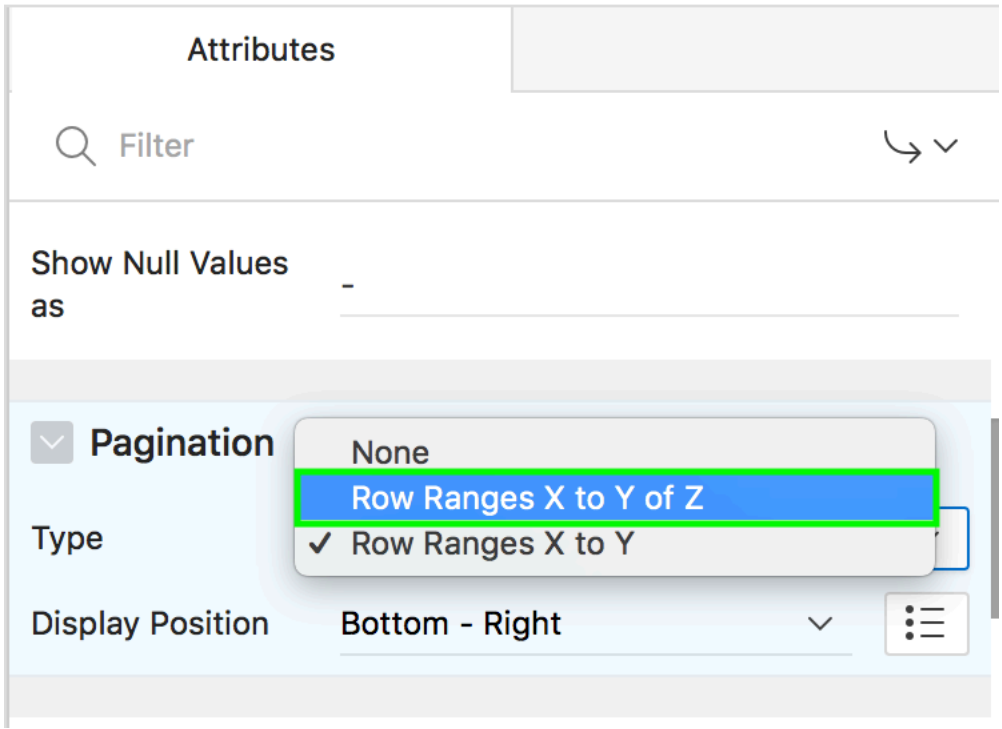


	Serial	Cpu Type	Cpu Speed	Purchase Date	Brand	Model	Purchase Price	Department Id
	0C8765T	Pentium III	200	09-OCT-04	Dell	Optiplex	2343	2
	1U09CM2423	Pentium III	667	01-JUN-05	Dell	Optiplex	3256	2
	0KBU4	Pentium IV	1000	12-MAY-01	Dell	Optiplex	4532	1
	51214246AB	Pentium IV	450	14-JUN-01	Dell	Optiplex	5401	3
	HQMHC12	Pentium IV	1700	15-JUN-02	Dell	Optiplex	6588	4
	W112FGHZ456	Pentium IV	800	12-JAN-01	Dell	Optiplex	5330	5
	2DLP1	Celeron	366	01-APR-05	Dell	Optiplex	1399	3
	6ZQ11	Pentium III	200	24-OCT-04	Dell	Optiplex	2378	2

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

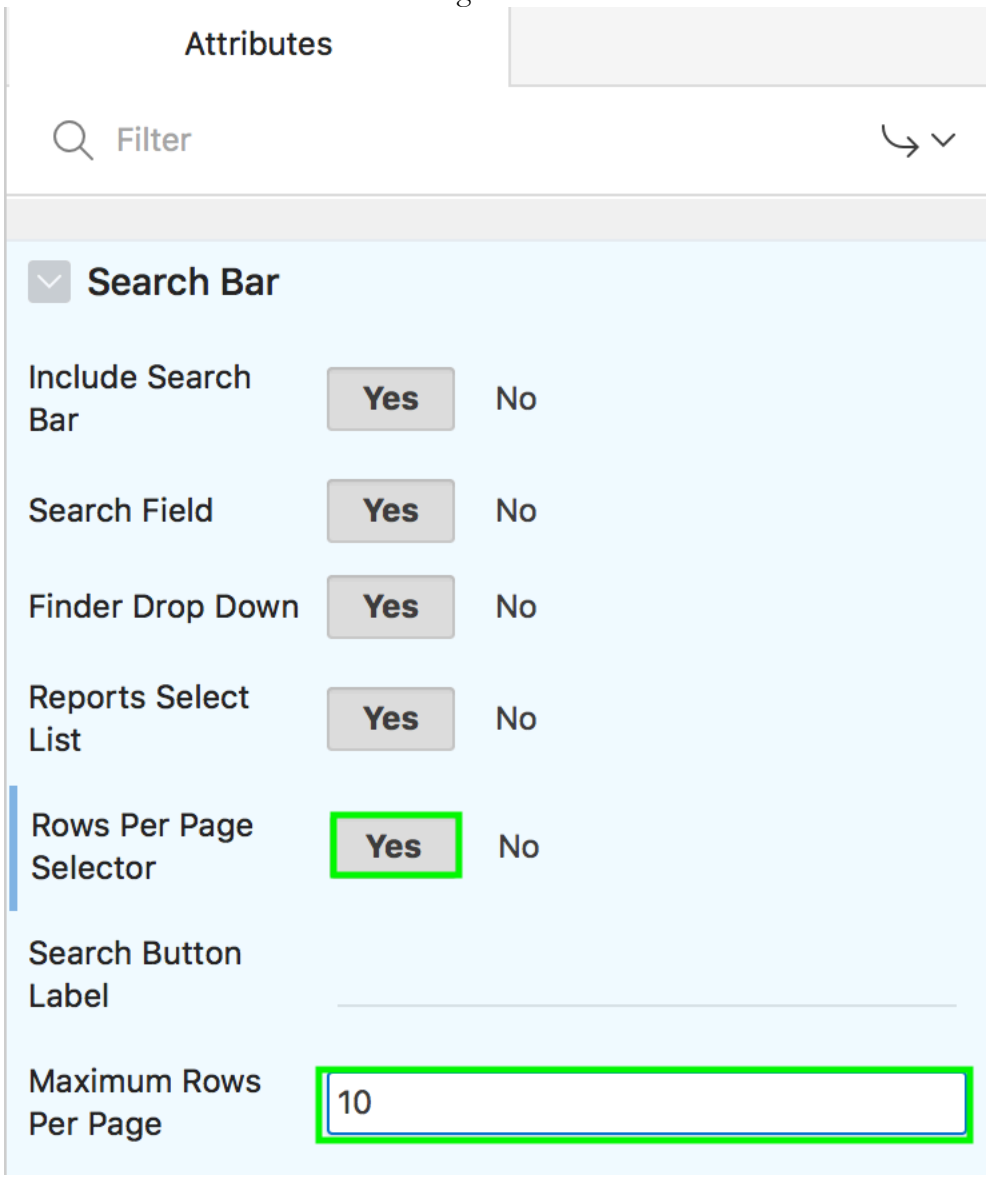


4. The current pagination type of the interactive report is Row Ranges X to Y. You want this to be changed for the end users' display of the report. In the Developer Toolbar, click **Edit Page 2**.
   a) Under Rendering, navigate to **Hardware Interactive Report** and select **Attributes**.
   b) In the property editor, locate **Pagination**. For Type, select **Row Ranges X to Y of Z**.



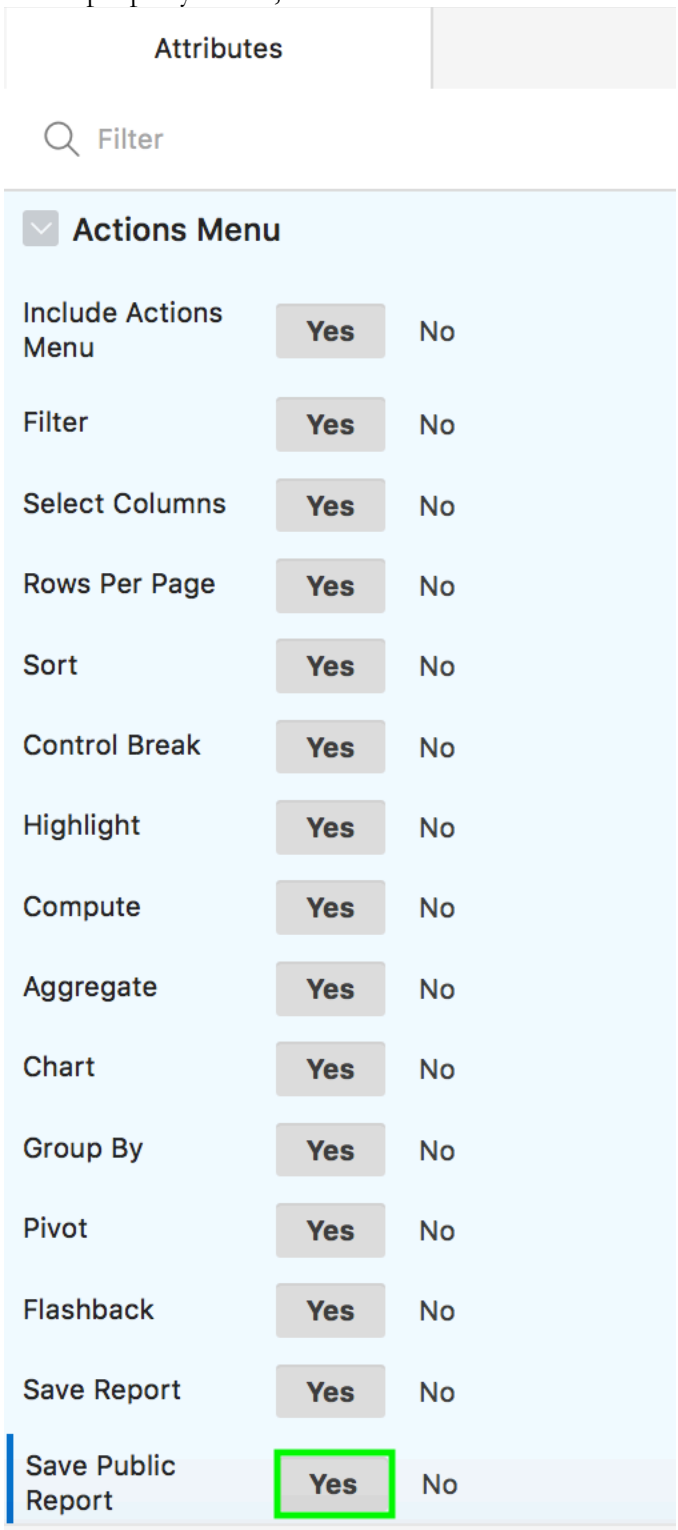
5. You want to customize the display of Search Bar. End users should be able to select the display of desired number of rows per page.

   In the property editor, locate Search Bar. For Rows Per Page Selector, select **Yes**.
   Enter **10** for Maximum Rows Per Page.

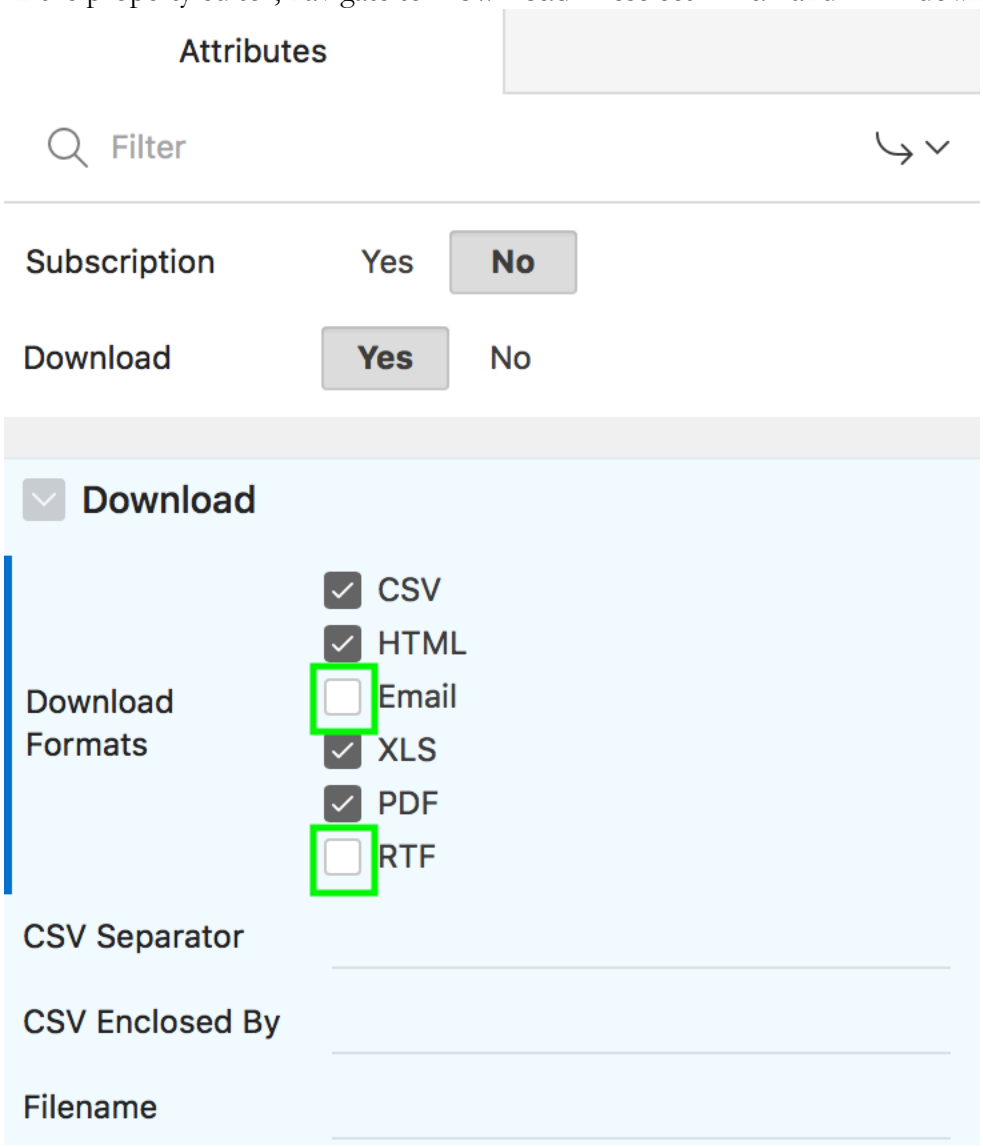


6. Currently your interactive report allows end users to save the report as private. However, you also want to make sure that they can save a report as public. Enable this option in the Actions menu.

In the property editor, locate **Actions Menu**. For Save Public Report, select **Yes**.

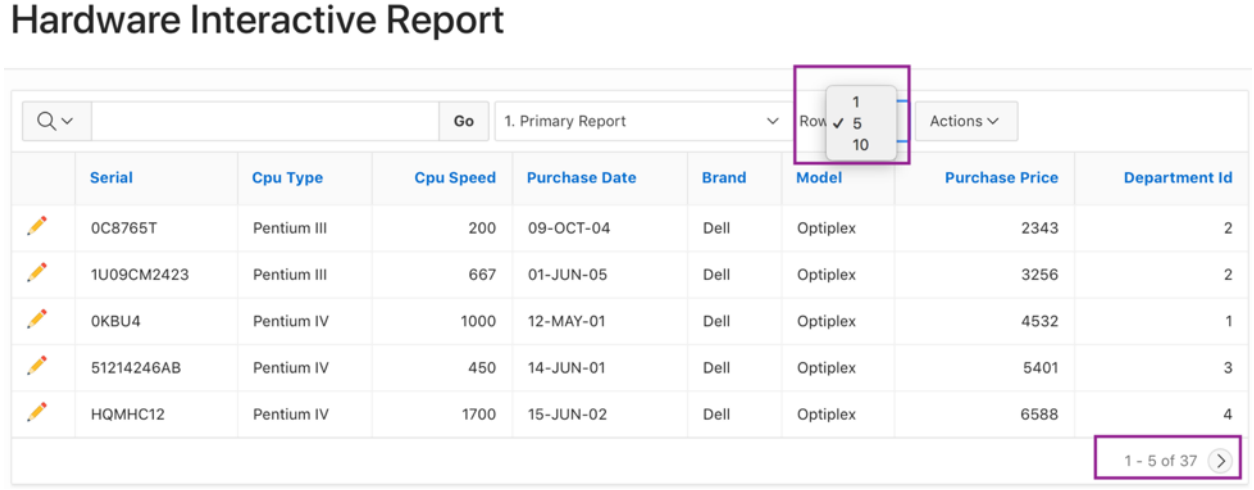


7. You want to disable the Email and RTF formats in the Download option of the Actions menu. In the property editor, navigate to **Download**. Deselect **Email** and **RTF** download formats.



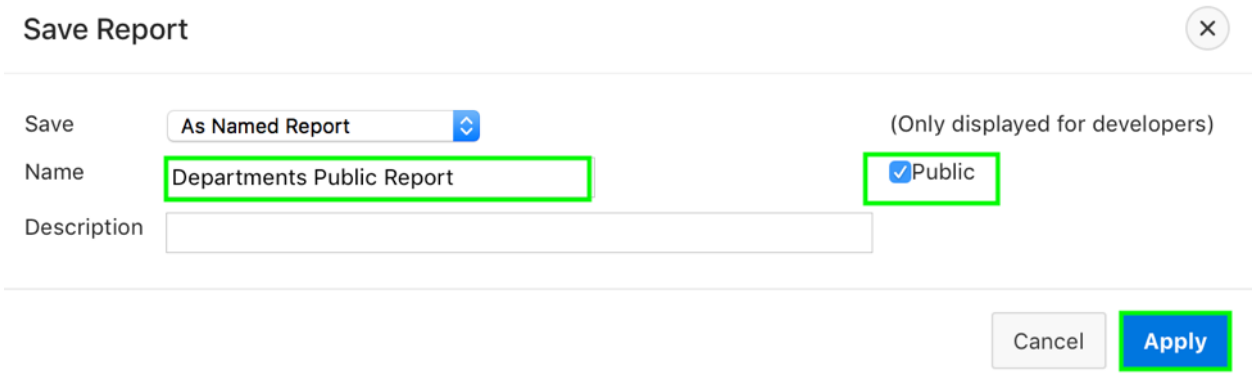
8. Now that you finished the customization for end users, click **Save**. Then, click **Save and Run Page**.

9. Notice that the row selector and the new pagination type are available on the report.

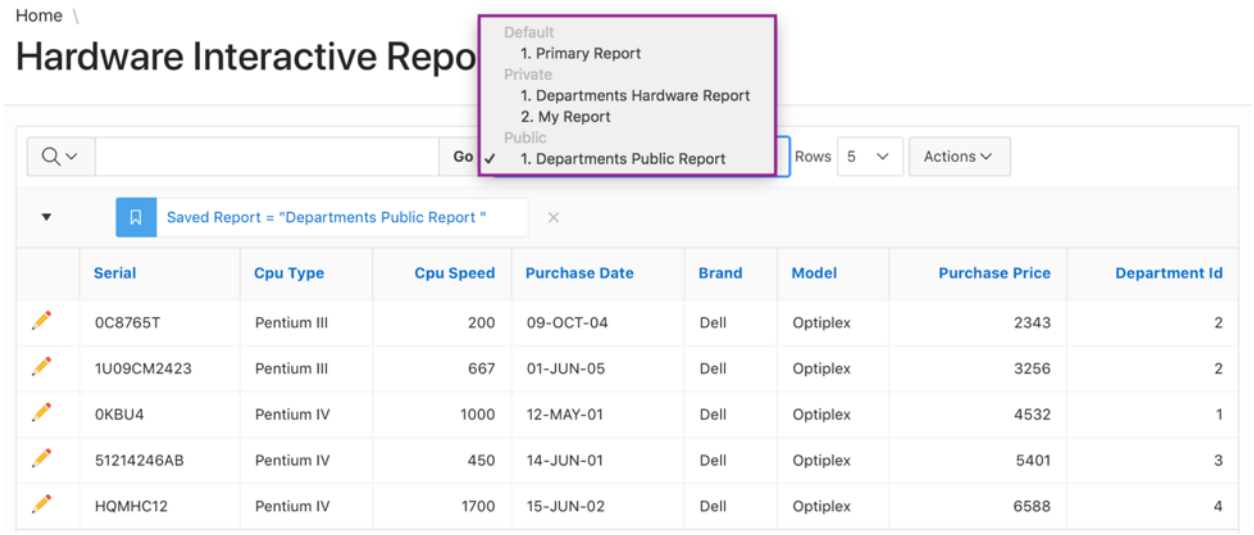


10. Select **Actions > Report > Save Report**.

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**.

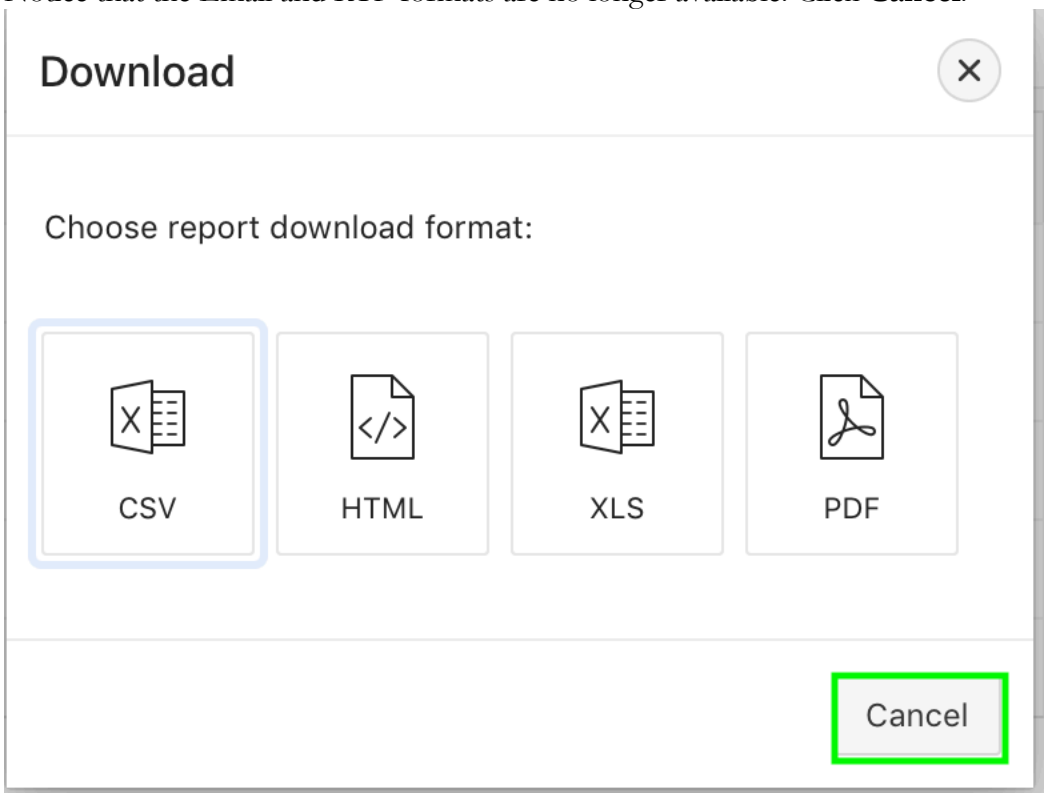


12. This report is now saved as a public report and is available in the Reports drop down list.



13. Click **Actions > Download**.

14. Notice that the Email and RTF formats are no longer available. Click **Cancel**.



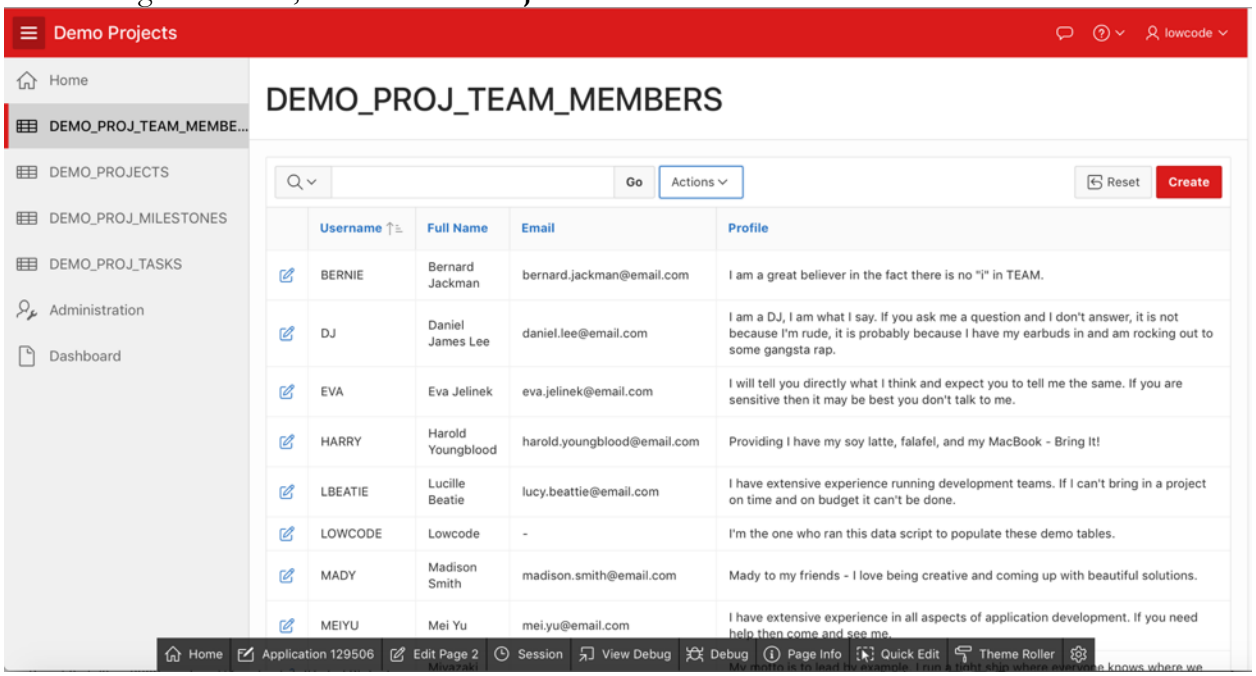
15. From the Reports drop down list, select **Primary Report**.

HOL 6-3: Saving the Team Members Interactive Report

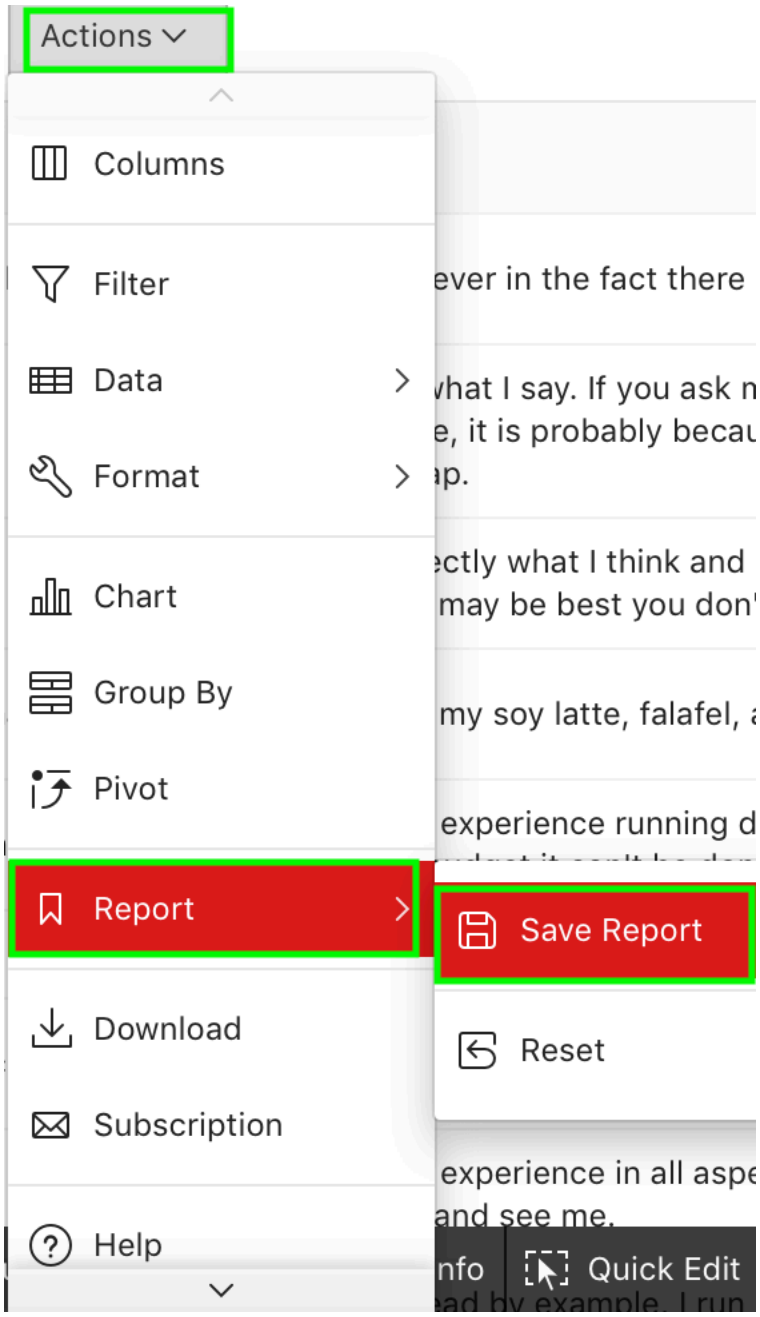
In this lab, you save the default settings of the interactive report.

1. Navigate to **App Builder** and run the **Demo Projects** application.

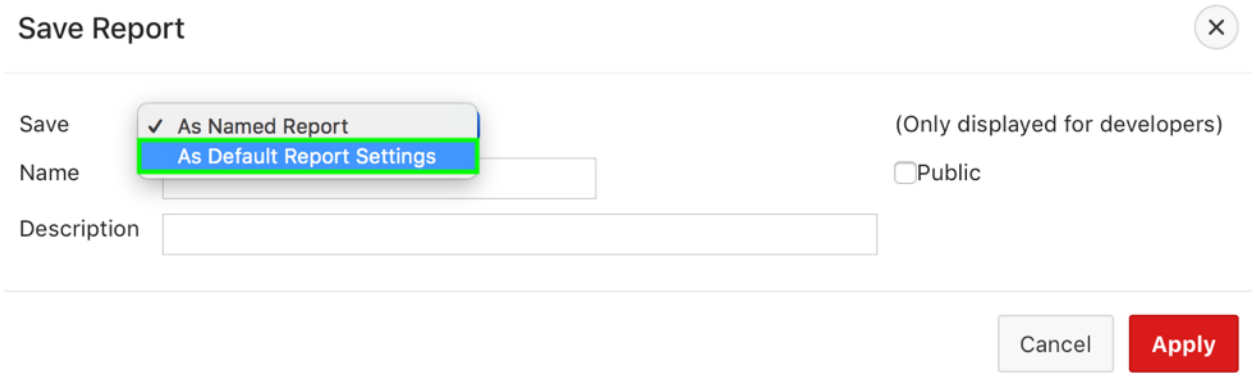
2. In the navigation menu, select **Demo Proj Team Members**.



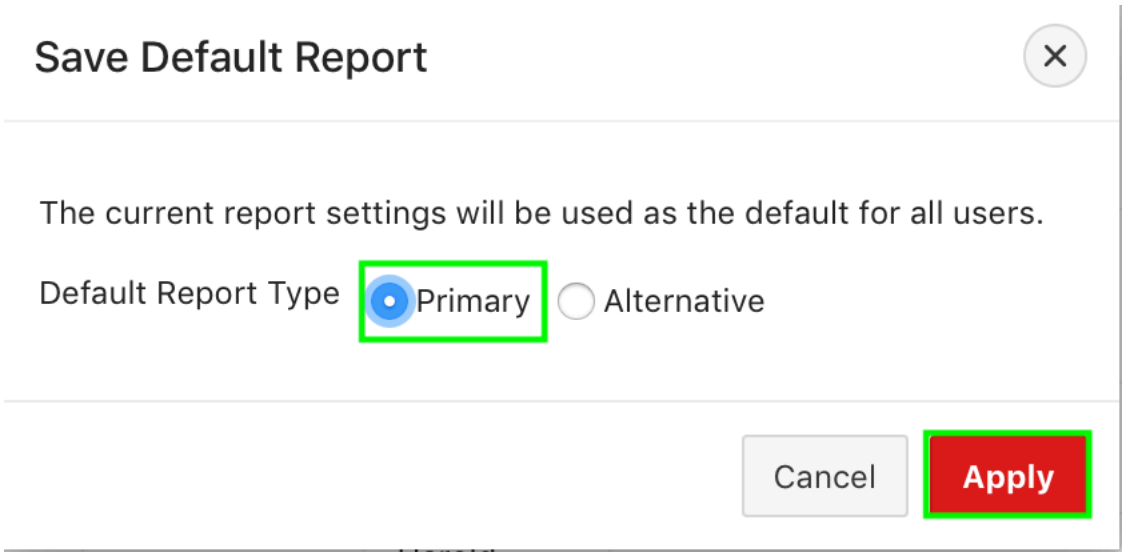
3. You want to save the default report settings for all the users. Click **Actions** and select **Report > Save**.



4. In the Save Report dialog, for Save, select **As Default Report Settings**.



5. Select **Primary** for Default Report Type and click **Apply**.

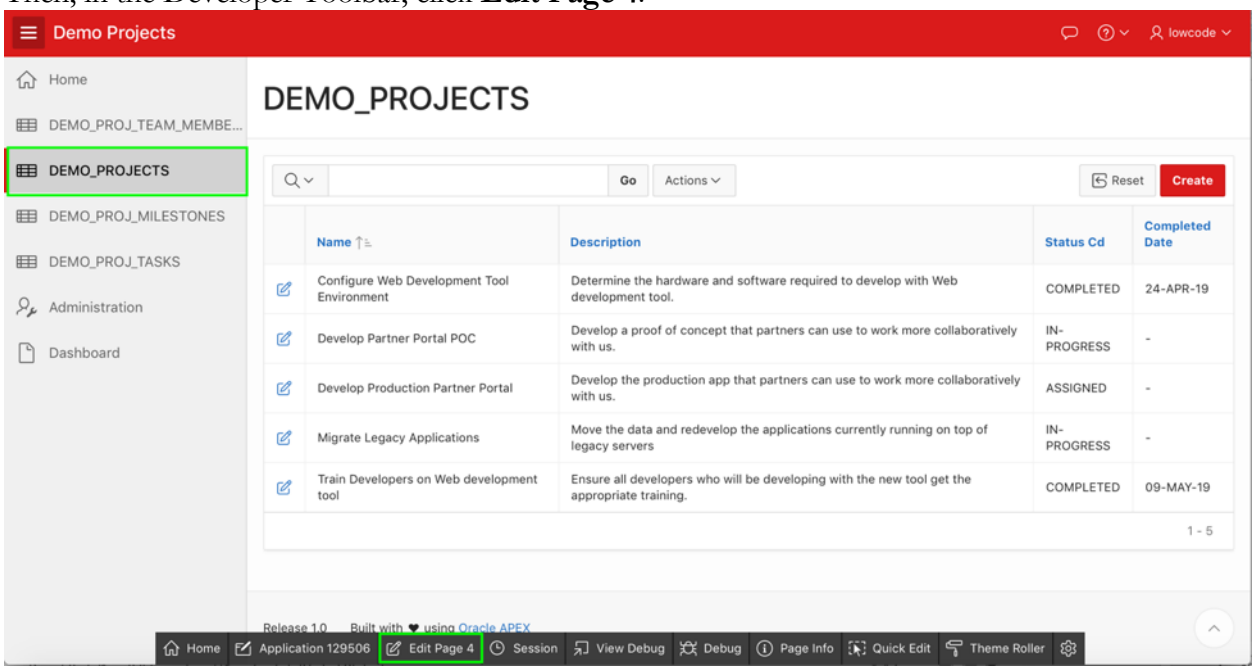


The default report is now saved for all users.

HOL 6-4: Customizing the Projects Interactive Report

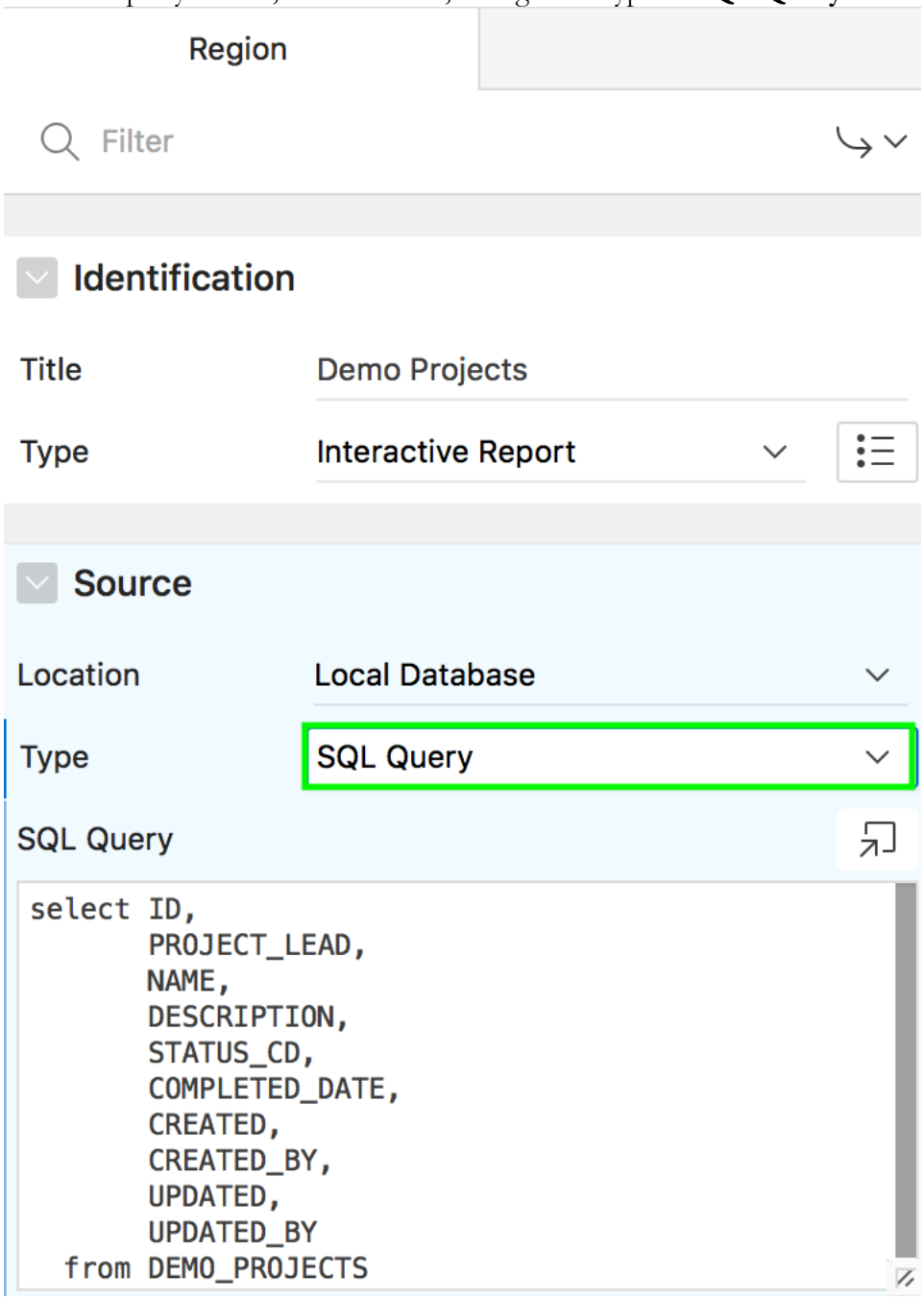
In this lab, you update the report source query and remove the column link defined on the ID column. Then, you customize the interactive grid by hiding the columns that need not be displayed, and creating an aggregation on the Tasks column. You save these customizations for all the users. Navigating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



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 **Demo Projects** region.

3. In the Property Editor, under Source, change the Type to **SQL Query**.

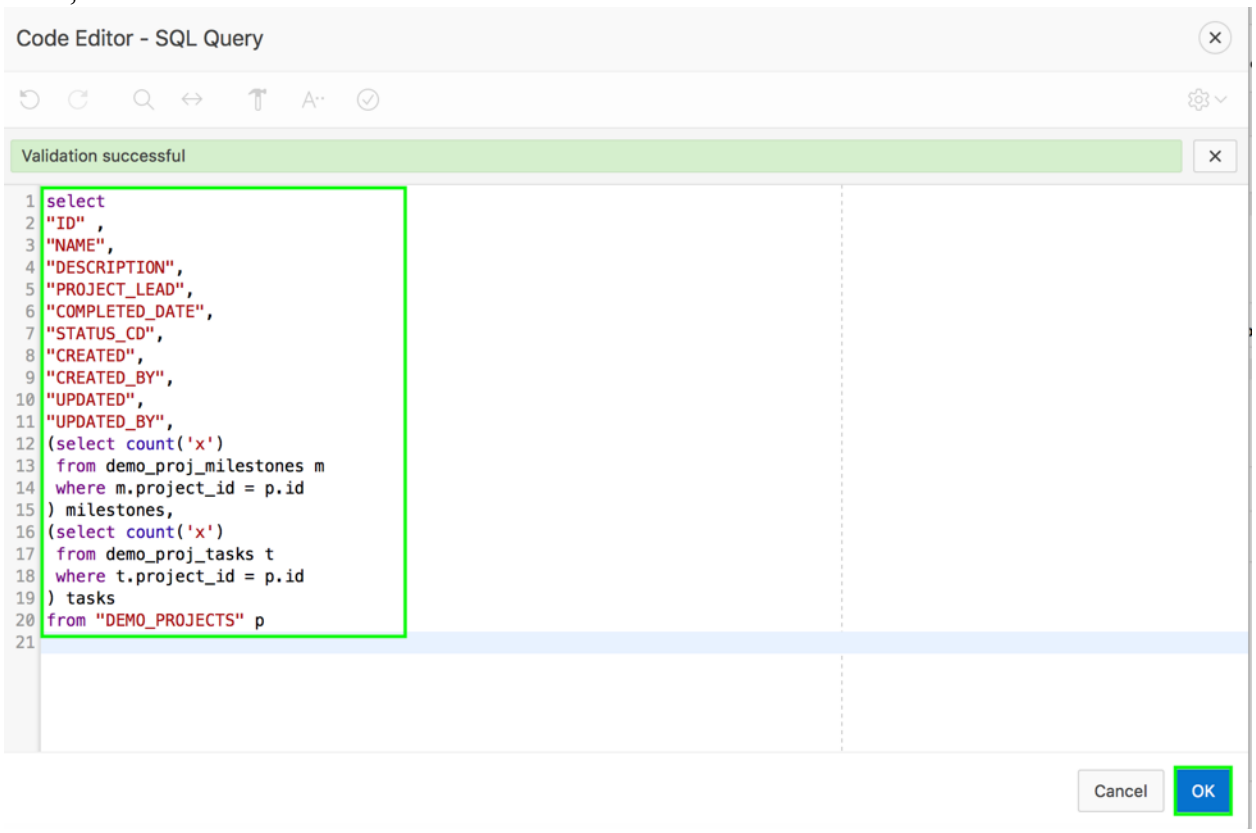


4. Click the **Code Editor: SQL Query** button, and copy and paste the following SQL:

```
select
"ID" ,
"NAME",
"DESCRIPTION",
"PROJECT_LEAD",
"COMPLETED_DATE",
"STATUS_CD",
"CREATED",
"CREATED_BY",
```

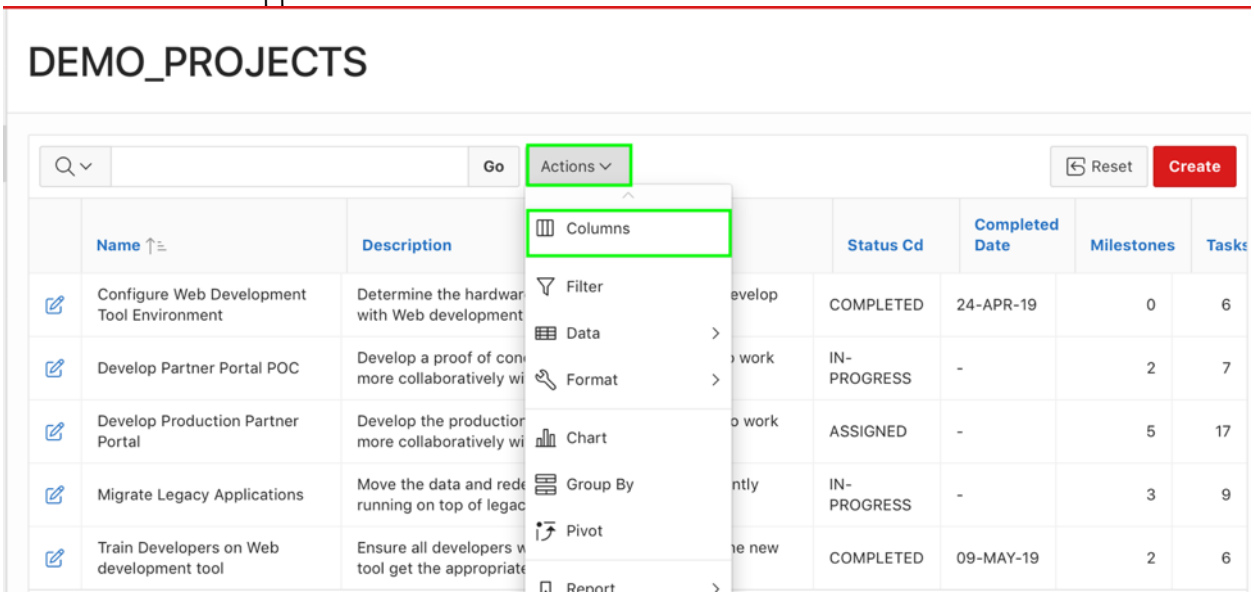
```
"UPDATED",
"UPDATED_BY",
(select count('x')
 from demo_proj_milestones m
 where m.project_id = p.id
) milestones,
(select count('x')
 from demo_proj_tasks t
 where t.project_id = p.id
) tasks
from "DEMO_PROJECTS" p
```

Then, click **OK**.



5. Click **Save**. Then, click **Save and Run Page**.

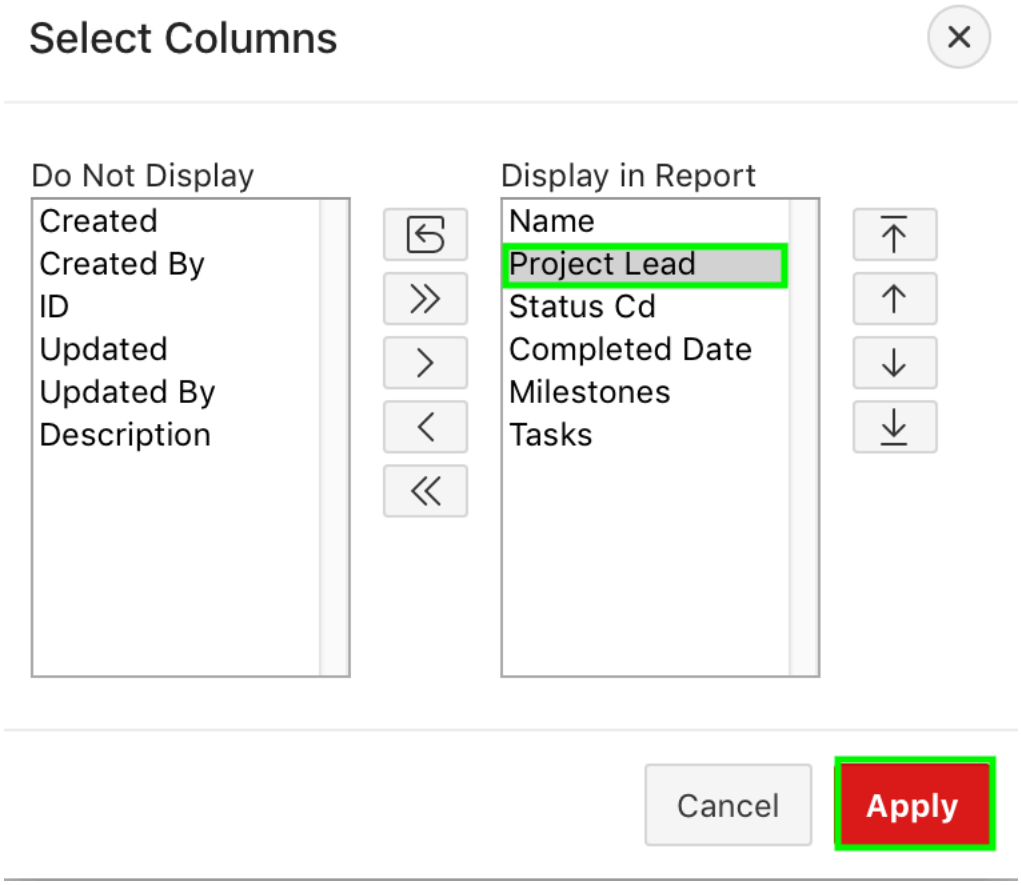
6. You are now in the application runtime environment. Click **Actions > Columns**.



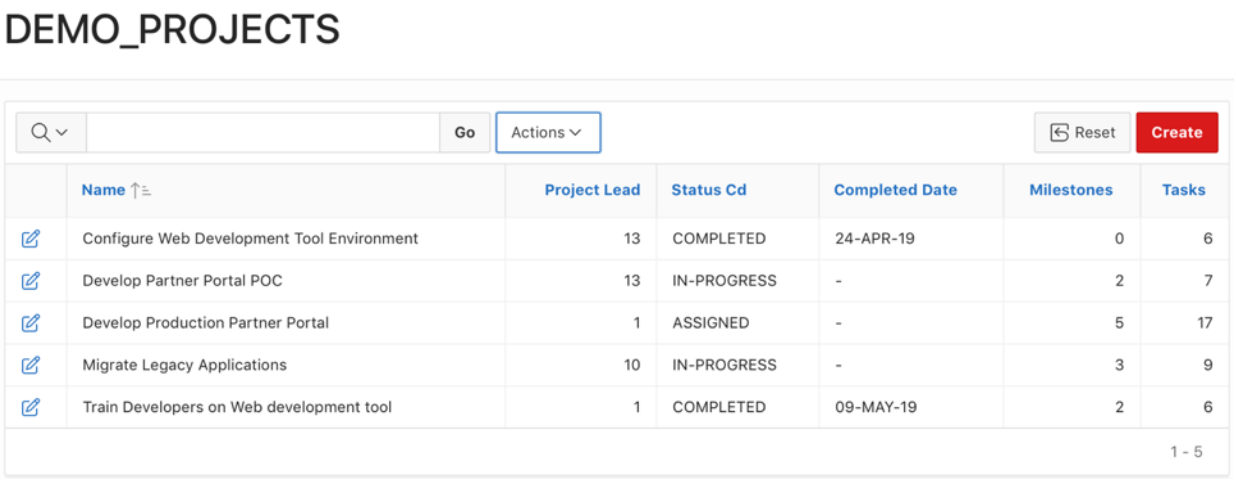
7. In the Select Columns dialog, under Display in Report, select **Description** and click **<**.

8. Under Do not Display, select **Project Lead** and click **>**.

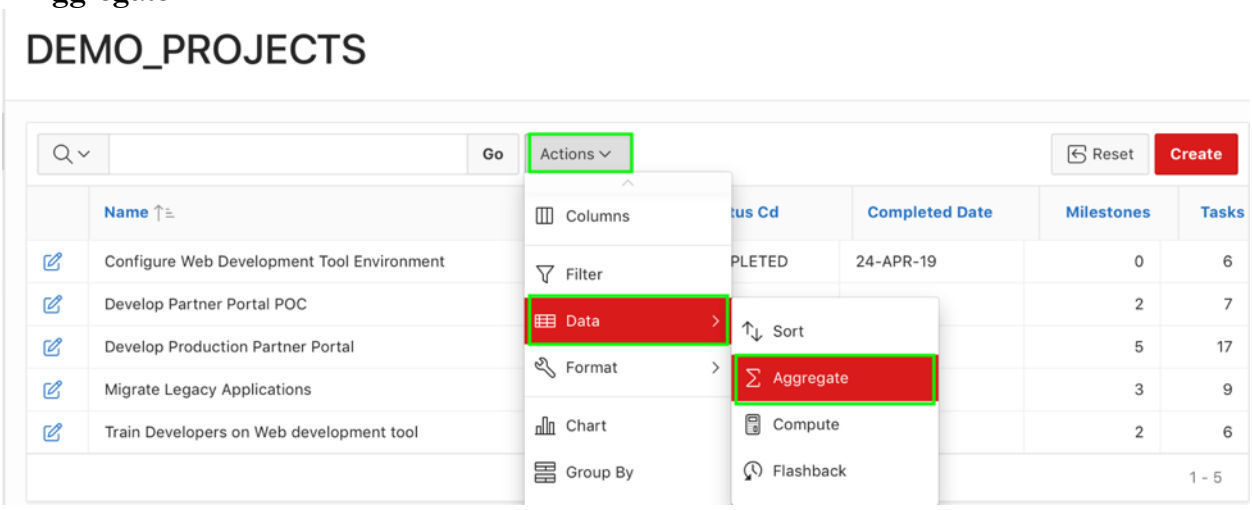
9. Under Display in Report, select Project Lead and click the **Up** arrow four times so that you now see Project Lead immediately after Name.
   Then, click **Apply**.



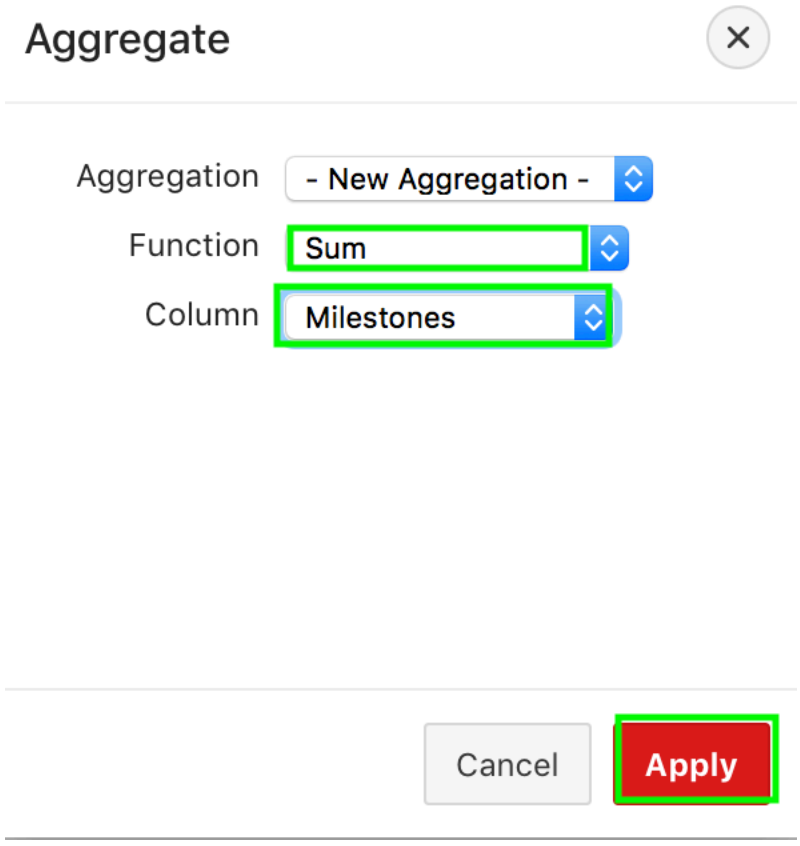
10. The interactive report would now look like:



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



12. In the Aggregate dialog, for column, select **Milestones**, for Function, select **Sum**, and click **Apply**.



13. Again, select **Actions > Data > Aggregate**.

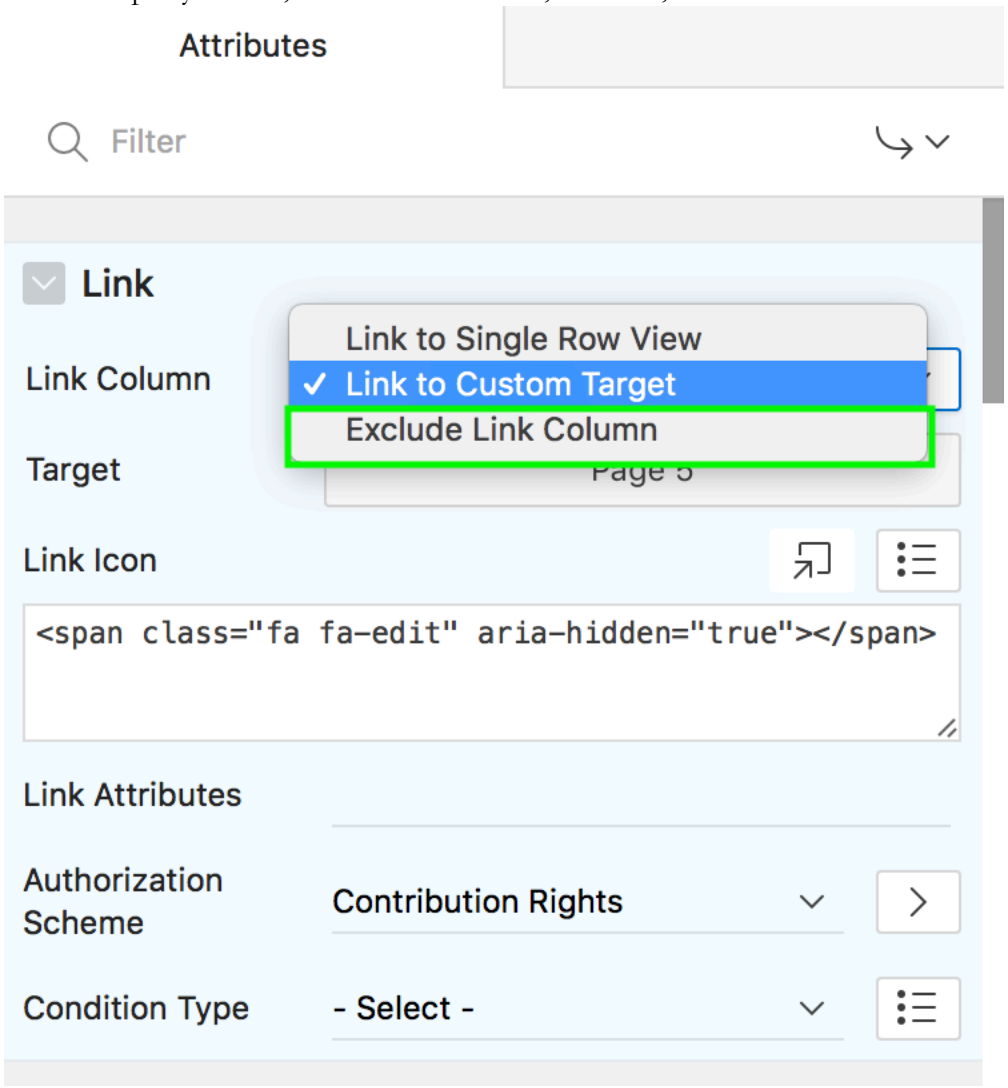
14. In the Aggregate dialog, for column, select **Tasks**, for Function, select **Sum**, and click **Apply**.

15. You want to save the changes made to the primary interactive grid. **Select Actions > Report > Save**.
    For Save, select **As Default Report Settings**.
    Select **Primary** for Default Report Type. Click **Apply**. The default report is now saved for all users.

16. Navigate to page designer. In the Developer Toolbar, click **Edit Page 4**.

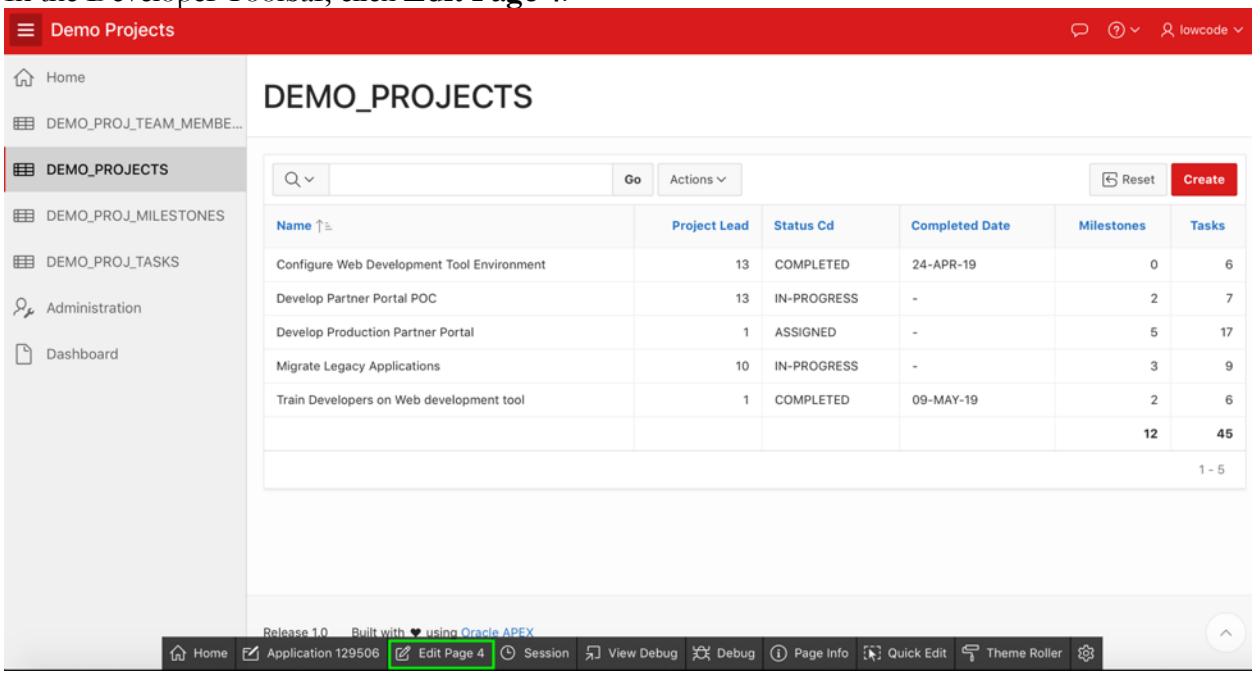
17. Under Rendering > Demo Projects, select **Attributes**.

18. In the Property Editor, under Link Column, for Link, select **Exclude Link Column**.

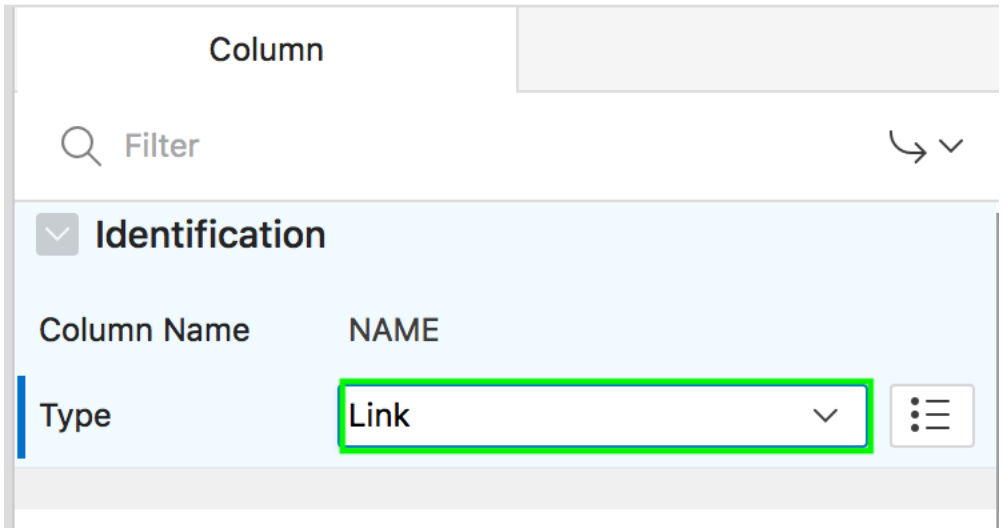


19. Click **Save**. Then, click **Save and Run Page**.

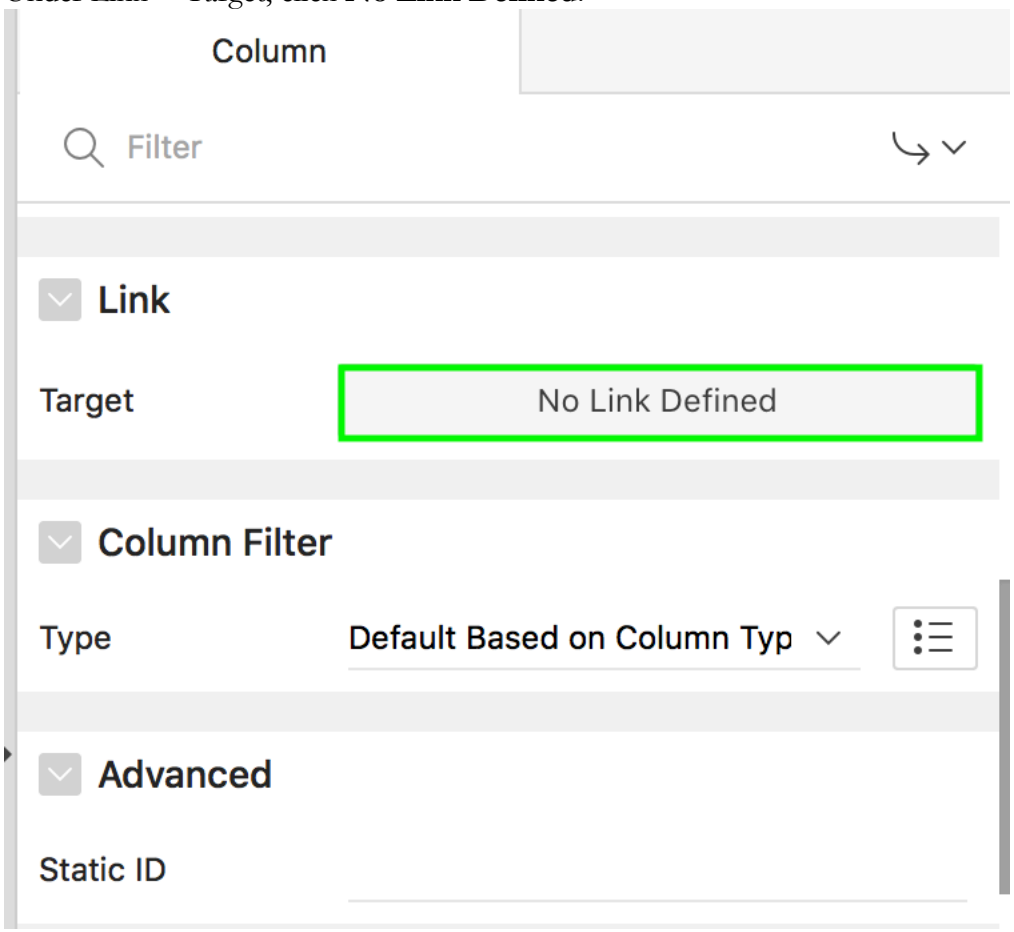
20. In the Developer Toolbar, click **Edit Page 4**.



21. You want to define a column link on the NAME column. Under Rendering > Regions > Demo Projects region, expand the **Columns** node. Select **NAME**.
22. In the property editor, under Identification, select **Link** for Type.

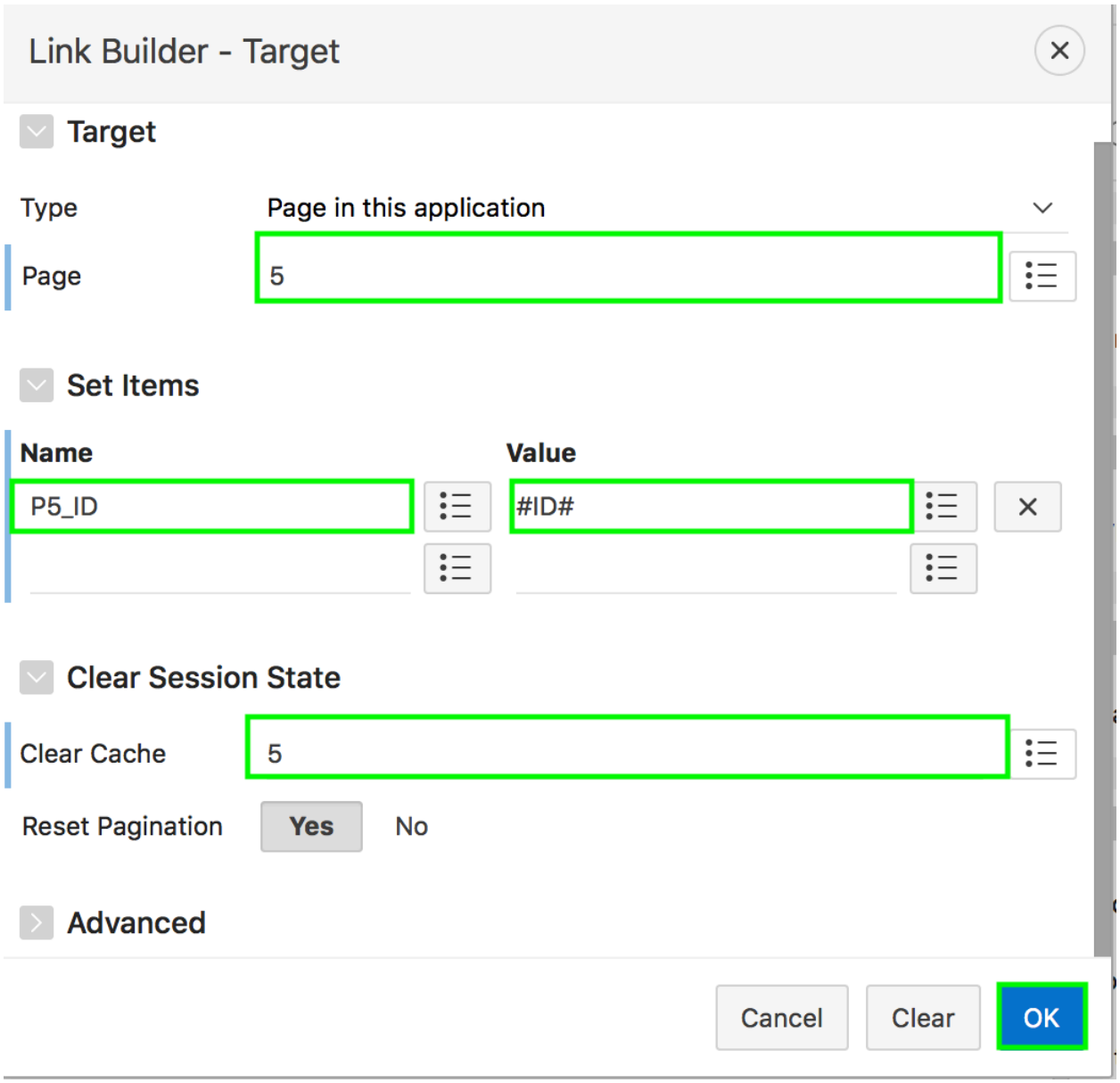


23. Under Link > Target, click **No Link Defined**.



24. In the Link Builder – Target dialog:
    - Page - enter **5**
    - Name - select **P5_ID**
    - Value - select **#ID#**
    - Clear Cache - enter **5**

Click **OK**.



25. Click **Save**. Then, click **Save and Run Page**. The Demo Projects interactive report might now look like:

DEMO_PROJECTS

Go | Actions | Reset | Create

Name	Project Lead	Status Cd	Completed Date	Milestones	Tasks
Configure Web Development Tool Environment	13	COMPLETED	24-APR-19	0	6
Develop Partner Portal POC	13	IN-PROGRESS	-	2	7
Develop Production Partner Portal	1	ASSIGNED	-	5	17
Migrate Legacy Applications	10	IN-PROGRESS	-	3	9
Train Developers on Web development tool	1	COMPLETED	09-MAY-19	2	6
				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**.

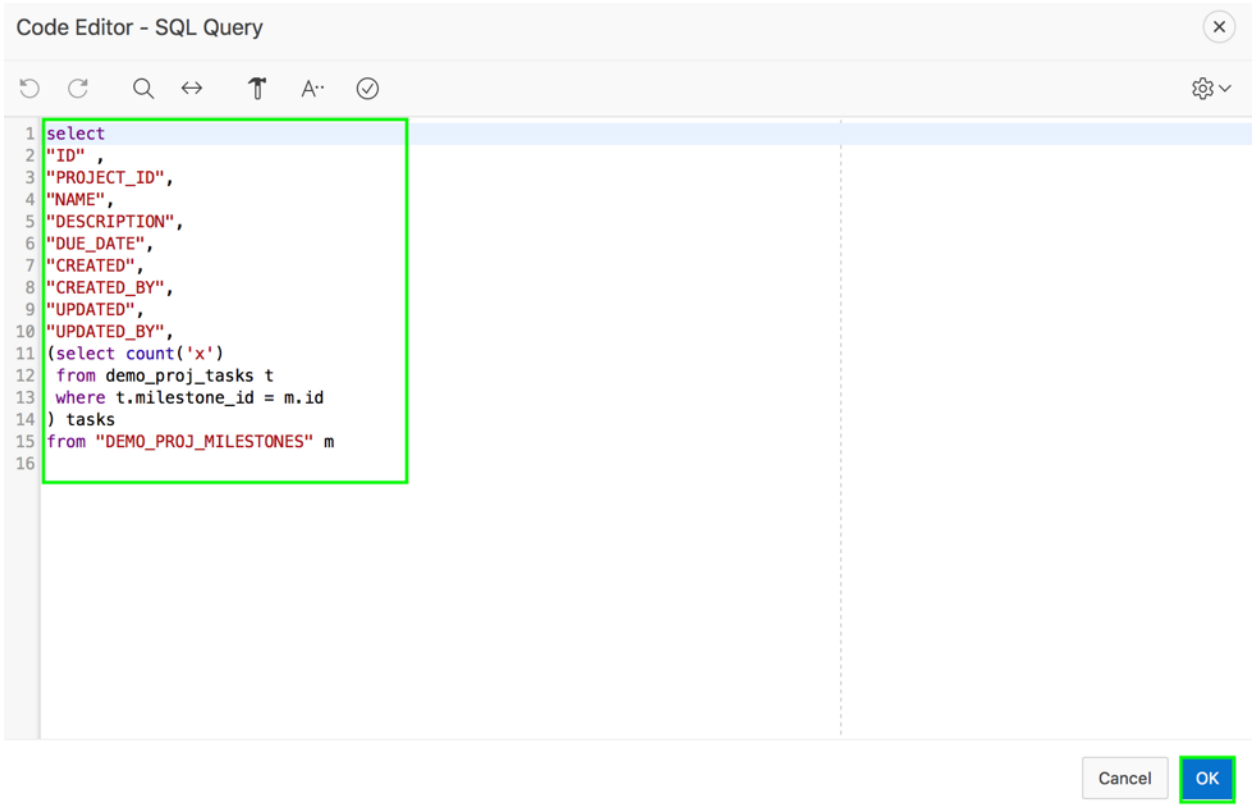
2. Modify the existing Milestones Interactive Report and update the SQL Query associated with the report to add a new column. Under **Rendering > Regions**, click the **Demo Proj Milestones** region.

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 **OK**.



6. Click **Save**. Then, click **Save and Run Page**.

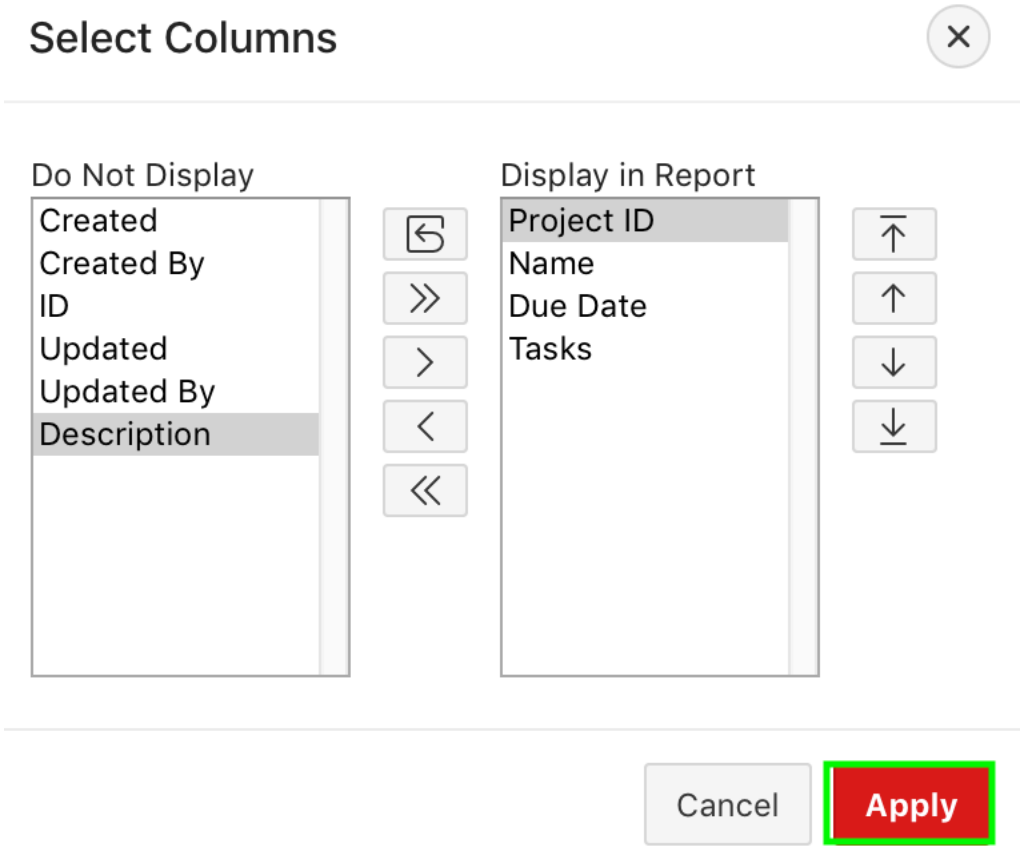
7. Reconfigure which columns are to be displayed in the interactive report. In the Interactive Report runtime window, click **Actions** and select **Columns**.

8. In the Select Columns dialog, under Do not Display, select **Project ID** and click **>**.

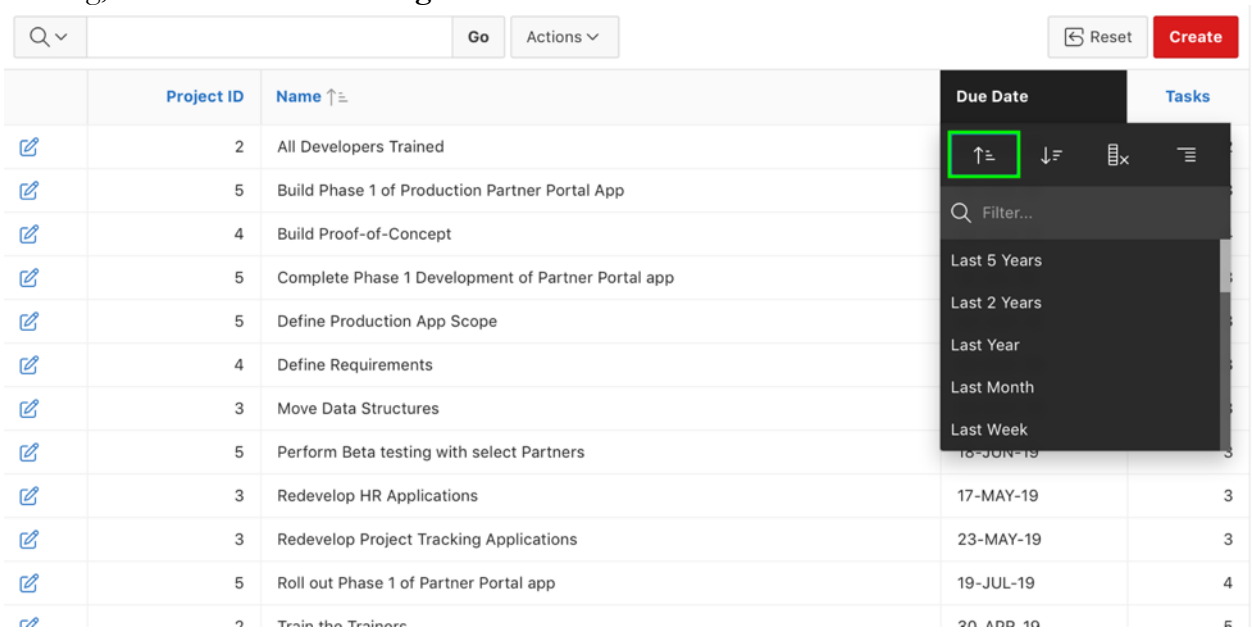
9. Then, under Display in Report, select **Description** and click **<**.

10. Under Display in Report, select Project ID and click the Up arrow thrice so that it appears before **Name**.

Then, click **Apply**.

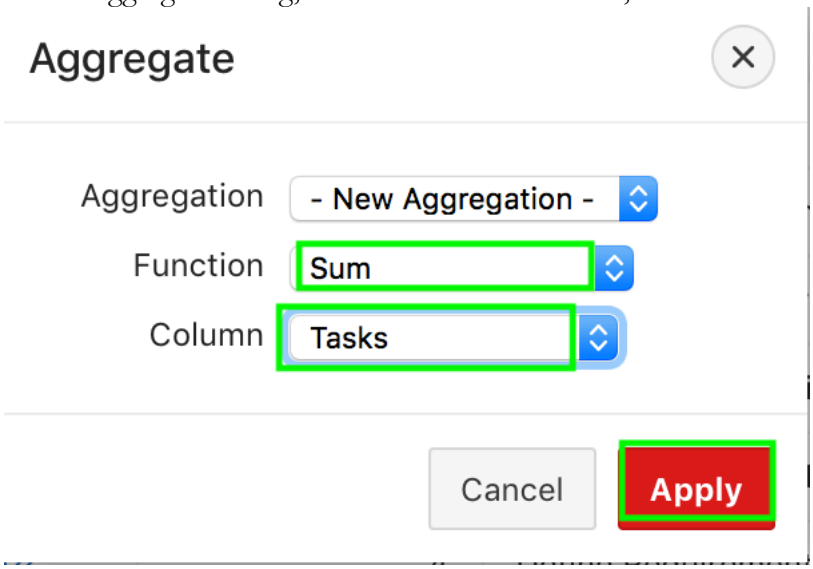


11. Sort the report by Due Date in ascending order. Click the **Due Date** column and in the column heading, click the **Sort Ascending** button.



12. Make the interactive report functional by adding an aggregation. Create an aggregation on the Tasks column.
    Click the **Actions** menu and select **Data > Aggregate**.

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



14. You want to save the changes made to the primary interactive grid. **Select Actions > Report > Save**.
    For Save, select **As Default Report Settings**.
    Select **Primary** for Default Report Type. Click **Apply**. The default report is now saved for all users.

HOL 6-6 Customizing the Tasks Interactive Report

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

1. You are in the application runtime environment. In the navigation menu, click **Demo Proj Tasks**.

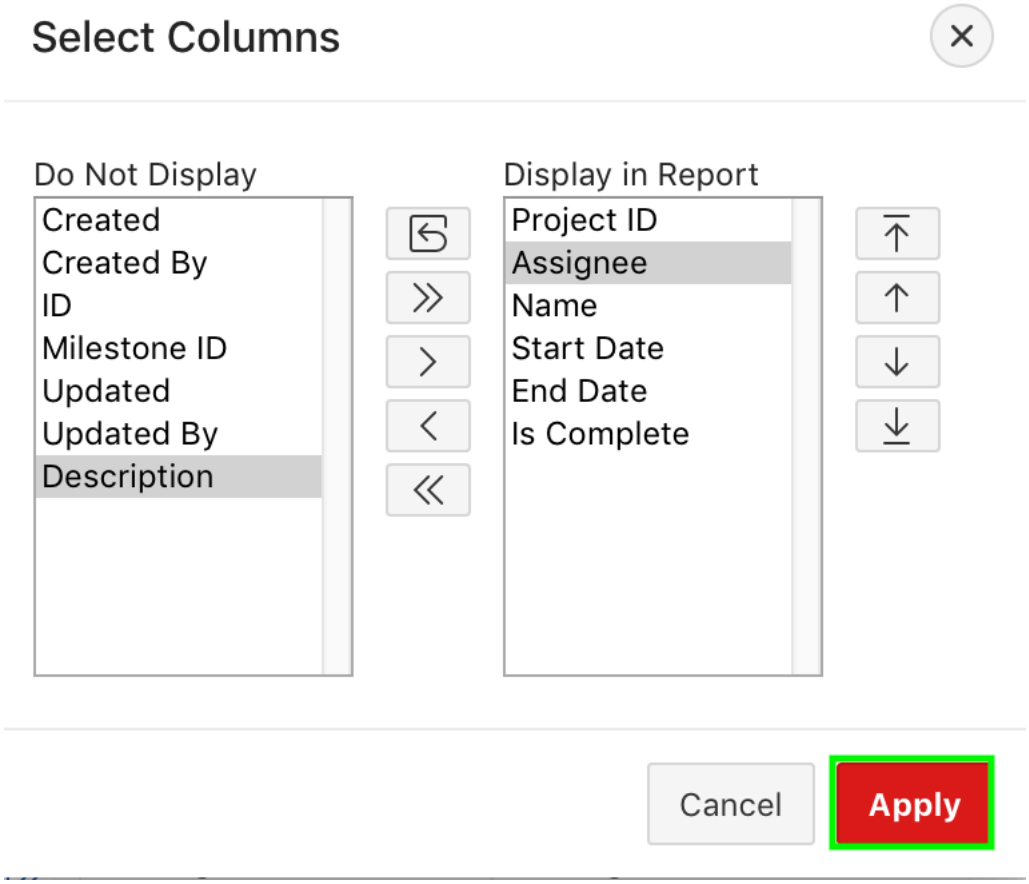
2. Reconfigure which columns are to be displayed in the interactive report. Click **Actions > Columns**.

3. In the Select Columns dialog, under Do not Display, select **Assignee**, **Project ID**, **Milestone ID** and click **>**.
   Use the Ctrl key to select multiple columns.

4. Under Display in Report, select **Description** and click **<**.
5. Under Display in Report, the columns should be in the following order:
   - Project Id
   - Milestone Id
   - Assignee
   - Name
   - Start Date
   - End Date
   - Is Complete

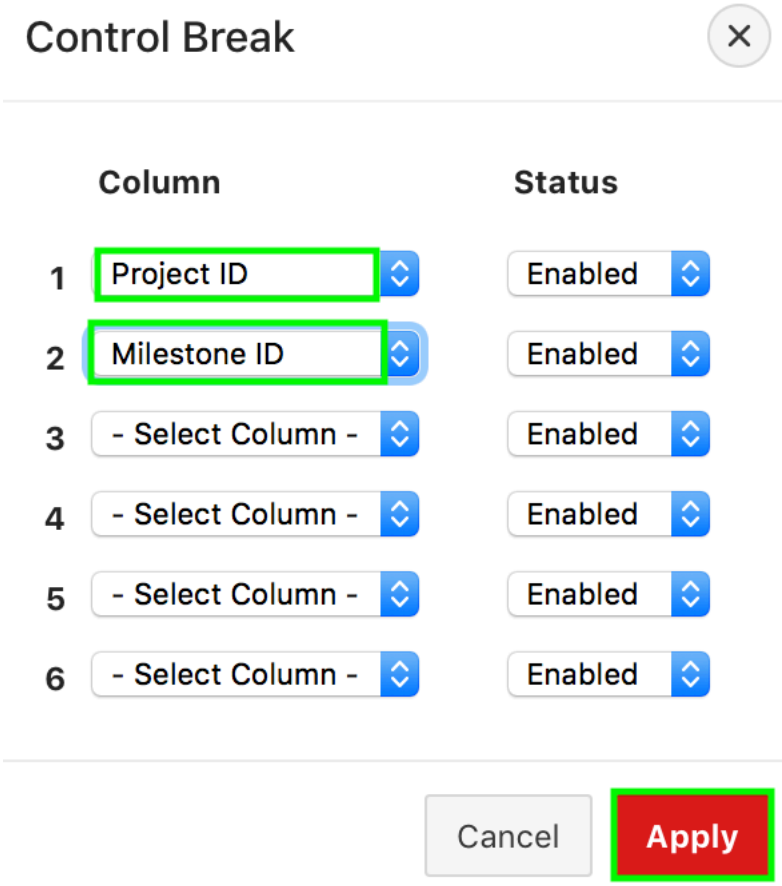
   Make sure to click the up and down buttons to set them accordingly:

Click **Apply**.



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

d) Click **Apply**.



7. Order the records in the ascending order of start date. Select **Actions > Data > Sort**.

8. In the Sort dialog, select **Start Date** for Column 1 and click **Apply**.

9. You want to save the changes made to the primary interactive grid. **Select Actions > Report > Save**.
   For Save, select **As Default Report Settings**.
   Select **Primary** for Default Report Type. Click **Apply**. The default report is now saved for all users.





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