Oracle Application Express: Developing Database Web Applications

Hands-On-Labs Guide

Unit 7: Managing and Customizing Interactive Grids

This exercise includes two hands-on-labs.

Labs HOL 7-1 and HOL 7-2 use the Budget App application.

HOL 7-1: Customizing an Interactive Grid as a Developer: In this lab, you customize the Project Budget Interactive Grid for your end users.

HOL 7-2: Customizing an Interactive Grid as an End User: In this lab, you use and customize the display of your Project Budget Interactive Grid.

HOL 7-1: Customizing an Interactive Grid as a Developer

This lab uses the Budget App application. In this lab, you customize the interactive grid for end users. You create column groups, set pagination type, and set the report downloadable formats that should be available for end users. You also enable end users to save the report as Public interactive grids and convert a read only interactive grid to an editable interactive grid.

1. Navigate to **App Builder** and run the **Budget App** application.
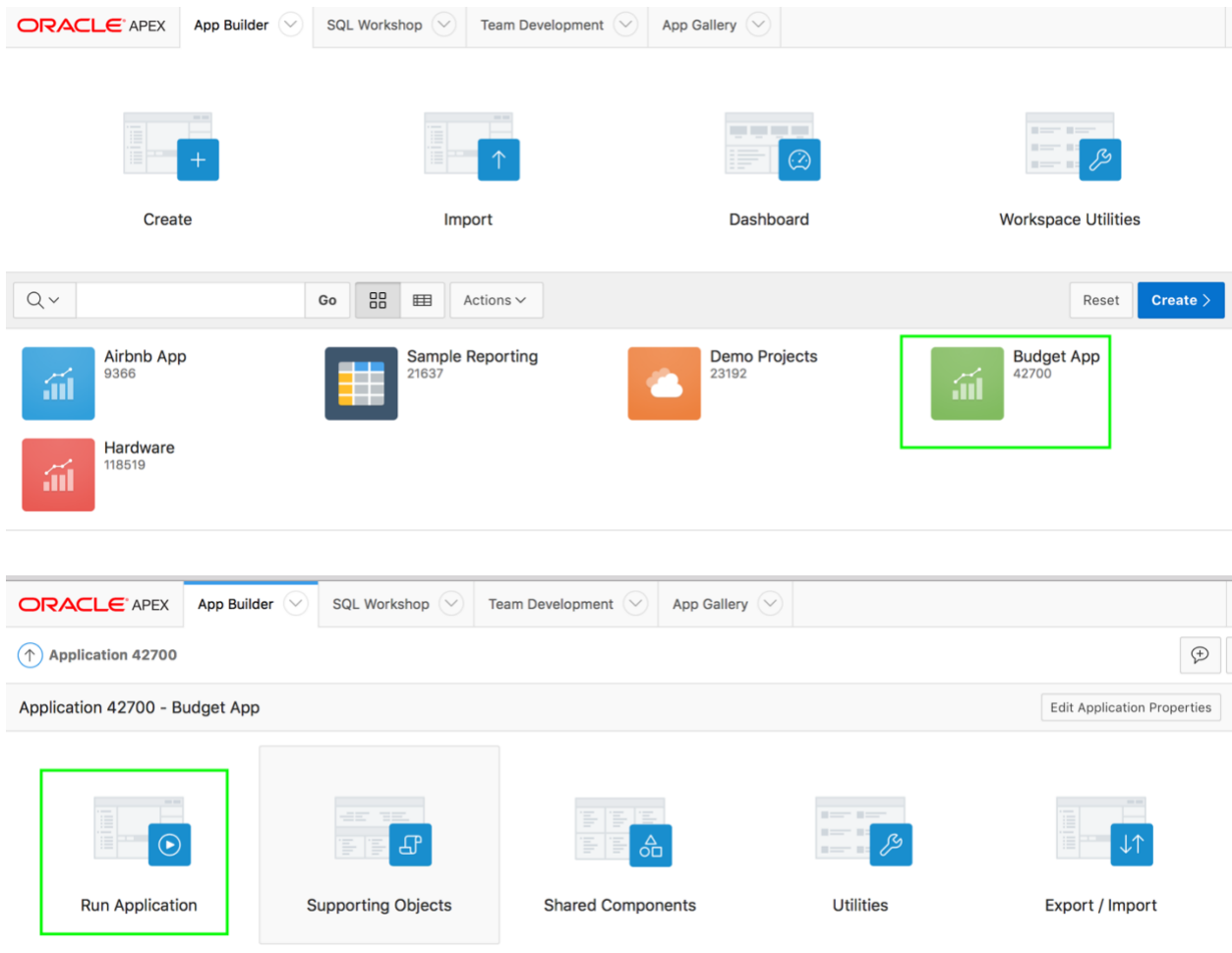
2. In the navigation menu, click **Interactive Grid**. You want to customize the display of this interactive grid for your end users. In the Developer Toolbar, click **Edit Page 7**.

3. Add column group headers to the interactive grid as:
   - Work Breakdown: Project, Task_Name columns
   - Schedule: Start_Date, End_Date columns
   - Project Financing: Cost, Budget columns

   a) In the page designer, under Rendering > Regions, navigate to Project Budget Interactive Grid region and right-click **Attributes**. Select **Create Column Group**.
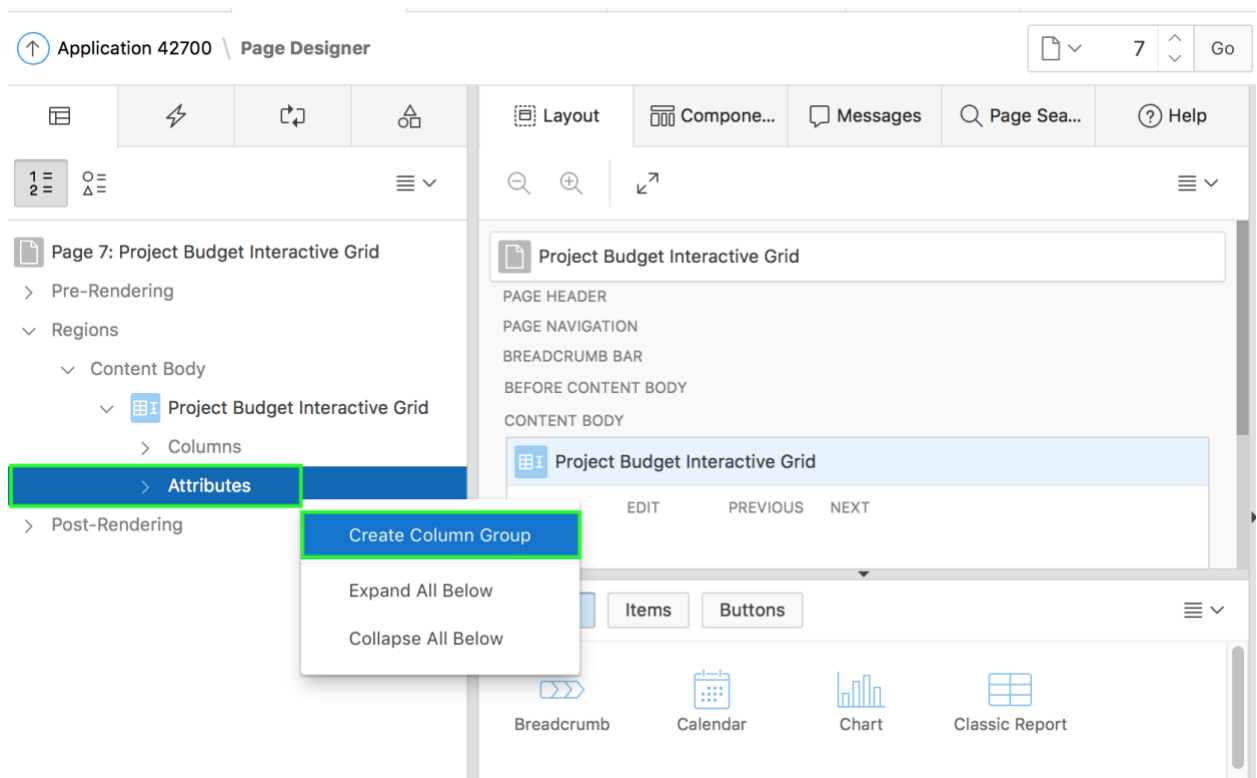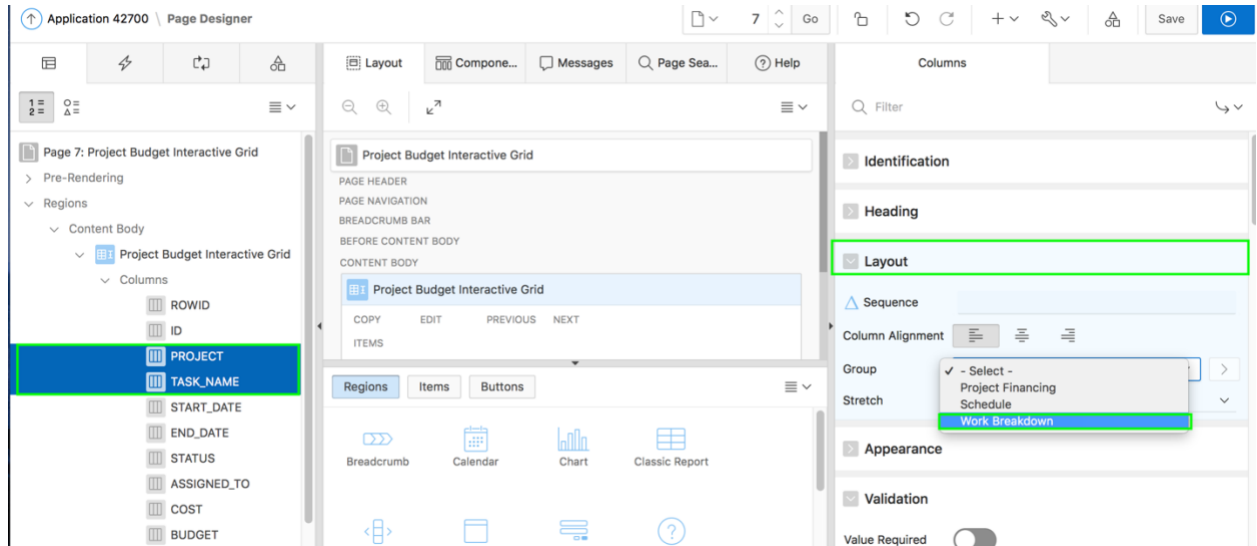
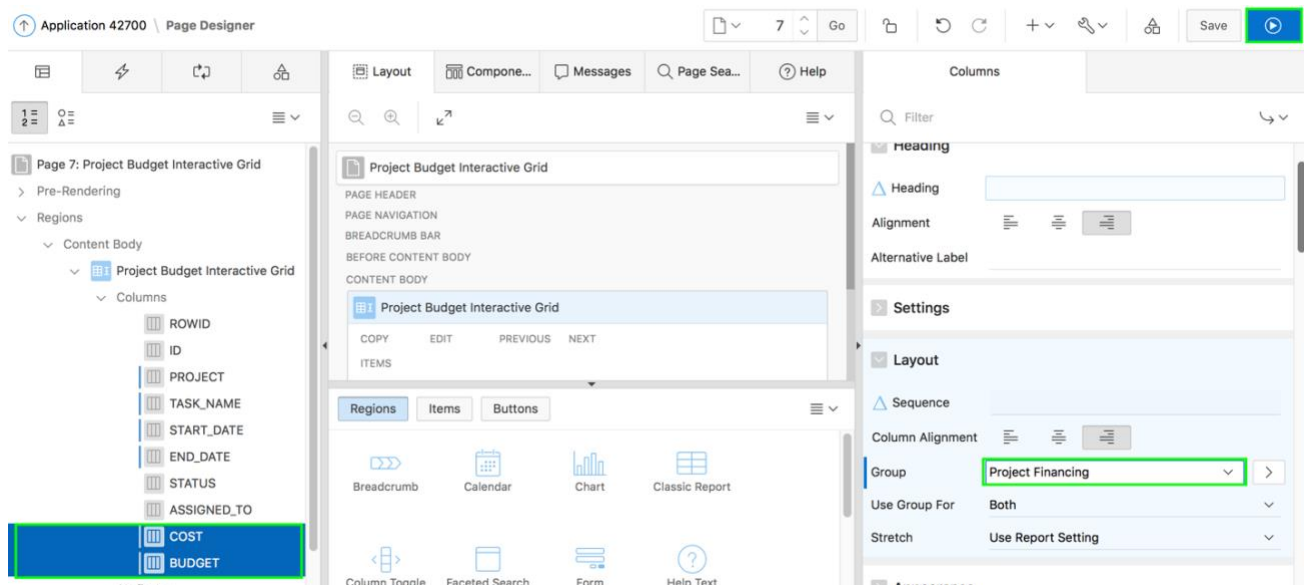b) In the Property Editor, enter **Work Breakdown** for Heading.
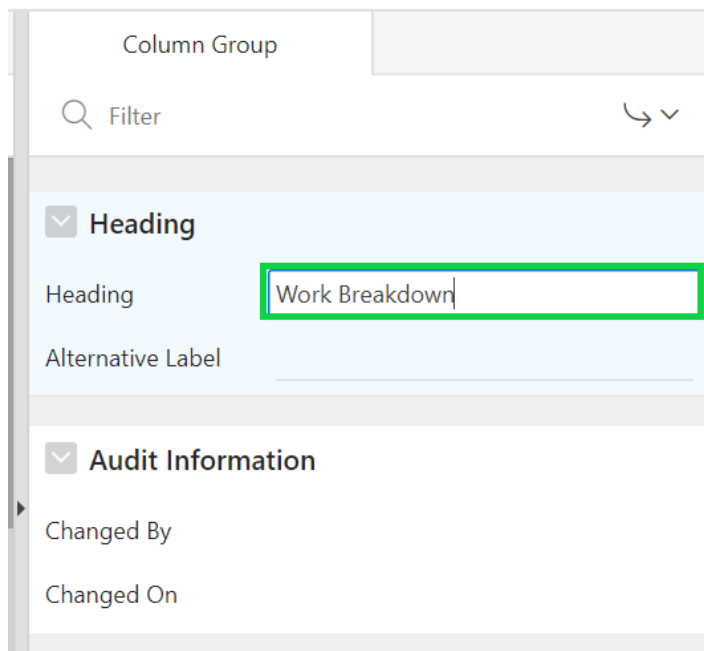
c) Repeat the above two steps a and b to create column groups: **Schedule** and **Project Financing**.

d) Now that you created column groups, you need to assign columns to them. Expand **Columns** and select **Project** and **Task_Name** columns.

e) In the property editor, under Layout, select **Work Breakdown** for Group.

f) Then, select Start_Date and End_Date columns. In the property editor, under Layout, select **Schedule** for Group.

g) Finally, select Cost, and Budget columns. In the property editor, under Layout, select **Project Financing** for Group.

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

h) The interactive grid now displays column groups.

4. Rearrange the columns in the interactive grid. You want to display the column groups Work Breakdown, Schedule, and Project Financing display in order followed by Status and Assigned To.

a) Hover the mouse over the Project Financing column group header to display the drag handle. Your mouse cursor also changes when it comes into contact with the drag handle. Click and hold the drag handle.

b) Then, drag the column group to the Status column location. The heading shifts out of place in the row. The Project Financing column group should be followed by the Status column. Release the mouse. The Project Financing column group drops into place.

Project Budget Interactive Grid

Project Budget Interactive Grid

5. Resize the width of the **Id** column. Click and hold the edge of the column heading and adjust with the mouse.

Project Budget Interactive Grid

6. You want to ensure that end users can save Public interactive grids. You want to exclude HTML from the download formats available to end users. In the Developer Toolbar, click **Edit Page < n >**.
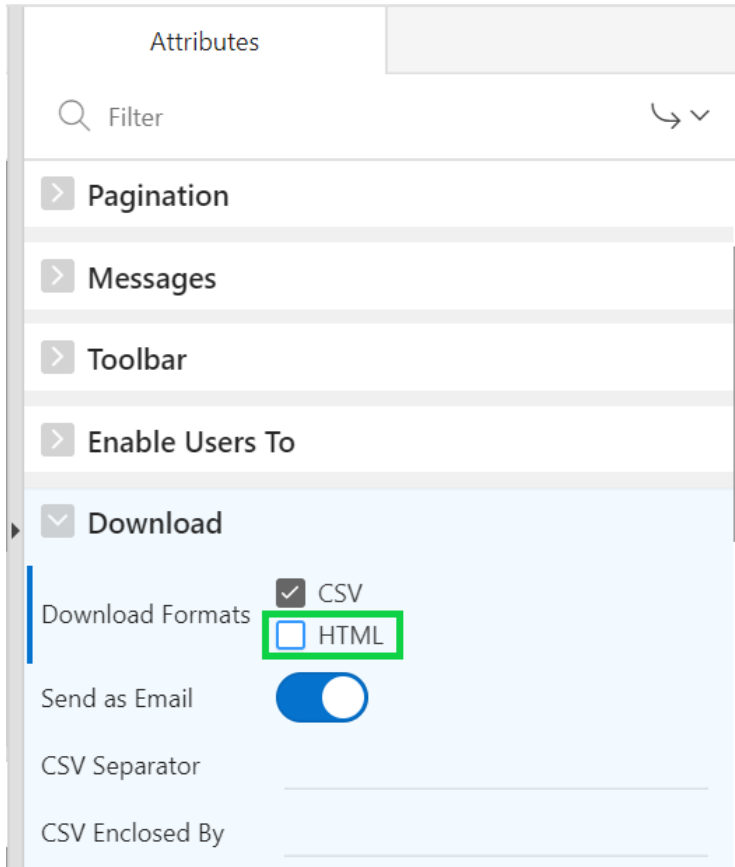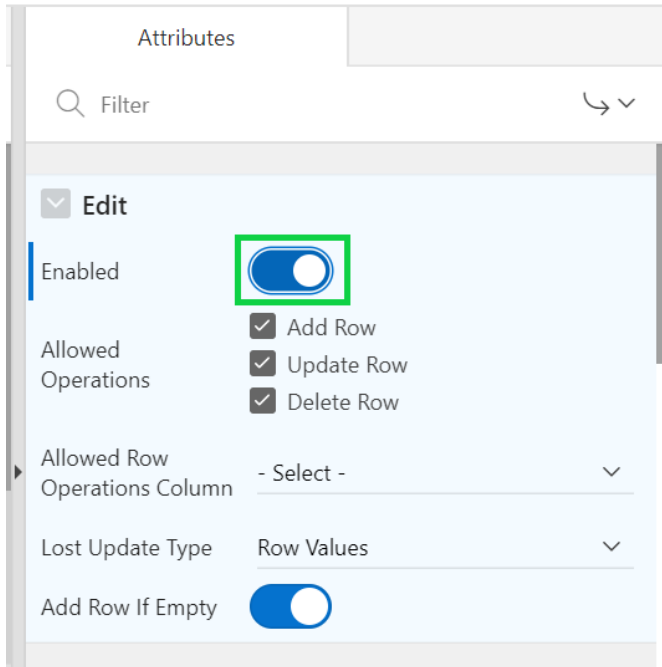
a) Under Rendering, select **Attributes** under the Project Budget Interactive Grid region.
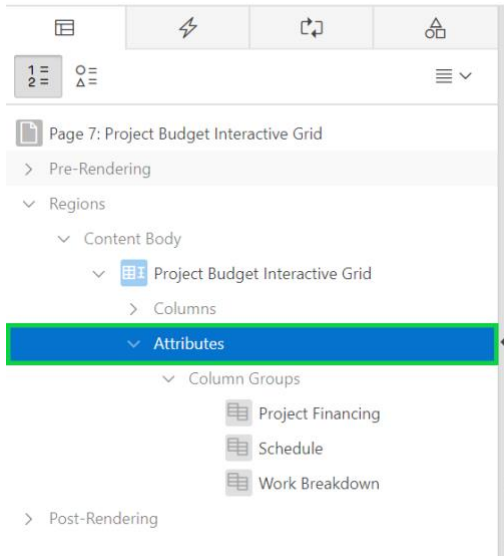
b) In the property editor, under Attributes, navigate to Enable Users To. Click **Save Public Report** to **enable** the feature.
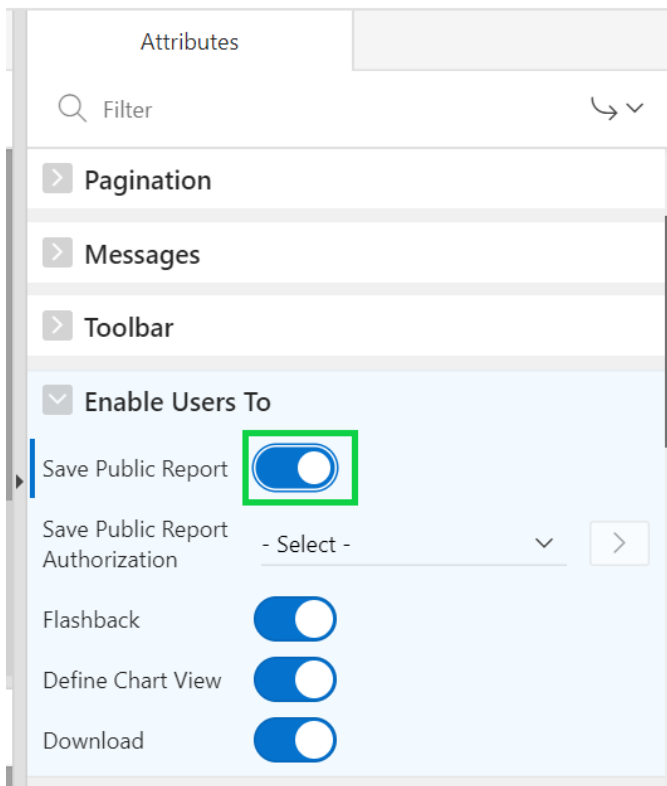
c) Under Download, deselect the **HTML** check box.

7. Convert this read only interactive grid in to an editable interactive grid. Then, reset the pagination as Page type displaying the total row count.

a) Under Rendering, select **Attributes** under the Project Budget Interactive Grid region.

b) In the property editor, navigate to Edit. Click **Enabled**, to turn on the feature.

c) Under Pagination, select **Page** for Type.
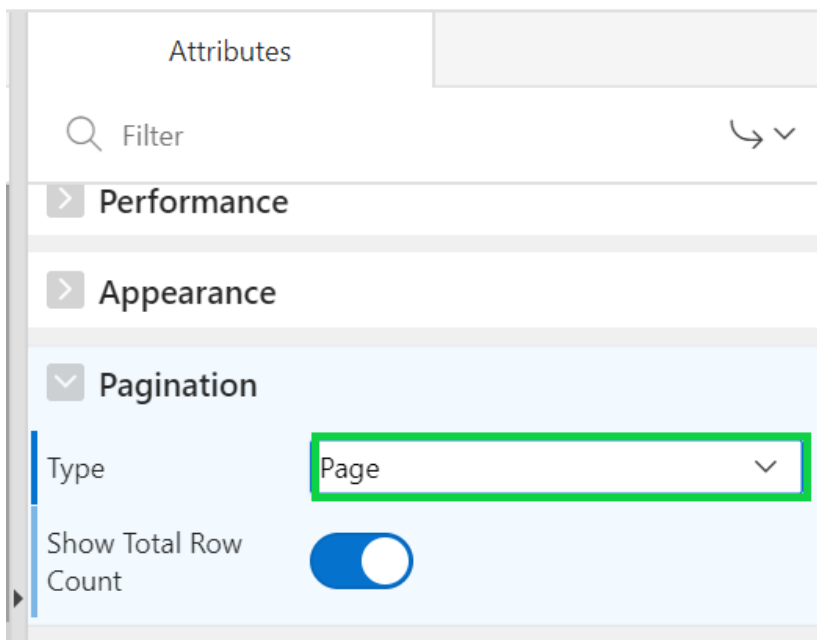
8. Delete the column groups in the interactive grid. Under Rendering > Project Budget Interactive Grid > Attributes, expand Column Groups. Right-click **Project Financing** and click **Delete**. Similarly, delete the Schedule and Work Breakdown column groups.
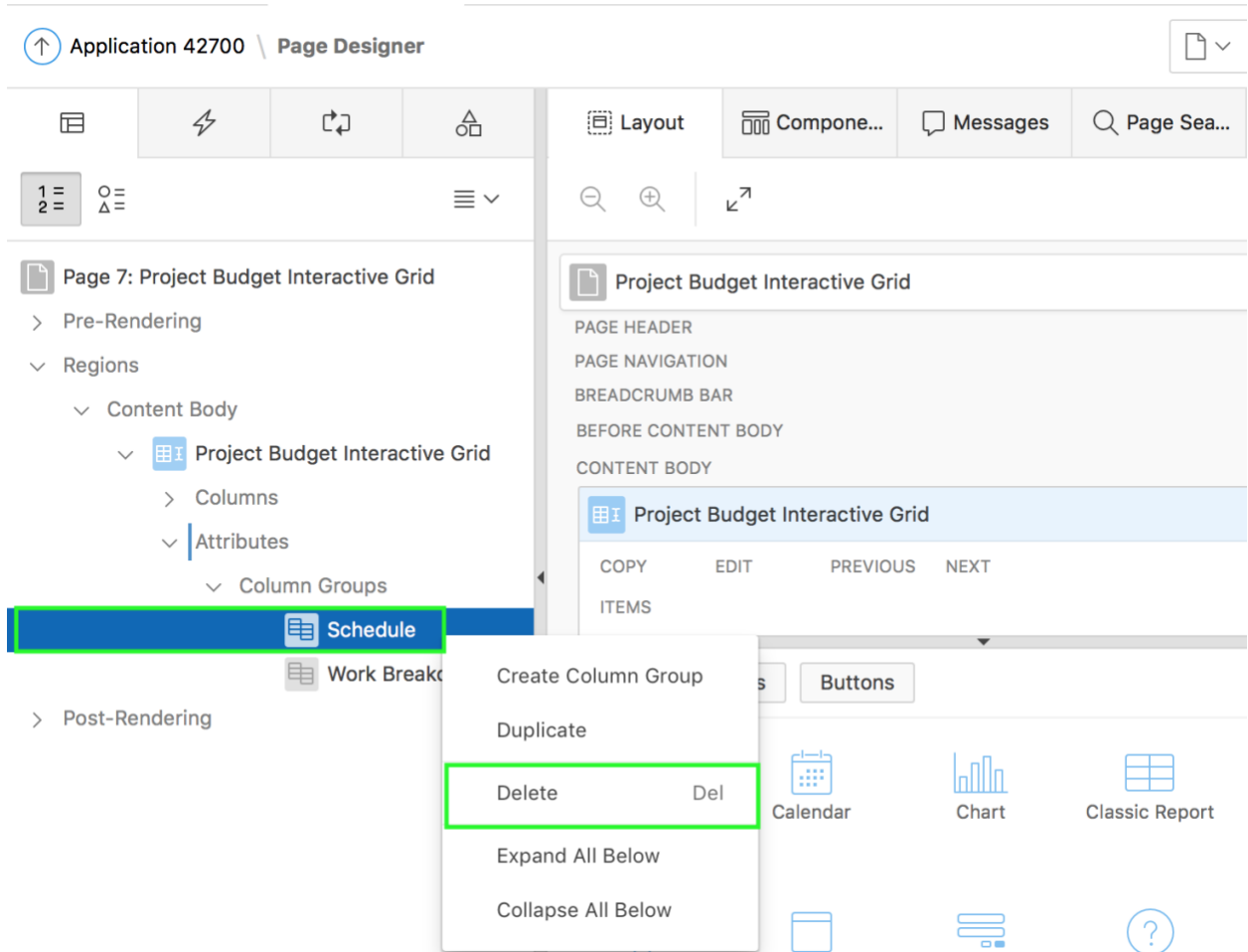
9. You want to exclude the ID column from DML operations. Under Page Rendering > Project Budget Interactive Grid, expand Columns and select **ID**.
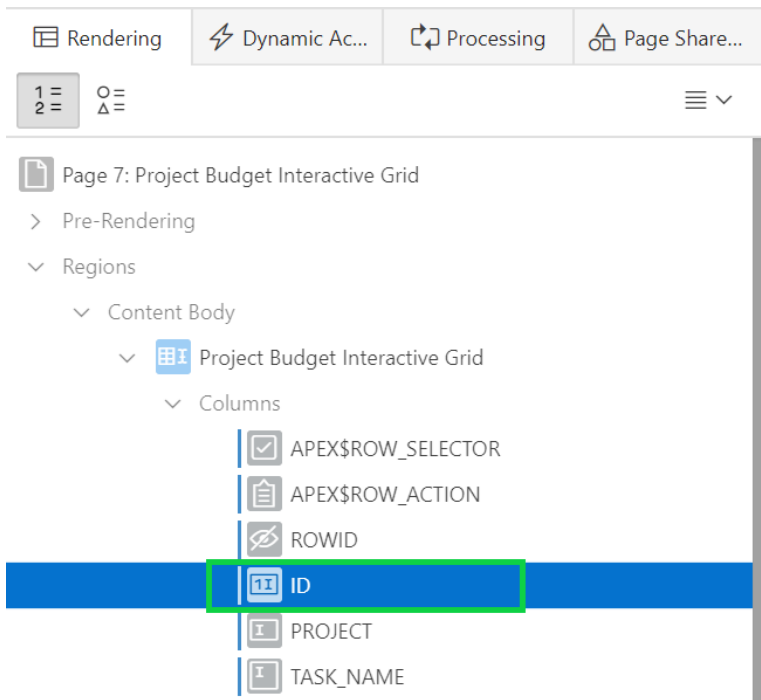
10. In the Property Editor, scroll down to Source. Click **Query Only** to **enable** the feature.
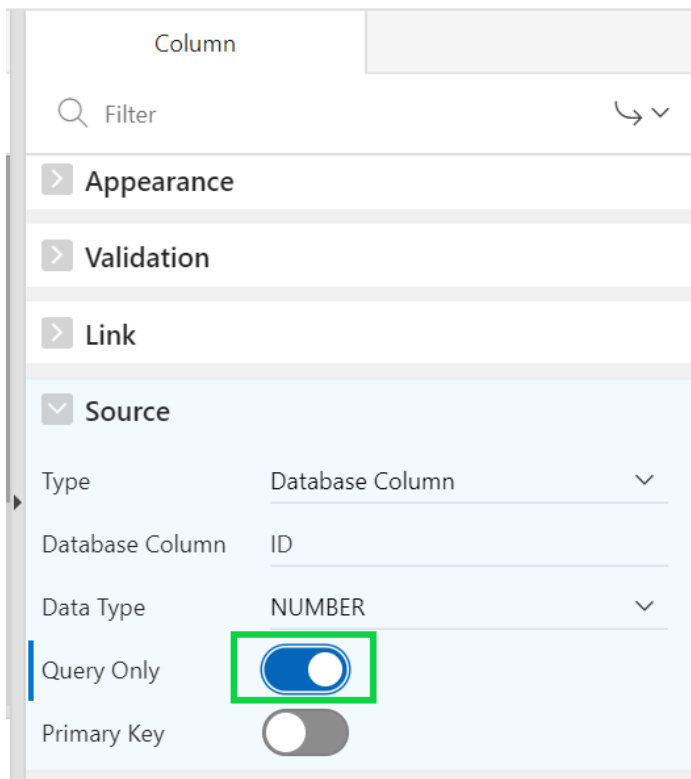
11. Click **Save and Run Page**.

HOL 7-2: Customizing an Interactive Grid as an End User

In this lab, you use and customize the display of your interactive grid. You also edit an editable interactive grid.

1. Notice that the interactive grid is editable now. You see the Edit, Save, and Add Row buttons. Also, the pagination type that you have set is displayed now. Perform a non-case-sensitive search for 'server' on the entire interactive grid.
    To do this, enter **server** in the search bar text area and click **Go**.

Project Budget Interactive Grid

		Id	Project	Task Name	Start...	End ...	Status	Assi...	Cost	Budget
✓	≡	1	ACM...	Identify server requirements	1/26/...	1/27/...	Closed	John ...	200	500
	≡	7	ACM...	Select servers for Development...	2/11/...	2/13/...	Open	Jame...	200	600
	≡	18	Discu...	Install ACME Web Express appl...	1/7/2...	1/7/2...	Closed	Hank ...	100	100
	≡	22	Email...	Get RFPs for new server	2/4/2...	2/5/2...	Closed	Bob ...	2000	1000
	≡	23	Email...	Purchase backup server	2/21/...	2/23/...	Pendi...	Bob ...	0	3000
	≡	27	Client...	Identify pilot Client Server appl...	1/23/...	1/23/...	Closed	Scott ...	200	200
	≡	28	Client...	Migrate pilot Client Server to A...	1/25/...	1/28/...	Closed	Scott ...	4500	5000
	≡	29	Client...	Post-migration review	1/29/...	1/29/...	Closed	Pam ...	500	300

2. Remove the filter by clicking the **X** icon.

    Now, in the search bar, click the magnifying glass and select **Task Name** column.

3. Enter **server** in the text area and click **Go**. Notice that the search is now restricted only to the Task Name column.

4. Remove the filter by clicking the **X** icon. You want to update the budget for the Project with Id 1. Click the field and replace the existing value with **300**.

		Id	Project	Task Name	Start...	End ...	Status	Assi...	Cost	Budget
✓	≡	1	ACM...	Identify server requirements	1/26/...	1/27/...	Closed	John ...	300	500
☐	≡	2	ACM...	Determine Web listener config...	1/28/...	1/28/...	Closed	Jame...	600	500
☐	≡	3	ACM...	Run installation	1/31/...	1/31/...	Closed	Jame...	200	200
☐	≡	4	ACM...	Create pilot workspace	2/2/2...	2/2/2...	Closed	John ...	100	100
☐	≡	5	ACM...	Specify security authentication ...	2/7/2...	2/7/2...	Open	John ...	200	300
☐	≡	6	ACM...	Configure Workspace provisio...	2/8/2...	2/8/2...	Open	John ...	200	100
☐	≡	7	ACM...	Select servers for Development...	2/11/...	2/13/...	Open	Jame...	200	600

5. The changes are not saved yet. Click the **Save** button.
   The changes are saved now.

6. You want to update another row. This time, click the row header for the project with Id 2 and select **Single Row View**.

7. You are now in the single row view of the project with Id 2. Click **Edit**.

8. Replace the existing value for Budget with **800** and click **Save**.
    Then, click **Report View**.

9. The row now displays 800 for Budget.

10. Click **Add Row**. Enter values for all the columns.
    Click **Save**.

11. Click the row header for the row that you just added and select **Delete Row**. Then, click **Save**.

12. You want to review the data that existed few minutes ago. Select **Actions > Data > Flashback**.

13. Enter 5 for Minutes ago and click **Save**.

14. Notice the budget values for projects with Id's 1 and 2.
Click **X** to remove flashback.

15. You want to create a control break on the Project column. Click **Actions > Format > Control Break**.

16. In the Control Break dialog, enter **Project** for Column and click **Save**.
17. The control break is now applied. You want to highlight rows that meet a condition.
Select **Actions > Format > Highlight**.

18. In the Highlight dialog, enter the following:
    - Name: Enter **Project costing greater than 750**
    - Background Color: Click **Colors** and select **Yellow**.
    - Text Color: Click **Colors** and select **Red**.
    - Column: Select **Cost**
    - Operator: Select **greater than**
    - Value: Enter **750**

    Click **Save**.

19. Notice the rows with cost greater than 750 are highlighted.

		Id	Task Name	Start Date	End Date	Status	Assigned...	Cost	Budget
▼		Project: ACME Web Express Configuration							
✓	≡	1	Identify s...	1/26/2018	1/27/2018	Closed	John Wats...	300	500
☐	≡	2	Determin...	1/28/2018	1/28/2018	Closed	James Cas...	600	800
☐	≡	3	Run instal...	1/31/2018	1/31/2018	Closed	James Cas...	200	200
☐	≡	4	Create pil...	2/2/2018	2/2/2018	Closed	John Wats...	100	100
☐	≡	5	Specify se...	2/7/2018	2/7/2018	Open	John Wats...	200	300
☐	≡	6	Configure...	2/8/2018	2/8/2018	Open	John Wats...	200	100
☐	≡	7	Select ser...	2/11/2018	2/13/2018	Open	James Cas...	200	600
▼		Project: Bug Tracker							
☐	≡	8	Documen...	12/12/2017	12/15/2017	Closed	Myra Sutc...	3000	2000
☐	≡	9	Review au...	12/16/2017	12/18/2017	Closed	Myra Sutc...	750	1500
☐	≡	10	Implemen...	12/31/2017	12/31/2017	Closed	Myra Sutc...	100	100
☐	≡	11	Train deve...	1/7/2018	1/12/2018	On-Hold	Myra Sutc...	1000	2000
☐	≡	12	Measure ...	1/19/2018	1/19/2018	Pending	Myra Sutc...	0	500

20. You want to save the changes made to the interactive grid. Select **Actions > Report > Save As**.
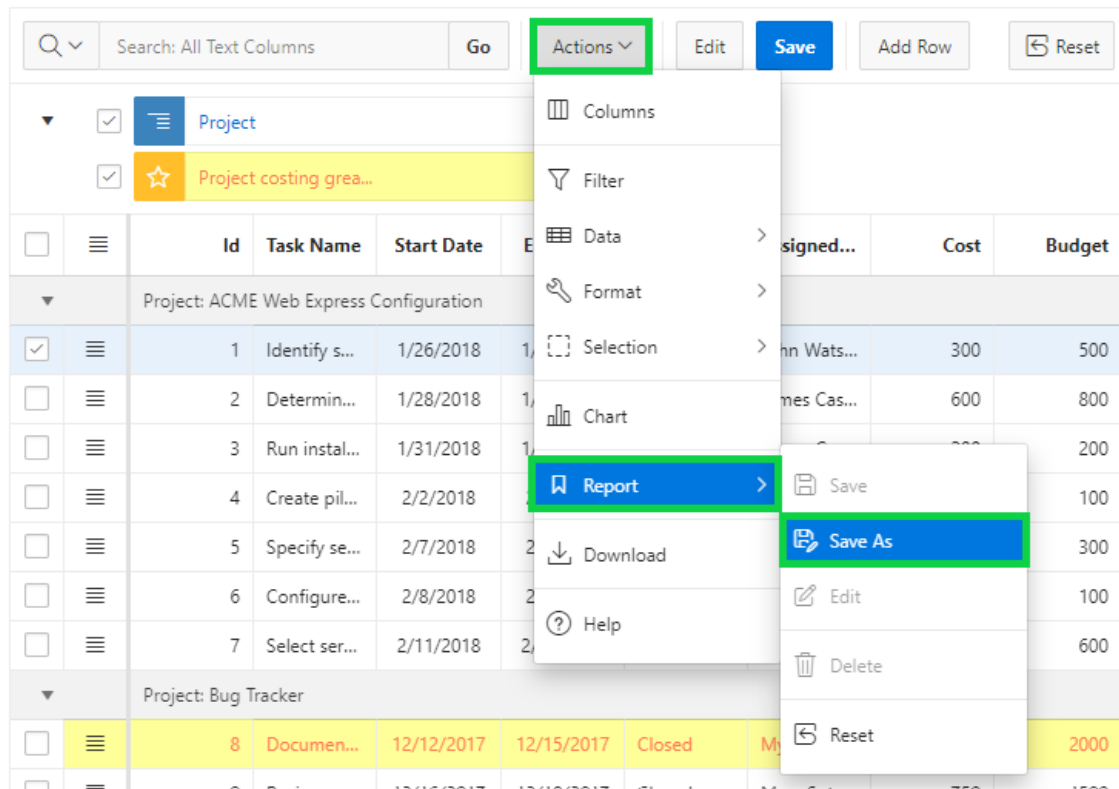
21. In the Report – Save As dialog, select **Private** for Type. Enter **My Private Report** for Name. Click **Save**.

22. Notice that the Primary interactive grid and the interactive grid you saved now are available in the Reports drop down list.
    You want to return back to the Primary interactive grid. Click **Primary Report** in the Reports drop down list.

23. You want to make few more customizations and save the interactive grid as another Private report. You do not want the Start Date, End Date, and Assigned To columns to be displayed in the report.

    Click the **Start Date** column header and then click **Hide**.

Similarly perform the same step for **End Date** and **Assigned To** column.

24. Resize the columns' width using the mouse.

25. You want to add a chart to the interactive grid. Select **Actions > Chart**.

26. In the Chart dialog:
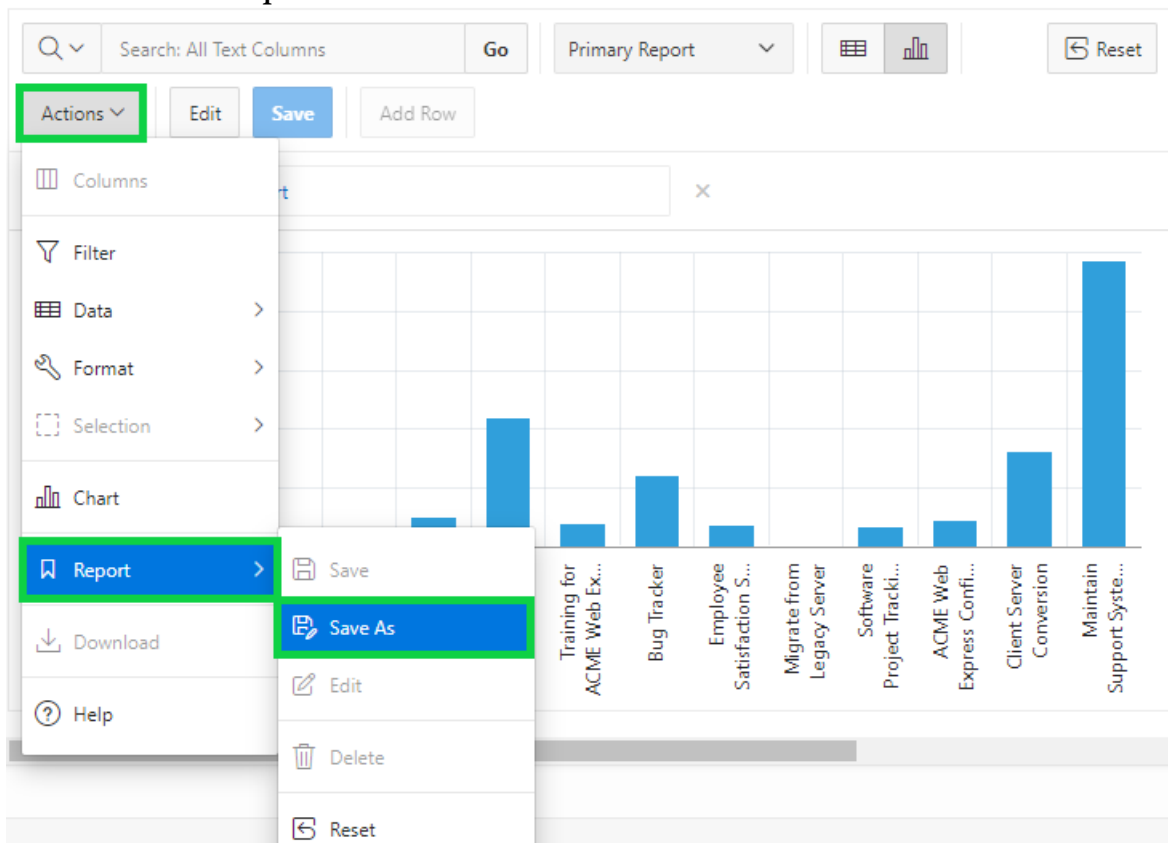   - Type: Select **Bar**
   - Label: Select **Project**
   - Value: Select **Cost**
     - Aggregation: Select **Sum**

Click **Save**.

27. The chart is displayed. You want to save the customization made to the interactive grid.
Select **Actions > Report > Save As**.

28. In the Report – Save As dialog, select **Private** for Type. Enter **My Custom Report** for Name.
Then, click **Save**.

29. The report is now saved under Private in the Reports drop down list. Click the **Grid** icon.
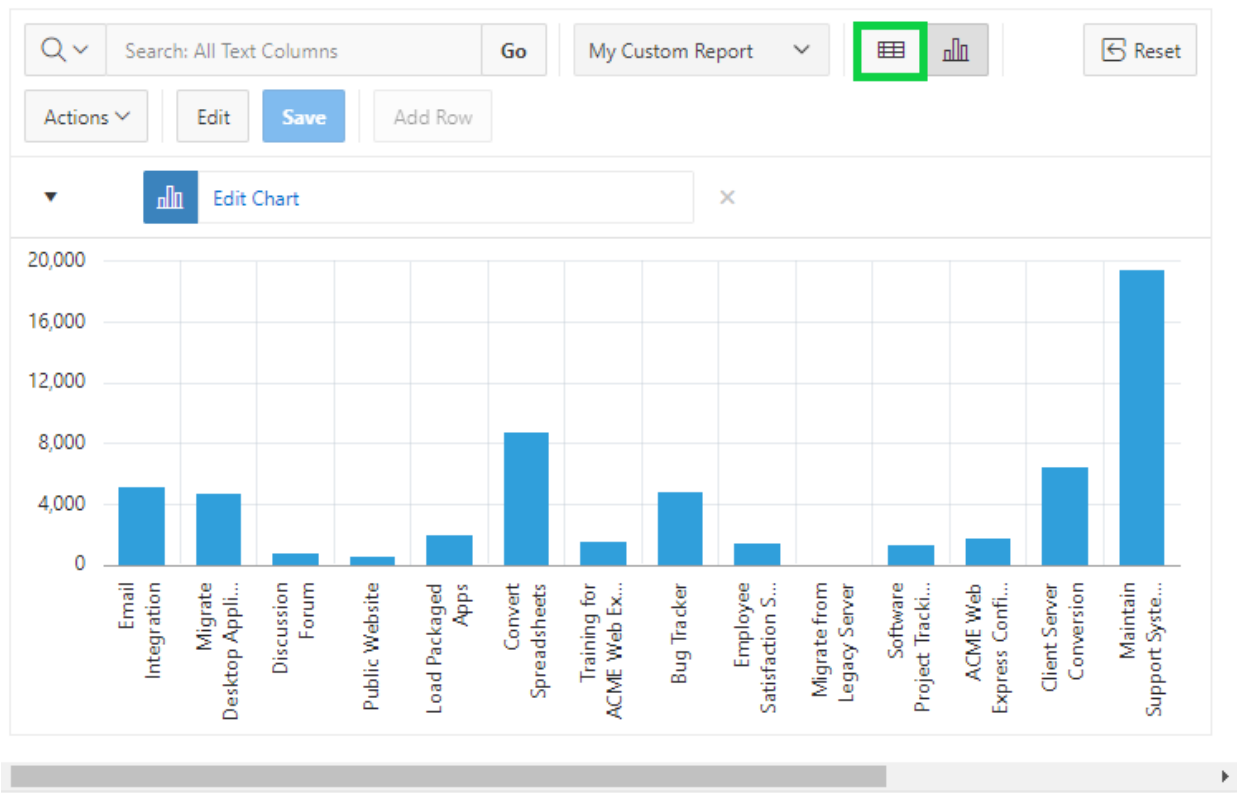
30. You want to download the report. Select **Actions > Download**.

31. Note that the HTML download option is no longer available. Select **CSV** and click **Download**.
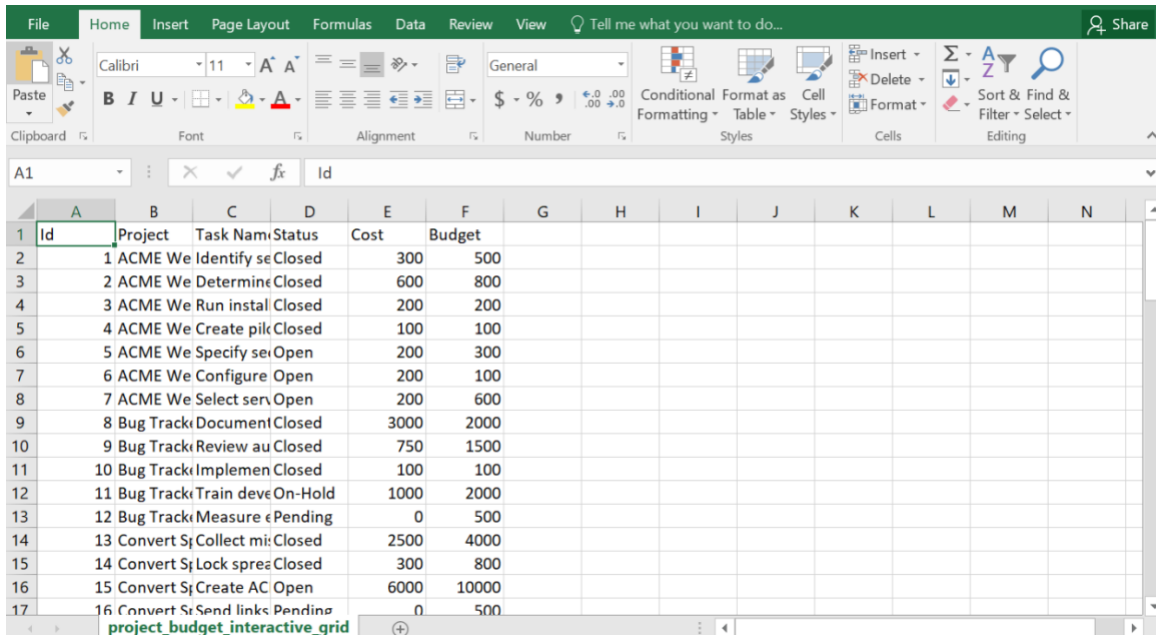
32. The report is now downloaded as CSV.

	A	B	C	D	E	F
1	Id	Project	Task Nam	Status	Cost	Budget
2	1	ACME We	Identify se	Closed	300	500
3	2	ACME We	Determine	Closed	600	800
4	3	ACME We	Run instal	Closed	200	200
5	4	ACME We	Create pil	Closed	100	100
6	5	ACME We	Specify se	Open	200	300
7	6	ACME We	Configure	Open	200	100
8	7	ACME We	Select ser	Open	200	600
9	8	Bug Track	Document	Closed	3000	2000
10	9	Bug Track	Review au	Closed	750	1500
11	10	Bug Track	Implemen	Closed	100	100
12	11	Bug Track	Train deve	On-Hold	1000	2000
13	12	Bug Track	Measure e	Pending	0	500
14	13	Convert S	Collect mi	Closed	2500	4000
15	14	Convert S	Lock sprea	Closed	300	800
16	15	Convert S	Create AC	Open	6000	10000
17	16	Convert S	Send links	Pending	0	500

project_budget_interactive_grid