Designing Dashboards for Mobile Devices

Lab Time: 60 minutes

Lab Folder: C:\Student\Modules\08_Mobile\Lab

Lab Overview: In this lab you will begin by installing the Power BI native app on your mobile device. You should take note that this lab assumes you have a Power BI capable mobile such as an iPhone, an iPad, a Windows 10 phone or an Android phone. After installing the Power BI native app, you will use your mobile device to inspect a few of the reports and dashboard that you created in previous lab exercises in this course. After that, you will use Power BI Desktop to create a new project with a report with a smaller form factor that is especially designed to target mobile devices. Along the way you will also create a tile annotation and configure a data driven alert on a dashboard tile.

Lab Dependency: This lab assume that you have already installed Office 2016 and you can start up Microsoft Excel 2016 to open and modify an Excel workbook. If you have not yet installed Office 2016, go back to the module 1 lab named **Getting Up and Running with the Power BI Service** and go through the steps of **Exercise 2: Install the Desktop Version of Microsoft Office 2016 Pro**.

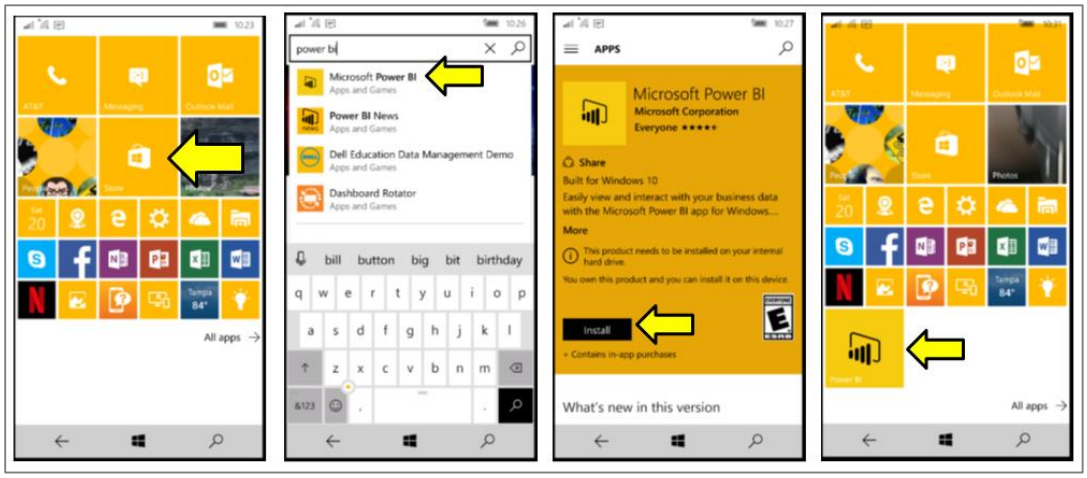
Exercise 1: Install the Native Power BI App on Your Mobile Device

In this exercise you will install the Power BI native app on your mobile device. If you have already installed the Power BI app on your mobile phone, you can skip ahead to exercise 2.

1. Follow these steps if you are installing the Power BI native app on an iPhone or an iPad.
   a) Log into your iPhone or iPad.
   b) Navigate to the Apple App Store.
   c) Search for "power bi" and locate the **Microsoft Power BI app** from Microsoft Corporation.
   d) Tap the download button to download the app.
   e) Once it has been downloaded, install the Power BI app.
   f) Once the Power BI app has been installed, ensure you can see its icon.

2. Follow these steps if you are installing the Power BI app on an Android phone.
   a) Log on to your Android device.
   b) Navigate to the Google App Store.
   c) Search for "power bi" and locate the **Microsoft Power BI app** from Microsoft Corporation.
   d) Tap the button to download and install the app.
   e) Once the Power BI app has been installed, ensure you can see its icon.

3. Follow these steps if you are installing the Power BI app on Windows 10 phone.
   a) Log into your Windows 10 phone.
   b) Navigate to the Microsoft App Store.
   c) Search for "power bi" and locate the **Microsoft Power BI app** from Microsoft Corporation.
   d) Tap **Microsoft Power BI** and then Tap the Install button to install the app.
   e) Once the Power BI app has been installed, locate it in the apps screen and pin it to the Windows phone start screen.

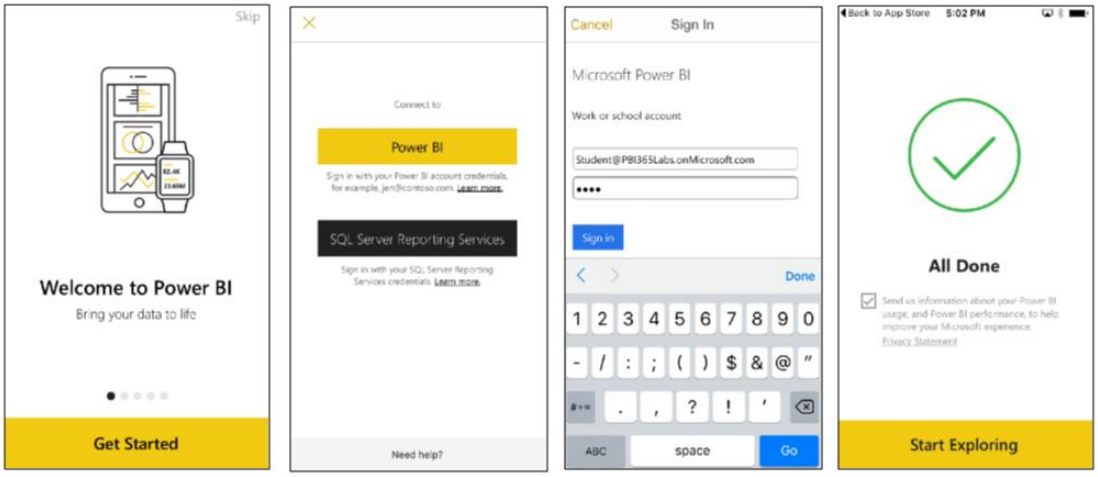


Now that you have the Power BI app installed on your mobile app, it's time to login and begin navigating around the Power BI service.

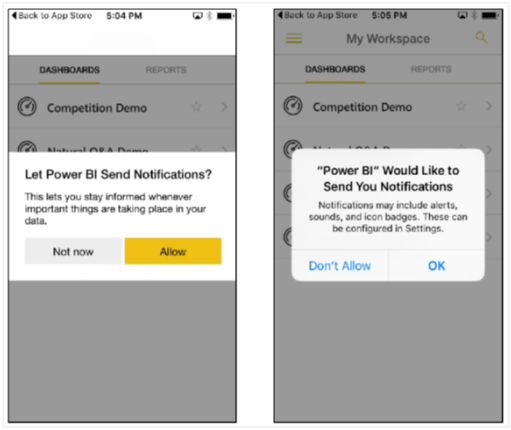
Exercise 2: Navigate Around in the Power BI Service using your Mobile Device

In this exercise you will use your mobile device to login to the Power BI service so you can become familiar with navigating around in the Power BI environment and switching back and forth between dashboards, reports and workspaces.

1. Start up the Power BI app and log into the Power BI service on your mobile device.
   a) Launch the Power BI app.
   b) If this is the first time you have launched the Power BI app, you will see the Welcome screen. Tap the **Get Started** button.
   c) When you are prompted with the **Connect To** screen, tap the **Power BI** button to display the **Sign In** screen.
   d) On the **Sign In** screen, log in using the account name and the password for your primary Office 365 account.
   e) Once you have logged in, tap the **Start Exploring** button.

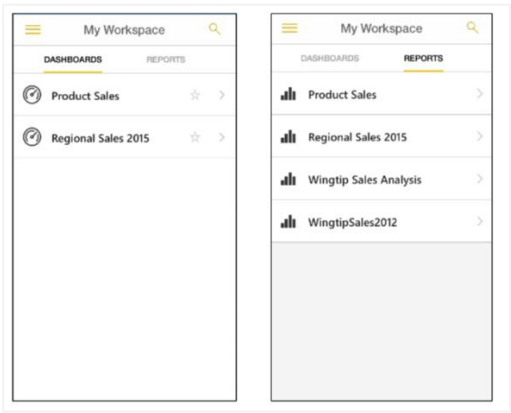


f) When you are prompted whether to let Power BI send you notifications, tap **Allow** and then **OK**.

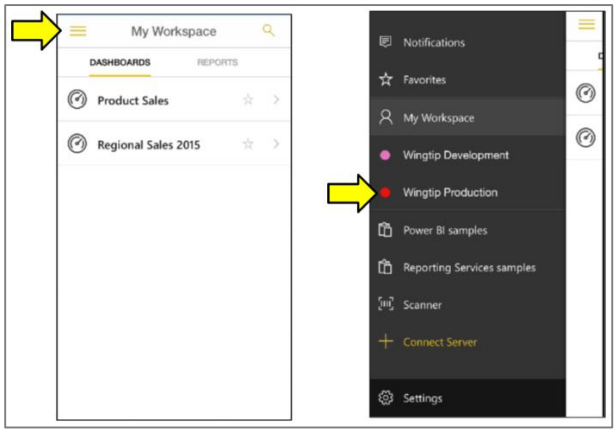


At this point, your mobile device should display the contents of your personal workspace named **My Workspace**.

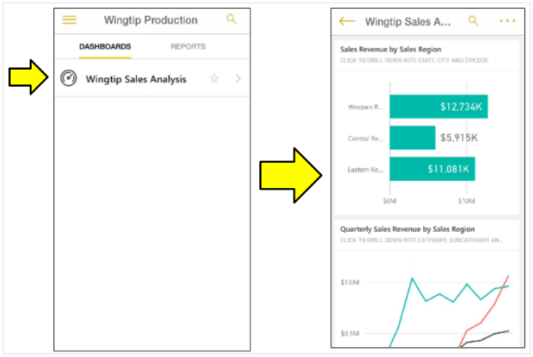
2. Inspect the dashboards and reports in your personal workspace.
   a) Examine the set of dashboards in your personal workspace. They should be familiar.
   b) Tap the **REPORTS** button to examine the set of reports in your personal workspace. These should be familiar as well.



3. Navigate to the **Wingtip Production** workspace.
   a) Tap the button in the top left corner with the three horizontal lines to drop down the main flyout menu.
   b) Locate and tap the workspace named **Wingtip Production** to move between workspaces.



4. Inspect the **Wingtip Sales Analysis** dashboard.
   a) Within the **Wingtip Production** workspace, you should see a dashboard named **Wingtip Sales Analysis**.
   b) Tap on the **Wingtip Sales Analysis** to open this dashboard.



   c) Scroll down to bottom of the screen so you can inspect all the tiles in the dashboard.
   d) Turn your mobile device on its side to enter Landscape Mode. After a second, the Power BI app should render the dashboard in landscape mode where it displays all the tiles in the dashboard in a single view.

   e) Tap the arrow in the top left corner of the screen to navigate back to the main screen for the **Wingtip Production** workspace.

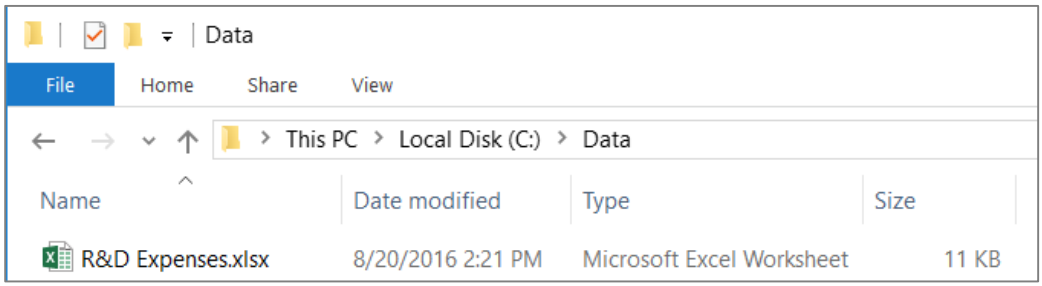
5. Inspect the **Wingtip Sales Analysis** report.
   a) Tap the **REPORTS** button to display the set of report in the current workspace.
   b) Tap the **Wingtip Sales Analysis** report to open it.
   c) Experiment with the report by moving from page to page.
   d) Try to use the slicers on various pages to filter the visible content.

In this exercise, you will likely observe that the **Wingtip Sales Analysis** dashboards provides a better user experience when you compare it to the **Wingtip Sales Analysis** report. When viewing a report that has been designed for a larger form factor, you will find that the report pages can be hard to read. You will also find that the interactive slicers are hard to use because they are so small. In the next exercise, you will design a new report with Power BI Desktop that is specifically designed to look good on a mobile device.

Exercise 3: Create a Report Designed Specifically for Mobile Devices

In this exercise you will create a new report and dashboard for mobile devices using Power BI Desktop.

1. Copy the Excel workbook named **R&D Expenses.xlsx** into a new folder at **C:\Data**.
   a) Launch Windows Explorer.
   b) Create a new folder at the root of the **C:** drive named **Data**.
   c) Locate the excel workbook file named **R&D Expenses.xlsx** in the folder at **C:\Student\Modules\08_Mobile\Lab**.
   d) Copy the Excel workbook file named **R&D Expenses.xlsx** to **C:\Data**.



2. Inspect the contents of the **R&D Expenses.xlsx** workbook file in Excel 2016.
   a) Using the mouse, double-click on **R&D Expenses.xlsx** to open this Excel workbook file in Excel 2016.
   b) Examine the contents of this workbook.

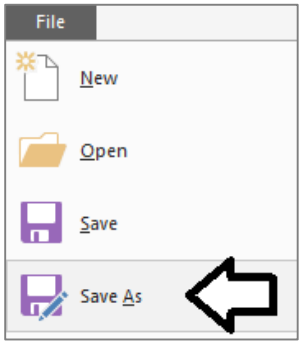
	A	B	C	D	E
1	Expense	Date	Amount	Category	Purchaser
2	iToy Testing Service	1/15/2016	$1,895.00	Online Services	Fred
3	Linux Server	1/28/2016	$2,750.00	Hardware	Jed
4	Surface Book Pro	2/15/2016	$1,895.00	Hardware	Ted
5	Microsoft Azure	1/28/2016	$104.34	Online Services	Ted
6	Microsoft Azure	2/28/2016	$98.45	Online Services	Ted
7	SPTechCon	3/4/2016	$1,780.00	Conferences	Jed
8	Microsoft Azure	3/28/2016	$102.43	Online Services	Ted
9	Linux Server	4/1/2016	$2,734.34	Hardware	Fred
10	InventHelp Patent Service	4/9/2016	$2,208.00	Online Services	Jed
11	iToy Testing Service	4/15/2016	$1,895.00	Online Services	Fred
12	Microsoft Azure	4/28/2016	$122.33	Online Services	Ted
13	iPad	5/14/2016	$895.00	Hardware	Ted
14	Microsoft Ignite	5/22/2016	$1,495.00	Conferences	Jed
15	Microsoft Ignite	5/22/2016	$1,495.00	Conferences	Ted
16	Microsoft Azure	5/28/2016	$78.32	Online Services	Ted
17	Microsoft Azure	6/28/2016	$103.50	Online Services	Ted
18	iToy Testing Service	7/15/2016	$1,895.00	Online Services	Fred
19	Microsoft Azure	7/28/2016	$111.12	Online Services	Ted
20	10 Rasberry Pi 3 Devices	8/2/2016	$750.00	Hardware	Jed
21	Dell M4600	8/12/2016	$3,223.34	Hardware	Ted
22	ToyCon, Las Vegas	8/15/2016	$1,800.00	Conferences	Fred
23	ToyCon, Las Vegas	8/15/2016	$1,800.00	Conferences	Jed
24	ToyCon, Las Vegas	8/15/2016	$1,800.00	Conferences	Ted
25	Microsoft Azure	8/28/2016	$87.34	Online Services	Ted
26					

Expenses

   c) You should see that the Excel workbook contains a single worksheet named **Expenses** containing a table of R&D expenses.
   d) Once you have looked at the workbook, close Excel without saving any changes to **R&D Expenses.xlsx**.

Over the next few steps, you will create a new Power BI Desktop project which uses the expense data in to **R&D Expenses.xlsx** to create a simple data model and a report that is specifically designed to look good on a mobile device.

3. Open Power BI Desktop if it is not already open.
   a) Power BI Desktop should now be open with a new and empty project.
   b) Before beginning your work, save the empty project as a new PBIX file by dropping down the **File** menu and clicking **Save As**.

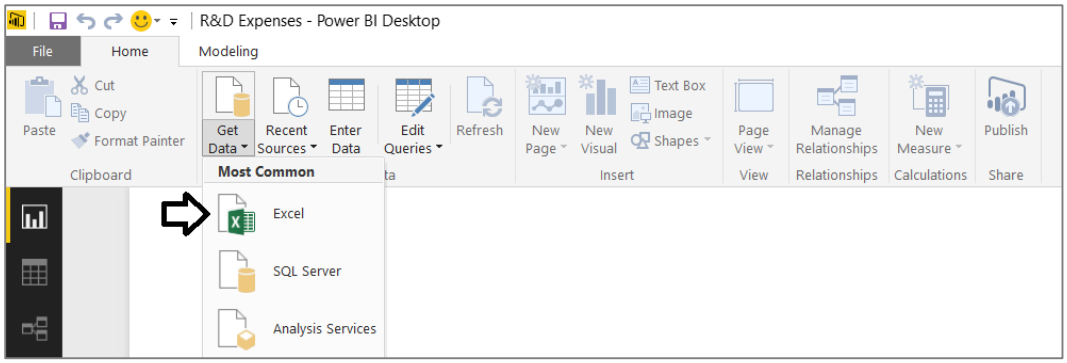


   c) Save the PBIX file as **R&D Expenses.pbix** using the following path location.

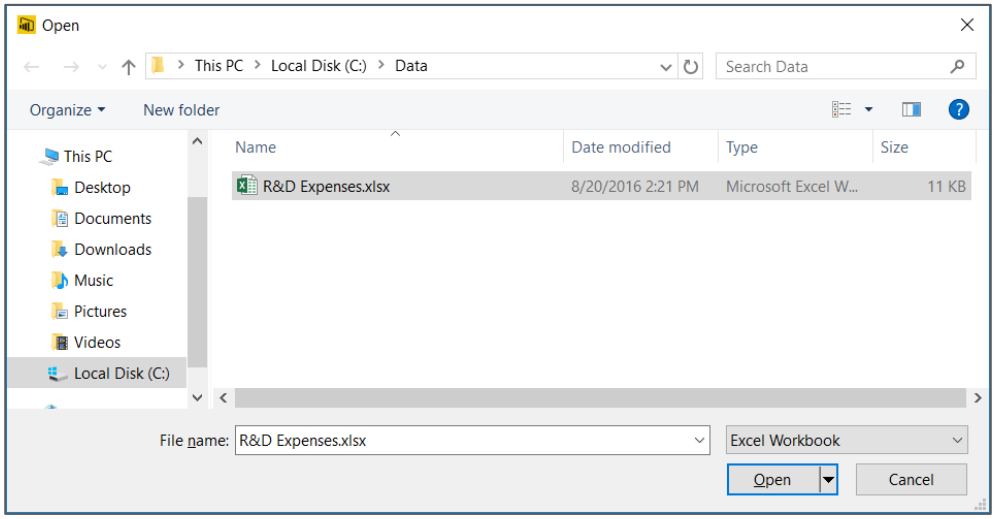
```
C:\Student\Projects\R&D Expenses.pbix
```

   d) Click the **Save** button on the **Save As** dialog to save the PBIX file.

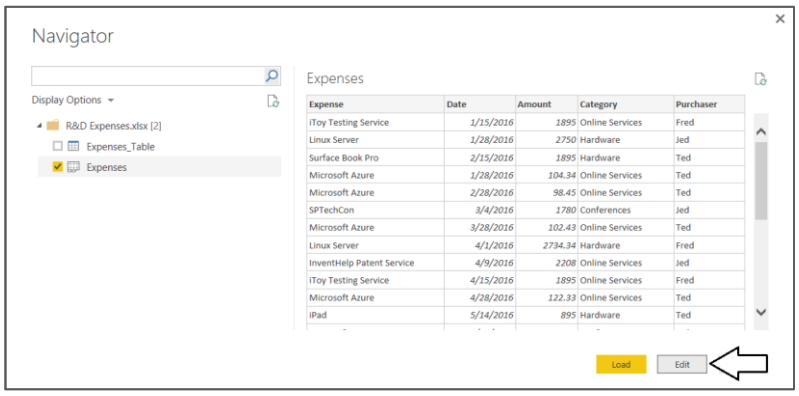
4. Import the expense data from the **R&D Expenses.xlsx** workbook file to create the **Expenses** table.
   a) Drop down the **Get Data** menu and click **Excel**.



   b) When prompted by the **Open** dialog, select the workbook file at **C:\Data\R&D Expenses.pbix**. and click **Open**.

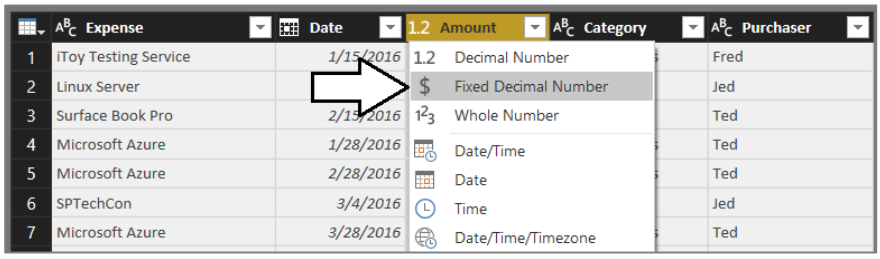


c) When you see the **Navigator** dialog, check the **Expenses** checkbox and then click **Edit** as shown in the following screenshot.

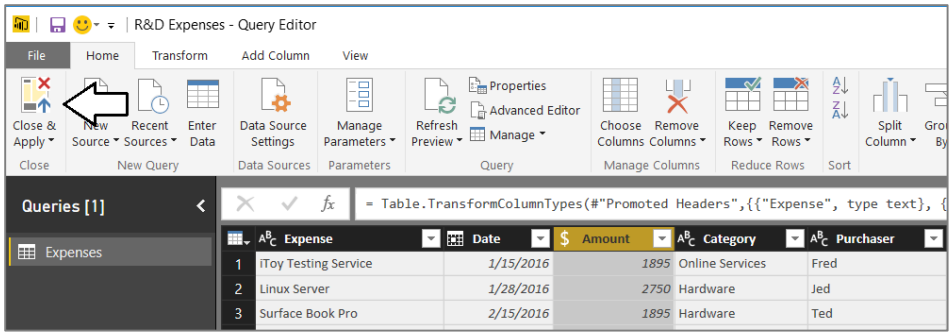


d) In the Query Editor window, examine the columns which are being imported.

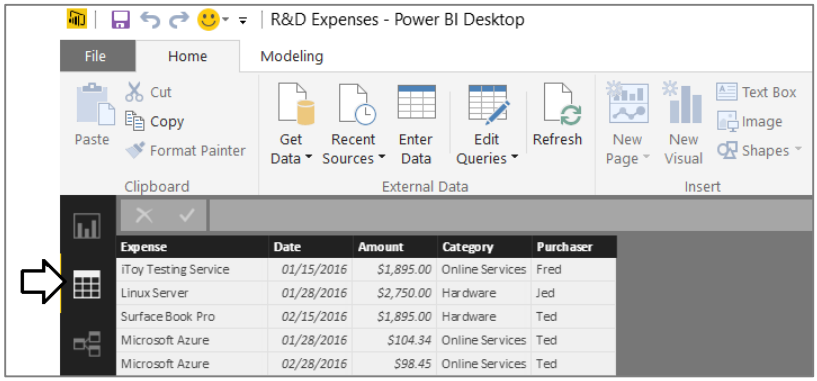
e) Use the drop down menu to change the datatype for the **Amount** column to **Fixed Decimal Number**.



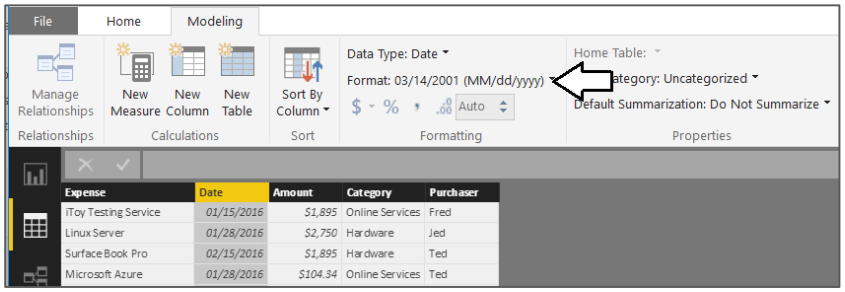
f) Click the **Close & Apply** button to close the Query Editor window and import the expense data into the project's data model.



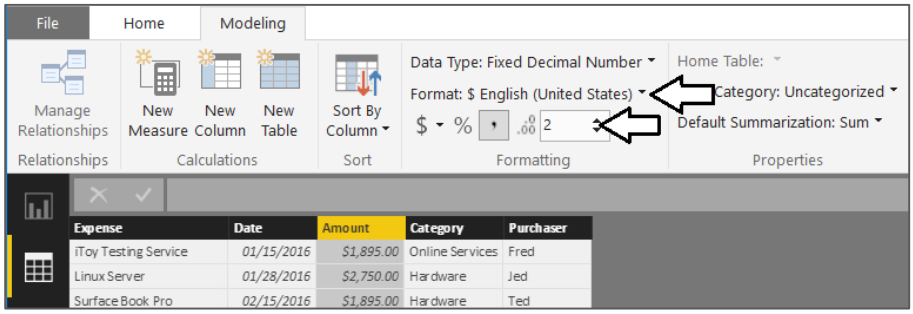
g) In the main Power BI Desktop window, navigate to Data View and examine the new **Expenses** table.



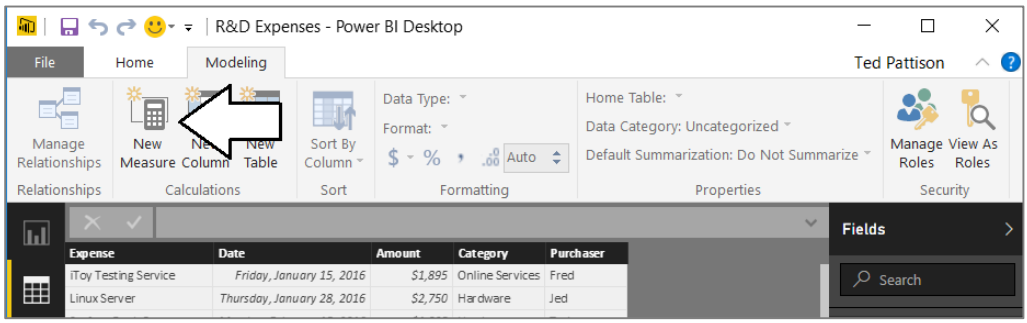
5. Apply formatting to columns in the **Expenses** table.
   a) Format the **Date** column with a format of **MM/dd/yyyy** as shown in the following screenshot.



   b) Format the **Amount** column as **$ English (United States)** with **2** places of precision.



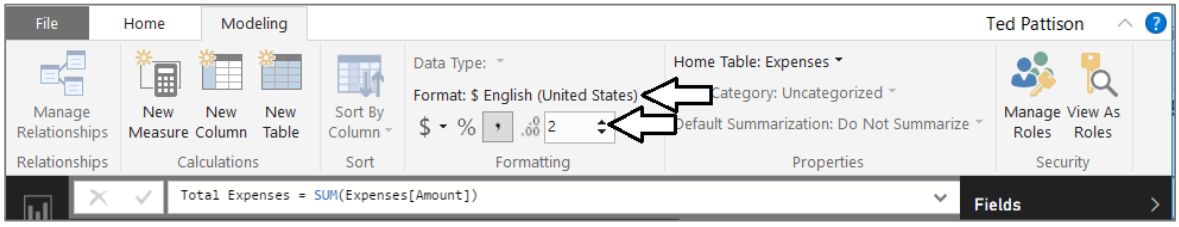
6. Create a new measure named **Total Expenses** to calculate an aggregated sum of all expenses.
   a) Click the **New Measure** button in the ribbon to create a new measure.



   b) Enter to following DAX expression into the formula bar to create the calculated column named **Total Expenses**.

```
Total Expenses = SUM(Expenses[Amount])
```

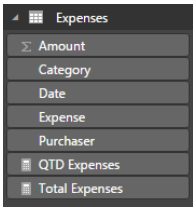
   c) Press the **ENTER** key to add the calculated column to data model.
   d) Modify the formatting by dropping down the **Format** menu on the ribbon and selecting **Currency > $ English (United States)**. Also use the spinner control below the **Format** menu to set the number of decimal places shown to 2.



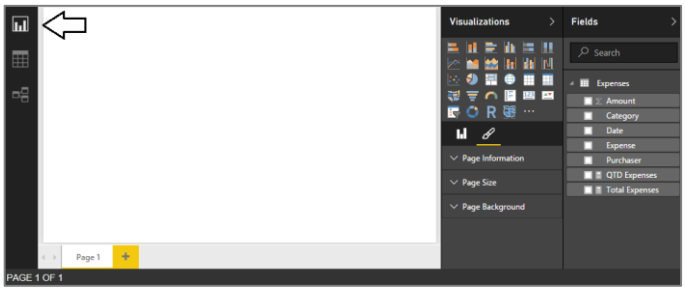
7. Create a new measure named **QTD Expenses** to calculate an aggregated sum of all expenses in the current quarter.
   a) Click the **New Measure** button in the ribbon to create a new measure.
   b) Enter to following DAX expression into the formula bar to create the calculated column named **Total Expenses**.

```
QTD Expenses = TOTALQTD(SUM(Expenses[Amount]), Expenses[Date])
```

   c) Press the **ENTER** key to add the calculated column to data model.
   d) Modify the formatting by dropping down the **Format** menu on the ribbon and selecting **Currency > $ English (United States)**. Also use the spinner control below the **Format** menu to set the number of decimal places shown to 2.
   e) At this point, the **Expenses** table should now contain the two measures you just created.

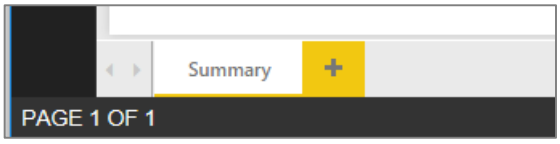


8. Use the left navigation to move over to Report View.

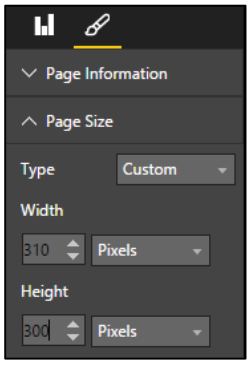


You should be able to see that the project's report initially contains a single page named **Page 1**.

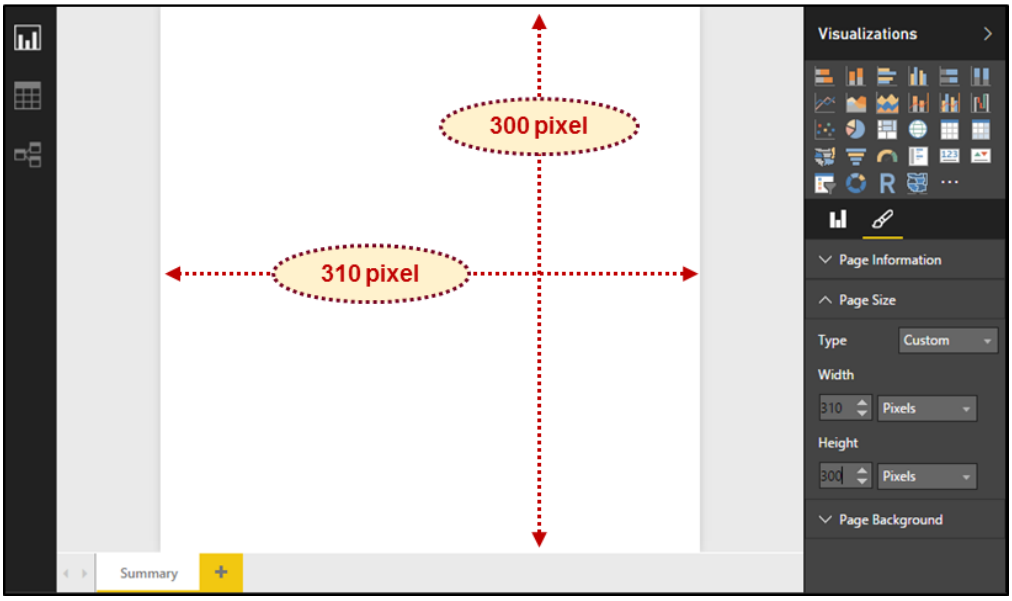
9. Rename the report page from **Page 1** to **Summary**.



10. Modify the width and height of the page to create a mobile-friendly report.
   a) Navigate to the Format properties pane for the current page and locate the **Page Size** section.
   b) Update the page **Width** property to **310 pixels** and the page **Height** property to **300 pixels**.

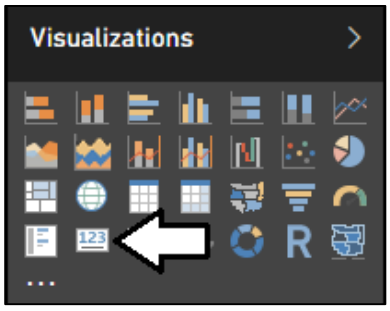


c) Now you have updated the page size to a width and height that is mobile friendly.

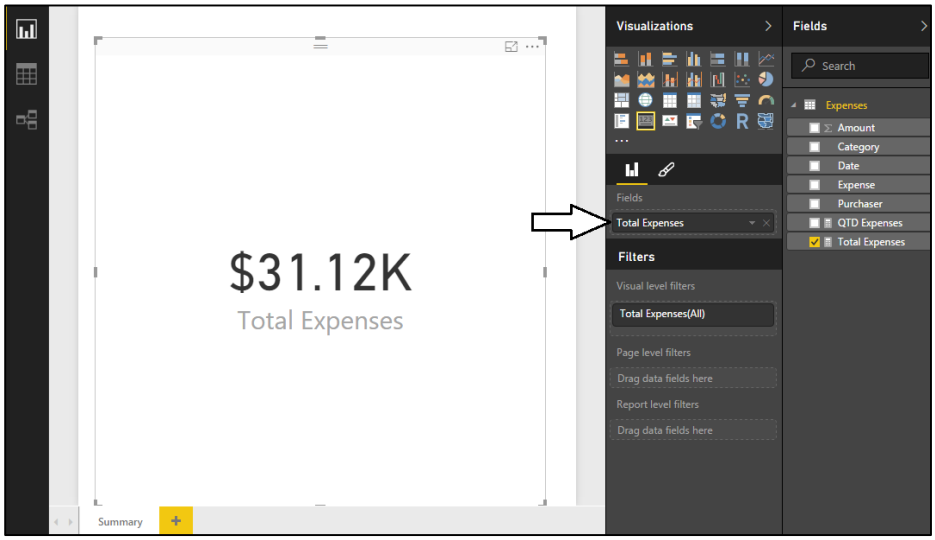


11. Add a Card visual to the page to display the value of the **Total Expenses** measure.

a) Click the button for the **Card** visual to add a new visual instance to the page.

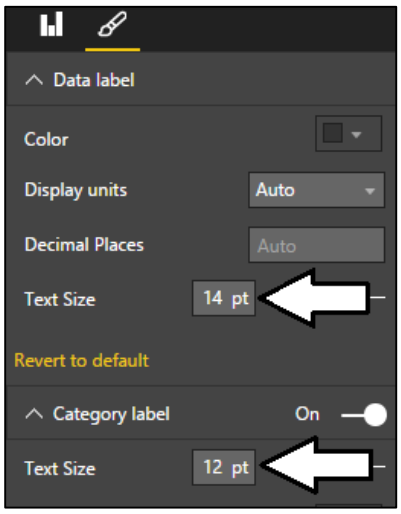


b) Drag the **Total Expenses** measure into the **Fields** well of the Card visual.



c) Modify the **Text Size** of the **Data label** to **14 pt**.

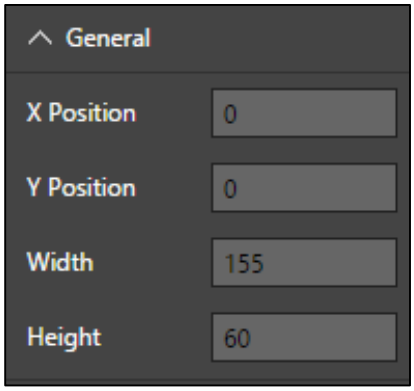
d) Modify the **Text Size** of the **Category label** to **12 pt**.



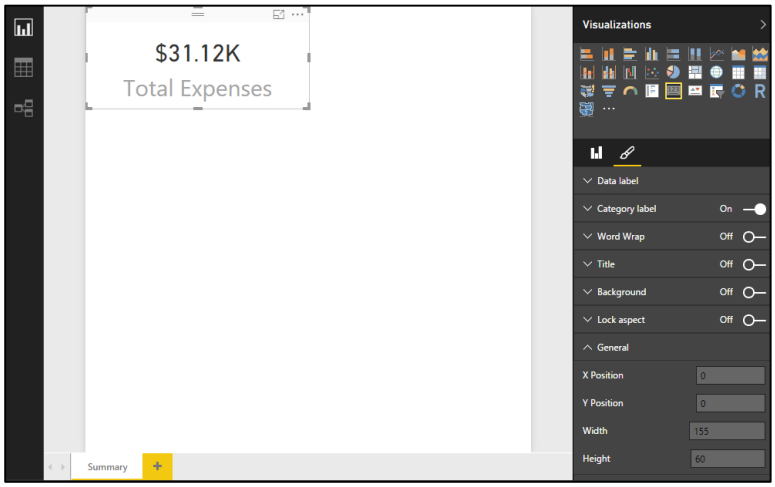
e) In the **General** area, modify the **X Position** to **0** and **Y position** to **0**.

f) Modify the visual **Width** property to **155**.

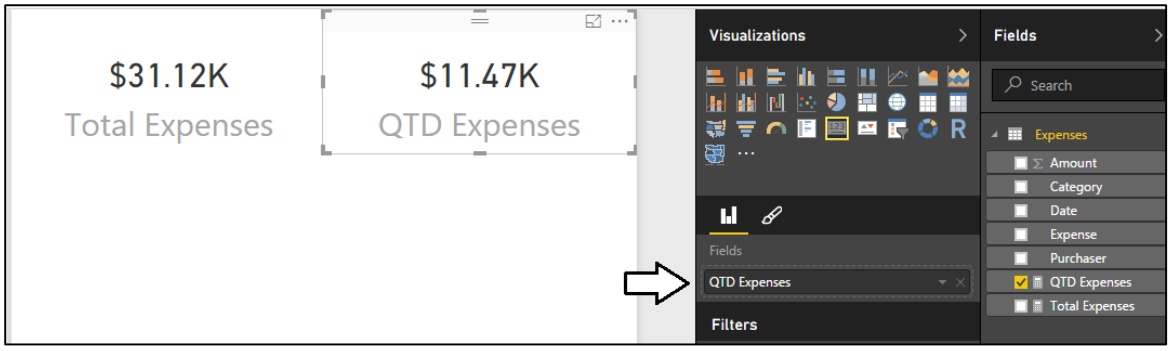
g) Modify the visual **Height** property to **60**.



h) The card visual should now be positioned in the upper left-hand corner of the page as shown in the following screenshot.

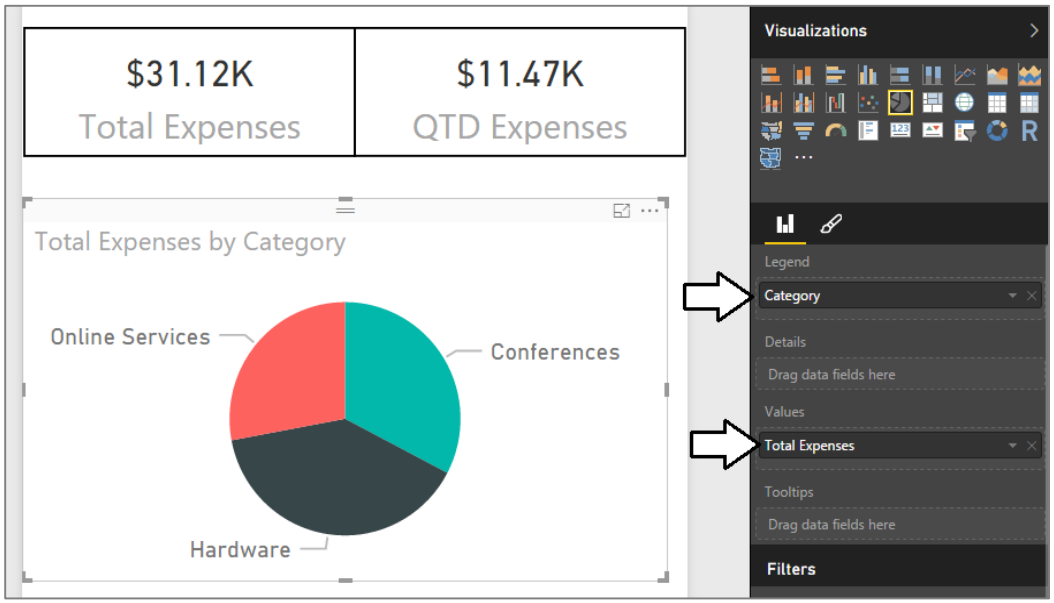


12. Add a second Card visual to the page to display the value of the **QTD Expenses** measure.
    a) Copy and paste the **Total Expense** Card visual to create a second instance of the Card visual.
    b) Reposition the new card visual so it appears to the right of the first card visual.
    c) In the **Fields** well of the new card visual, replace the **Total Expenses** measure with the **QTD Expenses** measure.
    d) Your page should match the one shown in the following screenshot.



    e) Modify both card visuals by setting their **Border** property to **On**.

13. Add a new Pie Chart visual to visualize expense breakdown by category.
    a) Click the button for the **Pie Chart** visual to add a new pie chart visual to the page.
    b) Reposition the pie chart in the middle of the page.
    c) Drag the **Category** field into the **Legend** well.
    d) Drag the **Total Expenses** field into the **Values** well.

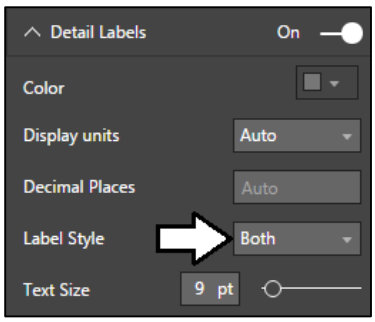


e) With the pie chart visual selected, navigate to the Format properties pane so you can modify its format properties.

f) Remove the visual's title by setting the **Title** property to **Off**.

g) Modify the visual by setting its **Border** property to **On**.

h) In the **Detail Labels** section, modify the **Label Style** property to **Both**.

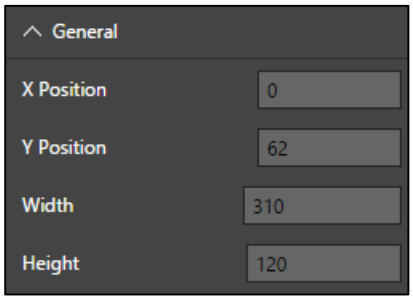


i) In the **General** area, modify the **X Position** property to **0**

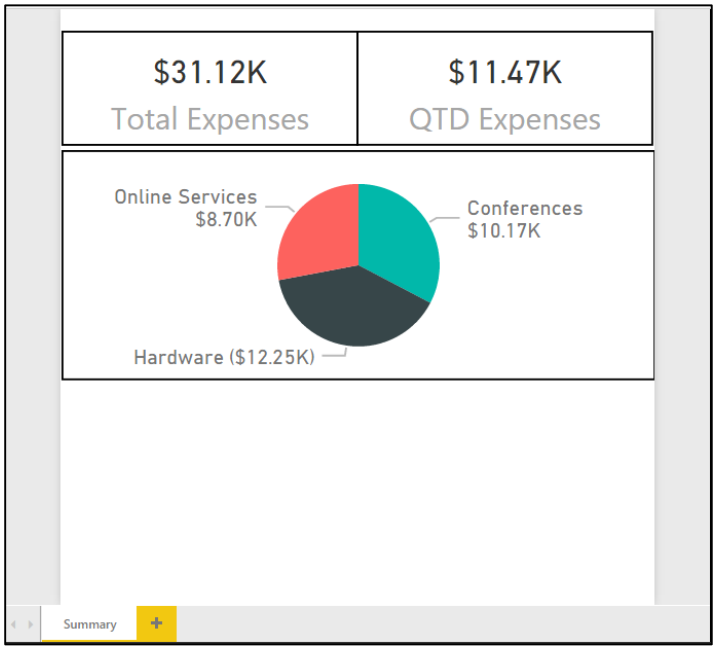
j) Modify the visual **Y position** to **62**.

k) Modify the visual **Width** property to **310**.

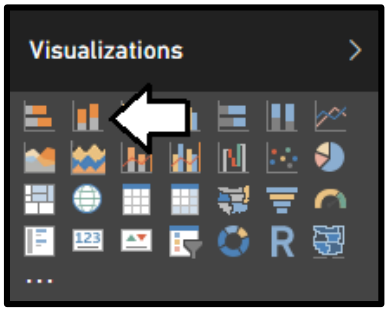
l) Modify the visual **Height** property to **120**.



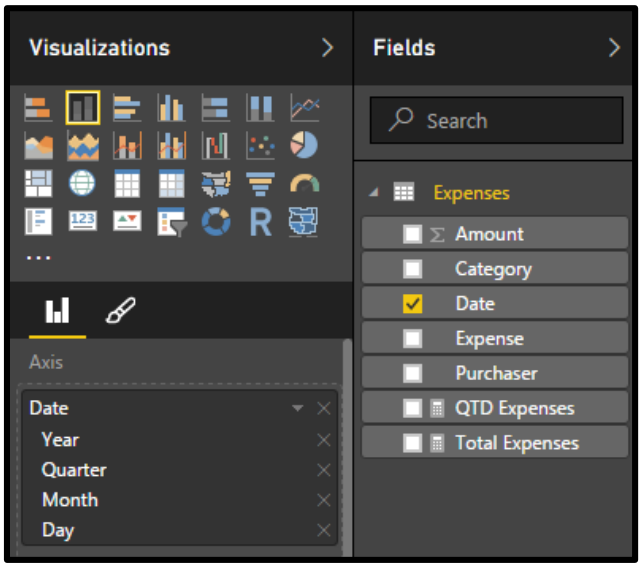
m) Your pie chart visual should now match the visual shown in the following screenshot.



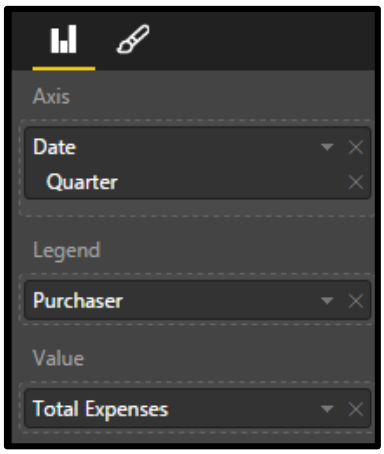
14. Add a new Stacked Column Chart visual to visualize expense breakdown by quarter and purchaser.
    a) Click the button for the **Stacked Column Chart** visual to add a new column chart visual to the page.



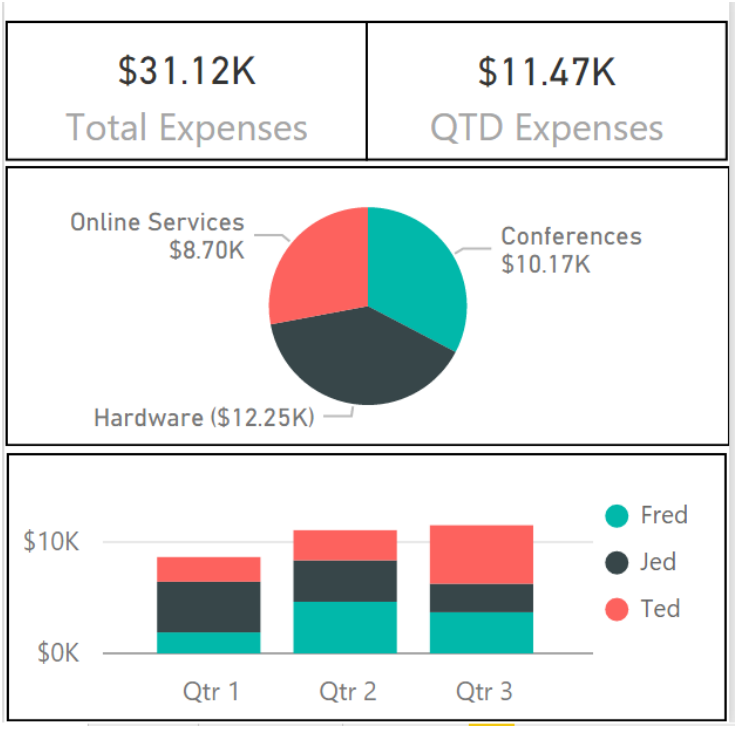
    b) Reposition the column chart in the middle of the page.
    c) Drag the **Date** field into the **Axis** well. You will notice that Power BI Desktop adds the **Date** column as a hierarchy.



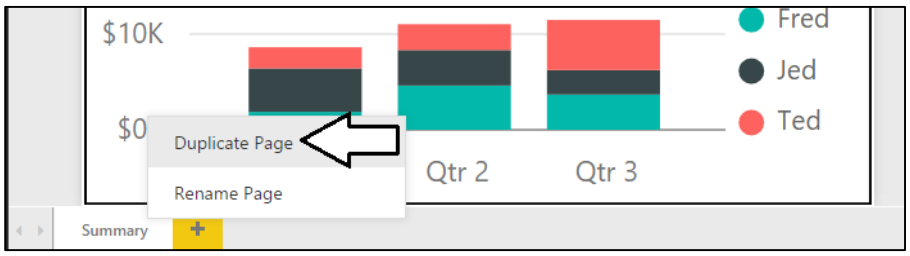
15. Remove all the dimensions of the **Date** hierarchy except for **Quarter**.
16. Drag the **Purchaser** column into the **Legend** well.
17. Drag the **Total Expenses** measure into the **Value** well.



a) With the column chart visual selected, navigate to the Format properties pane so you can modify its format properties.
b) Remove the visual's title by setting the **Title** property to **Off**.
c) Modify the visual by setting its **Border** property to **On**.
d) Your column chart visual should now match the one shown at the bottom of the the following screenshot.

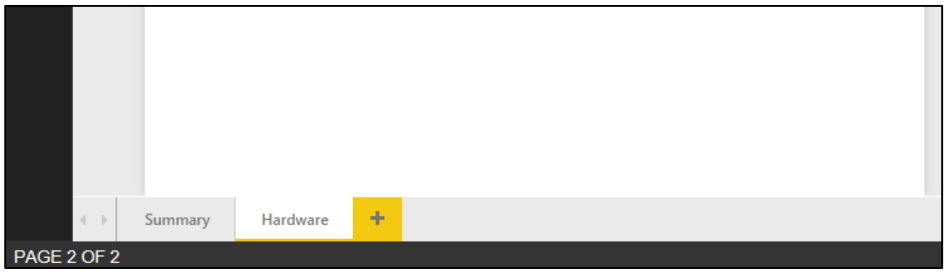


18. Add a new page named **Hardware** to display individual hardware expenses.
a) Right-click on the page tab for the **Summary** page and then click **Duplicate Page**.

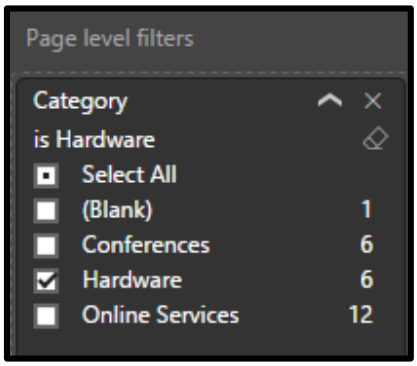


Note that the new page is created with the same mobile-friendly dimensions of 310 pixels by 300 pixels.

b) Remove all the visuals from the new page so it is empty.
c) Rename the new page to **Hardware**.

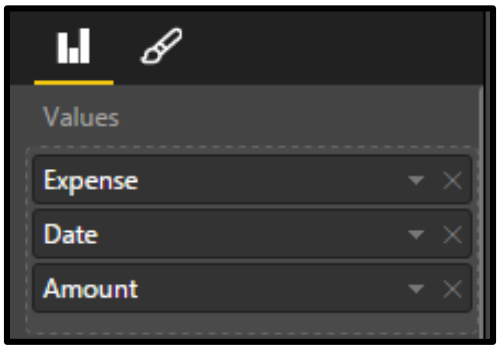


d) Drag the **Category** field into the **Page level filters** section and set the page filter to **Hardware**.

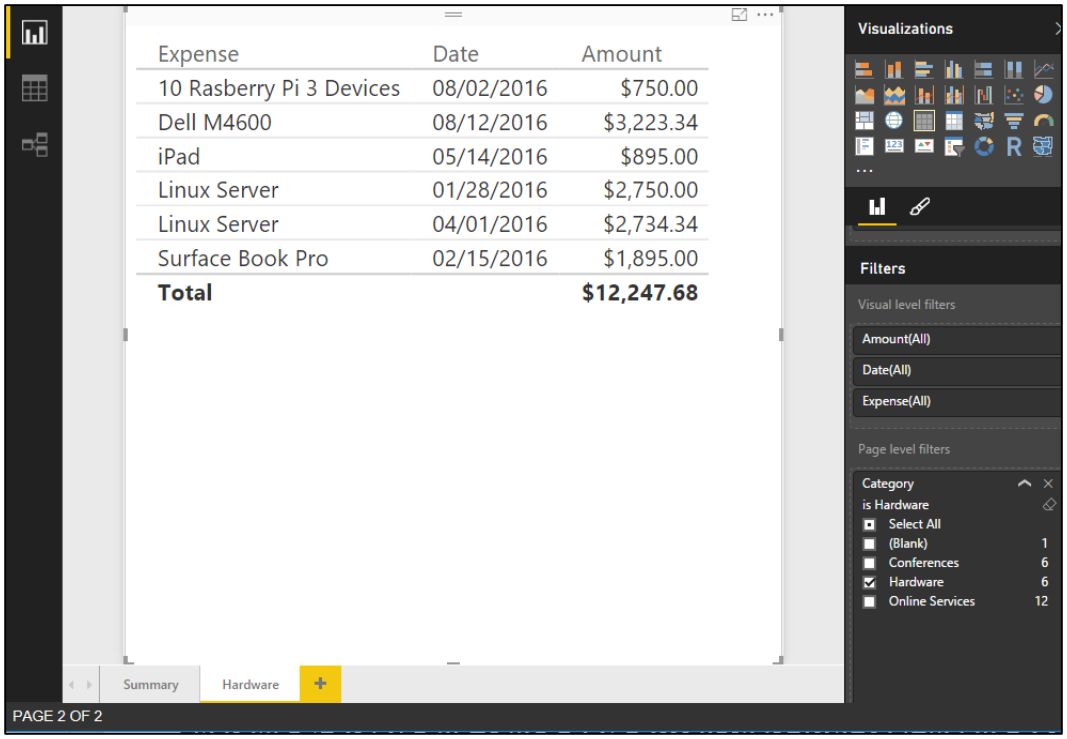


e) Add a new table visual to the **Hardware** page and reposition it to take up the entire page.

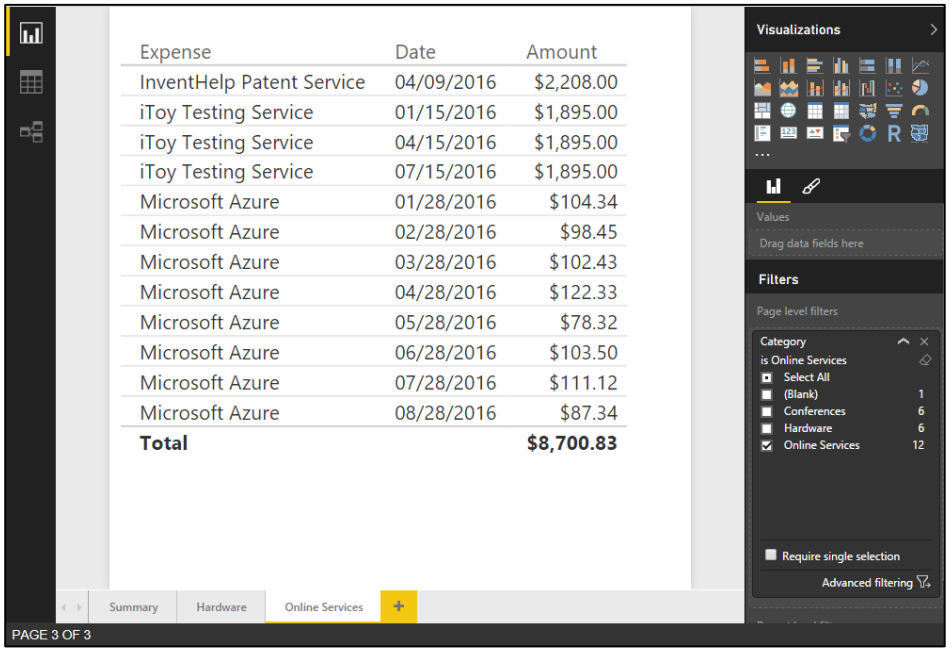
f) With the table visual selected, add the fields **Expense**, **Date** and **Amount** to the **Values** well,



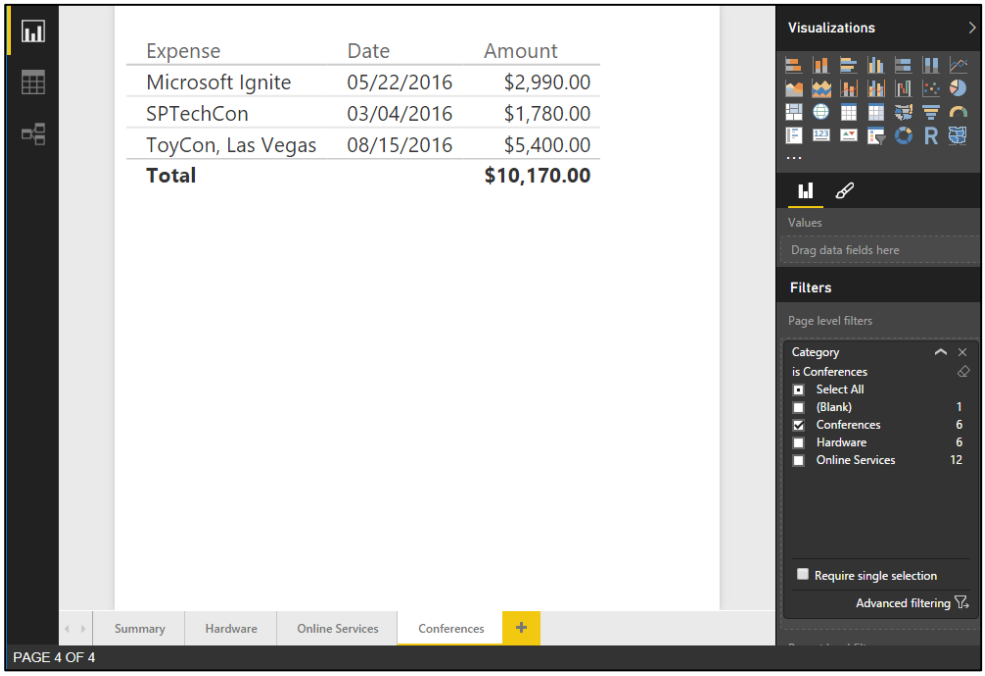
g) The **Hardware** page should now appear as the one shown in the following screenshot.



19. Add a new page named **Online Service** to display individual online services expenses.
    a) Right-click on the page tab for the **Hardware** page and then click **Duplicate Page**.
    b) Rename the new page to **Online Services**.
    c) In the **Page level filters** section, change the filter from **Hardware** to **Online services**.

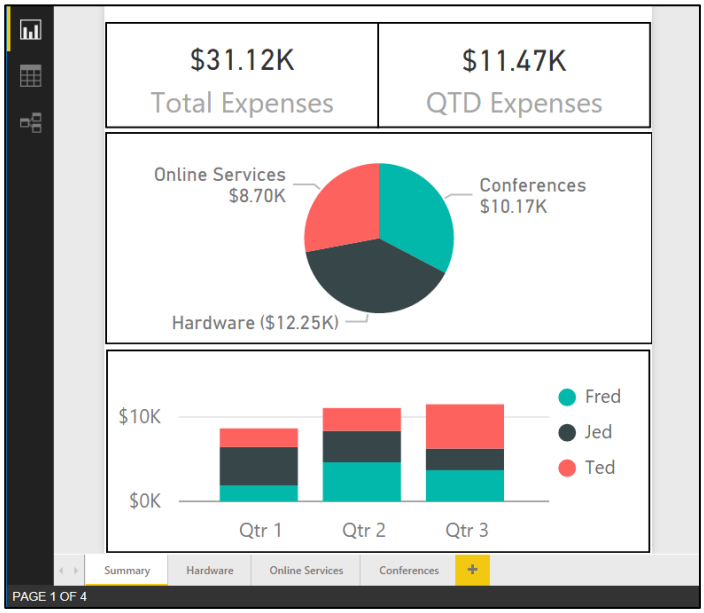


20. Add a new page named **Conferences** to display conference expenses.
    a) Right-click on the page tab for the **Online Services** page and then click **Duplicate Page**.
    b) Rename the new page to **Conferences**.
    c) In the **Page level filters** section, change the filter from **Online services** to **Conferences**.

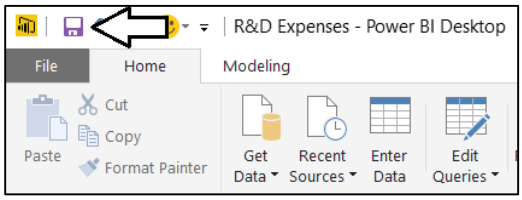


21. Save your work.

a) Click the **Summary** page tab to make the Summary page the active page in the report.

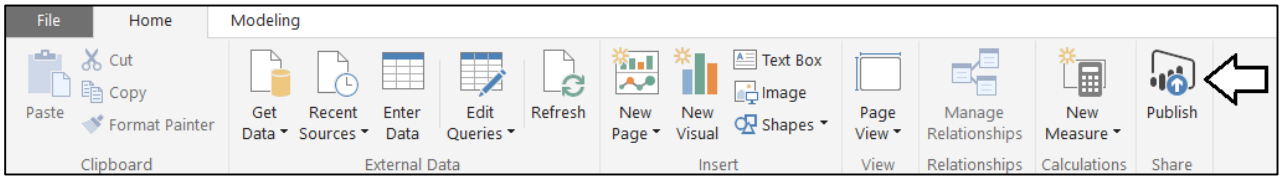


b) Click the **Save** button at the top of the Power BI Desktop window to save all work on the current project.

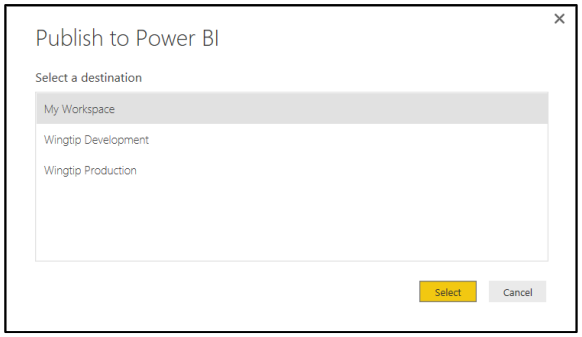


22. Publish the **R&D Expenses** project to the Power BI service.

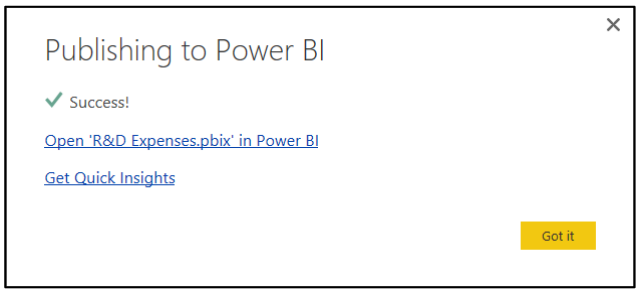
a) Click the **Publish** button in the **Home** tab of the ribbon



b) In the **Publish to Power BI** dialog, select **My Workspace** and then click **Select** to publish the project.

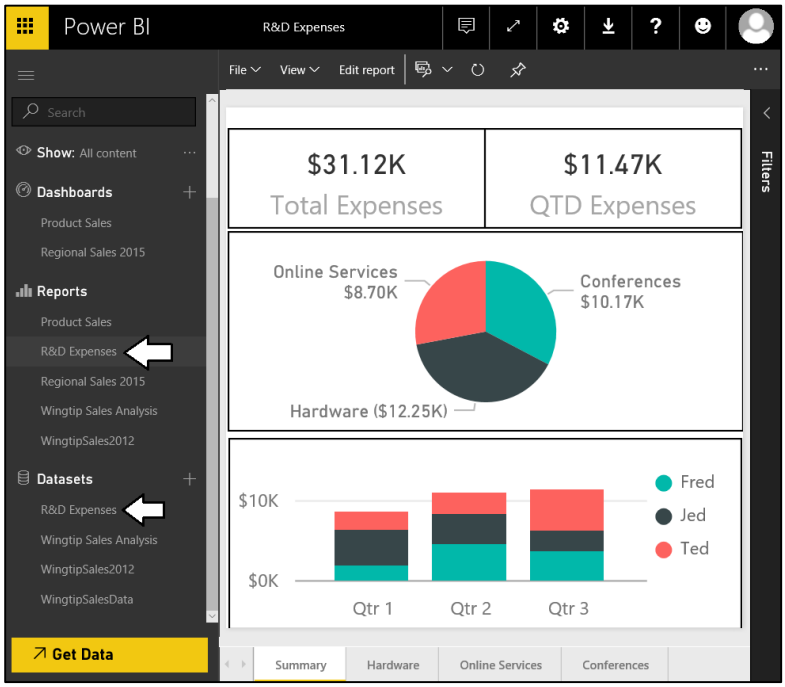


c) When you see the **Success** message in the **Publishing to Power BI**, click the **Open 'R&D Expenses.pbix' in Power BI** link.



You will now be redirected to the Power BI service in the browser where you can inspect what you just published.

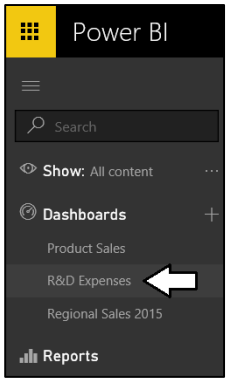
d) You should be able to verify that your personal workspace now contains a dataset and report named **R&D Expenses**.



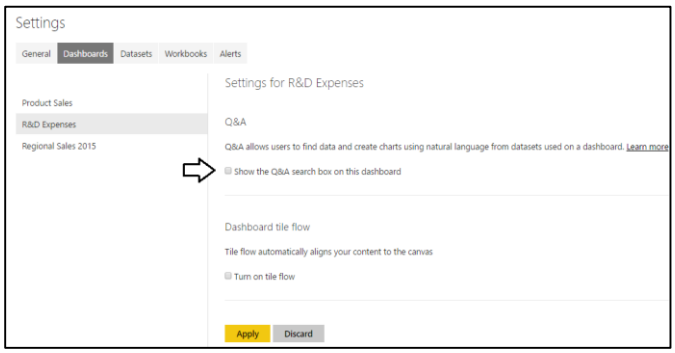
e) Take a minute and inspect each of the pages in the **R&D Expenses** report.

23. Create a new dashboard named **R&D Expenses**.

a) In your personal workspace, create a new dashboard and name it **R&D Expenses**.



b) Go to the Dashboard Settings page and uncheck the checkbox titled **Show the Q&A search box on this dashboard**.

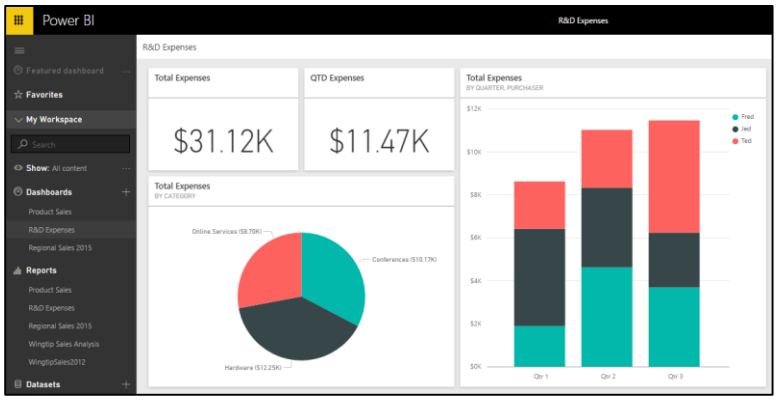


c) Navigate back to the **Summary** page of the **R&D Expenses** report.

d) Pin each of the 4 visuals on the **Summary** page to the **R&D Expenses** dashboard to create 4 new tiles.

e) Using the left navigation menu, navigate to the **R&D Expenses** dashboard.

f) Rearrange the tiles on the **R&D Expenses** dashboard to match the following screenshot.



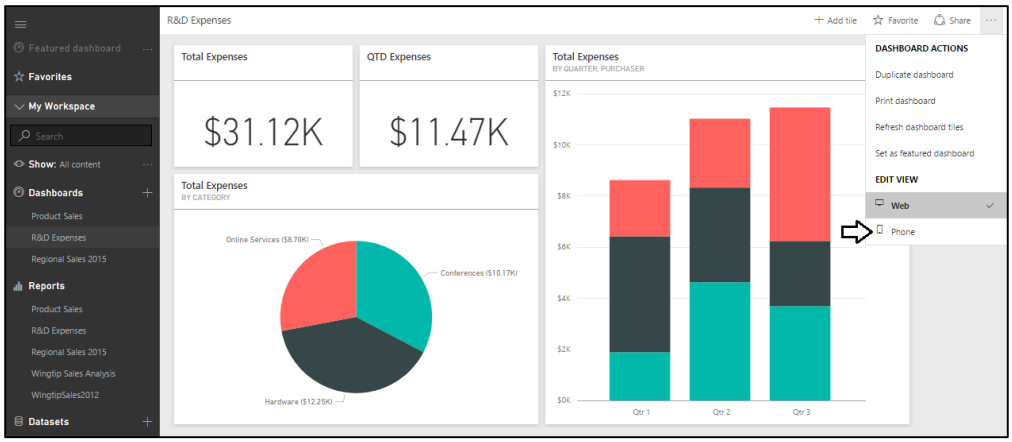
This dashboard view represents the standard web view which will be seen by users viewing the dashboard with a browser on a PC.

24. Modify the Phone View for the **R&D Expenses** dashboard.

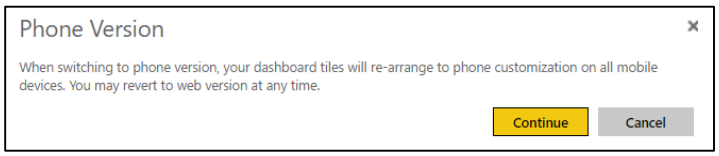
a) Navigate to the **R&D Expenses** dashboard if you are not already there.

b) Drop down the ellipse menu with **DASHBOARD ACTIONS** in the top right corner of the dashboard.

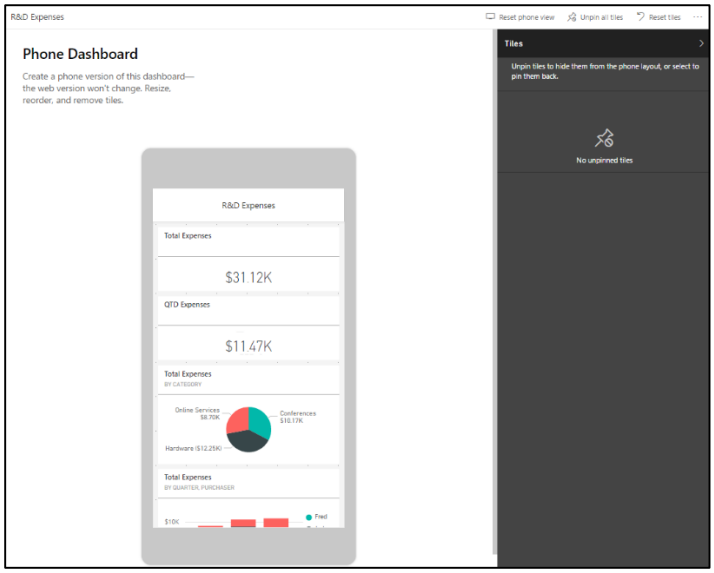
c) Change the **EDIT VIEW** selection from **Web** to **Phone**.



d) When prompted by the **Phone Version** dialog, click **Continue**.

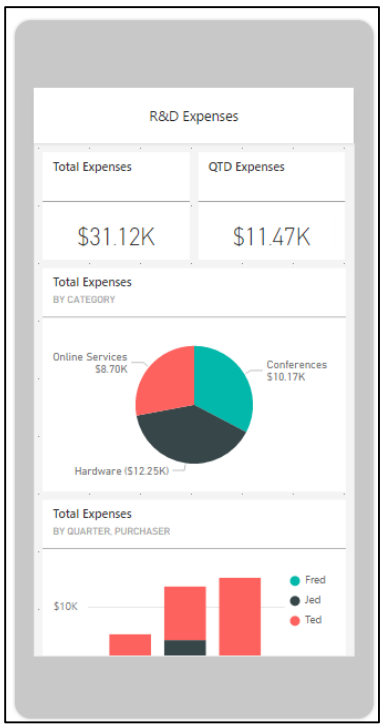


e) You should now see the dashboard displayed in Phone Edit View.



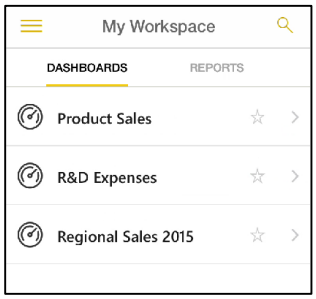
f) Modify the Phone Edit View by placing the two card visuals side by side.

g) Make the pie chart and the column chart a little taller than their initial size.

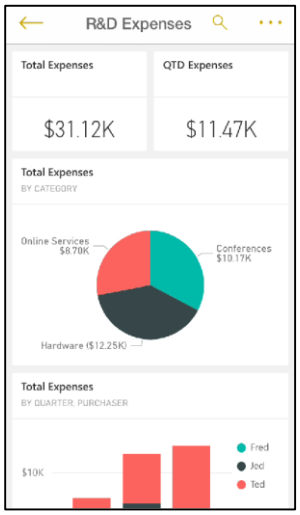


Remember that you don't need to save changes to dashboards. Any change you make to a dashboard takes effect immediately.

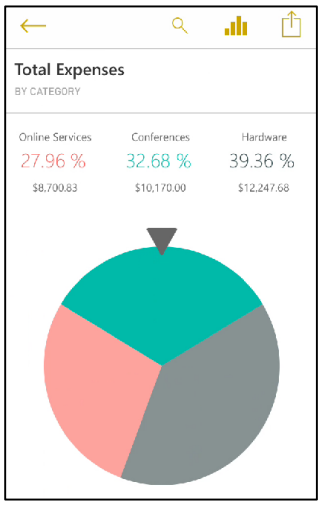
25. Test your working by examining the new dashboard and the new mobile-friendly report in your mobile device.
    a) Log into the Power BI service with your mobile device and navigate to your personal workspace.
    b) You should see the **R&D Expenses** dashboard in the **DASHBOARDS** list.



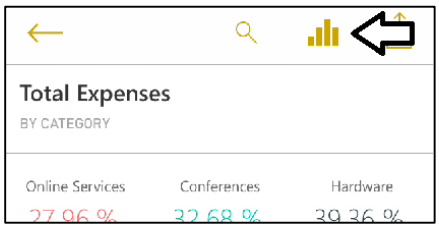
    c) Tap the **R&D Expenses** dashboard to navigate to this dashboard.
    d) Examine the **R&D Expenses** dashboard and verify it contains the changes you made in Phone Edit View.



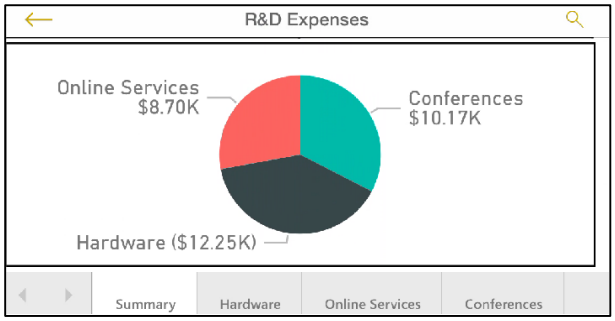
    e) Tap the pie chart tile to enter Focus Mode and experiment with spinning the pie chart.



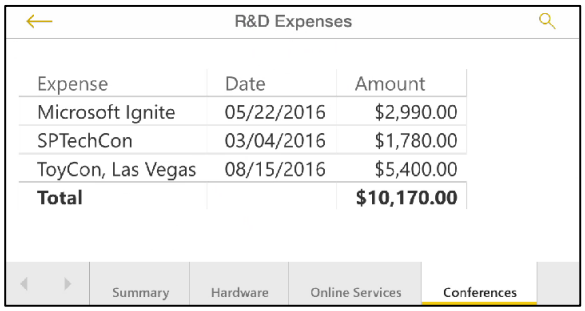
f) Tap the Report button at the top of the screen to navigate to the **R&D Expenses** report.



g) Examine the **R&D Expenses** dashboard. Scroll down the page to see each of the visuals on the **Summary** page.



h) Use the page navigation tab to navigate between pages so you can see the detail of individual expenses for each category.

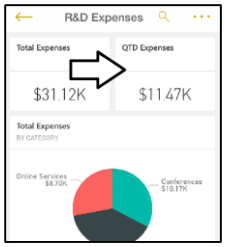


You have now created a mobile-friendly report which supports user interactivity using the page navigation menu.

Exercise 4: Create an Annotation and a Data Driven Alert with your Mobile Device

In this exercise you will learn how to add annotations to a dashboard tile. After that, you will create and test a data driven alert.

1. Return to your mobile device and launch the Power BI app if it's not already open.
2. Navigate back to the main screen of the **R&D Expenses** dashboard.
3. Enter Focus Mode for the **QTD Expenses** tile.
   a) Tap the **QTD Expenses** tile to navigate to Focus Mode.

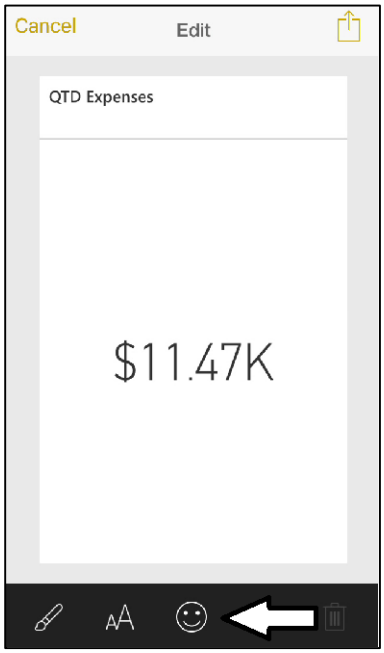


b) Once in Focus Mode, you should see the **QTD Expenses** tile value in the middle of the screen and a toolbar on top.

4. Add an annotation to the **QTD Expenses** tile.

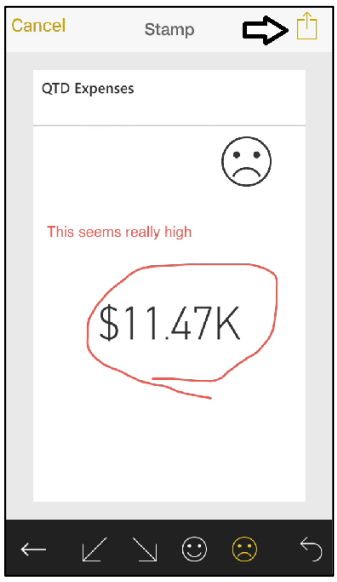
a) Tap the **Share** button in the top right corner of the **QTD Expenses** tile to enter **EDIT** mode.

b) Once you are in EDIT mode, you can see button on the toolbar at the bottom for creating annotations.



c) Add annotations to the **QTD Expenses** tile indicating that the quarterly expenses are higher than expected.

d) Tap the Share button in the top right corner of the screen.



e) Inspect the different options you have to share the annotation with other users.

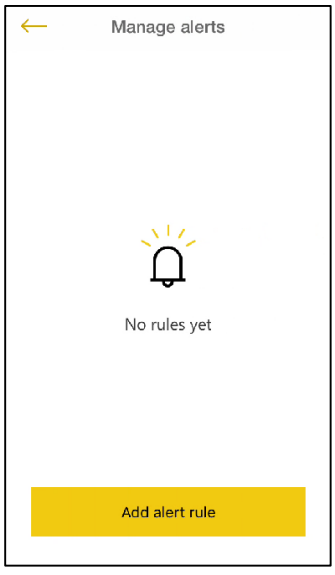
Note that your annotations will not display on the actual dashboard. An annotation is just something you print or send to other users.

f) Tap the **Cancel** button in the top left corner of the screen to exit Edit mode.

5. Add a data driven alert to the **QTD Expenses** tile to send a notification when its value exceeds $12,000.

a) Tap the button with the Bell icon to navigate to the **Manage Alerts** screen.

b) On the **Manage Alerts** screen, tap the **Add alert rule** button.

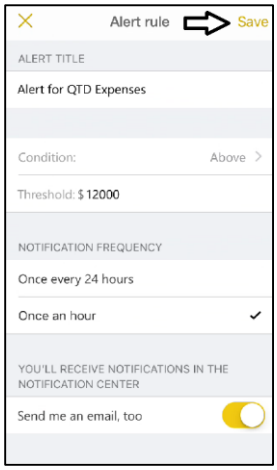


c) On the **Alert rule** page, configure the new alert with a threshold of **$12,000**.

d) Configure **NOTIFICATION FREQUENCY** to a setting of **Once an hour**.

e) Enable the **Send me an email too** option.

f) Tap the **Save** button in the top right corner of the screen to save and activate the new rule.



g) In the **Manage alerts** screen, you should be able to see the new alert you have just created.

6. Add a new expense to the Excel workbook files named **R&D Expenses.xlsx**.

a) Launch Excel 2016.

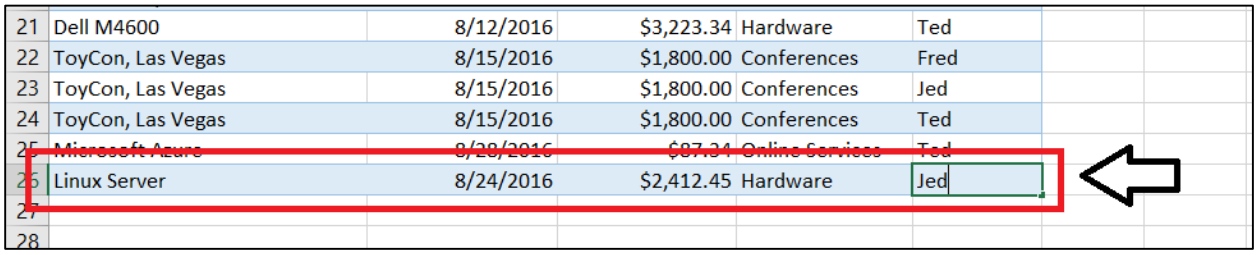
b) Open the Excel workbook file at **C:\Data\R&D Expenses.xlsx**.

c) Examine the table of expenses data in the **Expenses** worksheet.

	A	B	C	D	E
1	Expense	Date	Amount	Category	Purchaser
2	iToy Testing Service	1/15/2016	$1,895.00	Online Services	Fred
3	Linux Server	1/28/2016	$2,750.00	Hardware	Jed
4	Surface Book Pro	2/15/2016	$1,895.00	Hardware	Ted
5	Microsoft Azure	1/28/2016	$104.34	Online Services	Ted
6	Microsoft Azure	2/28/2016	$98.45	Online Services	Ted
7	SPTechCon	3/4/2016	$1,780.00	Conferences	Jed
8	Microsoft Azure	3/28/2016	$102.43	Online Services	Ted
9	Linux Server	4/1/2016	$2,734.34	Hardware	Fred
10	InventHelp Patent Service	4/9/2016	$2,208.00	Online Services	Jed
11	iToy Testing Service	4/15/2016	$1,895.00	Online Services	Fred
12	Microsoft Azure	4/28/2016	$122.33	Online Services	Ted
13	iPad	5/14/2016	$895.00	Hardware	Ted
14	Microsoft Ignite	5/22/2016	$1,495.00	Conferences	Jed
15	Microsoft Ignite	5/22/2016	$1,495.00	Conferences	Ted
16	Microsoft Azure	5/28/2016	$78.32	Online Services	Ted
17	Microsoft Azure	6/28/2016	$103.50	Online Services	Ted
18	iToy Testing Service	7/15/2016	$1,895.00	Online Services	Fred
19	Microsoft Azure	7/28/2016	$111.12	Online Services	Ted
20	10 Rasberry Pi 3 Devices	8/2/2016	$750.00	Hardware	Jed
21	Dell M4600	8/12/2016	$3,223.34	Hardware	Ted
22	ToyCon, Las Vegas	8/15/2016	$1,800.00	Conferences	Fred
23	ToyCon, Las Vegas	8/15/2016	$1,800.00	Conferences	Jed
24	ToyCon, Las Vegas	8/15/2016	$1,800.00	Conferences	Ted
25	Microsoft Azure	8/28/2016	$87.34	Online Services	Ted

d) Select one of the cells in the last row of the table and then press the **TAB** key several times until you create a new row.

e) In the new row, enter a new expense for a **Linux Server** with today's date. Give this new expense an **Amount** value of **$2,412.45** and enter **Jed** as the name of the **Purchaser** as shown in the following screenshot.



21	Dell M4600	8/12/2016	$3,223.34	Hardware	Ted
22	ToyCon, Las Vegas	8/15/2016	$1,800.00	Conferences	Fred
23	ToyCon, Las Vegas	8/15/2016	$1,800.00	Conferences	Jed
24	ToyCon, Las Vegas	8/15/2016	$1,800.00	Conferences	Ted
25	~~Microsoft Azure~~	~~8/28/2016~~	~~$87.34~~	~~Online Services~~	~~Ted~~
26	Linux Server	8/24/2016	$2,412.45	Hardware	Jed
27					
28					

f) Save your changes to at **C:\Data\R&D Expenses.xlsx** and then close Excel 2016.

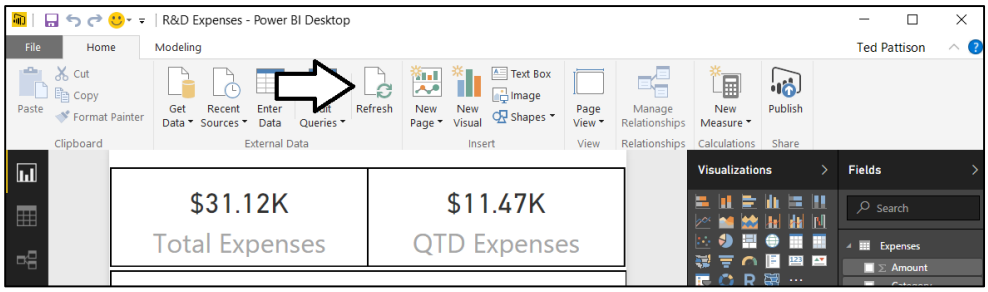
7. Update the dataset that's been published to the Power BI service using Power BI Desktop.

a) Return to Power BI Desktop and open the **R&D Expenses.pbix** project if it is not already open.

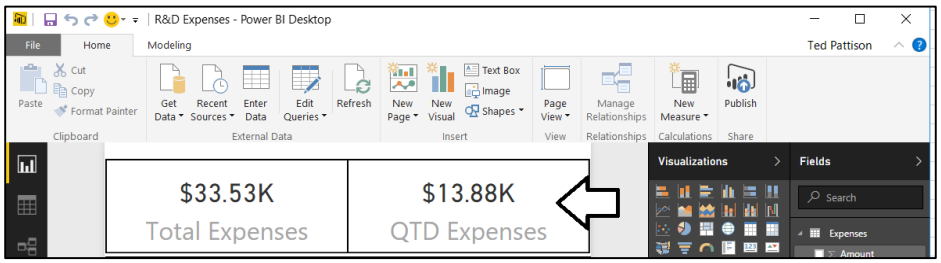
b) Navigate to Report view and activate the **Summary** page.

c) Verify that the **QTD Expenses** tile displays a value of **$11.47K**.

d) Click the **Refresh** button to refresh the project's dataset with the data you've just updated in the Excel workbook file.

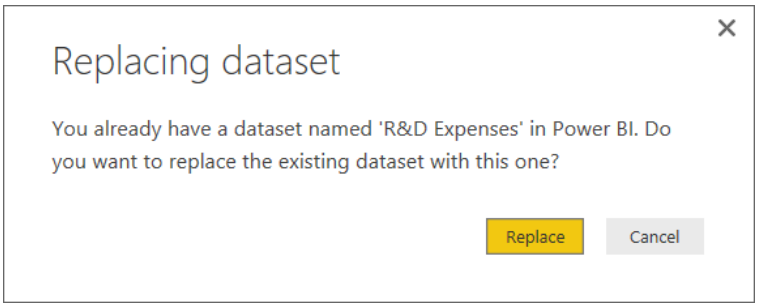


e) The **QTD Expenses** tile should now show an updated value of **$13.88K**.

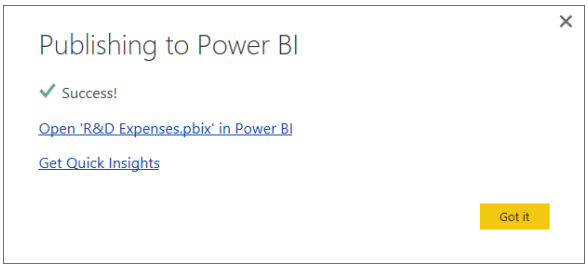


f) Click the **Publish** button in the ribbon to republish the project and the updated dataset to the Power BI service.

g) When promoted with the **Replacing dataset** dialog, click the **Replace** button.

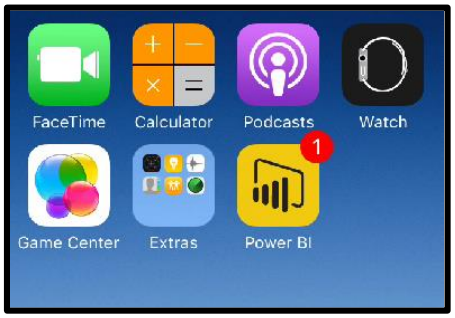


h) Wait until you see the **Success** message on the **Publishing to Power BI dialog**.

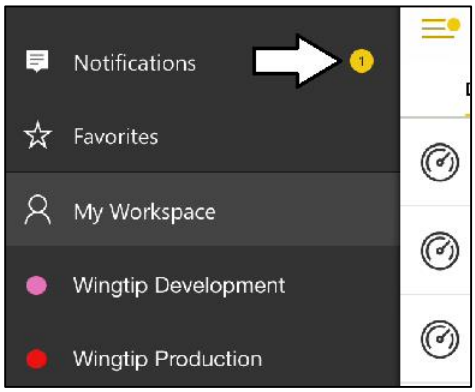


Now that you have updated the dataset, the alert should automatically trigger the Power BI service to send you a notification.

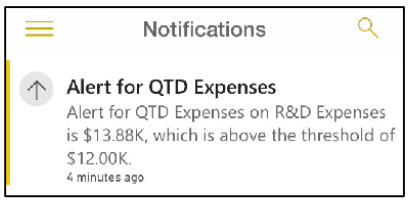
8. Check for the notification on your mobile device.
   a) Return to your mobile device and navigate to the start screen.
   b) The Power BI app icon should now display a new notification.



   c) Launch the Power BI app and drop down the main flyout menu.
   d) You should see a round icon with a 1 inside indicating that there is a new notification.



   e) Navigate to the **Notifications** screen and inspect the notification that has been sent from the data driven alert.



You have now completed all the exercises in this lab.