**20778 DDLS Lab Instructions**

**Prepare the Lab Environment**

1. If you do not have a Power BI login, openInternet Explorer, browse to [**https://powerbi.microsoft.com/en-us/documentation/powerbi-admin-signing-up-for-power-bi-with-a-new-office-365-trial**](https://powerbi.microsoft.com/en-us/documentation/powerbi-admin-signing-up-for-power-bi-with-a-new-office-365-trial), and then follow the steps to create an account.
2. In Internet Explorer, browse to [**https://www.microsoft.com/en-us/download/details.aspx?id=45331**](https://www.microsoft.com/en-us/download/details.aspx?id=45331), and then click **Download**.
3. On the **Choose the download you want** page, select the **PBIDesktop\_x64.msi** check box, and then click **Next**.
4. In the message box, click **Run**.
5. In the **Microsoft Power BI Desktop (x64) Setup** dialog box, on the **Welcome to the** **Microsoft Power BI Desktop (x64) Setup Wizard** page, click **Next**.
6. On the **Microsoft Software License Terms** page, select the **I accept the terms in the License Agreement** check box, and then click **Next**.
7. On the **Destination Folder** page, click **Next**.
8. On the **Ready to install Microsoft Power BI Desktop (x64)** page, click **Install**.
9. In the **User Account Control** dialog box, click **Yes**.
10. On the **Completed the Microsoft Power BI Desktop (x64) Setup Wizard** page, clear the **Launch Microsoft Power BI Desktop** check box, and then click **Finish**.
11. Close Internet Explorer.
12. Copy the **Competitors.xlsx** file from the I: drive to the **D:\Student** folder.

**Module 3**

**Lab: Importing Data into Power BI Desktop**

Scenario

To begin the process of analyzing the Adventure Works data, all the appropriate data will be imported from various sources. The AdventureWorksDW SQL Server database has all the company’s sales data, the excel file has data on competitor’s sales, and the website has information about the estimated number of bikes owned in each country.

**Exercise 1: Importing Data into Power BI**

**Task 1: Importing Data from SQL Server**

1. On the desktop, double-click Power BI Desktop.
2. When the Get Data screen shows, click Get Data.
3. In the Get Data dialog box, click Azure, then click Azure SQL Database, and then click Connect.
4. In the SQL Server Database dialog box, in the Server box, type **ddlsrb.database.windows.net**.
5. In the Database (optional) box, type **AdventureWorksDW**, and then click OK.
6. If the Access a SQL Server Database dialog box appears, change it from Windows to Database, and enter the User name of **Student** and Password of **Pa$$w0rd**, and then click Connect.
7. If the Encryption Support dialog box appears, click OK.
8. In the Navigator dialog box, select the FactInternetSales check box, click Select Related Tables.
9. Deselect DimCurrency, DimPromotion, and FactInternetSalesReason.
10. Select DimGeography, DimProductSubcategory and DimProductCategory.
11. Click Load.
12. On the File menu, click Save As.
13. In the Save As dialog box, navigate to **D:\Student** folder, in the File name box, type **Adventure Works Sales**, and the click Save.
14. Leave Power BI Desktop open for the next task.

**Task 2: Import Data from Excel**

1. Launch Excel and open the file **D:\Student\Competitors.xlsx**
2. Note the workbook has two worksheets, each containing a matrix of sales information for several competitors to AdventureWorks cycles. We will just import the data at this stage, but we will reformat the data into something usable later on.
3. In Power BI Desktop click Get Data and select Excel
4. Browse to **D:\Student** and open **Competitors.xlsx**
5. In the Navigator window select Page1 and Page2, and click Load.
6. On the File menu, click Save.
7. Leave Power BI Desktop open for the next task.

**Task 3: Import Data from the Web**

1. Launch a web browser and go to [www.worldometers.info/bicycles/](http://www.worldometers.info/bicycles/).
2. Note the page has information about global bicycle production and quantity. We will be importing the data from the table under “How many bicycles are there in the world?”
3. In Power BI Desktop click Get Data and select Other, and then Web.
4. In the From Web window enter the URL [www.worldometers.info/bicycles/](http://www.worldometers.info/bicycles/)
5. In the Navigator window select Table 0 and click Load.
6. On the File menu, click Save.
7. Leave Power BI Desktop open for the next Lab.

**Module 4**

**Lab: Editing Queries in Power BI Desktop**

Scenario

Now that the data has been imported it is apparent that some modifications to the queries are required. There are many unnecessary columns, the names of many of the tables and columns are not intuitive, even the format of some the data will make it hard to analyze.

**Exercise 1: Shaping the data into Power BI**

**Task 1: Editing Data Queries from SQL Server**

1. In Power BI Desktop, in the Home ribbon, click Edit Queries.
2. In the Query editor window, in the Queries pane (on the left), select FactInternetSales.
3. In the Query Settings pane (on the right), change the Name to InternetSales.
4. In the middle pane, select the columns PromotionKey, RevisionNumber, UnitPriceDiscountPct, DiscountAmount, CarrierTrackingNumber, CustomerPONumber, and then in the ribbon click Remove Columns.
5. In the Queries pane select DimCustomer and rename this to Customer.
6. Remove the columns Title, NameStyle, Suffix, SpanishEducation, FrenchEducation, SpanishOccupation, and FrenchOccupation.
7. Right click the EnglishEducation column and select Rename…
8. Remove the word “English” from the name.
9. Rename the EnglishOccupation column to Occupation.
10. Select the Gender column, and in the ribbon click Replace Values.
11. In the “Value To” Find box type M.
12. In the Replace With box type Male, then click OK.
13. Right-click the Gender column and choose Replace Values…
14. Replace the value F with Female.
15. Replace the values in the MaritalStatus column so the S becomes Single and M becomes Married.
16. In the Queries pane select DimDate.
17. Rename it to Date.
18. Remove the Spanish and French columns.
19. Right-click the column EnglishDayNameOfWeek and select Rename…
20. Remove the word English.
21. Rename the column EnglishMonthName to just MonthName.
22. Right-click the column DayNumberOfWeek and select Remove.
23. In the Applied Steps pane, click the X next to the last step (Removed Columns1) to undo it.
24. Rename the queries that begin with “Dim” by removing the prefix “Dim”.
25. From the queries now named Geography, Product, ProductSubcategory, and ProductCategory also remove the Spanish and French columns, and remove the word English from any remaining column.
26. In the Queries pane select Product.
27. Remove the Description columns.
28. On the File menu, click Save. When prompted, click Apply.
29. Leave Power BI Desktop and Power Query Editor open for the next task.

**Task 2: Editing Data Queries from Excel**

1. In the Queries pane select Page1.
2. In the ribbon select the Transform tab, and then click Transpose.
3. Click Use First Row As Headers.
4. On the column header 2010, click the down arrow and select Remove Empty.
5. Rename Column1 to Competitor.
6. Rename Column2 to Category.
7. Select the columns 2007, 2008, 2009, and 2010, and then in the ribbon click Unpivot Columns.
8. Rename the Attribute column to Year, and the Value column to SalesAmount.
9. Right-click the Competitor column and select Fill and then Down.
10. In the Queries pane select Page2 and repeat steps 2 to 9 for this query, or copy the code and paste the code in the Advanced Editor window.
11. In the ribbon, select the Home tab, and then click Append Queries As New.
12. In the Append windows, set the Primary table to be Page1, and the Table to append… to be Page2.
13. In the Queries pane, rename the query Append1 to CompetitorSales.
14. In the Queries pane select Page1.
15. In the ribbon click Properties.
16. In the Query Properties window, deselect “Enable load to report” and click OK.
17. Repeat steps 15 and 16 for the query Page2.
18. On the File menu, click Save. When prompted, click Apply.
19. Leave Power BI Desktop open for the next task.

**Task 3: Editing Data Queries from the Web**

1. In the Queries pane select Table 0.
2. On the Country column click the down arrow.
3. Only select the countries Australia, Canada, France, Germany, UK, and USA.
4. Replace the values UK and USA with United Kingdom and United States respectively.
5. Remove the Year column.
6. Rename the query to BikeNumbersByCountry.
7. In the ribbon click Close & Apply to close the Query Editor window.
8. On the File menu click Save.
9. Leave Power BI Desktop open for the next Lab.

**Module 5**

**Lab: Modelling Data in Power BI Desktop**

Scenario

Now that the data has been imported, some relationships need to be added to allow the analysis to occur across all the different sources. Some of the fields need to be modified so that Power BI can display them correctly on reports. Creating some hierarchies will be useful later when visualizations are added to the reports. Additionally, some missing values required will need to be calculated from the data that has been imported.

**Exercise 1: Modelling Data in Power BI**

**Task 1: Modifying Field Properties in Power BI**

1. In Power BI Desktop click on the Data icon on the left hand side.
2. In the Fields pane on the right hand side, expand the BikeNumbersByCountry table.
3. Click on the Quantity column.
4. In the ribbon click on the Modeling tab.
5. Note the Quantity column has a Data Type of Decimal Number. Change it to Whole Number.
6. Note the Format is General. Change it to Whole Number.
7. Make sure the Default Summarization is Sum. In the Fields pane note that a Sigma symbol appears next to the Quantity field.
8. Click on the Country column.
9. In the ribbon, change the Data Category from Uncategorized to Country/Region. In the Fields pane note that a Globe symbol appears next to the Country field.
10. In the Fields pane expand Geography.
11. Change the Data Category appropriately for the following fields: City, CountryRegionName, PostalCode, StateProvinceName.
12. On the File menu, click Save.
13. Leave Power BI Desktop open for the next Task.

**Task 2: Adding Hierarchies**

1. In the Fields pane, in the Geography table, select the CountryRegionName column.
2. Either right-click this column, or click the … , and then select New hierarchy.
3. Drag the StateProvinceName column and drop it on “CountryRegionName Hierarchy”.
4. Drag the City column and drop it on CountryRegionName Hierarchy.
5. Right click “CountryRegionName Hierarchy” and select Rename. Change its name to Location.
6. Repeat the above steps to create two hierarchies in the Date table, one for CalendarYear, CalendarQuarter and MonthName, and one for FiscalYear, FiscalQuarter and MonthName. Name them CalendarDates and FiscalDates.

**Task 3: Adding Calculated Columns**

1. In the Fields pane expand Customer.
2. In the ribbon, on the Modeling tab, click New Column.
3. In the formula bar, highlight **Column =**, type the following code, and then press Enter:

IncomeStatus = IF (Customer[YearlyIncome] < 25000, "Lower Income",

IF (AND(Customer[YearlyIncome] >= 25000, Customer[YearlyIncome] < 60000), "Middle Income",

IF (AND(Customer[YearlyIncome] >= 60000, Customer[YearlyIncome] < 100000), "Higher Income",

IF (Customer[YearlyIncome] >= 100000, "Very High Income", "Other"))))

1. In the ribbon, on the Modeling tab, click New Column.
2. In the formula bar, highlight Column =, type the following code, and then press Enter:

DaysSinceFirstPurchase = DATEDIFF(Customer[DateFirstPurchase], TODAY(), DAY)

1. Click New Column.
2. In the formula bar, highlight Column =, type the following code, and then press Enter:

FullName = [FirstName] & " " & [LastName]

1. In the Fields pane expand InternetSales.
2. Click New Column.
3. In the formula bar, highlight Column =, type the following code, and then press Enter:

SalesProfit = CURRENCY(InternetSales[SalesAmount] - InternetSales[TotalProductCost])

1. On the file menu click Save.
2. Leave Power Bi Desktop open for the next Task.

**Task 4: Adding Measures.**

1. In the fields expand InternetSales.
2. In the ribbon on the Modeling tab, click New Measure.
3. In the formula bar, highlight Measure =, type the following code, and then press Enter:

InternetRevenue = SUM([SalesAmount])

1. In the Fields pane select InternetRevenue. In the Modeling tab change the Format to Currency $ English.
2. In the ribbon on the Modeling tab, click New Measure.
3. In the formula bar, highlight Measure =, type the following code, and then press Enter:

InternetProfit = SUM([SalesProfit])

1. In the Fields pane select InternetProfit. In the Modeling tab change the Format to Currency $ English.
2. In the ribbon on the Modeling tab, click New Measure.
3. In the formula bar, highlight Measure =, type the following code, and then press Enter:

InternetMargin = [InternetProfit] / [InternetRevenue]

1. In the Fields pane select InternetMargin. In the Modeling tab change the Format to Percentage.
2. In the ribbon on the Modeling tab, click New Measure.
3. In the formula bar, highlight Measure =, type the following code, and then press Enter:

InternetTargetMargin = (SUM('Product'[ListPrice]) - SUM('Product'[StandardCost])) / SUM('Product'[ListPrice])

1. In the Fields pane select InternetTargetMargin. In the Modeling tab change the Format to Percentage.
2. On the file menu click Save.
3. Leave Power Bi Desktop open for the next Task.

**Task 5: Creating and Modifying Relationships.**

1. In Power BI Desktop click on the Relationships icon on the left hand side.
2. Create a relationship to the BikeNumbersByCountry table by dragging the Country column and dropping it on the CountryRegionName column in the Geography table. (You might have to scroll across to the right to see the table).
3. Create a relationship to the CompetitorSales table by dragging the Category column and dropping it on the ProductCategoryName column in the ProductCategory table.
4. Then drag the Year column and drop it on the CalendarYear column of the Date table. Note the error that appears because neither column has unique values.
5. On the file menu click Save.
6. Leave Power Bi Desktop open for the next Task.

**Task 6: Adding a Calculated Table.**

1. Click on the Data icon on the left hand side.
2. In the ribbon, on the Modeling tab, click New Table.
3. In the formula bar, highlight Table =, type the following code, and then press Enter:

Years = DISTINCT(‘Date’[CalendarYear])

1. Click on the Relationships icon.
2. Drag the Years column from the CompetitorSales table to the CalendarYear column of the Years table.
3. Drag the CalendarYear column from the Date table to the CalendarYear column of the Years table.
4. On the file menu click Save.
5. Leave Power Bi Desktop open for the next Lab.

**Module 6**

**Lab: Visualizations in Power BI Desktop**

Scenario

Now that the data has been imported, shaped and modelled, it’s time to do some analysis by adding visualizations to a report. Report pages need to be added for Internet Sales and Reseller Sales. Some custom visualizations will also be added to provide additional functionality.

**Exercise 1: Using Visualizations in Power BI**

**Task 1: Using the Column visualization in Power BI**

1. In Power BI click on the Report icon on the left hand side.
2. In the Fields pane on the right hand side, expand InternetSales.
3. Select SalesAmount. This will add a new column chart visualization to the report page.
4. In the Fields pane expand Date, and select the FiscalDates hierarchy. This will add more columns to the chart.
5. Resize the chart so that all the Year names are visible.
6. With the chart still selected, in the Visualizations pane select Clustered bar chart.
7. Change it back to Clustered column chart.
8. Resize the chart so that it fills the top left corner of the report.
9. In the Visualizations pane, click the Format icon (looks like a paint roller).
10. Expand Title and change the Title Text to Internet Sales by Date.
11. Change the title to center alignment, and the color black and the size 10.
12. On the File menu, click Save.
13. Leave Power BI Desktop open for the next Task.

**Task 2: Using Drill Down functionality in Power BI.**

1. With the column chart still selected, click the double down arrow symbol to drill down to the FiscalQuarter level.
2. Click the up arrow to go back up to the FiscalYear level.
3. Click the expand all button (looks like an upside down U).
4. Click the up arrow to go back to the FiscalYear level.
5. Click on the column for 2008. This just highlights the column.
6. In the chart, click on the single down arrow symbol to turn on Drill Down.
7. Click on the column for 2008. This now drills down to show the data for that year only.
8. Click on the up arrow to go back to the FiscalYear level.
9. Click on the single down arrow symbol to turn off Drill Down.
10. On the file menu click Save.
11. Leave Power Bi Desktop open for the next Task.

**Task 3: Using the Map visualization in Power BI.**

1. In the report page click a blank area.
2. In the Fields pane select the Location Hierarchy from the Geography table, and SalesAmount from the InternetSales table.
3. Resize the Map chart so the fills the top right corner of the report.
4. Drag the FiscalYear column from the Date table to the Legend field in the Visualization pane.
5. In one of the column charts, click on a year column. Click on the year column again.
6. Click on the Map visualization.
7. Remove FiscalYear from the Legend field.
8. Hover the cursor over one of the bubbles and view the pop-up.
9. Drag the OrderQuantity column from the InternetSales table to the Tooltips field in the Visualizations pane.
10. Hover the cursor over one of the bubbles and view the pop-up again.
11. Change the chart title to Internet Sales by Geography, center aligned, black, size 10.
12. At the bottom of the screen, right click “Page 1” and select “Rename Page”. Name the page “Internet Sales”.
13. On the file menu click Save.
14. Leave Power Bi Desktop open for the next Task.

**Task 4: Using the Treemap visualization in Power BI.**

1. In the report page click a blank area.
2. In the Fields pane select ProductCategoryName from the ProductCategory table, and InternetProfit from the InternetSales table.
3. In the Visualizations pane select Treemap.
4. Resize the Treemap chart to fill the bottom left corner of the report.
5. Drag the FiscalYear column from the Date table to the Group field in the Visualization pane.
6. In the treemap chart experiment with the Drill Down settings used in Task 2.
7. In the Visualizations pane drag ProductCategoryName from the Group field to the Details field.
8. On the file menu click Save.
9. Leave Power Bi Desktop open for the next Task.

**Task 5: Using the Scatter visualization in Power BI.**

1. In the report page click a blank area.
2. In the Fields pane select SalesAmount from the InternetSales table.
3. In the Visualizations pane select Scatter chart.
4. Resize the Scatter chart to fill the bottom right corner of the report.
5. Drag the OrderQuantity column from the InternetSales table to the Y Axis field in the Visualizations pane.
6. Drag the Location hierarchy from the Geography table to the Details field.
7. If you get an error, in the Vizualization pane, click the down arrow next to OrderQuantity and select “Sum”.
8. Drag the FiscalYear column from the Date table to the Legend field.
9. Hover the cursor over one the circles in the scatter chart.
10. In the column chart, click on a year column. Click on the year column again.
11. Click on the scatter chart.
12. Drag the InternetMargin column from the InternetSales table to the Size field.
13. Hover the cursor over one the circles in the scatter chart.
14. In the scatter chart experiment with the Drill Down settings.
15. Drag FiscalYear from the Legend field to the Play Axis field.
16. In the scatter chart, click on the Play button.
17. Click on the Play button again and this time pause when the pointer gets to 2008.
18. While paused, click on one of the circles in the chart.
19. Click the Play button to let the animation complete.
20. Drag FiscalYear back to the legend field from the Play Axis field.
21. On the file menu click Save.
22. Leave Power Bi Desktop open for the next Task.

**Task 6: Using the Gauge visualization in Power BI.**

1. On the Report page, resize the Treemap and Scatter charts to make some room to the right.
2. In the Fields pane select InternetMargin from the InternetSales table.
3. In the Visualizations pane, select Gauge.
4. In the Fields pane, drag InternetTargetMargin to the Target value field.
5. In the Visualization pane click on the Format icon (paint roller).
6. Expand Gauge axis, and make Min equal 0 and Max equal 0.45.
7. Test the Gauge by clicking on the other charts.
8. On the file menu click Save.
9. Leave Power Bi Desktop open for the next Exercise.

**Task 7: Using the KPI visualization in Power BI.**

1. On the Report page, resize the Column and Map charts to make some room to the right.
2. Click on a blank area of the report.
3. In the Fields pane select InternetMargin from the InternetSales table.
4. In the Visualizations pane, select KPI.
5. In the Fields pane, drag InternetTargetMargin to the Target goals field.
6. In the Fields pane, drag FiscalYear from the Date table to the Trend axis field.
7. In the Visualization pane click on the Format icon (paint roller).
8. Turn the Trend Axis off.
9. Test the KPI by clicking on the other charts.
10. On the file menu click Save.
11. Leave Power Bi Desktop open for the next Exercise.

**Task 8: Creating a New Report Page in Power BI.**

1. At the bottom of the Internet Sales page, click on the + symbol to create a new page.
2. Rename the page as This Year’s Sales.
3. Go back to the Internet Sales page, select all the visualizations (Ctrl-A) and copy them to the clipboard (Ctrl-C).
4. Paste them on to the new page.
5. Drag FiscalYear from the Date table to the “Page level filters” area.
6. Only select the year 2009.
7. On the file menu click Save.
8. Leave Power Bi Desktop open for the next Exercise.

**Exercise 2: Importing Custom Visualizations in Power BI**

**Task 1: Downloading custom visualizations**

1. Launch Chrome or Firefox, and go to the address <https://store.office.com>
2. On the left hand side of the page, under Add-Ins, click on Power BI Visuals.
3. Scroll down to find and click on the Histogram Chart.
4. On the Histogram Chart page click on the “Get It Now” button (you may have to sign in).
5. On the download page click on the button “Download for Power BI”.

**Task 2: Importing custom visualizations**

1. Go back to Power BI Desktop.
2. On the Report page, at the bottom click on the + sign to add another page to the report.
3. Rename to page to Customer Yearly Incomes.
4. In the Visualization pane, click on the … at the bottom of the visualizations, and select “Import from file”.
5. Click the Import button, and browse to Downloads folder and select the Histogram visual that was saved in the previous task.
6. Click Open, and then click OK when prompted.
7. Click on the Histogram chart to add it to the report page.
8. From the Fields pane, drag YearlyIncome from the Customer table to the Values field.
9. Then drag CustomerKey from the Customer table to the Frequency field.
10. In the Visualization pane, click on Format.
11. Expand General, and change the Bins value to 17.
12. In the ribbon on the Data / Drill tab, click See Data.
13. Click See Data again to return to the report.
14. Click on the … in the top right corner of the Histogram chart, and select Export data.
15. Save the CSV file to the D:\Student folder.
16. Navigate to the file and open it to view the results.
17. Add another Histogram chart that shows Average of SalesAmount by YearlyIncome (copy and paste the Histogram chart and change the Frequency field to SalesAmount from the InternetSales table).
18. Add another page to the report.
19. Rename the page to Sales by Time.
20. Create a stacked column chart that shows SalesAmount by CountryRegionName.
21. Resize the column chart so that it takes up the lower half of the page.
22. Click a blank area of the page and add a Slicer visualization.
23. Drag FullDateAlternateKey from the Date table to the Field area.
24. Resize the Slicer so that it occupies the upper half of the report.
25. In the Fields pane select FullDateAlternateKey in the Date table.
26. Use the Slicer to adjust which date period is included in this report page.
27. Add another page to the report.
28. Rename the page to Sharks.
29. In the Visualizations pane click on the … and select “Import from marketplace” (you might need to sign in).
30. In the Power BI Visuals page, in the Search box, type “Aquarium”.
31. Next to “Enlighten Aquarium” click the “Add” button”.
32. Click on OK when it has imported the visual.
33. Add the Aquarium visual to the report.
34. Drag SalesAmount from the InternetSales table to the visual.
35. Drag CountryRegionName from the Geography table to the Fish field.
36. Resize the visual so it takes up most of the page.
37. Click on the Format icon (paint roller).
38. Under Series, change “Series 1” to “Sharks”.
39. Change the Title to “Sharks”.
40. On the file menu click Save.
41. Leave Power Bi Desktop open for the next Exercise.

**Exercise 3: Publishing to the Power BI Service**

**Task 1: Publishing to the Power BI Service.**

1. In Power BI Desktop, in the top right corner click Sign In.
2. When prompted provide your login name and password.
3. In the ribbon on the Home tab, click Publish.
4. In the Publish to Power BI window, choose My workspace as the destination, and click the Select button.
5. When it has successfully published the data, click Got It.
6. Launch Chrome or Firefox and go to the address <http://powerbi.com>
7. Sign in to the Power BI Service using your credentials.
8. In the Navigator pane on the left hand side, expand My Workspace.
9. Under Reports, click on Adventure Works Sales.
10. At the bottom of the report click on each of the pages.

**Task 2: Exploring the Power BI Service.**

1. On the Internet Sales page, click on the Gauge chart and pin it to a new dashboard called Sales.
2. Under Dashboards, click on Sales.
3. Click on the Gauge chart.
4. Go the Sales by Time page.
5. In the menu bar across the top, click Pin Live Page, and select the existing Sales dashboard.
6. Go to the Sales dashboard.
7. Change the Dates selected in the Slicer.

**Task 3: Editing an existing report in the Power BI Service.**

1. Go back to the report and to the Internet Sales page.
2. In the menu bar across the top click Edit Report.
3. Click on the KPI chart and change the title to “Internet Sales Margin and Target”.
4. Make the title black, centered and size 10.
5. In the menu bar click Save.
6. Go the Sales by Time page.
7. Change the title of the Slicer to be Fiscal Dates.
8. Make the title black, centered, and size 10.
9. In the menu bar click Save.
10. Go the Sales dashboard.
11. Notice the title has changed for the Slicer but not the Gauge.

**Task 4: Editing a dashboard tile in the Power BI Service.**

1. Hover over the Gauge chart and click on the …
2. Click on the Edit Details icon (looks like a pen).
3. In the Tile details page change the title to “Internet Sales Margin and Target”, and then click Apply.
4. Hover over the Sales by Time tile and click on the …
5. Click the Delete tile icon to remove this from the dashboard.

**Task 5: Using Q&A in the Power BI Service to create a report.**

1. On the Sales dashboard, click at the top where it says “Ask a question about your data”.
2. On the Q&A screen type “margin”.
3. Immediately after that type “product category”.
4. Immediately after that type “Column”.
5. Change the word “Column” to “tree”.
6. Change the word “tree” to “pie”.
7. On the far right, expand Visualizations and explore the settings.
8. Change the title to “Margin by Product Category”.
9. Make the title black, centered, and size 10.
10. In the top right hand corner click the icon to pin this to the Sales dashboard.
11. Go to the Sales dashboard and move the Margin by Product Category tile so it is below to the Gauge tile added earlier.
12. Play.