

Module 5 - Assignment

Problem Statement:

You work as a Power BI Developer in a leading software company. As a BI professional, you are asked to build a Power BI Report with the following requirements.

You have been asked to:

- **Connect to data:**

- a) Open Power BI Desktop, connect to the [AdventureWorksLT](#) database, use the query in Task 1 in the **Labexercise1.SQL** file, and load it in Power BI Desktop
- b) Open Power BI Desktop, connect to the **AdventureWorksLT** database, use the query in Task 2 in the [Labexercise1.SQL](#) file, and load it in Power BI Desktop
- c) Now, save the file as **AdventureWorksLT sales 5**

- **Shape the data:**

- a) Rename Query 1 to **Customers** and Query 2 to **Sales**
- b) Delete NameStyle and SalesPerson from the Customers table
- c) Hide the CustomerID column from the Report view
- d) Change the data category of the following:
 - AddressLine1 to **Address**
 - City to **City**
 - StateProvince to **State or Province**
 - CountryRegion to **Country/Region**
 - PostalCode to **Postal Code**
- e) Add a new column **FullAddress**, which will concatenate AddressLine1, City, StateProvince, CountryRegion, and PostalCode
- f) In the Sales table, delete RevisionNumber and SalesOrderNumber columns
- g) Hide CustomerID, SalesOrderID, and SalesOrderDetailID from the Report view
- h) Add a new column called **LineTotal**, which multiplies OrderQty with ListPrice, and make the format as Currency (\$)
- i) Create a measure named **TargetSales**, which increases LineTotal in the Sales table by 2%
- j) Then, save the file

- **Combine the data**

- a) Create a new table called **Sales by States** by importing the [States table](#)
- b) Get data from the [Wikipedia website](#) to import the list of states in America
- c) Remove the last 26 rows
- d) Remove the first 3 Rows
- e) Set the first row as headers
- f) Remove all the columns except the United States of America and US USA 840 columns
- g) Change the name of the table to **States with Codes**
- h) Rename the United States of America to **State Name** and US USA 840 to **State Code Long**
- i) Merge this data with Sales by States, displaying only the State Code Long field

- j) If the Privacy level dialog box appears, click on **Organizational** and then on **Save**
- k) If the Information is required dialog box appears, then click on **Continue**
- l) Name the new column as **State Code**
- m) Click on Close and apply
- n) Hide the states with codes in the Report view
- o) Finally, save the file

- **Add visualizations**

- a) Add a gauge chart with LineTotal in the value Properties and TargetSales in the Target value Properties
 - b) Set the Max value of the gauge to 1460000, and name it as **Target Sales**
 - c) Create a pie chart with CompanyName and LineTotal; name it as **Top Selling Companies**, and center-align it
 - d) Create a stacked bar chart with MainCategory and OrderQty columns; name it as **Sales by Main Category**, and then, center-align it
 - e) Click on Analysis, expand the Constant Line, and click on Add. Then, set the value to 500, and change the color to Red
 - f) Create a donut chart with MainCategory and LineTotal
 - g) Name it as **Sales by Main Category**, and center-align it
 - h) Create a stacked column chart and add Product, LineTotal, and MainCategory
 - i) Filter the products to display only those with sales greater than US\$32,000, and then, filter the list to display only 'bikes'
 - j) Name it as **Top Selling Bikes**, and center-align it
 - k) Add a Constant Line, with the value set to 35000, and then set the color to Red
 - l) Save the report, and add a new page to the report
 - m) Create a map visual with City and LineTotal, and name it as **World Sales by City**
 - n) Add a map visual with State Code and SalesYTD, and rename the map to **Sales by State**
 - o) Finally, save the report
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