**Assignment 5**

Explain DAX.

Sol:

DAX(Data Analysis Expressions) is a collection of functions, operators, and constants that can be used in a formula, or expression, to calculate and return one or more values. Stated more simply, DAX helps you create new information from data already in your model.

Explain datasets, reports, and dashboards and how they relate to each other?

Sol:

A report is a more detailed collection of tables, charts, and graphs and it is used for a much more detailed, full analysis while a dashboard is used for monitoring what is going on.. A dataset **contains the information that is needed to retrieve a specific set of data from a data source**. There are two types of datasets: embedded and shared. An embedded dataset is defined in a report and used only by that report.

How reports can be created in power BI, explain two ways with Navigation of each.

Sol:

Two methods are:

* Method 1: Creating Reports using the Power BI Desktop Tool
* Method 2: Creating Reports using the Power BI Web Tool

### Methods 1: Creating Reports using the Power BI Desktop Tool

#### Step 1: Integrating your Data Source with Power Query

In this Power BI Report Design method, you will import your data and process it further using Power Query. You can connect to your data source by selecting the Home tab on the ribbon and then selecting Get Data.

#### Step 2: Querying Data onto the Navigator

When you click on “OK”, the Query functionality of the Power BI Desktop tool starts the execution process and brings up the Navigator window.

#### Step 3: Editing the Queries on the Table

This method of Power BI Report Design also allows you to modify the queries before loading the table onto Power BI Desktop. If you want to do this select the “Transform Data” option on the bottom page. In case you want to load the data without editing, click on “Load”.

When you select Transform data, Power Query Editor starts, and a representative view of the table is shown. The Query Settings pane appears where you can connect to multiple data sources.

#### Step 4: Shaping the Data According to your Requirements

When you shape data in Power Query Editor, you provide step-by-step instructions to the editor to adjust the data as per your business requirements. The original data source isn’t affected. Only the data associated with this particular view will be adjusted or shaped.

The steps are carefully recorded under the Applied Steps section in the Power Query Settings Pane and the Power BI Desktop tool replicates the steps whenever the queries get executed.

#### Step 5: Merging Queries from Different Tables

In this Power BI Report Design method, you can combine different tables from multiple data sources into a single table too. You need to import the table just like you saw in Step 2 and shape it if required.

To unify tables, you can merge the queries to make them easier for processing. To merge queries, you need to select the query you want to merge first. Next, select the query which will have this merged query. Then, click on the home tab on the ribbon, and select “Merge Queries”.

#### Step 6: Loading the Report onto the Power BI Desktop

Now that the report is ready you need to load it onto the Power BI Desktop. You need to apply all the changes and save them. You can do this by replicating all changes in Power BI Desktop and selecting the “Close & Apply” on the Home tab on the ribbon.

### Method 2: Creating Reports using the Power BI Web Tool

#### Step 1: Selecting your Data Source

Once you open Power BI on the web, you need to go to the left navigation pane and click on the “Create” button. This helps you to choose your data source.

#### Step 2: Selecting the Data Types for Attributes

In this Power BI Report Design method, Power BI will automatically detect the data types, but you have the option to manually set them using the data type button to the left of the column name.

#### Step 3: Summarizing your Data Source using Create Flow

The Power BI Web Tool enables you to create a new data set and automatically generates a summarized version of the data using Create Flow. This helps you transform raw data into valuable insights within a matter of a few clicks.

#### Step 4: Editing Fields using the Summarize Pane

In this Power BI Report Design method, you can make reports as per your needs by editing them easily. In case you want to edit your report by adding or deleting columns, you can do that easily using the Summarize Pane feature supported by Power BI. To do this, simply select and unselect the fields you want to update, what you want to measure and analyze by, and you’ll see charts automatically added or removed to show all combinations

How to connect to data in Power BI? How to use the content pack to connect to google analytics? Mention the steps.

Sol:

To connect to the data, we can use the “Get Data” option available at the top and choose our desired data type and destination.

Steps to use the content pack to connect to google analytics:

1. In Power BI Desktop, select Get data from the Home ribbon tab.
2. In the Get Data window, select Online Services from the categories in the left pane.
3. Select Google Analytics from the selections in the right pane.
4. At the bottom of the window, select Connect.

How to import Local files in Power BI? Mention the Steps.

Sol:

Steps to import Local files in Power BI:

1. Select the “Get data” option from the top ribbon of the home page.
2. Select the “More” option from the dropdown menu to select the desired data type/file type/connection type.
3. A screen showing a preview of the data will be appeared, you can either select “Load” to load the dataset directly to the model or you can also select “Transform and load” to make changes in data before loading.

In Power BI visualization, what are Reading View and Editing view?

Sol:

Reading view is your way to explore and interact with reports created by colleagues.

Even in Reading view, the content isn't static. You can dig in, looking for trends, insights, and other business intelligence. Slice and dice the content, and even ask it questions using your own words. Or, sit back and let your data discover interesting insights for you; send you alerts when data changes, and email reports to you on a schedule you set. All your data, any time, in the cloud or on-premises, from any device.

In report Editing view, you have flexibility in both exploring and designing a report. All the Reading view functionality is available, plus much more.