Power BI Assignment 5

1. Explain DAX.

Data Analysis Expressions (DAX) is a formula expression language used in Analysis Services, Power BI, and Power Pivot in Excel. DAX formulas include functions, operators, and values to perform advanced calculations and queries on data in related tables and columns in tabular data models. DAX 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. DAX helps you create new information from data already in your model. DAX formulas are used in measures, calculated columns, calculated tables, and row-level security. Measures are dynamic calculation formulas where the results change depending on context. Measures are used in reporting that support combining and filtering model data by using multiple attributes such as a Power BI report or Excel PivotTable or PivotChart. Measures are created by using the DAX formula bar in the model designer.

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

In the world of data analytics, **datasets**, **reports**, and **dashboards** are interconnected. A **dataset** is a collection of raw data that has been gathered and organized for analysis. This data can come from various sources and is often structured in a way that facilitates processing and analysis. A **report** is a document that presents this processed data in an organized manner, often summarizing the findings or insights derived from the dataset. It may include tables, charts, and narratives to help interpret the data. A **dashboard**, on the other hand, is a visual interface that displays multiple reports or key metrics in real-time. It provides a consolidated view of the data and allows users to interact with it, enabling them to make informed decisions quickly. In essence, data flows from datasets to reports, and then to dashboards, each step adding a layer of interpretation and usability.

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

Two ways to create reports in Power BI:

- **Power BI Desktop**: This is a Windows application for desktop computers. To create a report, you first connect to your data sources. You can then transform the data into a usable form, and create reports using drag-and-drop gestures and data fields.
- **Power BI Service**: This is an online service (sometimes referred to as Power BI online). You can create reports in Power BI Service by first importing or connecting to data, which is then used to create new datasets. Once the datasets are available, you can use the drag-and-drop interface to design your reports.

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

To connect to data in Power BI, you need to open Power BI Desktop and select 'Get data' on the Home tab. You can choose from many different data sources such as Excel, Web, Power Platform, etc. After selecting the data source and entering the credentials if required, you can select the tables or queries you want to import or load. Then, select the Data Connectivity mode, such as Import or DirectQuery, and click OK to establish the connection.

For connecting to Google Analytics using the content pack in Power BI, you need to click 'Get Data' in the left navigation pane. In the Services box, click 'Get'. From the menu of online services, select Google Analytics, and then click 'Connect'. You will then need to enter the Google Analytics account, property, and view that you want to connect to.

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

To import a local file to Power BI service:

- Click on 'Get Data' in the lower left screen of Power BI.
- Under 'Import or Connect to Data > Files', click 'Get'.
- Click on 'Local File'.
- Choose the file you want to upload and click 'Open'.
- Click 'Upload' under 'Upload your Excel file to Power BI'.
- A message "Your file has been uploaded" should appear.

Alternatively, you can select '+ New' in a Power BI workspace, choose 'Upload a file', select CSV, go to the file you want to upload and then choose 'Import'.

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

In Power BI, the Reading View and Editing View serve different purposes. The Reading View is primarily used by business users to consume reports created by others. It allows users to explore and interact with existing reports, including interacting with any filters that already exist in the report. However, new filters cannot be added in this view.

On the other hand, the Editing View is used by report designers to create and modify reports. This view allows the addition of various kinds of filters. When the report is saved, these filters are saved with it, even if the report is opened in a mobile app. Therefore, the Editing View provides more flexibility and control over the report design.