Power BI Assignment 5

1. **Explain DAX.**

Data Analysis Expressions (DAX) is a library of functions and operators that can be combined to build formulas and expressions in Power BI, Analysis Services, and Power Pivot in Excel data models.

*There are two primary data types in Power BI DAX functions:*

* Numeric: numeric data types include decimals, currency values, integers, etc.
* Non-numeric: it consists of strings, binary objects, etc.

*In Power BI, you can use different function types to analyze data, and create new columns and measures. It includes functions from different categories such as −*

* Aggregate
* Text
* Date
* Logical
* Counting
* Information

*Here are some unique facts about DAX functions that you must know in order to understand them better:*

* Any DAX function always refers to a complete column/field or a table. It will never refer to individual values. If you want to use the functions on separate values within a column, you need to apply filters in a DAX formula.
* DAX functions provide the flexibility to create a formula that is applied on a row-by-row basis. The calculations or formulas get applied as per the context of the values in each row.
* In some cases, DAX functions return a full table which can be used in other DAX formulas that need a complete set of values. However, you cannot display this table’s contents.
* DAX functions have a category known as time intelligence functions. Such functions are used to calculate time/date ranges and periods.

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

**Datasets** :- A dataset is a collection of data that you import or connect to. Power BI lets you connect to and import all sorts of datasets and bring all of it together in one place. Datasets can also source data from dataflows. Datasets are associated with workspaces, and a single dataset can be part of many workspaces.

**Report** :- A Power BI report is a multi-perspective view into a dataset, with visuals that represent findings and insights from that dataset. A report can have a single visual or many pages full of visuals. Depending on your job role, you might be someone who designs reports, or you might be a business user who consumes reports.

**Dashboard** :- A Power BI dashboard is a single page, often called a canvas, that tells a story through visualizations. Because it's limited to one page, a well-designed dashboard contains only the highlights of that story. Readers can view related reports for the details. Dashboards are a feature of the Power BI service.

**Dashboards** and **Reports** are the two main components of the Power BI solution. There is a misconception about Report that it is a detailed tabular report, and about the dashboard is that it is an interactive visualization with the chart.



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

Creating reports in Power BI is quite easy. Here are the basic steps:

* Open the Power BI Desktop application.
* Connect the data you want to visualize by clicking on "Get Data" and selecting your data source.
* Use the "Fields" pane on the right side of the screen to drag and drop the fields you want to use into the report canvas.
* Customize the visuals by selecting a visual from the "Visualizations" pane and dragging it onto the canvas.
* Add filters, slicers, and other interactive elements to your report to make it more dynamic.
* Format the visuals to make them more visually appealing.
* Add additional pages to the report by clicking on "New Page" at the bottom of the screen.
* Save your report and share it with others.

There are two ways to create reports in Power BI:

* Using the Power BI Desktop application: a. Open the Power BI Desktop application and click on the "Get Data" button in the ribbon. b. Choose the data source you want to use, then click "Connect". c. Once your data is loaded, click on the "Report" button in the ribbon. d. Drag and drop visualizations onto the report canvas to create your report. e. Customize your report by adding filters, changing visualizations, and adjusting formatting as needed.
* Using the Power BI service: a. Sign in to powerbi.microsoft.com and select the workspace where you want to create a report. b. Click on the "Create" button and choose "Report". c. Select your dataset then click "Create". d. Once your data is loaded, drag and drop visualizations onto the report canvas to create your report. e. Customize your report by adding filters, changing visualizations, and adjusting formatting as needed.

1. **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 can follow these steps:

* Open Power BI and select "Get Data" from the Home tab.
* Select the data source that you want to connect to. Power BI supports a wide variety of data sources such as Excel, SQL Server, Salesforce, and many others.
* Enter the required information to connect to the data source. The information required will vary depending on the data source you are connecting to.
* Once you have entered the required information, click "Connect" to establish the connection.
* Select the tables or views that you want to use in your report and click "Load" to import the data into Power BI.

Alternatively, you can also use the Google Analytics content pack to quickly connect to your data and create reports. Here are the steps to use the content pack:

* Click on 'Get Data' from the Home tab and select 'Get' under 'Services.'
* Choose 'Google Analytics' from the list of services.
* Select the desired content pack and click 'Connect.'
* Sign in with your Google Analytics credentials and select the account you want to connect to.
* Choose the desired data view

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

Steps to import local files in Power BI:

* Open Power BI Desktop.
* Click on the "Home" tab in the ribbon.
* Click on "Get Data" and select "File" from the list of options.
* Choose the type of file you want to import (Excel, CSV, Access, etc.) and click "Connect."
* Browse to the location of the file you want to import and select it.
* Click "Open" to load the file into Power BI.
* Use the "Preview" button to review the data in the file before importing.
* Click on "Load" to import the data into Power BI.

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

Reading view and editing view are the two main modes in Power BI visualization.

* Reading view is the default mode that displays the report in a read-only format. It's designed for end-users who need to consume the report and interact with the visualizations. In this view, users can access all the report pages and interact with the data through filters, slicers, and drill-downs.
* On the other hand, the editing view is where you can create or modify a report. In this mode, you can customize the report's design, layout, and formatting, add new visualizations, and configure data sources and connections. Additionally, you can access advanced features such as data modeling, DAX formulas, and custom visuals.

To switch between these two views, you can use the corresponding buttons on the top-right corner of the report canvas