**Power BI Assignment 5**

1. Explain DAX.

DAX stands for Data Analysis Expressions, which is a formula language used in Power BI and other Microsoft tools such as Excel and Analysis Services. DAX is used to create custom calculations and aggregations in data models and is similar to Excel formulas, but with additional functions and syntax specific to tabular data models. DAX is used to create measures, calculated columns, and calculated tables in Power BI and can be used to create complex calculations that may not be possible using traditional SQL queries or Excel formulas. DAX formulas can reference columns and tables, perform mathematical and logical operations, and use a wide variety of functions to analyse and manipulate data.

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

* In Power BI, a dataset is a collection of data that is used to create reports and dashboards. It can consist of one or more tables, with each table containing rows of data and columns of fields.
* A report is a visual representation of the data in a dataset, and it can contain one or more pages, each with one or more visualizations such as charts, tables, or maps. A report can be used to analyze and explore data in various ways, including filtering, sorting, and grouping data.
* A dashboard is a collection of visualizations from one or more reports, and it provides a high-level overview of key performance indicators (KPIs) or other important metrics. Dashboards often contain interactive elements such as slicers or drill-down capabilities, allowing users to explore the data behind the visualizations in more detail.
* In Power BI, datasets are used as the foundation for creating reports, and reports are used as the building blocks for creating dashboards. Reports and dashboards can be shared and viewed by others, either within an organization or with external stakeholders. By creating reports and dashboards based on shared datasets, users can ensure that everyone is working with the same, up-to-date data, and can collaborate and share insights more effectively.

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

Reports can be created in Power BI using two ways:

1. Power BI Desktop: Power BI Desktop is a Windows application that allows creating reports in a more sophisticated way. It offers advanced features and flexibility for creating reports. To create reports using Power BI Desktop, follow these steps:

* Download and install Power BI Desktop.
* Connect to the data source.
* Create a data model.
* Design the report by adding visuals and formatting them.
* Save and publish the report to the Power BI service.

1. Power BI Service: Power BI Service is a cloud-based service that allows creating reports and sharing them with others. To create reports using Power BI Service, follow these steps:

* Login to the Power BI Service.
* Connect to the data source.
* Create a data model.
* Create a report by adding visuals and formatting them.
* Save and publish the report to the Power BI service.

1. Navigation for creating reports in Power BI Service:

* Login to the Power BI Service and click on the "Workspace" in the left navigation pane.
* Click on the "Create" button and select "Report" from the dropdown menu.
* Connect to the data source and select the desired fields.
* Drag and drop visualizations from the "Visualizations" pane onto the report canvas.
* Customize the visuals using the formatting options in the "Visualizations" pane.
* Save and publish the report to the workspace.

1. Navigation for creating reports in Power BI Desktop:

* Open Power BI Desktop and click on "Get Data" to connect to the data source.
* Select the desired fields and create a data model.
* Click on the "Report" tab to switch to the report canvas.
* Drag and drop visualizations from the "Visualizations" pane onto the report canvas.
* Customize the visuals using the formatting options in the "Visualizations" pane.
* Save and publish the report to the Power BI service.

1. How to connect to data in Power BI? How to use the content pack to connect to google analytics? Mention the steps.
   1. To connect to data in Power BI, follow these steps:

* Open Power BI Desktop.
* Click on "Get Data" in the Home tab of the ribbon.
* Select the data source we want to connect to from the list of available data sources.
* Follow the prompts to provide the necessary connection information, such as the server name, database name, and credentials.
* Select the data we want to work with and load it into Power BI.
  1. To use the content pack to connect to Google Analytics, follow these steps:
* In Power BI, click on "Get Data" in the Home tab of the ribbon.
* Select "Services" and then "Google Analytics" from the list of available data sources.
* Click "Connect" to connect to Google Analytics account.
* Enter Google Analytics credentials and select the profile we want to use.
* Choose the data we want to work with, and then click "Load" to load it into Power BI.

Once we have connected to Google Analytics, we can use the data in Power BI to create reports and visualizations that help analyze the website traffic and other metrics.

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

We can import local files in Power BI by following these steps:

* Open Power BI Desktop and select "Get Data" from the Home tab on the ribbon.
* In the "Get Data" window, select the type of file we want to import. Power BI supports a variety of file types, including Excel workbooks, CSV files, text files, XML files, and JSON files.
* Browse to the location of file and select it.
* If file has multiple tables, select the table we want to import.
* If needed, perform any data transformations we want to apply in the Query Editor.
* Click "Close & Apply" to load the data into Power BI.

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

Reading View is a view-only mode that allows users to interact with a report or dashboard without being able to make any changes. This view is typically used when sharing a report or dashboard with others who may not need to make any modifications to the content.

Editing View, on the other hand, is a mode that allows users to make changes to the visualizations, reports, or dashboards. This mode enables users to modify the existing visuals, create new ones, add data, or create new calculations, and is typically used by content creators or report authors who need to update the content or build new reports.