1. **Explain DAX.**

DAX (Data Analysis Expressions) is a special computer language that helps us work with numbers and data in a really smart way. It's like having a magic calculator that can do all sorts of math tricks and calculations for us.

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

|  |  |  |  |
| --- | --- | --- | --- |
| **Aspect** | **Dataset** | **Reports** | **Dashboard** |
| **Role** | Collections of structured data. | Documents or presentations that display data. | Visual interfaces showing real-time data and key metrics. |
| **Content** | Raw data, numbers, text, dates, etc. | Summaries, trends, analysis results. | Visual elements like charts, graphs, gauges, and tables. |
| **Storage** | Databases, spreadsheets, data warehouses. | Digital or printed documents. | Interactive screens or web pages. |
| **Usage** | Basis for data analysis and decision-making. | Used to communicate insights to an audience. | Used for monitoring performance and making quick decisions. |
| **Examples** | Sales records, customer data, website logs. | Monthly sales report, financial analysis. | Executive dashboard, sales performance dashboard. |
| **Interactivity** | Typically static; updated periodically. | Limited interactivity (charts, filters). | Highly interactive (real-time updates, drill-down). |
| **Audience** | Data analysts, data scientists. | Managers, decision-makers. | Executives, operational teams, front-line employees. |

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

**Method 1: Creating Reports Using the Power BI Desktop**

1.Download and Install Power BI Desktop

2.Import Data

3.Design Your Report

4.Create Interactions (Optional)

5.Save Your Report

6.Publish to Power BI Service (Optional):

If you want to share your report online, publish it to the Power BI Service by clicking "Publish" in the File menu. You'll need a Power BI Pro or Premium account to do this.

**Method 2:** **Creating Reports in the Power BI Service (Online)**

You can also create reports directly in the Power BI Service, which is the online platform for sharing and collaborating on Power BI content. Here's how:

1.**Access Power BI Service:**

2.**Upload Data**:

Click on "Workspace" in the left navigation pane, then select a workspace.

Click "Datasets" and then click "Get Data" to upload or connect to your data.

3.Create Report:

After importing your data, go back to the workspace's homepage.

Click "Create" and select "Report" from the dropdown menu.

4.**Design Your Report:**

Add fields to your visuals, customize formatting, and create interactions as needed.

5.**Save and Publish:**

Click "File" and choose "Save" to save your report.

If you want to share your report, click "Publish" to make it available to others in your organization.

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

**Ans-** To connect to data in PowerBI, follow these steps:

**Method 1: Importing Data**

Launch Power BI Desktop > Open Power BI Desktop> Get Data> select data source> configure connection> load data

**Method 2: DirectQuery and Live Connection**

In addition to importing data, Power BI also supports DirectQuery and Live Connection for certain data sources, which allows for real-time or direct access to the data without importing it into the Power BI data model. These methods are suitable for databases like SQL Server, Azure SQL Database, and more.

**Method 3: Power Query**

Power Query is an integral part of Power BI that allows you to transform and shape data before loading it into the Power BI data model. You can use Power Query to clean, filter, merge, and manipulate data from various sources. To access Power Query:

In Power BI Desktop, click on the "Edit Queries" button after loading data. This opens the Power Query Editor.

In the Power Query Editor, you can apply transformations to your data using a user-friendly interface.

Once you've completed data transformations, click "Close & Apply" to load the modified data into the Power BI data model.

Open Power BI:

Launch the Power BI service by visiting https://app.powerbi.com and signing in with your Power BI account.

Navigate to "Get Data":

In the left-hand navigation pane, click on "Get Data" to begin importing data into Power BI.

Select "Services":

Under the "Get Data" window, scroll down or search for "Services." Click on it to expand the options.

Choose "Google Analytics":

Locate and select "Google Analytics" from the list of available services.

Connect to Google Analytics:

You'll be prompted to connect to your Google Analytics account. Click on "Connect" or a similar option to start the connection process.

Sign in to Google Account:

A sign-in window will appear, asking you to sign in with your Google Analytics credentials (email and password). Enter your information and click "Sign In."

Authorize Access:

After signing in, you may need to authorize Power BI to access your Google Analytics data. Follow the prompts to grant the necessary permissions.

Select Google Analytics View:

Choose the specific Google Analytics view (website) that you want to connect to. You can select from the available views associated with your Google Analytics account.

Configure Data Import:

Configure settings such as date ranges and dimensions to specify the data you want to import into Power BI. These settings allow you to define what data will be included in your report.

Load Data:

Click the "Load" or "Load data" button to import the Google Analytics data into your Power BI workspace.

Start Building Reports:

Once the data is loaded, you can start building reports, visualizations, and dashboards using the Google Analytics data within Power BI.

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

Open PowerBI Desktop> Click on Get data> Choose data source> select file> Configure data Import>Preview data> Transform data> Load data> build reports> Save

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

**Ans-** Below is the detailed comparison between Reading and Editing view: -

|  |  |  |
| --- | --- | --- |
|  | **Reading View** | **Editing View** |
| **Purpose** | For consuming and interacting with reports. | For designing and creating reports and dashboards. |
| **Capabilities** | Interact with visuals (click, filter). | Design and modify visuals and layouts. |
|  | Drill down into data. | Create calculated columns and measures. |
|  | Export data. | Apply filters and slicers. |
|  | Share reports. | Set up interactions between visuals. |
| **Access** | Accessible when viewing published reports or | Accessible when authoring reports in Power BI |
|  | reports shared with you. | Desktop or the Power BI service. |
| **Interactivity** | Interactivity available (e.g., clicking visuals, | Full interactivity for designing and configuring |