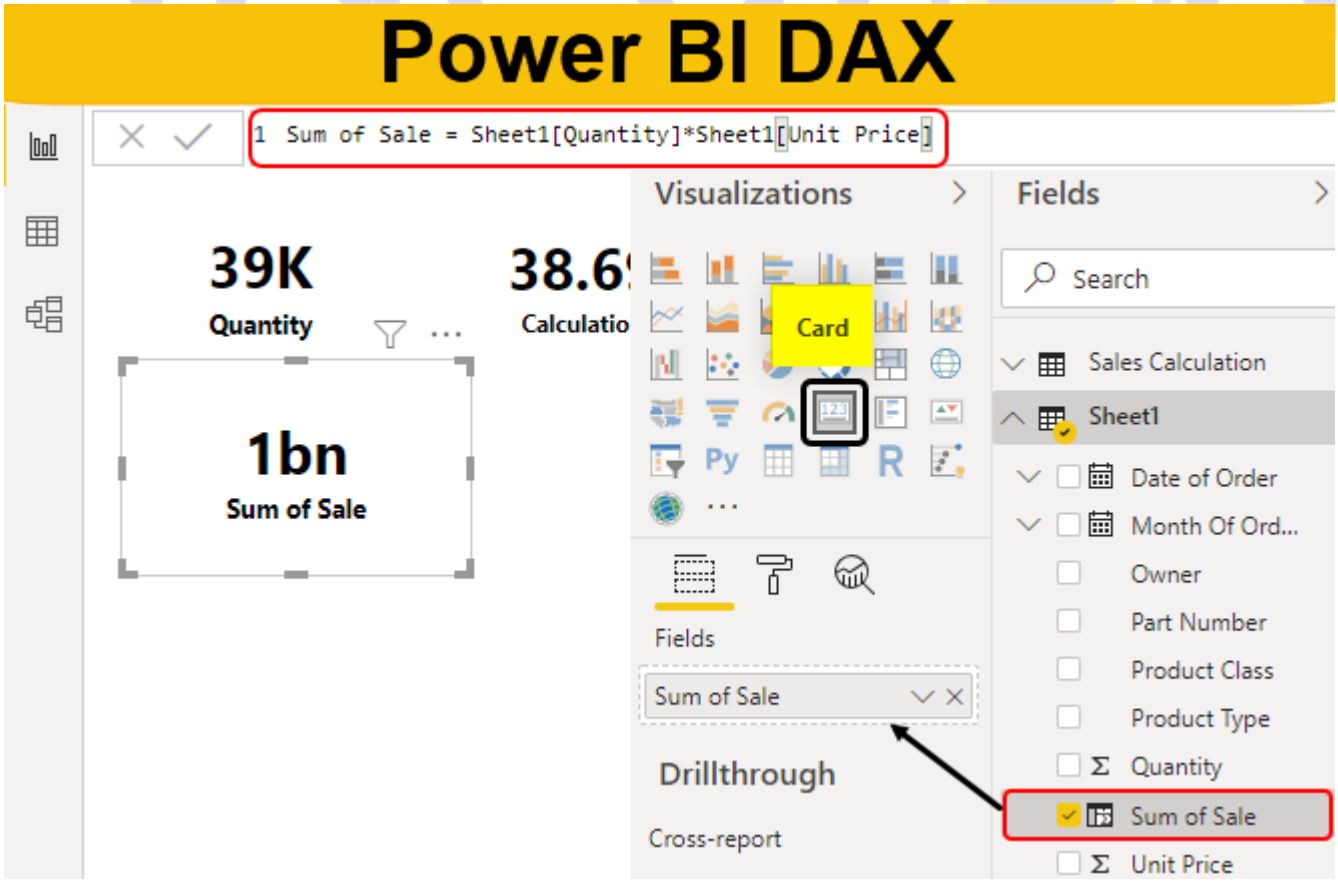
Power BI Assignment 5

1. Explain DAX.

Ans- DAX, which stands for Data Analysis Expressions, is a formula language used in Power BI. DAX is designed to perform calculations, create custom formulas, and define business logic within Power BI.

Key Features of DAX

a) Calculation Engine: DAX operates within the calculation engine of Power BI. It allows users to create complex formulas and calculations on data columns, tables, or entire datasets.
b) Tabular Data Model: Power BI utilizes a tabular data model, where data is organized into tables and relationships are established between them.
c) Formula Syntax: DAX expressions use a formula syntax similar to Excel formulas. It consists of functions, operators, and constants to create calculations and manipulate data.



d) Aggregation and Iteration: DAX supports both aggregation and iteration operations. Aggregation functions allow you to calculate summary values such as sums, averages, counts, etc., over a set of data.

e) Context and Filter: DAX operates within a specific context, which is influenced by filters applied to the data.

f) Measures and Calculated Columns: In Power BI, DAX can be used to create two types of calculations: measures and calculated columns.

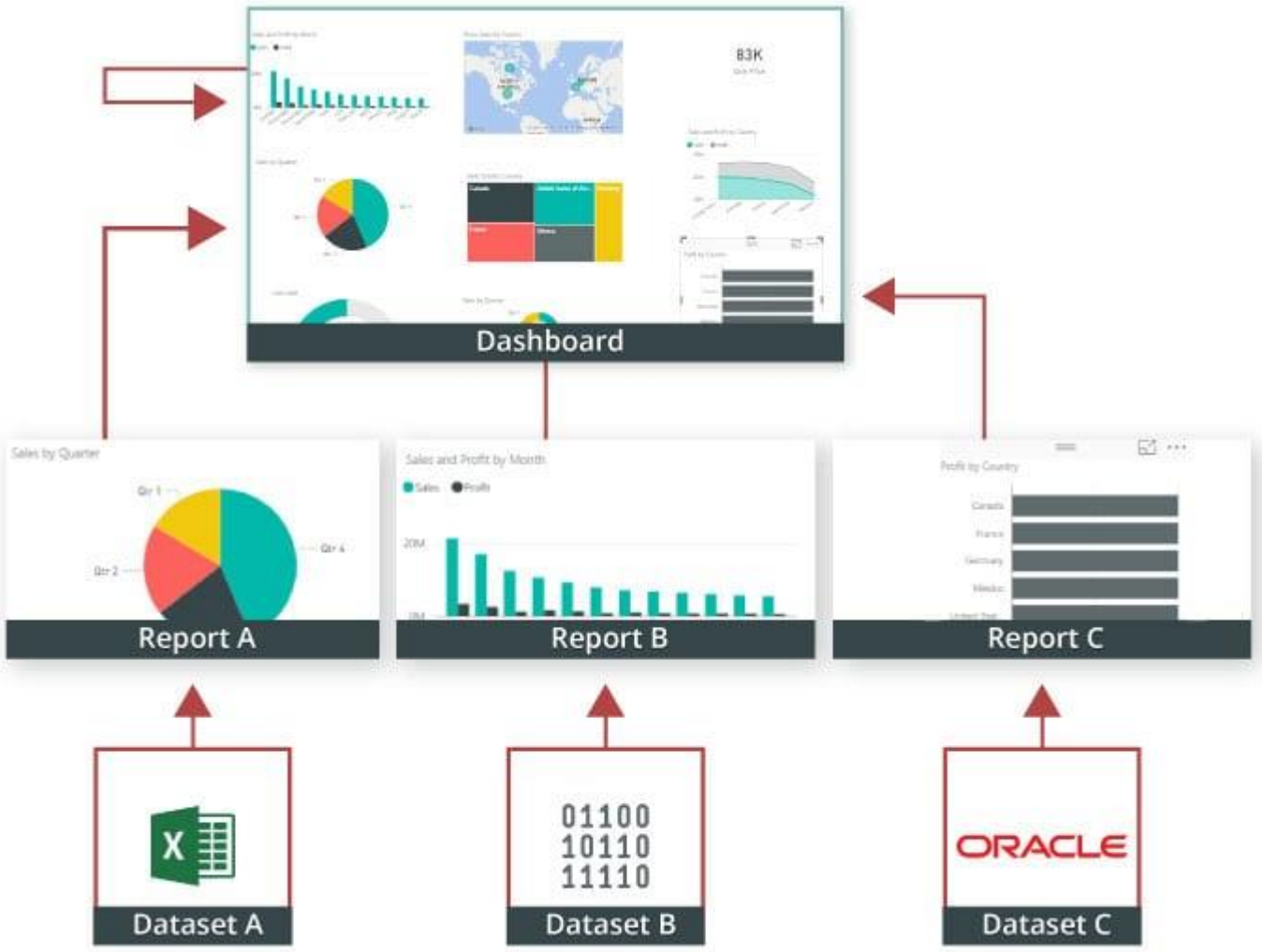
g) Time Intelligence: DAX includes a range of functions and techniques for handling time-based calculations and analysis.

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

Ans- In Power BI, datasets, reports, and dashboards are interconnected components that work together to create a comprehensive data analysis and visualization environment.

Datasets- A dataset is essentially a collection of related tables, queries, and data connections that are imported or directly connected to external data sources.

They provide the data that can be transformed, modeled, and aggregated using Power Query and DAX expressions. Datasets can be refreshed to ensure the data is up-to-date.



Reports- Reports in Power BI are interactive visualizations and presentations of data derived from datasets. A report is created by combining visuals such as charts, tables, matrices, and other elements that represent the data in a meaningful way.

Reports allow users to explore data, drill down into details, apply filters, and interact with visuals to gain insights. Users can create multiple pages or tabs within a report to organize different views and analyses.

Dashboards- Dashboards in Power BI are high-level, customizable displays of key insights and visualizations from one or multiple reports. A dashboard provides a consolidated view of important metrics, trends, and data summaries.

Dashboards are typically composed of individual tiles, which are visual elements extracted from underlying reports. Dashboards provide a summarized and focused view of data, allowing users to quickly monitor the health of their business or specific areas of interest.

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

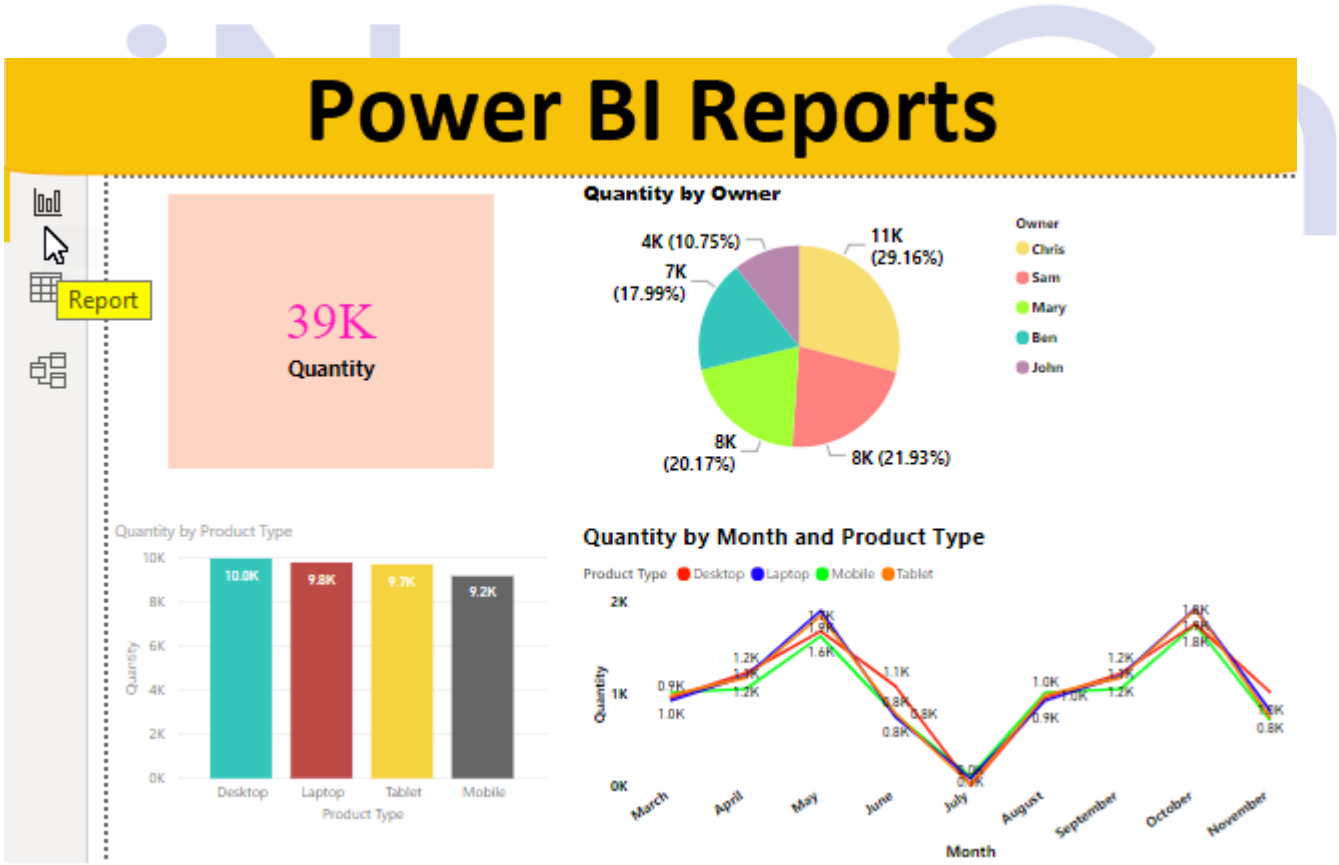
Ans- Reports can be created in Power BI using two primary methods: Power BI Desktop and Power BI Service. Below is the breakdown of each method and the navigation steps involved in creating reports:

1)**Power BI Desktop**

Power BI Desktop is a Windows application that provides a powerful environment for creating reports and data models. It offers advanced features and flexibility for designing rich visualizations and customizing report layouts.

Steps to create report

>Launch Power BI Desktop>>Get Data>Choose desired data source>Import Data>Design Report Lay off>Add data fields>Customize Visuals and Formatting>Apply Filters and Interaction>Save and Publish report.



2)**Power BI Service**

Power BI Service is a cloud-based platform that allows user to create reports directly within your web browser.

Steps involved are

Sign in to Power Bi service>Create a New Report>Connect to data>Design Report>Customize Visuals and Formatting>Apply Filters and Interaction.

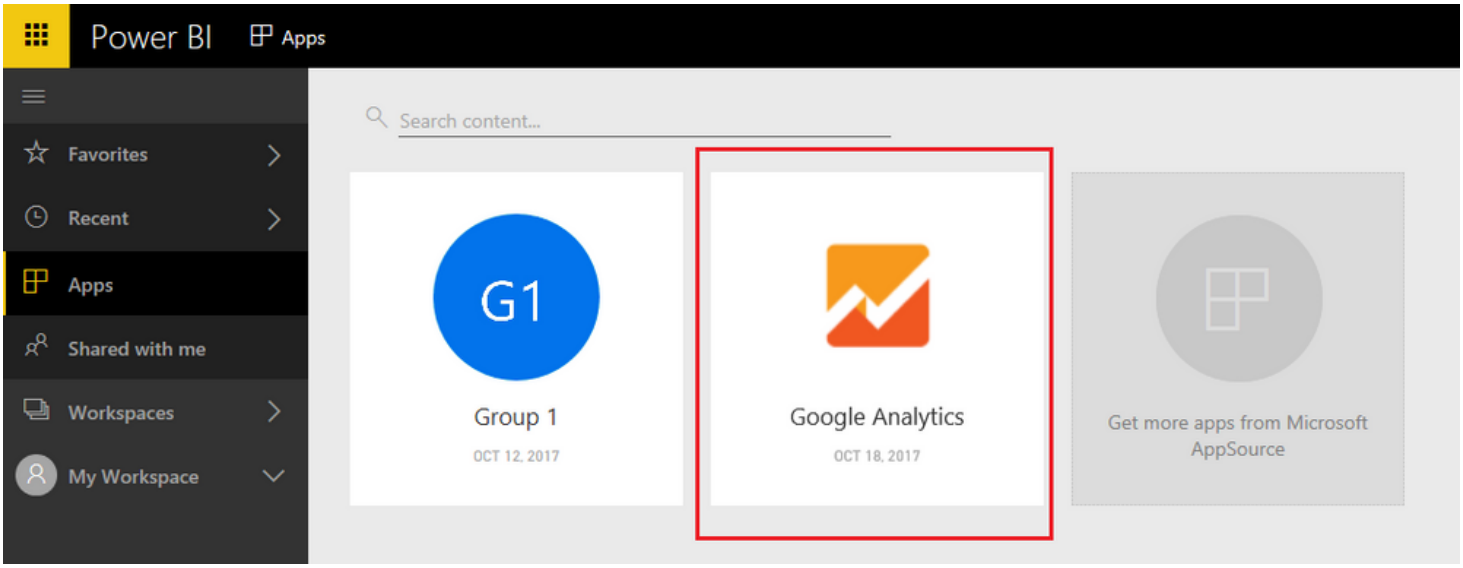
4. How to connect to data in Power BI? How to use the content pack to connect to google analytics? Mention the steps.

Ans- Data is connected in Power Bi to import raw data so as to transform it and draw meaningful conclusions.

>Launch Power Bi desktop>Get Data>Select data source>Connect to data source>Transform and load data>Load and edit data

<u>Steps to connect to Google Data Analytics Content Pack</u>

>Power BI Service>Get Data>Browse Content Packs>Connect to Google Data Analytics>Authenticate>Select View>Load data

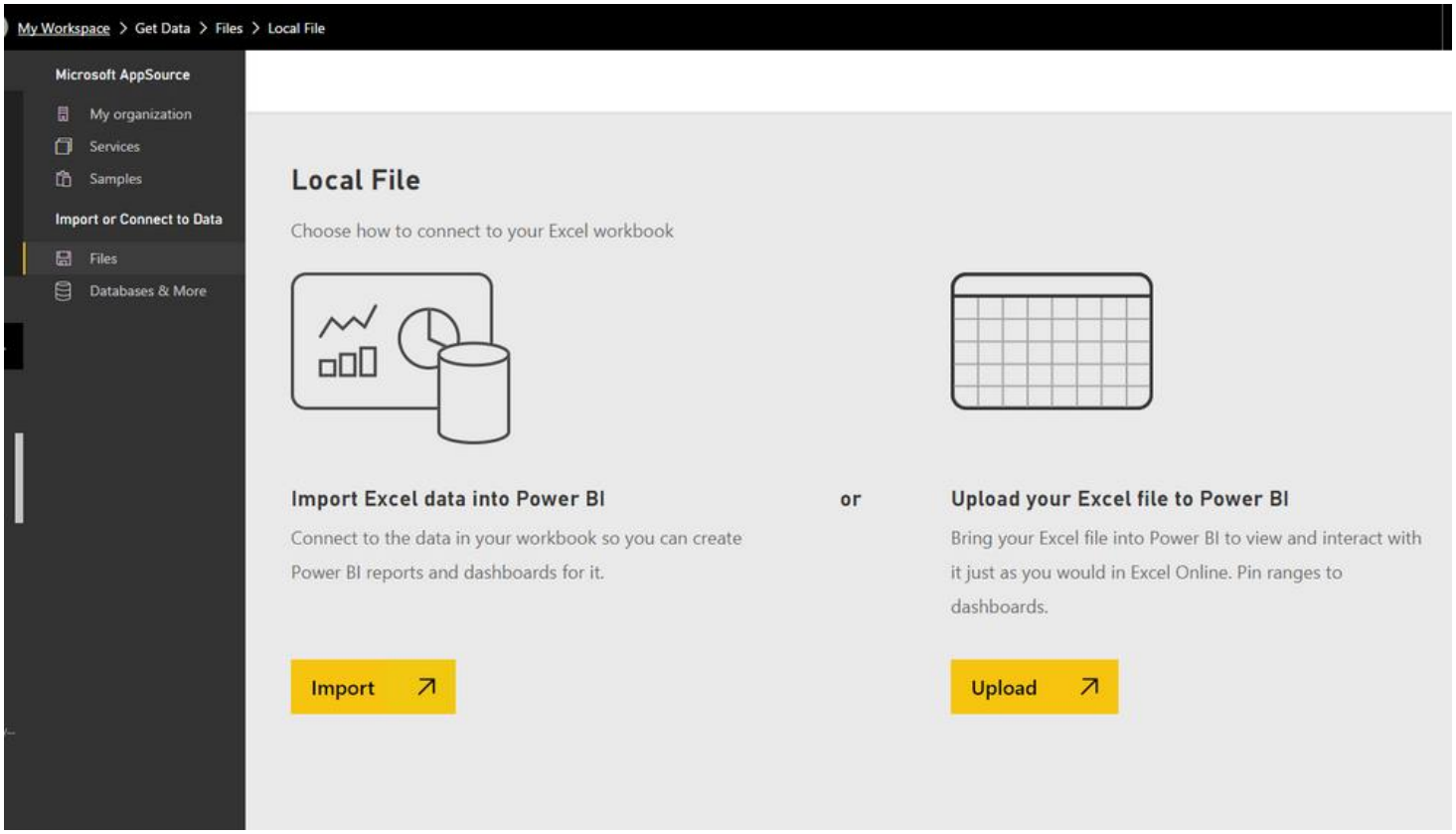


5. How to import Local files in Power BI? Mention the Steps.

Ans- Local files refer to files that are stored on your computer's local hard drive or any connected storage device, such as a USB drive or an external hard drive. These files are typically stored locally and are not hosted on a network or cloud-based storage.

Steps to import local files

>Launch Power Bi Desktop>Get Data>Select File Type>Choose local file>Connect to File>Transform and load data>Load Data.



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

Ans- In Power BI, there are two main views when working with visualizations: Reading View and Editing View. These views provide different functionalities and modes for interacting with and modifying your visualizations.

Reading View

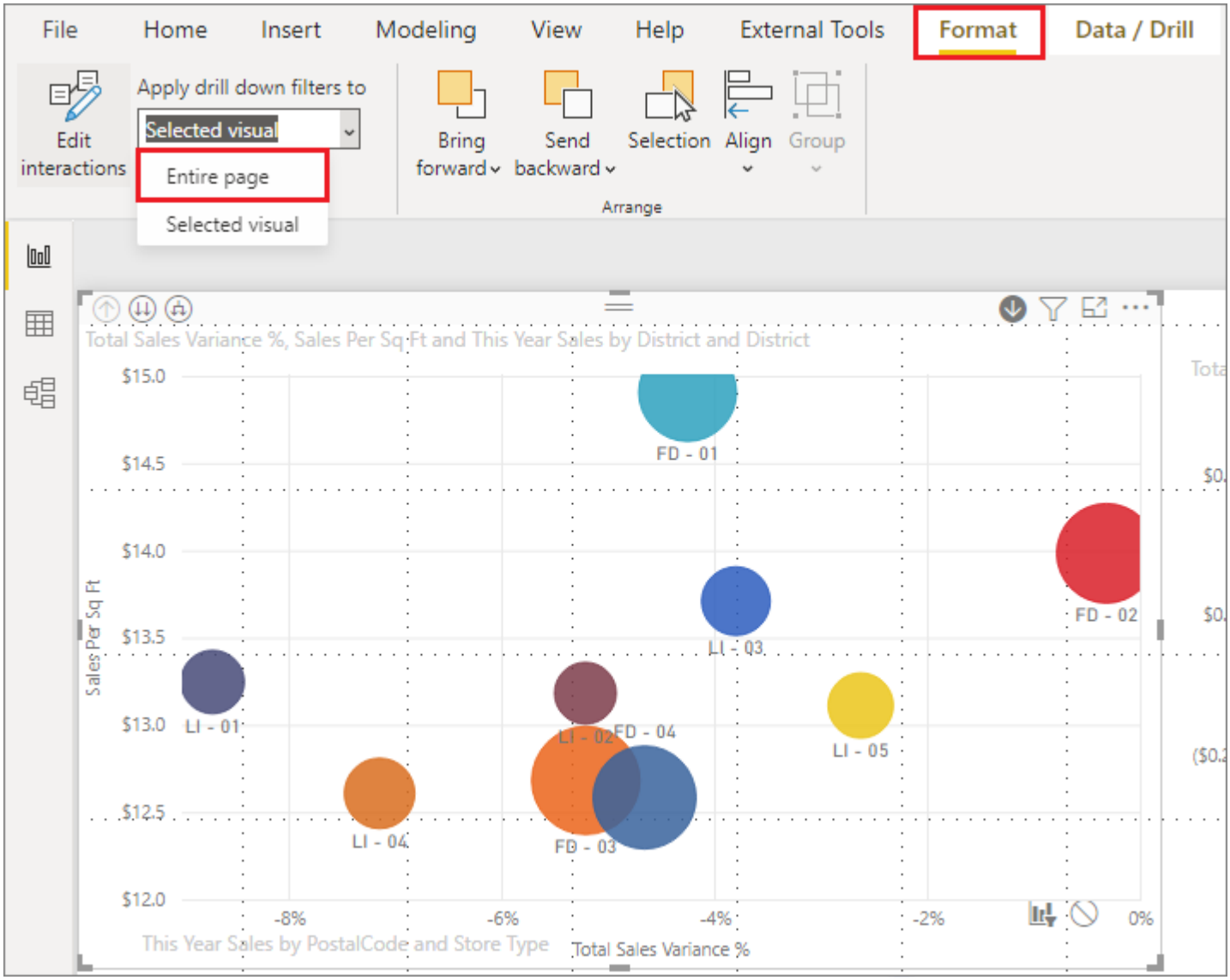
Reading View is the default view when users open a report or dashboard in Power BI. It is primarily designed for consuming and exploring the data and visualizations without making any changes to the report layout or data connections. It facilitates in

a)Interacting with Visuals
b)Exploration of data
c)Navigation through report pages
d)Sharing and collaboration

Editing View

Editing View allows user to make changes to the report layout, data connections, and visualizations. It provides a set of tools and options for designing, customizing, and refining your reports. It helps in

a)Modification of report layout
b)Customization of visuals
c)Create calculations and measures
d)Manage data connections
e)Design Interactivity
f)Publish and Save Changes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