Power BI Assignment 3

Q1: List and explain different Power Bi products?

Ans: Following are the main products of Power BI:

1. Power BI Desktop

2. Power BI service

3. Power BI Mobile

4. Power BI pro

5. Power BI Premium

6. Power BI Embedded

1. Power BI Desktop

- It is the main Power BI Application where an Analyst can connect application to multiple data sources and analyse data to create reports to business stakeholder.

- This product comes with free, pro and premium versions which costs accordingly. Free version doesn't allow analysts to share reports to other users.

- Creating and editing customized reports for every level of expertise.

- Data ingestion from hundreds of supported data sources.

- Data transformation, cleaning, data model creation with built-in Power Query Editor.

- AI-driven analytics.

- Interactive reporting with pre-built or custom visuals.

- Power BI Desktop helps you empower others with timely critical insights, anytime anywhere.
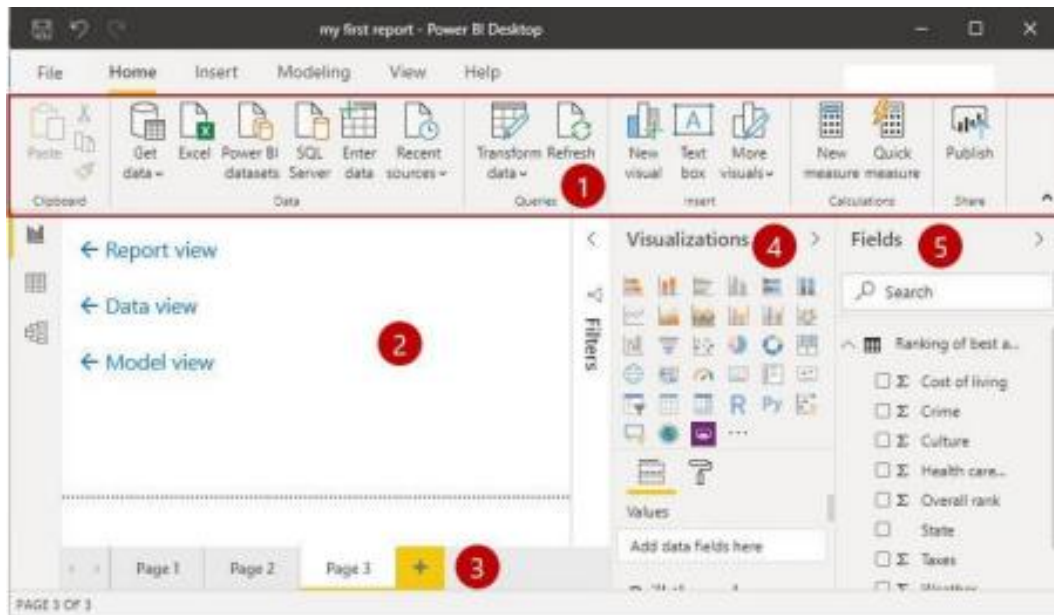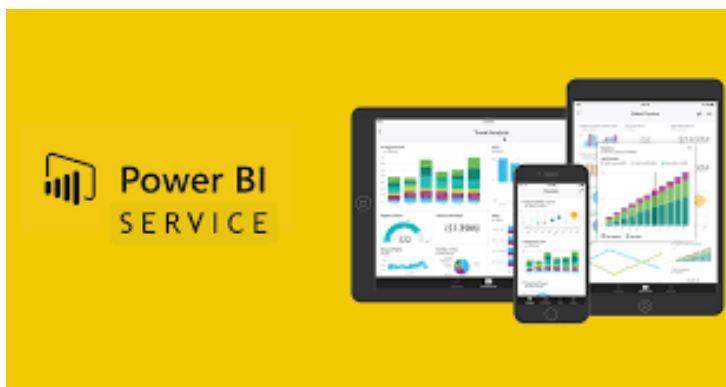
Fig1: Power BI desktop Interface

2. Power BI service(Cloud or SaaS)

- It is a product where stakeholders can get access to reports created by developers/Analyst to see performance of their business or whatever task assigned to the Team.

- Stakeholders can get access to them once analyst publishes them in the shared workspace.

- They can also create and modify dashboards of their own.

3. Power BI Mobile

- It is similar to Power BI Service. Stakeholders can access the reports and dashboards through Mobile/Tablet device and view them.

- It is meant only for viewing contents which mean users can't create dashboards in this platform.

4. Power BI pro

- Self-service BI in the cloud.

- Creating, editing and sharing reports and dashboards among users.

- Collaboration in personal and team workspaces.

- 10 GB of storage per user.

- Price: $9.99 user/month

5. Power BI Premium

- Enterprise BI both on-premises and in the cloud.

- Dedicated storage (100 TB) and compute resources.

- Consumption of Power BI content without individual licensing.

- Maintaining BI assets on-premises with the Power BI Report server.

- Multi-geo capability.

- Price: $4,995 dedicated cloud storage and compute resources/month with an annual subscription.

6. Power BI Embedded

- Reports, dashboards and visual analytics embedded into applications.

- An extensive library of data connectors, APIs, and fully documented SDKs.

- Pay-as-you-go: from $1.0081/hour to $32.2506/hour.

Q2: What limitations of Excel, Microsoft solved by Power BI?
Ans: Following are the limitations of Excel, Microsoft solved by Power BI:
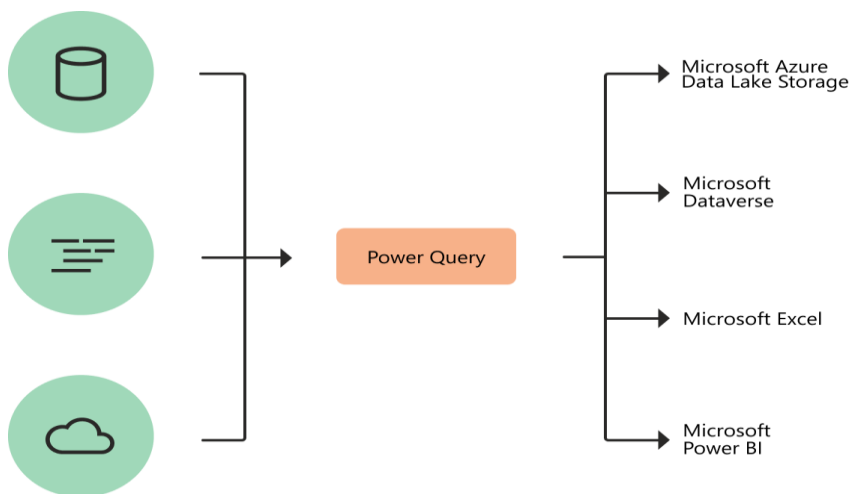
- The maximum number of rows and columns is limited in Excel. Power BI doesn't limit users on dimension of data.
- Power BI exceeds Excel feature in Data sources. Power BI can get multiple static, dynamic and streaming data. There 80+ available data sources.
- The charts and visualizations are much advanced and interactive in Power BI.

- The analytical engine is Power BI is much more faster than Excel which can save hours in processing.
- Power BI allows users to share reports and data and collaborate with organization where excel cannot.

Q3: Explain Power Query?

Ans: Power Query:

- Power Query is a data transformation and data preparation engine. Or
- Power Query is a tool used to manipulate data and is commonly used to transform data for business intelligence projects.
- Power Query is the Heart of Power BI.
- Power Query comes with a graphical interface for getting data from sources and a Power Query Editor for applying transformations.
- Because the engine is available in many products and services, the destination where the data will be stored depends on where Power Query was used.
- Using Power Query, you can perform the extract, transform, and load (ETL) processing of data.

Fig: Power query

Two Power Query experiences are available:

i. **Powe** [Fig: Power query] rations such as Power BI dataflows, Microsoft Power Platform dataflows, Azure Data Factory wrangling dataflows, and many more.

ii. **Power Query for Desktop**: Found in integrations such as Power Query for Excel and Power BI Desktop.

These data transformations could include tasks like:

- Remove columns, rows, blanks
- Convert data types – text, numbers, dates
- Split or merge columns
- Sort & filter columns
- Add calculated columns
- Aggregate or summarize data
- Find & replace text
- Unpivot data to use for pivot tables

Q4: Explain Power Map?

Ans: In Power BI, there are 2 types of Maps available.
1. Map
2. Filled Map

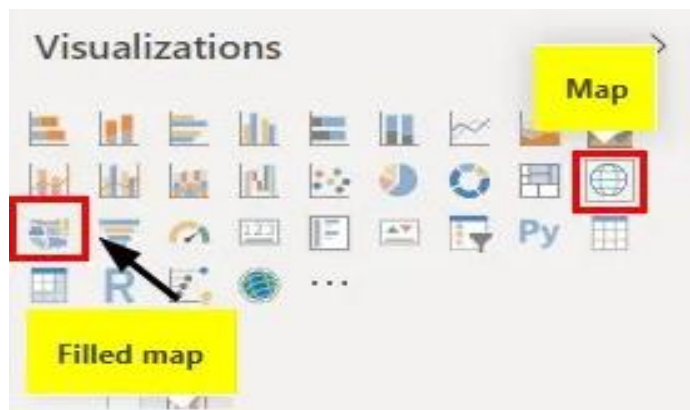Both types are there in the Visualization section as shown below.

Fig: Visualization of map

Pros of Power BI Maps:

- Power BI Maps, give life to the maps.

- This is way easier than using Maps in Excel.

- It automatically picks the city names as per the data which we upload using Bing Map with high accuracy.

Q5: How power BI eliminated the need to host SharePoint Server on premises?

Ans:

SharePoint is an important part of how many organizations organize and distribute BI content to users.

The **Power BI webpart** for SharePoint Online and an updated Reporting Services Report Viewer webpart for SharePoint on-premises.

Q6: Explain the updates done in Power Bi Service (power BI 2.0) as compared to older version?

Ans:

October 2022 update done in Power Bi Service (power BI 2.0) as compared to older version:

This month's update is packed with exciting updates to features like Power BI metrics, Modelling, Deployment pipelines, and more explain in given below.

- **Reporting:**
  - Reverse stack order or stack column chart
  - Query performance improvements
    - ✓ Indexing imported string columns on-the-fly
    - ✓ Pushing top N filter to Direct Query sources
  - Power BI metrics
    - ✓ Roll ups
    - ✓ New API to retrieve scorecards for admin

- **Analytics**
  - Quick measure suggestions-experimental features

- **Modelling**
  - Relationship editing in the properties pane
  - DAX formula bar support for desktop model view

- **Data connectivity and Preparation**
  - Introducing tenant setting for Power BI DataMart's

  - Edu frame Reporting

  - Social bakers Metrics

- **Service**
    - Guest users can now create their own email subscriptions
    - Downloading a PBIX is now available for more scenarios
    - Admin and Governance
        - ✓ Introducing tenant setting for email subscriptions to external users

- **Deployment pipelines**
    - ✓ Deployment History
    - ✓ Azure DevOps extension
    - ✓ Changes to Update App REST API

- **Visualization**
    - New visuals in AppSource
    - Zebra BI Tables 6.0
    - Inforiver Enterprise SaaS Edition
    - Power Gantt Chart by Nova Silva
    - Drill Down Network PRO by Zoom Charts