a. Explain the difference between Power BI desktop and Power BI Service.

The Power BI Desktop is the complete report authoring tool for report designers. It is downloaded as a free application and installed on a local computer. The desktop allows you to connect to different types of data sources and then transform it in a data model. The final part of the report creation process is to add visuals based on the data model.

The Power BI Service is the cloud-based service where users view and interact with the reports. Report designers use the Desktop application to publish the Power BI reports to the Service. Users in the Service can edit the reports and create visuals based on the existing data model and also share and collaborate with co-workers.

There are a small number of areas where the Desktop and Service overlap. However, most implementations use the Power BI Desktop to create the reports and then use the Service to distribute the reports with others.

b. Explain different Power BI accounts / license?

There are three kinds of Power BI per-user licenses: Free, Pro, and Premium Per User (PPU)

Power BI service licenses

The important distinction to understand about licenses is that there are licenses that apply to an individual (per-user) and a license (often also referred to as a subscription) that applies to the type of storage capacity that an organization purchases. Each of the three per-user licenses is unique, and each grants access to certain Power BI service features and capabilities. When you combine the features and capabilities of each type of per-user license with the use of a Premium capacity that is where Pro, PPU, and free license holders gain access to additional features and capabilities - such as sharing, collaboration, and more.

Free per-user license

Users with free licenses can use the Power BI service to connect to data and create reports and dashboards for their own use. They can't use the Power BI sharing or collaborating features with others, or publish content

to other people's workspaces. However, Pro and PPU users can share content and collaborate with free users if the content is saved in workspaces hosted in Premium capacity. To learn more about workspaces, see Types of workspaces. To learn more about features available to users with a free license, see Power BI service feature list.

Pro license

Power BI Pro is an individual per-user license that lets users create content and also read, and interact with content that others have published to the Power BI service. Users with this license type can share content and collaborate with other Power BI Pro users. Only Power BI Pro users can publish or share content with other Pro users or consume content that's created by other Pro users, unless a Power BI Premium capacity hosts that content. If a Power BI Premium capacity hosts the content, then Pro users can share content and collaborate with free and PPU users too.

Premium per user (PPU) license

A PPU per-user license provides the license holder with all of the capabilities of Power BI Pro plus access to most Premium capacity-based features. A Power BI PPU license unlocks access to a variety of features, capabilities, and types of content that are only available through Premium. This access is limited to the PPU license holder and other colleagues who also have a PPU license. For example, in order to collaborate and share content in a PPU workspace, all users must have a PPU license.

When using a PPU license, content created by a PPU licensed user can only be shared with other users that have a PPU license, unless that content is specifically put in a workspace hosted in Premium capacity. The table below summarizes the basic capabilities of each license type.

Premium capacity

A capacity-based Premium license (often referred to as a Premium subscription) allows Pro or PPU users to create and save content in Premium capacity workspaces. They can then share that workspace with colleagues who have any license type. Only users with a Pro or PPU license can create and save content in Premium capacities, and only if their organization has purchased Premium capacity.

c. Explain Power BI roles?

Power BI Roles

Four roles are available:

Viewer - This role provides read only access to workspace items. Read access does provide report / dashboard consumers the ability to not only view, but also interact with visuals. Interaction does not mean changing a visual. Also note that users in this view do not require a Pro License to view reports if the workspace is in Premium mode. Without Premium content a Pro License is required.

Contributor - This role can access and interact with reports and dashboards. Additionally, this role can create, edit, copy, and delete items in a workspace, publish reports, schedule refreshes, and modify gateways.

Member - This role can access and interact with reports and dashboards. Additionally, this role can create, edit, copy, and delete items in a workspace, publish reports, schedule refreshes, and modify gateways. Finally, members of this role can also feature dashboards on the service, share items, allow others to reshare items, publish or republish and APP. This role is also able to add other users to the viewer or contributor role.

Admin - This role can do all the functions above plus add and remove all users including other Admins.

Admin roles were divided into two scope Microsoft 365 and Power platform.

Microsoft 365:

- 1. Global admin has unlimited access
- 2. Billing admin has manage subscriptions and Purchase licenses,
- 3. License admin has assign or remove license for users,
- 4. User admin has create and manage and reset user groups and passwords.

Power platform admin: Has full access of powerbi management tasks and they can enable or disable powerbi features.

d. Create new Power BI account and explain the home page?

Account created mam/sir and attached some screenshots for that.

Explanation of Powerbi:

Power BI is a business analytics service provided by Microsoft that lets you visualize your data and share insights. It converts data from different sources to build interactive dashboards and Business Intelligence reports.

1. Access to Volumes of Data from Multiple Sources

Power BI can access vast volumes of data from multiple sources. It allows you to view, analyze, and visualize vast quantities of data that cannot be opened in Excel. Some of the important data sources available for Power BI are Excel, CSV, XML, JSON, pdf, etc. Power BI uses powerful compression algorithms to import and cache the data within the PBIX file.

2. Interactive UI/UX Features

Power BI makes things visually appealing. It has an easy drag and drops functionality, with features that allow you to copy all formatting across similar visualizations.

3. Exceptional Excel Integration

Power BI helps to gather, analyze, publish, and share Excel business data. Anyone familiar with Office 365 can easily connect Excel queries, data models, and reports to Power BI Dashboards.

4. Accelerate Big Data Preparation with Azure

Using Power BI with Azure allows you to analyze and share massive volumes of data. An azure data lake can reduce the time it takes to get insights and increase collaboration between business analysts, data engineers, and data scientists.

5. Turn Insights into Action

Power BI allows you to gain insights from data and turn those insights into actions to make data-driven business decisions.

6. Real-time Stream Analytics

Power BI will enable you to perform real-time stream analytics. It helps you fetch data from multiple sensors and social media sources to get

access to real-time analytics, so you are always ready to make business decisions.