

## ➤ Basic Introduction questions on Power BI

### 1. What is power bi?

Power BI is a business intelligence (BI) and data visualization tool developed by Microsoft.

It allows users to:

- Collect data from different sources (databases, Excel, cloud services, etc.).
- Transform and clean data using Power Query.
- Create interactive dashboards and reports with charts, graphs, and maps.
- Share insights across teams or organizations through Power BI Service (cloud).

### 2. Who developed power bi?

Power BI was developed by **Microsoft**.

- It was originally created by the **SQL Server Reporting Services (SSRS)** team at Microsoft.
- The **first version** was introduced in 2011 as “**Project Crescent**”, later rebranded as **Power BI in 2013**.
- Today, it is part of the Microsoft Power Platform, along with Power Apps and Power Automate.
- So, the developer of Power BI is Microsoft Corporation.

### 3. Why do we use power bi ?

We use Power BI because it helps in turning raw data into meaningful insights.

the main reasons why we use it:

- **Data Visualization** – Creates interactive charts, graphs, and dashboards.
- **Data Integration** – Connects to multiple data sources (Excel, SQL, cloud services, APIs, etc.).
- **Data Analysis** – Helps analyze trends, patterns, and performance easily.
- **Decision-Making** – Provides clear insights for better business decisions.
- **Sharing & Collaboration** – Dashboards can be shared with teams through the Power BI Service.
- **Real-Time Updates** – Dashboards can refresh automatically to show live data.

#### 4. What are main components of power bi?

Power BI is made up of several important components that work together:

- **Power BI Desktop** – A Windows application used to create reports and dashboards.
- **Power BI Service (Cloud)** – An online SaaS (Software as a Service) platform to publish, share, and collaborate on reports.
- **Power BI Mobile Apps** – Apps for Android and iOS to view and interact with reports on the go.

#### 5. What is power bi desktop?

Power BI Desktop is a free Windows application provided by Microsoft that is mainly used to create reports and dashboards.

Key Points about Power BI Desktop:

- It is installed on your computer.
- Lets you connect to different data sources (Excel, SQL, cloud services, etc.).
- You can clean, transform, and model data using Power Query.
- Helps in building interactive reports and visualizations.
- After creating reports, you can publish them to the Power BI Service (cloud) to share with others.

#### 6. What is power bi service?

Power BI Service is the online (cloud-based) platform of Power BI, hosted on Microsoft Azure.

Key Points about Power BI Service:

- It is also called Power BI Online or Power BI Cloud.
- Used to publish, share, and collaborate on reports and dashboards created in Power BI Desktop.
- Provides real-time data updates and scheduled refresh.
- Allows users to create workspaces, apps, and dashboards for teams and organizations.
- Accessible from any device via a web browser or Power BI Mobile app.

## 7. What is power bi mobile?

Power BI Mobile is the mobile application of Power BI, available for Android, iOS, and Windows devices.

### Key Points about Power BI Mobile:

- Allows users to view and interact with reports and dashboards on smartphones or tablets.
- Provides real-time access to data anytime, anywhere.
- Supports features like data alerts, push notifications, and sharing insights.
- Dashboards and reports are optimized for mobile screens.
- Ensures on-the-go decision-making for business users.

## 8. What is the difference between power bi desktop and power bi service?

Feature	Power BI Desktop	Power BI Service
Type	Windows application (installed on PC)	Cloud-based (online) platform
Main Use	Create, design, and build reports/dashboards	Publish, share, and collaborate on reports/dashboards
Data Connection	Connects to multiple sources, supports complex transformations	Uses datasets published from Desktop or live connections
Data Modeling	Full data modeling, cleaning, and transformation	Limited modeling (mainly viewing and light editing)
Sharing	Cannot share directly (must publish to Service)	Can share dashboards and reports with others
Accessibility	Works offline on your computer	Accessible anywhere via browser or mobile app
Cost	Free to use	Requires Power BI Pro / Premium for sharing & collaboration

## 9. What are key features of power bi?

- **Data Connectivity** – Connects to many data sources (Excel, SQL, cloud apps, APIs, etc.).
- **Data Transformation** – Clean and shape data with Power Query.
- **Data Visualization** – Create charts, graphs, maps, and dashboards.
- **Interactive Reports** – Drill down, filter, and slice data easily.
- **Real-Time Dashboards** – Auto-refresh and live updates.
- **AI & Insights** – Built-in AI helps in forecasting and trend detection.
- **Collaboration** – Share reports and dashboards with others via Power BI Service.
- **Accessibility** – Available on Desktop, Cloud, and Mobile.
- **Security** – Row-level security (RLS) to control access to data.

## 10. What are types of data source can power bi connect to?

- **File Sources** – Excel, CSV, XML, JSON, PDF.
- **Database Sources** – SQL Server, Oracle, MySQL, PostgreSQL, Access, etc.
- **Online Services** – SharePoint, OneDrive, Google Analytics, Salesforce, Azure, etc.
- **Cloud Data Sources** – Azure SQL Database, Amazon Redshift, Snowflake, BigQuery, etc.
- **Other Sources** – Web data, APIs, Power BI datasets, OData feeds.

## 11. What is a visualization in power bi?

In Power BI, a visualization is simply a visual representation of data.

Key Points:

- It can be a chart, graph, map, table, KPI, or gauge.
- Helps to understand data quickly by showing patterns, trends, and comparisons.
- Examples: bar chart, pie chart, line graph, scatter plot, tree map, map chart, etc.
- Visualizations can be interactive – users can click, filter, or drill down into details.