

1. Power BI is a tool used to visualize data and share information with organization. Main three components of PowerBI are PowerBI desktop, PowerBI Mobile, Power BI Service

2. Two business use cases for Power BI dashboards.

1. Sales Performance Dashboard – Tracks regional sales, top-performing products, and sales trends.
2. Financial Analytics Dashboard – Monitors revenue, expenses, and profit margins over time.

3. Go to the **Microsoft Power BI official website**:

<https://powerbi.microsoft.com/desktop>

Click **Download free** or install directly from the **Microsoft Store**.

Run the installer and follow on-screen instructions.

Launch Power BI Desktop from your Start menu.

4. Power BI Desktop is a Windows app used to create and design reports locally, while Power BI Service is a cloud platform used to publish, share, and collaborate on those reports online.

5. Power BI projects are saved with the **.pbix, .pbit, pbids** file extension.

.pbix is for the primary file extension for saving your work in Power BI Desktop.

.pbit A template file for Power BI reports.

.pbids A file to connect to a semantic model (previously dataset) in the Power BI service.

6. Power Query is the data transformation engine inside Power BI.

It allows users to:

- Connect to multiple data sources (Excel, SQL, web, etc.)
- Clean, filter, and reshape data
- Perform ETL (Extract, Transform, Load) tasks before visualization

7. Why would a business prefer Power BI over Excel for reporting?

- Interactive dashboards vs. static tables
- Real-time data updates from cloud or databases
- Automated data refresh and sharing via Power BI Service
- Better data visualization and storytelling tools

8. The free version does not allow sharing dashboards or reports with others via the Power BI Service; sharing requires a Power BI Pro license.

9. A published report is a Power BI Desktop report that has been uploaded (published) to the Power BI Service for online access, sharing, and collaboration.

10. Power BI Mobile allows users to:

- Access dashboards and reports anytime, anywhere
- Receive real-time alerts and data updates
- Interact with visuals through touch-based gestures

11. Power BI is easier to use, more affordable, and integrates well with Microsoft tools, while Tableau offers more advanced and visually rich analytics but is costlier and has a steeper learning curve.

12. Power BI integrates with Azure in multiple ways:

- Azure SQL Database / Synapse Analytics – Data source connections
- Azure Machine Learning – Embeds predictive analytics
- Azure Active Directory (AAD) – Manages user authentication and access
- Azure Data Lake – For large-scale data storage and ingestion

13. A gateway securely connects on-premises data sources to the Power BI Service, allowing automatic data refreshes and access to locally stored data such as SQL Server or Excel files.

14. Power BI offers a strong ROI by reducing costs compared to other BI tools, enabling faster decision-making with real-time dashboards, empowering non-technical users through self-service analytics, saving analysts time with automation and data refreshes, and providing high scalability as the business expands.

15. Power BI protects sensitive data through Row-Level Security (RLS) to control user access, Azure Active Directory integration for authentication, data encryption both at rest and in transit, sensitivity labels and data loss prevention policies for compliance, and audit logs with access monitoring to track user activity.