

1. What is Power BI, and what are its three main components?

Power BI is a business analytics tool by Microsoft that helps visualize data and share insights across an organization. **Three main components: Power BI Desktop, Power BI Service, Power BI Mobile**

2. Name two business use cases for Power BI dashboards.

- **Sales performance tracking:** Monitor sales KPIs by region, rep, or product.
 - **Customer service analytics:** Visualize ticket volume, resolution time, and satisfaction ratings.
-

3. How do you download and install Power BI Desktop?

- Go to the Power BI official website. Click **Download**, select **Power BI Desktop**, and install the downloaded .exe file.
 - Go to the Microsoft Store, find **Power BI Desktop** and get it.
-

4. What is the difference between Power BI Desktop and Power BI Service?

- **Power BI Desktop** is a local Windows application for creating and designing reports.
 - **Power BI Service** is a cloud platform to publish, share, and collaborate on reports and dashboards.
-

5. What file extension does a Power BI project use?

.pbix – Power BI Desktop project file.

6. Explain the role of Power Query in Power BI.

Power Query is used for **data transformation and preparation**. It allows users to connect to various data sources, clean, filter, and shape data before loading it into the model.

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

Power BI offers **interactive dashboards, real-time data refresh, scalable sharing**, and better **visualization capabilities**. It handles large datasets more efficiently than Excel.

8. Describe one limitation of the free version of Power BI.

You **cannot share reports or dashboards** with other users using only the free version; sharing requires a **Power BI Pro** license.

9. What is a "published report" in Power BI Service?

A **published report** is a Power BI report uploaded from Power BI Desktop to the **Power BI Service** for sharing, collaboration, and access via web or mobile.

10. How does Power BI Mobile enhance accessibility?

Power BI Mobile apps (for iOS and Android) allow users to **view and interact with dashboards on the go using their mobile phones**, ensuring access to data anywhere, anytime.

11. Compare Power BI with Tableau—pros and cons.

Aspect	Power BI	Tableau
Pros	Lower cost, tight integration with MS tools	Stronger in data visualization depth
Cons	Slightly less flexible visuals	Higher cost, steeper learning curve
Ease of use	Easier for Excel users	More intuitive for advanced visual design

12. Explain how Power BI integrates with Azure services.

Power BI integrates with Azure services like:

- **Azure Synapse Analytics** (data warehouse querying)
 - **Azure Data Lake** (large data storage)
 - **Azure Machine Learning** (predictive analytics)
 - **Azure Active Directory** (security and user access control)
-

13. What are "gateways" in Power BI, and when are they needed?

Gateways connect **on-premises data sources** to Power BI Service. They're needed when you

want to keep data on your local servers but refresh or use it in the cloud-based Power BI Service.

14. How would you convince a company to adopt Power BI? (ROI argument)

- **Cost-effective:** Lower total cost vs. competitors like Tableau.
 - **Time-saving:** Fast data prep and reusable reports save analyst hours.
 - **Increased insights:** Better data visibility leads to faster, data-driven decisions.
 - **Scalable:** Grows with business, integrates with Microsoft stack.
-

15. What security features does Power BI offer for sensitive data?

- **Row-Level Security (RLS):** Restricts data access based on user roles.
- **Data encryption** (at rest and in transit).
- **Integration with Azure AD** for secure sign-in and user management.
- **Sensitivity labels** and **Microsoft Information Protection (MIP)** for data classification.