

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

Power BI is Microsoft's business intelligence tool that helps people visualize data and make decisions based on it. It has three main parts: Power BI Desktop, which you use on your computer to build reports; Power BI Service, which is the cloud version where you publish and share reports; and Power BI Mobile, which lets you access everything on your phone or tablet.

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

One example would be tracking live key metrics of corporate clients in a bank, like deposits and loan activity. Another would be analyzing customer behavior in retail, such as their buying patterns and preferences.

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

You can download Power BI Desktop from Microsoft's website or the Microsoft Store. After downloading, you just run the installer and follow the steps, and then it works like any other program on your computer.

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

Power BI Desktop is what you use locally on your computer to create reports and build data models. Power BI Service is the online platform where you publish those reports, share them with others, and collaborate.

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

Power BI projects are saved with the .pbix extension.

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

Power Query is the part of Power BI that helps you bring in data, clean it, and get it ready for analysis. It's basically the backstage area where all the data preparation happens before you start creating visuals.

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

Unlike Excel, Power BI allows interactive and real-time dashboards. It's easier to explore data, see trends, and share results across the company. It's also more scalable and connects directly to live data sources, which makes reporting much smoother.

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

The free version works fine for building and analyzing reports, but it has limits. For example, each dataset can only be up to 1 GB, and you can't really share your reports with others in the same way you can with the paid version.

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

A published report is simply a report you've built in Power BI Desktop and then uploaded to the Power BI Service so that it can be viewed and shared online.

**10. How does Power BI Mobile enhance accessibility?**

Power BI Mobile makes it possible to check dashboards and reports directly on your phone or

tablet. That way, managers and employees can monitor their key metrics and interact with reports from anywhere, not just the office.

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

Power BI is more affordable and integrates really well with Microsoft tools like Excel, Teams, and Azure. It's also easier for beginners to use. The downside is that it has fewer customization options than Tableau. Tableau, on the other hand, is great for advanced visualizations and flexibility, but it's more expensive and takes more time to learn, plus it doesn't integrate as smoothly with Microsoft products.

### **12. Explain how Power BI integrates with Azure services.**

Power BI works closely with Azure. For example, it can connect to Azure SQL databases or Data Lakes for storage, use Azure Synapse for analyzing large amounts of data, and even integrate with Azure Machine Learning for predictive analytics. This makes it powerful for handling advanced scenarios in the cloud.

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

Gateways are like secure bridges that connect your on-premises data, such as a local SQL server, with Power BI Service in the cloud. They're needed whenever a company wants to keep its data on-site but still refresh and use it in cloud-based Power BI dashboards.

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

I would explain that Power BI saves time by automating reports, helps decision-makers work with real-time insights, and reduces costs compared to many other BI tools. It improves collaboration and productivity, so the company gets a strong return on investment.

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

Power BI takes security seriously. It has row-level security to make sure people only see the data they're supposed to see, encrypts data both when it's stored and when it's moving, and integrates with Azure Active Directory for secure authentication. It also follows global compliance standards like GDPR and ISO.