Homework

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

Power BI is a data analytics tool by Microsoft that helps users connect to data, analyze it, and create visual reports

**Power BI Desktop** – for building reports

**Power BI Service** – for sharing reports online

**Power BI Mobile** – for viewing reports on mobile devices

1. **Name two business use cases for Power BI dashboard**

Tracking monthly sales performance across regions

Monitoring customer feedback to improve service quality

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

You can download Power BI Desktop from the official Microsoft website or from the Microsoft Store

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

Power BI Desktop is used to create reports locally. Power BI Service is an online platform where you can publish, share, and collaborate on those reports with others

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

Power BI files are saved with the (.**pbix)** extension

1. **Explain the role of Power Query in Power BI**  
   Power Query helps clean, transform, and prepare your data before creating reports. It allows you to remove errors, combine data, and shape it as needed
2. **Why would a business prefer Power BI over Excel for reporting?**  
   Power BI provides better visuals, works faster with large datasets, and allows interactive dashboards. It’s also easier to automate data updates
3. **Describe one limitation of the free version of Power BI**  
   With the free version, you cannot share reports with others online. For sharing, the Pro version is required
4. **What is a "published report" in Power BI Service?**  
   It’s a report that has been created in Power BI Desktop and then uploaded to the Power BI online service, where others in the organization can view it
5. **. How does Power BI Mobile enhance accessibility?**  
   With Power BI Mobile, users can access reports from anywhere on their smartphones or tablets, making it easier to stay informed while on the go
6. **.** **Compare Power BI with Tableau—pros and cons**  
   Power BI is more affordable and integrates better with Microsoft tools like Excel. Tableau offers stronger visuals but is more expensive. Power BI is easier for beginners, while Tableau may require more technical skills
7. **. Explain how Power BI integrates with Azure services**  
   Power BI connects to Azure SQL, Azure Synapse, and Azure Machine Learning to analyze data, use AI, and build scalable data models in the cloud
8. **. What are "gateways" in Power BI, and when are they needed?**  
   Gateways connect Power BI Service to on-premises data sources. They’re needed when your data is stored locally and you want to refresh it online
9. **.** **How would you convince a company to adopt Power BI? (ROI argument)**  
   Power BI saves time by automating reports, reduces errors, and enables faster decision-making. This increases productivity and ultimately boosts return on investment
10. **. What security features does Power BI offer for sensitive data?**  
    Power BI offers features like row-level security, data encryption, and Microsoft Entra ID integration to protect sensitive business information