Question based on you experience – For these questions you need to prepare you own story as per your experience

Tell me about your last project which you did with your current/last organization. I need to under your role and the details of projects with outcome	You need to give project details with your role. Alos, keep some quantifiable benefit analysis also. Apart from that add the appreciation which you got after this project.
Explain a time when you solved a complex data problem using Power BI	Keep one story in your mind basis of your experience. Don't give so many details around it but keep it simple to understand.
Discuss a challenging client requirement and how you met their needs.	Given one or two examples. Focus on data and visualization part.
Share an example of optimizing report performance.	Give the answer in bit tech terms
How would you optimize a slow Power BI report?	Give the answer in bit tech terms
Describe a scenario where you used row-level security.	Connect with any of your project.
Why is Power BI popular?	**Answer:** • It's user-friendly and easy to learn. • It integrates with many data sources. • It provides interactive visuals. • It allows sharing reports easily.

	Talk about it –
How do you handle errors in Power BI?	• Data Errors: Use Power Query to clean and validate data. • Visual Errors: Check for invalid fields or incorrect relationships in the data model. • DAX Errors: Debug formulas using the error messages and evaluate step-by-step logic.

Question for Power BI and Data analyst

Question	Answer	Score
What is Power BI?	• Power BI is a business intelligence tool that allows organization ns to turn data into insights. • Power BI is a business analytics tool developed by Microsoft that helps you turn multiple unrelated data sources into valuable and interactive insights.	
Why should we use Power BI?	Because Power BI provides an easy way for anyone, including non-technical people, to connect, change, and visualize their raw business data from many different sources and turn it into valuable data that makes it easy to make smart business decisions.	
What are the Advantages of Power BI?	• **Wide Data Source Integration** – • **User-Friendly Interface, Real-Time Insights** – • **Cost-Effective** , **Secure and Scalable** –	
What is Power Query?	• Power Query is a business intelligence ETL (extract-load-transform) tool developed by Microsoft Excel and available in the Power BI Desktop through the Power Query Editor. • Power Query Editor, users can clean, reshape, transform, and analyze the data	

<mark>History of Power BI</mark>	• **2010** – Originated as an internal project at Microsoft under the codename "Gemini," focused on self-service BI tools. • **2013 – Introduced as Power BI for Office 365**, marking its initial public release as a business analytics tool. • **2015** – Officially launched as a standalone service, offering
What are the main <mark>elements of the Power BI</mark> package?	• **Power BI Desktop** — • **Power BI Service** — • **Power BI Mobile Apps** —
Where is the data stored in Power BI?	✓ **Fact tables** ✓ **Dimension tables** • **Microsoft Azure Blob Storage**: • **Microsoft Azure SQL Database**:
What are the different connectivity modes in Power BI?	**Import mode**, aka **SQL Server import.** **Direct query mode.** **Live connection mode.**

<mark>Power BI v/s Tableau</mark>

What is the difference between Power BI and Tableau?

Power BI	Tableau
It can handle a limited amount of data as compared to Tableau.	It can handle a large amount of data.
It uses DAX for calculating columns in a table.	It uses Multidimensional Expressions (MDX) to calculate the columns of the table.
It is integrated with Microsoft products like Excel and SQL server.	It can connect to a wider range of data sources like web services and cloud-based databases.
It takes more time to learn because of its advanced features.	It is user-friendly because of its drag-and-drop functionality.

What is the <mark>M language</mark> in Power BI?	The M language, or M-Code, is a functional, case-sensitive programming language used in the Power Query Editor of Power BI to filter and combine the data through queries.

What types of filters can we use in Power BI reports	• **Report-level filters:** applied to the entire report • **Page-level filters:** applied to a particular page of a report • **Visualization-level filters:** applied to a single visualization	
Power BI use the Data Gateway	✓ One solution that facilitates secure data transfers between Power BI solution and on-premises data sources ✓ Serving as a link between the two, it enables Power BI to retrieve and update data from on-premises sources	
What are some ways to improve a Power BI report's performance?	• Minimizing the number of columns in the data model and utilizing suitable data types. • Avoiding complicated measures and producing effective DAX computations. • Cutting down on the quantity of data handled by using aggregations and summary tables. • Using slicers and filters to restrict the amount of data that is shown in visualizations.	
What kinds of relationships are there in Power BI	• one-to-one relationship. • One-to-many: Multiple records in one table are equivalent to a single record in another. • Many-to-many: One table's many records match multiple records in another table.	
What are the main components of the Power BI toolkit?	• **Power Query:** to gather data from various sources and transform it • **Power Pivot:** to build data models • **Power View:** to create data visualizations • **Power Map:** to create 3D geospatial data visualizations • **Power Q&A:**	
What are the different types of gateways available in Power BI? Why would you use them?	The Gateway acts as an extension between azure cloud administration and on-premises data sources. • **On-premises data gateway:** Allows multiple users to connect to various on-premises data sources • **On-premises data gateway (personal mode):** This data gateway allows one user to connect to sources that can't be shared with others. • **The virtual network data gateway:** This data gateway allows multiple users to connect various data sources	

What are the critical components of the Power BI toolkit	• Power Query • Power Pivot • Power View • Power Map • Power Q&A	
What are the three fundamental concepts of DAX	**Syntax** - This is how the formula is written **Functions**- These are formulas that use specific values **Context** – There are two types: Row context and filter context. Row context comes into play whenever a formula has a function that applies filters to identify a single row in a table.	

Interview preparation tips

Understand Power BI Fundamentals:

- Know the basics: Power BI Desktop, Power BI Service, DAX (Data Analysis Expressions), and Power Query.
- Learn about Power BI components: Reports, Dashboards, Dataflows, Datasets, and Workspaces.
- Be familiar with the difference between Power BI Pro and Premium.
- **ETL Skills**: Learn how to use Power Query for data extraction, transformation, and loading processes.

Familiarize Yourself with Power BI Ecosystem

- Integration Knowledge: Understand Power BI's interaction with tools like Excel, SharePoint, SQL, and Azure.
- Power BI Service: Know how to share reports, configure gateways, and schedule refreshes.
- Power BI Embedded: Be aware of how Power BI can be integrated into custom applications using APIs.

Master Data Modeling:

- Practice creating and optimizing data models.
- Understand relationships, cardinality, and hierarchies in data models.
- Normalize and deformalize data effectively.

- Be proficient in creating and managing relationships.
- Optimize data models to improve performance.
- Understand the difference between star and snowflake schemas.

DAX Proficiency:

- Learn common DAX functions like CALCULATE, FILTER, RELATED, and SUMX.
- Be able to write measures and calculated columns.
- Understand the context: Row context vs. Filter context.
- Practice real-world scenarios, like creating measures for year-over-year growth or dynamic KPIs.

Data Transformation:

- Get hands-on with Power Query for ETL (Extract, Transform, Load) processes.
- Understand how to clean, transform, and combine data from various sources.
- Work with M language basics for advanced transformations.

Visualization Skills:

- Know how to use charts, tables, slicers, and KPI visuals effectively.
- Learn to create interactive dashboards and customize visuals.
- Familiarize yourself with custom visuals from the marketplace.

Integration Knowledge:

- Understand how Power BI integrates with other tools (Excel, Azure, SQL Server, etc.).
- Practice embedding Power BI reports in applications.
- Learn to schedule data refresh and use Power BI Gateway.

Focus on Visualizations and Reporting

- ✓ ***Creating Effective Dashboards***:

    - Showcase clean, interactive, and user-friendly dashboards.
    - Use slicers, drill-through, and bookmarks to enhance interactivity.

- ✓ ***Custom Visuals:***

    - Learn how to use custom visuals from the marketplace.
    - Be familiar with the scenarios where custom visuals are more effective than default options.

Performance Optimization:

- Be prepared to discuss and troubleshoot slow reports.
- Explain techniques like aggregating data, reducing dataset size, or optimizing measures.

General Interview Tips

1. **Research the Company:**

   - Learn about their industry and how they might use Power BI for their business goals.
   - Customize your answers to align with their needs.

2. **Certifications Help:**

   - Highlight certifications like Microsoft Certified: Data Analyst Associate to validate your skills.

3. **Be Confident and Clear:**

   - Articulate your thought process and decisions when solving problems.

4. **Stay Updated:**

   - Keep up with the latest Power BI updates and features from Microsoft's release notes.