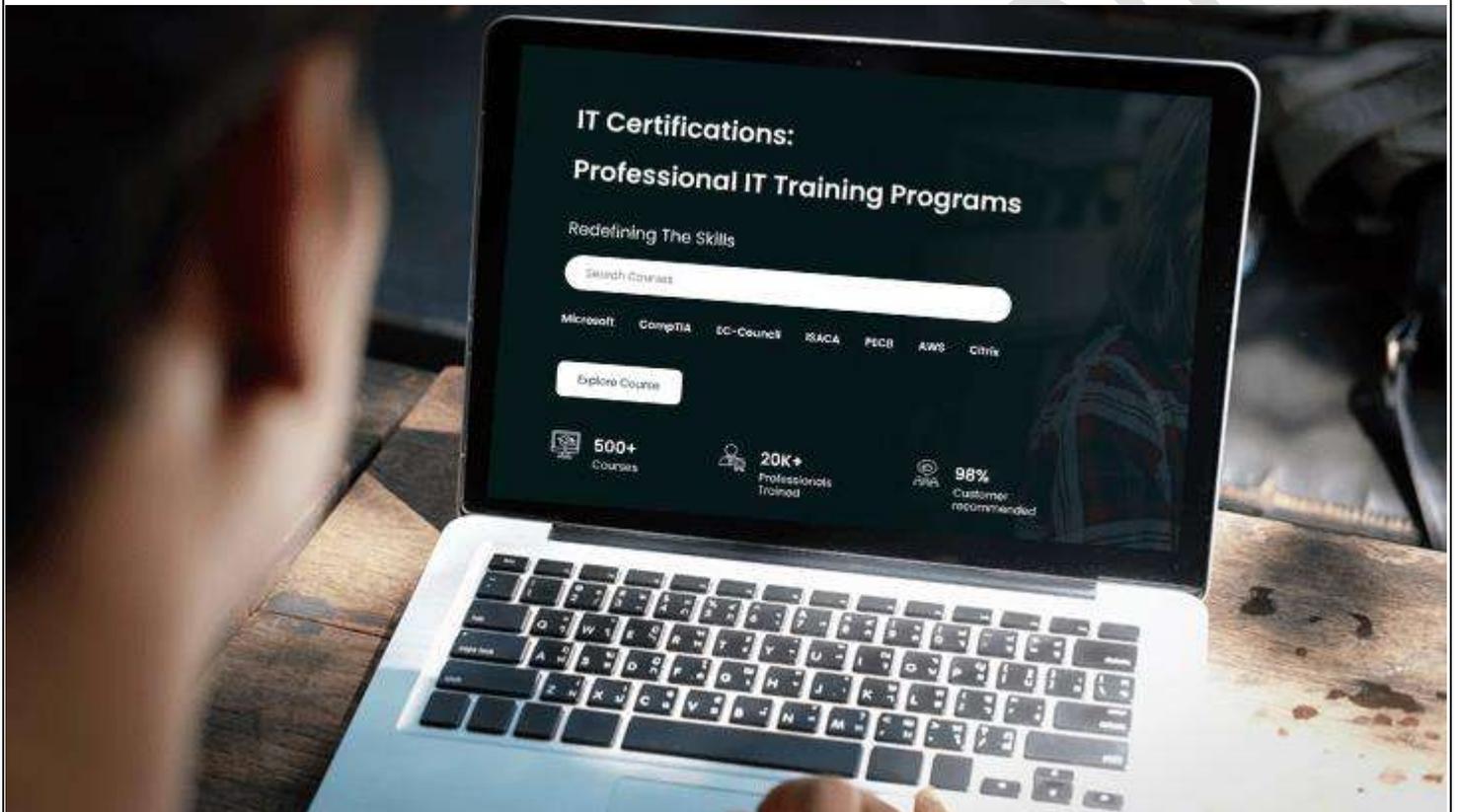IT Certifications:
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Redefining The Skills

POWER BI INTERVIEW QUESTIONS WITH SAMPLE ANSWERS

1. What is Power BI and why is it so popular?

Power BI is a suite of business analytics tools from Microsoft. It allows you to connect to different data sources, transform and model the data, and then create interactive visualizations and reports. It is popular due to its user-friendly interface, powerful features, seamless integration with other Microsoft products (such as Excel and Teams) and cloud-based accessibility.

2. Can you explain the different components of the Power BI ecosystem?

- Power BI Desktop: The primary authoring tool for creating reports and dashboards.

- Power BI Service: The cloud-based platform for publishing, sharing and collaborating on reports.

- The Power BI Mobile: Apps for iOS and Android devices for viewing and interacting with reports on the go.

- Power BI Report Server: An on-premise solution for organizations with specific data security requirements.

- Power BI Gateways: Bridges between local data sources and the cloud-based Power BI service.

3. What are the main differences between Power BI Desktop and Power BI Service?

- Power BI Desktop: Used for report development (data import, transformation, creation of visualizations).

- Power BI Service: Used for publishing, sharing and using reports (collaboration, scheduling data updates, creating workspaces).

4. Explain the role of Power Query (M) in Power BI.

Power Query, also known as M, is a data transformation and preparation tool. It allows you to connect to different data sources, cleanse the data, remove errors, transform columns, merge tables and perform other data transformation operations before loading it into Power BI.

5. What is DAX and why is it so important for Power BI?

[1] DAX (Data Analysis Expressions) is the formula language used in Power BI to create calculated columns, measures and custom tables. It is essential for gaining insights from data that is not directly available in your data sources.

6. Describe the Star Schema data modeling technique and its benefits in Power BI.

Star Schema is a data modeling technique in which a central fact table (containing transactional data) is surrounded by dimension tables (containing descriptive attributes). This model is optimized for performance in Power BI due to its simplified relationships and the ability to easily create aggregations.

7. What types of visualizations are available in Power BI and when would you use each?

Power BI offers a wide range of visualizations, including bar charts, column charts, line charts, pie charts, maps, scatter plots, matrices, tables, and various custom visualizations. The choice of visualization depends on the type of data and the message you want to convey.

8. How do you create interactive visualizations in Power BI?

Interactive visualizations can be created using:

- Tooltips: Provide additional information when you hover over data points.

- Drill-throughs: Allow users to access detailed reports by clicking on a data point.

- Slicer: Filter data based on specific values.

- Cross-filtering: Filter data across multiple views based on selections in a view.

9. Can you explain the concept of bookmarks and how they are used in Power BI reports?

Bookmarks capture specific configurations of a report page (filters, slicers, visual states). They are used to create personalized views, guided tours and interactive presentations within a report.

10. What is row-level security (RLS) and how does it work in Power BI?

RLS is a security mechanism that restricts row-level data access in Power BI reports. It allows different users to see only the data they are authorized to see. It is implemented using roles and DAX expressions to filter data based on user attributes.

11. Describe the different connectivity modes in Power BI.

- Import: Data is loaded into Power BI's internal storage (fast for analysis, but requires regular refreshes).

- DirectQuery: Data is queried directly from the source (always up to date, but can be slower).

- Live connection: Establishes a direct connection to an Analysis Services model (real-time data, limited Power BI transformations).

12. How can you optimize the performance of Power BI reports?

Performance optimization techniques include:

- Query folding: Moving transformations to the data source.

- Aggregations: Predicting summarized data.

- Caching: Storing query results to reduce query load.

- Data reduction: Limiting imported data to relevant columns and rows.

13. How do you communicate complex data insights to non-technical stakeholders?

To communicate data insights effectively, I focus on:

- Simplicity: use clear, jargon-free language and avoid technical details.

- Visualization: Create compelling visuals that tell a story and highlight key insights.

- Relevance: Place the findings in the context of the business objectives.

- Narrative: Weave data points into a narrative that explains the "why" behind the numbers.

14. Can you give an example of a successful Power BI project you have worked on?

(Describe a specific project you have completed, focusing on the challenges you faced, your approach to solving them, the impact on the business and the lessons you learned)

15. How do you keep up to date with the latest Power BI features and best practices?

I stay up to date through:

- following the Power BI blog and Microsoft release notes.

- Participating in online forums and communities (e.g. Power BI Community).

- Attending webinars and conferences.

- Experiment with new features in a personal development environment.

- Network with other Power BI experts.

Source: [1]https://www.c-sharpcorner.com/article/power-bi-dax-top-20-functions-for-beginners/

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