1. What is Power BI and how does it differ from Excel?

**ANS.** Power BI is a business intelligence tool developed by Microsoft. It helps you to interactively visualise our data and make intelligence-based business decision as a result.

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| --- | --- |
| EXCEL | POWER BI |
| Simple and less interactive | Beautiful and interactive |
| Spreadsheet | Report view |
| Slower processor in comparison | Faster processor in comparison |
| Fewer analytics option | More data analytics option |

1. Explain the concept of data model in Power BI.

**ANS.** A data model in power bi is a visual representation of data and its relationship.

1. What are the different types of connections available in Power BI?

**ANS.** There are three type of connection:

1. Import data
2. Direct query
3. Live connection
4. How do you handle data transformation in Power BI?

**ANS.** Here are some ways to transform data in power bi:

1. Change datatype
2. Use power query
3. Remove rows
4. Replace values
5. What is DAX (Data Expressions) and why is it important in Power BI?

**ANS.** DAX stands for data analysis expression. It is used to perform calculation on column. ”//” is to add comment in DAX.

It is important because through that we can perform calculation on columns.

1. Can you explain the difference between calculated columns and measures in Power BI?

**ANS**. Difference between calculated columns and measure in power bi:

* Calculated columns are best for row-level computations, while measures are perfect for aggregated calculations.
* A calculated column belongs to a single table, while a measure belongs to the whole data model.
* A calculated column is evaluated in a row context (row by row), while a measure is evaluated in the filter context.

1. How do you handle relationships between tables in Power BI?

**ANS.** Handling relationship between table in power bi:

1. Open your data model in Power BI.
2. Select the two tables you want to connect.
3. Click on the Manage Relationships button in the Home tab.
4. In the Manage Relationships dialog box, click on New.
5. Select the fields that you want to connect.
6. Define the relationship type (one-to-many or many-to-many).
7. Click OK to save the new relationship.
8. What is the purpose of a Power BI Gateway?

**ANS.** The purpose of power bi gate way is to act as a bridge between the power bi service in the cloud and your on premises data source.

1. How can you schedule data refresh in Power BI Service?

**ANS.**  In home tab there is an option of refresh through that we can refresh in power bi service.

1. Explain the concept of row-level security in Power BI.

**ANS.**  Row-level security in Power BI allows you to control access to data at the individual row level.

1. What is the Power BI Desktop and how does it differ from Power BI Service?

**ANS.**Power BI Desktop is a free application you install on your local computer that lets you connect to, transform, and visualize your data.

* Difference between power bi desktop and service

|  |  |
| --- | --- |
| **Desktop** | **Service** |
| Many data source | Some data source |
| Transforming | Dashboard |
| Measure | Data flow creation |
| Calculated column | RLS management |
| Python | Gateway connection |

1. Explain the concept of Direct Query in Power BI.

**ANS.** Data query is a data querying method in power bi that lets you connect to data source and display data without importing it.

1. What are Power BI templates and how are they useful?

**ANS.** Power bi templates are pre designed report layouts that can be used to create reports and dashboards.

* Uses:

1. Save time
2. Ensuring consistency
3. Customizing reports
4. How do you handle incremental data refresh in Power BI?

**ANS.** Handling incremental data refresh in power bi:

* Define parameters
* Modify the data source
* Create a custom query
* Set up incremental refresh

15) What is the role of Power Query in Power BI?

**ANS.** With the help of power query in power bi we can reshape our data easily.

16) Explain the difference between calculated columns and calculated measures in Power BI.

**ANS.** Difference between calculated columns and calculated measure:

|  |  |
| --- | --- |
| Columns | Measures |
| Is saved | Isn’t saved anywhere |
| It is a result of an aggregation. | It is calculated row by row |
| Stored in memory | Stored on the top of the table |
| Suitable for simple calculation | Suitable for complex calculation |

17) How do you create custom visuals in Power BI?

**ANS.**  Creating custom visual in power bi:

* Open power bi desktop
* Load our data set
* Explore the visualization pane for built in option
* Drop your data fields to create standard visuals
* Then go to visualisation pane and click the ‘three dots’
* Select ‘import from marketplace’
* Browse or search for custom visuals, then click add

18) What are the best practices for optimizing performance in Power BI? **ANS.** Best practices for optimizing performance in Power BI:

* Reduce data
* Avoid bi directional relationship
* Avoid calculated column
* Incremental refresh
* Use aggregated data
* Limit slicers value

19) How can you integrate Power BI with other Microsoft products like Azure and Office 365?

**ANS.** Integrating power bi with azure:

* In power bi select ‘get data’>’azure’>’azure SQL database
* Enter your server and database credential

Integrating power bi with office 365:

* In power bi desktop, select get data>online services>share point online list
* Enter your share point in URL

20) Explain the concept of aggregations in Power BI.

**ANS.** When you combine values in your data is called aggregating.

Aggregation in power bi is a process of mathematically combining values to produce an aggregate.

21) How do you handle error handling and data quality in Power BI?

**ANS.** Error handling in power bi:

* Create a custom column to convert error into records
* Use if error function

Data quality in power bi

* Data quality reports help you to identify issues in your data and reporting.
* Data quality rules is used to ensure data is valid and high quality.

22) What is the purpose of Power BI Embedded and when would you use it?

**ANS.** Power bi embedded is a service that allows you to embed power bi content like reports, dashboard, and tiles into a website or web application.

Uses of power bi embedded

* Embedding content
* Publishing to the web
* Ensuring data security
* Creating interactive visualization

The End