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SUCCESS

POWER BI

CONSOLIDATED

INTERVIEW

500+

QUESTION & ANSWERS

Note : This Book consists of consolidated
Questions & Answers from various Interviews
and Websites. Questions may be repeated.

Power BI – Consolidated Interview Questions

1. What is BI?

Business intelligence is a technology-driven method. It helps you to analyze data and to provide actionable information which helps corporate executives, business managers, and other users to take decisive business decisions.

2. What is a Power BI?

Power BI is a Business Intelligence and Data Visualization tool which helps you to convert data from the various data source into interactive dashboards and BI reports. It provides multiple software connectors and services.

3. What are the important components of Power BI?

Important components of Power BI are: 1) Data Integration, 2) Data Processing, and 3) Data Presentation

4. What is Dax Function?

It is a formula expression language called (DAX) that can be used with various visualization tools like Power BI. It is also known as a functional language, where the full code is kept inside a function.

5. What are the data types of Dax?

Data types of Dax are: 1) Numeric, 2) Boolean, 3) DateTime, 4) String, and 5) Decimal.

6. Why use Power BI?

Here are four primary reasons for using Power BI tool:

- Pre-built dashboards and reports for SaaS Solutions.

- Power BI allows real-time dashboard updates.

- Offers Secure and reliable connection to your data sources in the cloud or on-premises

- Power BI offers fast deployment, hybrid configuration, and secure environment.

- Helps you in data exploration using natural language query

7. What are the essential applications of the Power BI?

Power BI is mainly used by:

- PMO - Project Management Office

- Business & Data Analyst

- Developer & Database Administrator

- IT Team, IT Professional

- Consumer for End User Report

- Data Scientist

8. What are the drawbacks of using Power BI?

Here, are the main drawbacks of Power BI:

- Dashboards and reports only shared with users having identical email domains.

- Power BI does not mix imported data, which is accessed from real-time connections.

- Power BI can't accept file size larger than 1 GB.

- Dashboard does not accept or pass user, account, or other entity parameters.

9. Name out three important Power BI tools

Three important power BI tool are:

- Power BI Desktop—It is used for desktop computers

- Power BI service—It is an online software as a service tool

- Mobile Power BI apps—They are used for iOS and Android devices.

10. What are the important components of the Power BI toolkit, and what do they do?

- Power Query: It allows you to discover, access, and consolidate information from different sources.

- Power Pivot: A modeling tool.

- Power View: It is a presentation tool for creating charts, tables, and more.

- Power Map: Helps you to create geospatial representations of your data.

- Power Q&A: Allows you to use natural language to get answers to questions.

11. What types of data types are available in Power BI?

Important Data sources used in Power BI Desktop are:

- All

- File

- Database

- Power BI

- Azure

- Online Services

- Other

12. What is grouping? How can you use it?

Power BI Desktop allows you to group the data into small chunks. For grouping, you should use Ctrl + click to select multiple elements in the visual. Right-click one of those elements which appear in groups window.

13. Explain the term responsive slicers.

On a report page, you can easily resize a responsive slicer to various sizes and shapes, and the data contained in it should be rearranged according to it. In case if the visual becomes too small to be useful, an icon representing the visual ability to take its place, thus saving the space on the report page.

14. Define the term 'M language."

It is a programming language used in Power Query. It's a functional, case-sensitive language which is similar to other programming languages and easy to use.

15. What information is required to create a map in Power Map?

Power Map can display visualizations which are geographical in nature. That's why some kind of location data is needed, for example, city, state, country or latitude and longitude.

16. What are the important features of Power BI dashboard?

- It allows you to drill through the page, bookmarks, and selection pane.

- It allows you to create various tiles like web content, images, textbox, and integrate URLs.

- Allows you to set report layout to mobile view.

17. What are the steps to go to Data Stories Gallery in Power Bi communities?

Steps to go to Data Stories Gallery:

- First, open PowerBI.com in a favorite browser.

- By hovering on Learn

- Click on Community

- Scroll down little, and you will find Data Stories Gallery.

- Anyone can submit her or his Data Story as well.

18. Where incremental licensing refresh feature is accessible?

Incremental refresh feature mainly used for high-end scalability of data by publishing only on that workspace in Power BI Service where Premium capacity is needed.

19. How can you analyze Power BI reports data in excel?

You need to follow the below-given steps:

- Open Power BI Admin portal, go to tenant settings and select -> Analyze.

- Check that Power BI Administrator has enabled Excel option or not.

- Then at the upper right corner, click settings to download and install Excel updates.

- Next, go to the left-hand side navigation pane, go to the workspace, click on the dataset, click on Eclipses (three dots) and select Analyze in Excel.

- Download ODC file, save, and double click on it.

- After that needs to provide power BI user id and password.

20. What is Power Pivot, and what are the filter writes in Power BI?

Power Pivot is an in-memory component which offers highly compressed data storage. It helps you to build a data model, creating formulas, relationship, calculated columns from various resources.

Filters are applicable in:

- Visualization level

- Page Level

- Report Level

21. How can you perform Dynamic filtering in Power BI?

Dynamic Filtering in Power BI is done using the following steps:

- Once all the data are set up, publish a detail report to Power BI.

- Publish it to group workspace.

- Create a filter link

- Create a DAX calculated column.

- Public overview report

22. What is Power Pivot Data Model?

It is a model that contains data writes, tables, sections, and table relations. These data tables help you to develop for holding data for a business substance.

23. What is Power Query?

Power query is an ETL tool which helps you to clean, shape, and modify data utilizing instinctive interfaces without doing anything.

24. Which programming language is used in Power Query?

M-code is a new programming language that is used in power query. It is similar to other programming languages and easy to use.

25. List out benefits of using Variables in DAX.

Here, are benefits of using DAX function:

- By declaring and evaluating a variable, the variable can be reused multiple times in a DAX expression, which helps you to avoid additional queries of the source database.

- Variables can make DAX expressions more useful and logical.

- Variables is only scoped, which should be measure or query which can't be among measures.

26. What are Tiles in Power BI?

Tile is an important feature of power BI services and can be said as a picture of the data which can be pinned to the dashboard.

27. What is on-premise gateway?

On-premise gateway acts as a bridge which helps you to transfer the data, which is on-premise (not on the cloud) safely and securely.

28. Name two types of connectivity modes in Power BI?

Two types of connectivity modes used in Power BI are:

- Import

- Direct Query

29. Explain the term data alerts.

Alert works on data that is refreshed, Power BI looks for an alert, and it reaches the alert threshold or the limit then the alter will be triggered.

30. What is the calculated column?

It is a calculating expression of DAX which allows calculation on data stored in a new column.

31. What is query collapsing?

The process of converting the steps in power query editor to SQL and executing it by the source database is called query collapsing.

32. Explain data source filter.

It is a parameter to filter the data into machines.

33. What is content packs?

These are pre-built solutions build for popular services as a major part of the Power BI experience.

34. What are the types of filters available in Power BI Reports?

Important filters of Power BI reports are:

- Visual-level Filters

- Page-level Filters

- Report-level Filters

35. What is Bookmark?

Bookmark in Power BI helps you to capture the configured view of a report page in a specific time. This includes filter and state of visual which can use a short cut to come back to the report that you can add as a bookmark.

36. What are the advantages of using a variable in Power BI?

Variables help you to create more logical Queries and which should be used for multiple DAX functions.

37. Why use selection pane in Power BI?

Selection Pane helps you to take control over visuals which require to be displayed and which should not be displayed. It allows you to combine multiple visual pages in the group and is also used in bookmarking.

38. How to handle Many to Many relationships in Power BI?

You can use Crossfiltering option in Power BI to address the Many to Many relationships.

39. Explain x-velocity in memory.

It is the main engine which is used in power pivot. It allows you to load the large set of data into Power BI data.

40. Explain the term Custom Visuals.

Graphs or visual which are not included in Power BI desktop are imported for better visualization.

Power BI – Consolidated Interview Questions

41. Is it possible to have created multiple active relationships in Power BI?

No, we can't set multiple active relationships in Power BI.

42. State the main difference between District() and Values() in DAX?

The only difference between two functions is that with District help you to calculate the null values.

43. State the major differences between MAX and MAXA functions

If you want to calculate numeric values, then use MAX. However, if it is for non numeric values, then you should use MAXA.

44. Is on-premise access possible in Power BI?

No, it is not possible to access Power BI services on private or internal service cloud. However, by using Power BI desktop, you can connect with the on-premises data sources.

45. What is the major difference between the old version and a new version of Power BI tool?

The latest version has more robust features, and it is famous with the name Power BI Desktop. This is an all in one solution for Power View, Power Pivot, and Power Query in the backend. Power BI offers many add-ins for Excel, which is useful for better visualizations.

46. Explain the term incremental refresh?

Increment refresh is a newly added data so that there is no need to truncate or load the entire data.

47. Is the Power BI tool available for free?

You can access Power BI for free. However, if you wish to use all the feature of Power BI, then you can use its pro subscription account. The subscription account offers an enhanced version of several features that are available with Power Bi free account.

48. What kind of data can you store in Power BI?

In Power BI, you can store mainly two types of data.

Fact Tables:

The central table in a star schema of a data warehouse is a fact table that stores quantitative information for analysis, which is not normalized in most cases.

Dimension Tables:

It is a table in the star schema which helps you to store attributes and dimensions which describe objects that are stored in a fact table.

49. State the main difference between Filter and Slicer.

If you are using the normal filter user cannot interact with the dashboard. On the other hand, slicer allows users to have an interaction with Reports as well as Dashboards.

50. What is the Embed Code?

Power BI online contains an option for publishing on web that will generate a link address for the Power BI report. You can share these links to others, which is called embed code.

51. What are the method to hide and unhide a specific report in Power BI?

To hide and unhide specific report, you have to go to selection Pane in the menu bar, and press hides/unhide toggle button to bookmark.

52. How can you compare Target and Actual Value from a Power BI report?

You need to use Gauge chart to compare two different measure.

53. Can you create multiple dynamic connections between two tables?

No, we can't create more that one multiple dynamic connections.

54. What is the use of Power BI designer?

Power BI Designer allows users to create intuitive reports and dashboards, easily and quickly. It also helps users to change visual views of their data at fingertips for better analytics and informed decision-making.

55. Can you refresh Power BI reports after they are published to the cloud?

Yes, it is possible. Gateways can be used to do so.

- For SharePoint: Data Management Gateway

- For Powerbi.com: Power BI Personal Gateway

56. What is Custom Visuals?

Custom Vizual are those visual which are not available in BI desktop, which are imported from the market for the purpose of better visualization.

57. What are the gateways that available in Power BI?

The two gateway method available in Power BI are:

- On-premises information door

- On- premises information door (personal mode)

58. What is natural language search choice?

The natural language search choice is language-based learning for communicating with information as a part of Power BI suite for Office 365 advertising.

59. Can you join two unique information source in the same Power BI dashboard?

Yes, we can join two unique information source in the same Power Bi dashboard. We can also merge comparable reports in your Power Bi account into using single dashboard.

60. Why is TOP N not accessible for the Page and Report Level Filter?

ToP N is not accessible for the Page and Report Level Filters because their channels are associated with different visuals.

61. Explain the collect function.

Collect function excludes null value. It does aggregate spatial values. You can't transform data to another format.

62. How can you differ COVAR and COVARP?

The main difference between the two is that: COVAR directly gives the same co-variance, whereas COVARP is the population covariance.

63. How can you assign SSRS with Power BI?

Here are the steps to integrate SSRS with Power BI:

- SSRS Report Items like charts can be pinned to Power BI dashboards.

- A subscription is created to keep the snapshot of data in dashboard refreshed.

- Power BI reports will soon able to publish to SSRS portal.

64. Explain z-order in Power BI?

Z-order is a design strategy which is used for arranging visual over shapes. It can be defined as an implementation method which can be applied whenever reports have multiple elements.

65. What is the only prerequisite for connecting to a database in Azure SQL Database?

The only prerequisite for before connecting to a database is that the user need to configure firewall setting to allows remote connections.

66. Name out some important DAX functions used in Power BI.

Sum, Max, AVG, Distinct, Count, Calculate, Datediff are some important widely used DAX functions.

67. What is X-speed in-memory investigation motor used for Power Pivot?

The primary motto behind power turn is the x Velocity in-memory analytics engine. It allows dealing with the various measures of information as it stores data in the columnar database.

68. Name widely recognized information forming systems.

The most widely recognized information forming systems are:

- Removing columns and rows

- Adding indexes

- Applying for a sort order

69. What happens by clicking on a single information point in one of the various visual in a report?

When you click on single information point data gets select and copied to the clipboard. Moreover, the copied data can be pasted in any place according to your requirement.

70. What is CORR function? When we use it?

CORR is a correlation function. It gives a correlation between two variables. It mostly ranges from -1 to 1.

71. State the difference between Count and CounD function.

Count function returns to count, excluding NULL values whereas Countd returns distinct values which exclude NULL values.

72. Explain DATEDD function in Power BI.

DATEDD function helps you to convert any input to a date format. This input can number, string, or a data type input.

73. What does DATENAME function do?

DATENAME function shows the name of the specific part of the date that is given.

74. What is the DATEPART function?

It returns date function as an integer. However, DATENAME function does the same thing, except it returns the name of the part of the date.

75. What does DATEDIFF function do?

This function gives a difference between 2 dates based on the specified Date part.

76. What is the use of ENDSWITH function?

ENDSWITH function helps you to return the logical result to the given string. In case If the sub-string is available at the end of the sub string, then it returns TRUE.

77. What is IFNULL function?

If the value is not NULL iFNULL function result is the first expression, if it is not, then it will return the second expression.

78. What is the use of INDEX Function in Power BI?

INDEX function helps you to retrieve the index of the respective row.

79. What is the main difference between LTRIM and RTRIM?

LTRIM function helps you to remove the white space from the LEFT of the string. RTRIM helps you to remove it from the right the last index.

80. 79. What is the use of MID function?

MID function returns the string character from the specified index position.

81. How can you apply percentile function in Power BI?

PERCENTILE function allows you to returns the data value of the specific percentile number.

82. What is the SIGN function?

Sign function returns the direction of the values. If it returns 1, if positive then 1, if 0 then 0.

83. What is the use of statewith function?

This function returns the logical answers TRUE if the sub-string is the starting string for the superstring. If it is not, it will return false.

84. What is the use of split function?

SPLIT function is used to split the string database on the given delimiter.

85. What is the need of signing up with business email?

Power BI is not supporting, the email address given by telecommunications or consumer email service providers. Thus, there is need for signing up with work email.

86. Name the market place where you can download the Power BI mobile apps.

- App store

- Google Play

- Window Store

87. In which year Microsoft invented Power BI Embedded?

In, the year 2016 Microsoft discharged new administration which is named as Power BI Embedded.

88. What area do you go to change and reshape data in Power BI?

Data Editing helps you to change and reshape data in Power BI.

89. Data Category settings should be used for mapping information to geographic areas in Power BI?

Scope and Longitude (e.g. 47.6080, - 122.3351)

90. What do you use as a consolidate inquiry in Power BI?

Join Queries are used as a consolidate inquiries in Power BI

91. What is the option to unpivot data in the question proofreader?

Unpivot line is a choice to unpivot any data in the question proofreader.

92. What is the process to refresh Power BI reports when it is uploaded into the cloud?

Power BI, reports can be refresh using Data management, gateway, and Power BI Personal Gateway.

93. What visual would you need to use to show solitary esteem?

Disseminate Plat is a visual you should use to show solitary esteem.

94. Which of the following Power BI memberships allows you the right permit to see Power BI content with the various Power BI applications?

Power BI Premium P1 is an application which gives this type of solutions for you.

95. Which field composes can be added to the Field well of a Slicer visual?

Computing segments should be made with a DAX articulation.

96. What is the M dialect capacity to sort a segment in inquiry supervisor?

The command for this purpose is Sort-> Table

97. Which Power in BI visual is ideal for estimating execution against an objective?

Projectile Power Bi visual is most fitting for this purpose.

98. What context style is allowed by Power BI DAX?

Power BI DAX content style is both Row and Filter.

99. In, Power Bi, where do you discover the Q&A highlight?

You will get at the highest point of a report in the Power BI benefit.

100. How can you dynamically change the value measure to show multiple measures?

You can do this by using harvesting measure and switch function.

101. What is self-service business intelligence?

Self-service Business Intelligence SSBI is a method to deal with data investigation which empowers business clients to channel, fragment, and break down their data, without top to the bottom specific information.

102. What is the difference between Managed Enterprise BI and Self-service BI?

The limitations of Managed Enterprise BI led to the birth of Self-service BI. There are significant differences that separate them.

Managed Enterprise BI	Self-service BI
Here, data flows in from a plethora of sources and, for this reason, there is no order in which companies ingest and manage their data sources.	This enables companies to ingest data from any data source, seamlessly. Companies take in data from any source in any format.
Companies fail to conduct their business operations, effectively, as they are not able to report and analyze data and collaborate for collecting valuable insights from it.	With data ingestion falling into order, companies are able to process data and, consequently, conduct business operations with ease.
There are time constraints and a lack of proper information when it comes to analyzing data.	Analyzing data is easy, and it is done implicitly. Time constraints are hence alleviated.
Third-party vendors are employed to help companies make the most out of their data sources, leading to budget problems and slow productivity.	There is no need of third-party vendors anymore and all associated constraints are eradicated.
Complex programming skills are necessary for generating reports.	Users could generate intuitive and actionable dashboards almost instantaneously without executing complex programming codes.

103. What exactly is Self-service BI?

Self-service BI or Self-service Business Intelligence (SSBI) is an approach to data analytics, reporting, and visualization that enables users to generate easy-to-understand, intuitive, and actionable dashboards, almost instantaneously. The most striking feature of SSBI is the fact that users are not required to be adept at technical expertise when it comes to data reporting. Using available filters and data manipulation options, they can influence data as per their business needs and further create reports. There are two parts to Microsoft SSBI:

- Excel BI toolkit
- Power BI

104. Why are you interested in Power BI? What makes you think that Power BI would be a great career option?

A cloud-based data reporting and visualization tool, Power BI makes it possible for users to generate reports online. Once reports are generated, users can share them with their colleagues in their workplace. This aspect of Power BI makes it quite popular among business users. And therefore, Power BI is both an interesting and promising career option.

105. Mention the important features of Power BI.

Features of Power BI are many. The most notable ones are:

- It allows users to transform data into visuals and share those visuals with colleagues.
- It allows users to explore and analyze data from all sources (in an all-in-one view).
- It allows users to scale across organizations with built-in governance and security.

- Once an output is generated, users can display the same in multiple devices that are compatible with the Power BI application.

- With Power BI natural language processing or Power BI Q&A, users can perform queries on reports using simple English words.

106. Is Power BI free to use?

Well, users can use Power BI for free. However, the best of Power BI can be availed with the Power BI Pro subscription account. This can be purchased from the Microsoft Store. The subscription account basically offers an enhanced version of several features that are available with the Power BI free account. Most business users use a subscribed account as it offers more data refreshes per day and other features as compared to the free version.

107. What are the versions of Power BI?

Power BI brings in a lot of flexibility when it comes to data reporting and visualization. For this reason, the complete Power BI package has been divided into three versions. These versions allow all kinds of users to leverage the functionalities of Power BI to the fullest.

The versions are:

- Power BI Desktop: The on-premise version for Windows 10

- Power BI Service: For publishing to the cloud

- Mobile Power BI: For mobile users

108. What is Power BI Desktop?

Power BI Desktop is a Windows desktop-based application for personal computers, primarily for designing, generating, and publishing reports to the cloud. Used as an on-premise version of Power BI, Power BI Desktop can run on PCs and work full-fledged even when the system is not connected to the Internet. Just when users want to publish their reports to the cloud or share with colleagues, they are supposed to connect to the Internet. Power BI Desktop is basically the first application that users jump into when they board on Power BI.

109. What are the major components of Power BI?

There are five different components of Power BI.

- **Power Pivot**: Fetches and cleans data and loads on to Power Query

- **Power Query**: Operates on the loaded data

- **Power Q&A**: Makes it possible for users to interact with reports using simple English language

- **Power View**: Lets users create interactive charts, graphs, maps, and other visuals

- **Power Map**: Enables the processing of accurate geographic locations in datasets

110. What is the purpose of the 'Get Data' icon in Power BI?

When users click on the Get Data icon in Power BI, a drop-down menu appears and it shows all data sources from which data can be ingested. Data can actually be directly ingested from any source including files in Excel, CSV, XML, JSON, PDF, and SharePoint formats and databases such as SQL, Access, SQL Server Analysis Services, Oracle, IBM, MySQL, and much more. Also, Power BI datasets and Power BI data flows are compatible. Data can also be taken in from Azure and other online sources.

111. How can we filter data in Power BI?

Data can be filtered using various filters that are available in Power BI, implicitly. There are basically three types of filters, namely, Page-level filters, Drillthrough filters, and Report-level filters.

- **Drillthrough filters**: With Drillthrough filters in Power BI Desktop, users can create a page in their reports that focuses on specific entities such as suppliers, customers, or manufacturers.

- **Page-level filters**: These are used to filter charts that are present in individual pages.

- **Report-level filters**: They are used to simultaneously filter charts that are present in all pages of a report.

112. Where is data stored in Power BI?

When data is ingested into Power BI, it is basically stored in Fact and Dimension tables.

- **Fact tables**: The central table in a star schema of a data warehouse, a fact table stores quantitative information for analysis and is not normalized in most cases.

- **Dimension tables**: It is just another table in the star schema that is used to store attributes and dimensions that describe objects stored in a fact table.

113. What are Content Packs?

Content packs are packaged reports, dashboards, and datasets, which can be shared with other Power BI users in the organization. When a content pack is connected on the Powerbi.com portal, report items are merged into workspace lists.

The most notable features of content packs are as follows:

- Provide access to specific groups or entire organizations

- Can be customized with a title and a description to help users select the right pack

- Users who have access to the content pack can create new dashboards from the contents

114. What are the different views in Power BI Desktop?

There are three different views in Power BI, each of which serves a different purpose.

- **Report View**: Users can add visualizations and additional report pages and publish the same on the portal from here.
- **Data View**: Data shaping can be performed through Query Editor tools.
- **Relationship View**: Users can manage relationships between datasets in this view.

115. What is Row-level Security?

Row-level security restricts the data that a user can view and has access to, based on filters. For configuring row-level security, users can define rules and roles in Power BI Desktop and publish the same to Power BI Service. Also, the username() function can be used alongside table relationships to restrict the data to the current user.

However, for enabling row-level security, a Power BI Pro subscription account is required, and Excel sheets can only be used when they are converted to the .pbix file format.

116. What is DAX? What are the benefits of using variables in DAX?

DAX or Data Analysis Expressions can be used to query and return data by a table expression. It is a formula language that is used to perform basic calculations and data analysis on the data in Power Pivot. Also, it is used to compute calculated columns, calculated fields, and measures. However, data cannot be inserted or modified using DAX.

DAX Syntax:

Total Sales = SUM(Sales[SalesAmount])

Where 'Total Sales' is a 'Measure'; 'SUM' is a 'DAX Function', and 'Sales[SalesAmount]' represents the referenced table and the referenced column name.

Benefits of using variables in DAX:

- Variables can be reused in DAX queries, thus avoiding additional queries of the source database.

- Variables make DAX expressions understandable.

117. What is Bidirectional Cross-filtering in Power BI?

Bidirectional cross-filtering in Power BI Desktop allows data modelers to determine how they want filters to flow for data using relationships between tables. With bidirectional cross-filtering, the filter context is propagated to a second related table on the other side of a table relationship. This can help data modelers solve the many-to-many problem without writing complicated DAX formulas. Thus, bidirectional cross-filtering simplifies the job for data modelers.

118. How are relationships defined in Power BI Desktop?

Power BI – Consolidated Interview Questions

If there are no null values or duplicate rows, relationships between tables can be defined in two ways:

- **Manually**: Users can manually define relationships between tables using primary and foreign keys.

- **With the autodetect feature**: When enabled, this inherent feature of Power BI detects relationships between tables and creates them automatically.

119. What do you know about Power BI Query Editor?

By using Power BI Query Editor, users can load data from a wider number of data sources and apply transformations on them, including adding new columns and measures.

Power BI Query Editor comprises four tabs:

Query Editor Tab	Use Case
Home	- Import data from Query Editor into the **New Query** group - Use the **Parameter** group to create and manage parameters - Include a function to refresh the preview data for the current table, or all tables, in the dataset - Manage columns, reduce rows, and sort groups
Transform	- Change the data types of columns, rename columns, replace values, and fix errors in the **Any Column** group - **Structured Column** group provides options for working with the nested data - **Run R Script** function enables to run R Queries directly on Power BI Query Editor
Add Column	- Use **Add Custom Column** to create a new column using a DAX formula - Use **Conditional Column** to add a column based on the values in another column - Use the **From Number** group to apply statistical, standard, and scientific functions to numerical columns
View	- Show or hide Query Editor Settings - From here, the Advanced Editor window can be opened to view and edit the query code

120. What is Advanced Editor in Power BI?

Advanced Editor can be used to see the query that Power BI runs against data sources to import data.

- The query is written in M-code, the Power Query Formula Language

- To view the query code from Power BI Desktop, choose **Edit Queries** from the Home tab

- From either the Home or the View tab, click on **Advanced Editor** to work on the query. The Advanced Editor window opens, displaying the code for the currently selected query

- When we make transformations to our data in Query Editor, the steps are saved to the Applied Steps in the Query Settings

- These steps are also applied to the code in the Advanced Editor

121. Why should General Formatting be applied to data in Power BI?

By formatting data, users can help Power BI categorize and identify data, making it much easier to work with.

- Enter a custom formula to create a new column, including calculations using values from the other columns

- To create a new column, click on Add Custom Column

- In the new column name box, type the name of the column and add the formula to the custom column formula box; for example, [ShipDate] – [OrderDate]

- Select a column from the available columns list and click on Insert or double-click to add it to the custom column formula text box. Then, click on OK

- The new column is appended to the table, and the formula is visible in the Formula Bar

Custom Column Formula:

= Table.AddColumn(#"Sorted Rows",

"DaysOrderToShip", each [ShipDate] -

[OrderDate])

The above code is the formula to create a custom column, which calculates the days from when an order was placed to when it got shipped.

122. What are the most common data shaping techniques?

The most common data shaping techniques are:

- Removing Columns and Rows

- Adding Indexes

- Applying a Sort Order

123. What is the difference between Calculated Columns, Calculated Tables, and Measures?

Calculated Columns	Calculated Tables	Measures
- Added to tables by applying DAX formula on the existing data - DAX formula defines values in new columns rather than querying data sources - Useful when data sources do not contain data presented in the desired format	- Created using DAX formula to define values - Created in both Report and Data views - Work well for intermediate calculations and the data that users want to be stored in the model	- Use other DAX functions to create complex calculations - Used for highlighting running totals, comparing sales, sales forecasting, and other purposes - Created in both Report and Data views

124. Which In-memory Analytics Engine is used in Power Pivot?

The primary in-memory analytics engine behind Power Pivot is **xVelocity**. This engine handles large amounts of data as it stores data in columnar databases. In in-memory analytics, all data is loaded to RAM memory, and therefore processing speed is really fast.

125. What is Power BI Designer?

A powerful and flexible new tool under Power BI umbrella, Power BI Designer empowers users to create intuitive reports and dashboards, easily and quickly, and also lets users change visual views of their data at fingertips for better analytics and informed decision-making. This designer is a host of drag-and-drop capabilities that help users place content exactly where they want it on the report canvas in a well-structured layout.

126. Is it possible to refresh Power BI Reports after they are published to the cloud?

Yes, it is possible. Gateways can be used to do so.

- **For SharePoint**: Data Management Gateway

- **For Powerbi.com**: Power BI Personal Gateway

127. What gateways are available in Power BI and why use them?

A gateway basically acts as a bridge between on-premise data sources and Azure Cloud Services.

- **Personal Gateway:** Data can be imported and valid on Power BI Service only. Also, this gateway can only be used by a single person.

- **On-premises Gateway:** This gateway is the advanced form of Personal gateway. It supports Direct Query, and multiple users can use this for refreshing data.

128. How can geographic data be mapped into Power BI Reports?

Through map chart and filled map chart, Power BI makes it possible for users to visually map geographic data, both globally and regionally.

- Power BI integrates with Bing Maps to find default coordinates for locations in a process known as geocoding.

- This integration means that users do not need to provide longitude and latitude coordinates.

129. What happens when you click on a single data point in one of the multiple visuals in a report?

When we do that, data gets selected and copied to the clipboard. Further, the copied data can be pasted anywhere as per the requirement of the user.

130. What is z-order in Power BI?

Z-order is a design strategy that is used for arranging visuals over shapes. Also, z-order can be defined as an implementation method that can be applied when reports have multiple elements. Further, this can also be used to refresh the display after the order of items in a report is changed.

131. What is the prerequisite for connecting to a database in Azure SQL Database?

There is only one prerequisite for this. Before connecting to a database in Azure SQL Database, users should configure firewall settings to allow remote connections.

132. What are the parts of Microsoft self-service business intelligence solution?

Microsoft has two parts for Self-Service BI

Excel BI Toolkit	It allows users to create an interactive report by importing data from different sources and model data according to report requirement.
Power BI	It is the online solution that enables you to share the interactive reports and queries that you have created using the Excel BI Toolkit.

133. What is self-service business intelligence?

Self-Service Business Intelligence (SSBI)

- SSBI is an approach to data analytics that enables business users to filter, segment, and, analyze their data, without the in-depth technical knowledge in statistical analysis, business intelligence (BI).

- SSBI has made it easier for end users to access their data and create various visuals to get better business insights.

- Anybody who has a basic understanding of the data can create reports to build intuitive and shareable dashboards.

134. What is Power BI?

Power BI is a cloud-based data sharing environment. Once you have developed reports using Power Query, Power Pivot and Power View, you can share your insights with your colleagues. This is where Power BI enters the equation. Power BI, which technically is an aspect of SharePoint online, lets you load Excel workbooks into the cloud and share them with a chosen group of co-workers. Not only

that, but your colleagues can interact with your reports to apply filters and slicers to highlight data. They are completed by Power BI, a simple way of sharing your analysis and insights from the Microsoft cloud.

Power BI features allow you to:

- Share presentations and queries with your colleagues.

- Update your Excel file from data sources that can be on-site or in the cloud.

- Display the output on multiple devices. This includes PCs, tablets, and HTML 5-enabled mobile devices that use the Power BI app.

- Query your data using natural language processing (or Q&A, as it is known).

135. What is Power BI Desktop?

Power BI Desktop is a free desktop application that can be installed right on your own computer. Power BI Desktop works cohesively with the Power BI service by providing advanced data exploration, shaping, modeling, and creating report with highly interactive visualizations. You can save your work to a file or publish your data and reports right to your Power BI site to share with others.

136. What data sources can Power BI connect to?

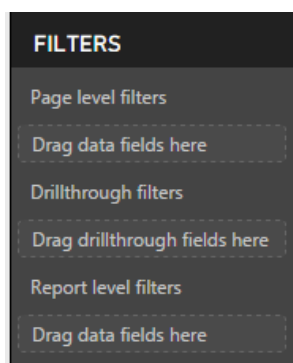The list of data sources for Power BI is extensive, but it can be grouped into the following:

- **Files**: Data can be imported from Excel (.xlsx, xlxm), Power BI Desktop files (.pbix) and Comma Separated Value (.csv).

- **Content Packs**: It is a collection of related documents or files that are stored as a group. In Power BI, there are two types of content packs, firstly those from services providers like Google Analytics, Marketo or Salesforce and secondly those created and shared by other users in your organization.

- **Connectors** to databases and other datasets such as Azure SQL, Databaseand SQL, Server Analysis Services tabular data, etc.

137. What are Building Blocks in Power BI?

The following are the Building Blocks (or) key components of Power BI:

1. **Visualizations**: Visualization is a visual representation of data.
   Example: Pie Chart, Line Graph, Side by Side Bar Charts, Graphical Presentation of the source data on top of Geographical Map, Tree Map, etc.

2. **Datasets**: Dataset is a collection of data that Power BI uses to create its visualizations.
   Example: Excel sheets, Oracle or SQL server tables.

3. **Reports:** Report is a collection of visualizations that appear together on one or more pages.
   Example: Sales by Country, State, City Report, Logistic Performance report, Profit by Products report etc.

4. **Dashboards**: Dashboard is single layer presentation of multiple visualizations, i.e we can integrate one or more visualizations into one page layer.
   Example: Sales dashboard can have pie charts, geographical maps and bar charts.

5. **Tiles**: Tile is a single visualization in a report or on a dashboard.
   Example: Pie Chart in Dashboard or Report.

138. What are the different types of filters in Power BI Reports?

Power BI – Consolidated Interview Questions

FILTERS

Page level filters

Drag data fields here

Drillthrough filters

Drag drillthrough fields here

Report level filters

Drag data fields here

Power BI provides variety of option to filter report, data and visualization. The following are the list of Filter types.

- **Visual-level Filters:** These filters work on only an individual visualization, reducing the amount of data that the visualization can see. Moreover, visual-level filters can filter both data and calculations.

- **Page-level Filters: These filters work at the report-page level. Different pages in the same report can have different page-level filters.**

- **Report-level Filters: There filters work on the entire report, filtering all pages and visualizations included in the report.**

We know that Power BI visual have interactions feature, which makes filtering a report a breeze. Visual interactions are useful, but they come with some limitations:

- The filter is not saved as part of the report. Whenever you open a report, you can begin to play with visual filters but there is no way to store the filter in the saved report.

- The filter is always visible. Sometimes you want a filter for the entire report, but you do not want any visual indication of the filter being applied.

139. What are content packs in Power BI?

Content packs for services are pre-built solutions for popular services as part of the Power BI experience. A subscriber to a supported service, can quickly connect to their account from Power BI to see their data through live dashboards and interactive reports that have been pre-built for them. Microsoft has released content packs for popular services such as Salesforce.com, Marketo, Adobe Analytics, Azure Mobile Engagement, CircuitID, comScore Digital Analytix, Quickbooks Online, SQL Sentry and tyGraph.

Organizational content packs provide users, BI professionals, and system integrator the tools to build their own content packs to share purpose-built dashboards, reports, and datasets within their organization.

140. What are the most common DAX Functions used?

Below are some of the most commonly used DAX function:

- SUM, MIN, MAX, AVG, COUNTROWS, DISTINCTCOUNT

- IF, AND, OR, SWITCH

- ISBLANK, ISFILTERED, ISCROSSFILTERED

- VALUES, ALL, FILTER, CALCULATE,

- UNION, INTERSECT, EXCEPT, NATURALINNERJOIN, NATURALLEFTEROUTERJOIN, SUMMARIZECOLUMNS, ISEMPTY,

- VAR (Variables)

- GEOMEAN, MEDIAN, DATEDIFF

141. How is the FILTER function used?

The FILTER function returns a table with a filter condition applied for each of its source table rows. The FILTER function is rarely used in isolation, it's generally used as a parameter to other functions such as CALCULATE.

- FILTER is an iterator and thus can negatively impact performance over large source tables.

- Complex filtering logic can be applied such as referencing a measure in a filter expression.

    o FILTER(MyTable,[SalesMetric] > 500)

142. What is special or unique about the CALCULATE and CALCULATETABLE functions?

These are the only functions that allow you modify filter context of measures or tables.

- Add to existing filter context of queries.

- Override filter context from queries.

- Remove existing filter context from queries.

Limitations:

- Filter parameters can only operate on a single column at a time.

- Filter parameters cannot reference a metric.

143. What is the common table function for grouping data?

SUMMARIZE()

- Main groupby function in SSAS.

- Recommended practice is to specify table and group by columns but not metrics.You can use ADDCOLUMNS function.

SUMMARIZECOLUMNS

- New group by function for SSAS and Power BI Desktop; more efficient.

- Specify group by columns, table, and expressions.

144. What are some benefits of using Variables in DAX ?

Below are some of the benefits:

- By declaring and evaluating a variable, the variable can be reused multiple times in a DAX expression, thus avoiding additional queries of the source database.

- Variables can make DAX expressions more intuitive/logical to interpret.

- Variables are only scoped to their measure or query, they cannot be shared among measures, queries or be defined at the model level.

145. How would you create trailing X month metrics via DAX against a non-standard calendar?

The solution will involve:

1. CALCULATE function to control (take over) filter context of measures.

2. ALL to remove existing filters on the date dimension.

3. FILTER to identify which rows of the date dimension to use.

Alternatively, CONTAINS may be used:

- CALCULATE(FILTER(ALL('DATE'),…….))

146. What are the different Excel BI add-in?

Below are the most important BI add-in to Excel:

- **Power Query:** It helps in finding, editing and loading external data.

- **Power Pivot:** Its mainly used for data modeling and analysis.

- **Power View:** It is used to design visual and interactively reports.
- **Power Map:** It helps to display insights on 3D Map.

147. What is Power Pivot?

Power Pivot is an add-in for Microsoft Excel 2010 that enables you to import millions of rows of data from multiple data sources into a single Excel workbook. It lets you create relationships between heterogeneous data, create calculated columns and measures using formulas, build PivotTables and PivotCharts. You can then further analyze the data so that you can make timely business decisions without requiring IT assistance.

148. What is Power Pivot Data Model?

It is a model that is made up of data types, tables, columns, and table relations. These data tables are typically constructed for holding data for a business entity.

149. What is xVelocity in-memory analytics engine used in Power Pivot?

The main engine behind power pivot is the xVelocity in-memory analytics engine. It can handle large amount of data because it stores data in columnar databases, and in memory analytics which results in faster processing of data as it loads all data to RAM memory.

150. What are some of differences in data modeling between Power BI Desktop and Power Pivot for Excel?

Here are some of the differences:

- Power BI Desktop supports bi-directional cross filtering relationships, security, calculated tables, and Direct Query options.
- Power Pivot for Excel has single direction (one to many) relationships, calculated columns only, and supports import mode only. Security roles cannot be defined in Power Pivot for Excel.

151. Can we have more than one active relationship between two tables in data model of power pivot?

No, we cannot have more than one active relationship between two tables. However, can have more than one relationship between two tables but there will be only one active relationship and many inactive relationship. The dotted lines are inactive and continuous line are active.

Power BI Interview Questions – Power Query

152. What is Power Query?

Power query is a ETL Tool used to shape, clean and transform data using intuitive interfaces without having to use coding. It helps the user to:

- Import Data from wide range of sources from files, databases, big data, social media data, etc.
- Join and append data from multiple data sources.
  - Shape data as per requirement by removing and adding data.

153. What are the data destinations for Power Queries?

There are two destinations for output we get from power query:

1. Load to a table in a worksheet.
2. Load to the Excel Data Model.

154. What is query folding in Power Query?

Query folding is when steps defined in Power Query/Query Editor are translated into SQL and executed by the source database rather than the client machine. It's important for processing performance and scalability, given limited resources on the client machine.

155. What are some common Power Query/Editor Transforms?

Changing Data Types, Filtering Rows, Choosing/Removing Columns, Grouping, Splitting a column into multiple columns, Adding new Columns ,etc.

156. Can SQL and Power Query/Query Editor be used together?

Yes, a SQL statement can be defined as the source of a Power Query/M function for additional processing/logic. This would be a good practice to ensure that an efficient database query is passed to the source and avoid unnecessary processing and complexity by the client machine and M function.

157. What are query parameters and Power BI templates?

Query parameters can be used to provide users of a local Power BI Desktop report with a prompt, to specify the values they're interested in.

- The parameter selection can then be used by the query and calculations.

- PBIX files can be exported as Templates (PBIT files).

- Templates contain everything in the PBIX except the data itself.

Parameters and templates can make it possible to share/email smaller template files and limit the amount of data loaded into the local PBIX files, improving processing time and experience .

158. Which language is used in Power Query?

A new programming language is used in power query called M-Code. It is easy to use and similar to other languages. M-code is case sensitive language.

159. Why do we need Power Query when Power Pivot can import data from mostly used sources?

Power Query is a self-service ETL (Extract, Transform, Load) tool which runs as an Excel add-in. It allows users to pull data from various sources, manipulate said data into a form that suits their needs and load it into Excel. It is most optimum to use Power Query over Power Pivot as it lets you not only load the data but also manipulate it as per the users needs while loading.

Power BI Interview Questions – Power Map

160. What is Power Map?

Power Map is an Excel add-in that provides you with a powerful set of tools to help you visualize and gain insight into large sets of data that have a geo-coded component. It can help you produce 3D visualizations by plotting upto a million data points in the form of column, heat, and bubble maps on top of a Bing map. If the data is time stamped, it can also produce interactive views that display, how the data changes over space and time.

161. What are the primary requirement for a table to be used in Power Map?

For a data to be consumed in power map there should be location data like:

- Latitude/Longitude pair

- Street, City, Country/Region, Zip Code/Postal Code, and State/Province, which can be geolocated by Bing

The primary requirement for the table is that it contains unique rows. It must also contain location data, which can be in the form of a Latitude/Longitude pair, although this is not a requirement. You can use address fields instead, such as Street, City, Country/Region, Zip Code/Postal Code, and State/Province, which can be geolocated by Bing.

162. What are the data sources for Power Map?

The data can either be present in Excel or could be present externally. To prepare your data, make sure all of the data is in Excel table format, where each row represents a unique record. Your column headings or row headings should contain text instead of actual data, so that Power Map will interpret it correctly when it plots the geographic coordinates. Using meaningful labels also makes value and category fields available to you when you design your tour in the Power Map Tour Editor pane.

To use a table structure which more accurately represents time and geography inside Power Map, include all of the data in the table rows and use descriptive text labels in the column headings, like this:

Year	UFO sightings	City
2006	43	Portland
2006	45	Seattle
2007	34	Portland
2007	23	Seattle

In case you wish to load your data from an external source:

1. In Excel, click **Data** > the connection you want in the **Get External Data** group.

2. Follow the steps in the wizard that starts.

3. On the last step of the wizard, make sure **Add this data to the Data Model** is checked.

163. What is Power View?

Power View is a data visualization technology that lets you create interactive charts, graphs, maps, and other visuals which bring your data to life. Power View is available in Excel, SharePoint, SQL Server, and Power BI.

The following pages provide details about different visualizations available in Power View:

- Charts
- Line charts
- Pie charts
- Maps
- Tiles
- Cards
- Images
- Tables
- Power View
- Multiples Visualizations
- Bubble and scatter charts
- Key performance indicators (KPIs)

164. What is Power BI Designer?

It is a stand alone application where we can make Power BI reports and then upload it to Powerbi.com, it does not require Excel. Actually, it is a combination of Power Query, Power Pivot, and Power View.

165. Can we refresh our Power BI reports once uploaded to cloud (Share point or Powebi.com)?

Yes we can refresh our reports through Data Management gateway(for sharepoint), and Power BI Personal gateway(for Powerbi.com)

166. What are the different types of refreshing data for our published reports?

There are four main types of refresh in Power BI. Package refresh, model or data refresh, tile refresh and visual container refresh.

- *Package refresh*

This synchronizes your Power BI Desktop, or Excel, file between the Power BI service and OneDrive, or SharePoint Online. However, this does not pull data from the original data source. The dataset in Power BI will only be updated with what is in the file within OneDrive, or SharePoint Online.

- *Model/data refresh*

It referrs to refreshing the dataset, within the Power BI service, with data from the original data source. This is done by either using scheduled refresh, or refresh now. This requires a gateway for on-premises data sources.

- *Tile refresh*

Tile refresh updates the cache for tile visuals, on the dashboard, once data changes. This happens about every fifteen minutes. You can also force a tile refresh by selecting the **ellipsis (…)** in the upper right of a dashboard and selecting **Refresh dashboard tiles**.

- *Visual container refresh*

Refreshing the visual container updates the cached report visuals, within a report, once the data changes.

To know more about data refresh and understand how to implement data refresh, you can check the following link.

167. Is Power BI available on-premises?

No, Power BI is not available as a private, internal cloud service. However, with Power BI and Power BI Desktop, you can securely connect to your own on-premises data sources. With the On-premises Data Gateway, you can connect live to your on-premises SQL Server Analysis Services, and other data sources. You can also scheduled refresh with a centralized gateway. If a gateway is not available, you can refresh data from on-premises data sources using the Power BI Gateway – Personal.

168. What is data management gateway and Power BI personal gateway?

Gateway acts a bridge between on-premises data sources and Azure cloud services.

Personal Gateway:

- Import Only, Power BI Service Only, No central monitoring/managing.
- Can only be used by one person (personal); can't allow others to use this gateway.

On-Premises Gateway:

- Import and Direct Query supported.
- Multiple users of the gateway for developing content.
- Central monitoring and control.

169. What is Power BI Q&A?

Power BI Q&A is a natural language tool which helps in querying your data and get the results you need from it. You do this by typing into a dialog box on your Dashboard, which the engine instantaneously generates an answer similar to Power View. Q&A interprets your questions and shows you a restated query of what it is looking from your data. Q&A was developed by Server and Tools, Microsoft Research and the Bing teams to give you a complete feeling of truly exploring your data.

170. What are some ways that Excel experience can be leveraged with Power BI?

Below are some of the ways through which we can leverage Power BI:

- The Power BI Publisher for Excel:
  - Can be used to pin Excel items (charts, ranges, pivot tables) to Power BI Service.
  - Can be used to connect to datasets and reports stored in Power BI Service.
- Excel workbooks can be uploaded to Power BI and viewed in the browser like Excel Services.
- Excel reports in the Power BI service can be shared via Content Packs like other reports.
- Excel workbooks (model and tables) can be exported to service for PBI report creation.
- Excel workbook Power Pivot models can be imported to Power BI Desktop models.

171. What is a calculated column in Power BI and why would you use them?

Calculated Columns are DAX expressions that are computed during the model's processing/refresh process for each row of the given column and can be used like any other column in the model.

Calculated columns are not compressed and thus consume more memory and result in reduced query performance. They can also reduce processing/refresh performance if applied on large fact tables and can make a model more difficult to maintain/support given that the calculated column is not present in the source system.

172. How is data security implemented in Power BI ?

Power BI can apply Row Level Security roles to models.

- A DAX expression is applied on a table filtering its rows at query time.

- Dynamic security involves the use of USERNAME functions in security role definitions.

- Typically a table is created in the model that relates users to specific dimensions and a role.

173. What are many-to-many relationships and how can they be addressed in Power BI ?

Many to Many relationships involve a bridge or junction table reflecting the combinations of two dimensions (e.g. doctors and patients). Either all possible combinations or those combinations that have occurred.

- Bi-Directional Crossfiltering relationships can be used in PBIX.

- CROSSFILTER function can be used in Power Pivot for Excel.

- DAX can be used per metric to check and optionally modify the filter context.

174. Why might you have a table in the model without any relationships to other tables?

There are mainly 2 reasons why we would have tables without relations in our model:

- A disconnected table might be used to present the user with parameter values to be exposed and selected in slicers (e.g. growth assumption.)
  - o DAX metrics could retrieve this selection and use it with other calculations/metrics.

- A disconnected table may also be used as a placeholder for metrics in the user interface.
  - o It may not contain any rows of data and its columns could be hidden but all metrics are visible.

175. What is the Power BI Publisher for Excel?

You can use Power BI publisher for Excel to pin ranges, pivot tables and charts to Power BI.

- The user can manage the tiles – refresh them, remove them, in Excel.

- Pinned items must be removed from the dashboard in the service (removing in Excel only deletes the connection).

- The Power BI Publisher for Excel can also be used to connect from Excel to datasets that are hosted in the Power BI Service.

- An Excel pivot table is generated with a connection (ODC file) to the data in Azure.

The Publisher installs all necessary drivers on local machine to establish connectivity .

176. What are the differences between a Power BI Dataset, a Report, and a Dashboard?

Dataset: The source used to create reports and visuals/tiles.

- A data model (local to PBIX or XLSX) or model in an Analysis Services Server

- Data could be inside of model (imported) or a Direct Query connection to a source.

Report: An individual Power BI Desktop file (PBIX) containing one or more report pages.

- Built for deep, interactive analysis experience for a given dataset (filters, formatting).

- Each Report is connected to atleast one dataset

- Each page containing one or more visuals or tiles.

Dashboard: a collection of visuals or tiles from different reports and, optionally, a pinned.

- Built to aggregate primary visuals and metrics from multiple datasets.

177. What are the three Edit Interactions options of a visual tile in Power BI Desktop?

The 3 edit interaction options are Filter, Highlight, and None.

Filter: It completely filter a visual/tile based on the filter selection of another visual/tile.

Highlight: It highlight only the related elements on the visual/tile, gray out the non-related items.

None: It ignore the filter selection from another tile/visual.

178. What are some of the differences in report authoring capabilities between using a live or direct query connection such as to an Analysis Services model, relative to working with a data model local to the Power BI Desktop file?

With a data model local to the PBIX file (or Power Pivot workbook), the author has full control over the queries, the modeling/relationships, the metadata and the metrics.

With a live connection to an Analysis Services database (cube) the user cannot create new metrics, import new data, change the formatting of the metrics, etc – the user can only use the visualization, analytics, and formatting available on the report canvas.

With a direct query model in Power BI to SQL Server, for example, the author has access to the same features (and limitations) available to SSAS Direct Query mode.

- Only one data source (one database on one server) may be used, certain DAX functions are not optimized, and the user cannot use Query Editor functions that cannot be translated into SQL statements.

179. How does SSRS integrate with Power BI?

Below are some of the way through which SSRS can be integrated with Power BI:

- Certain SSRS Report items such as charts can be pinned to Power BI dashboards.

- Clicking the tile in Power BI dashboards will bring the user to the SSRS report.

- A subscription is created to keep the dashboard tile refreshed.

- Power BI reports will soon be able to be published to SSRS portal

180. What is BI?

Business Intelligence (BI) is a set of technologies to analyze data and provide actionable insights to business managers, corporate executives, and users to make improved decisions.

181. What are the Different Components in Power BI?

The various components available in Power BI are:

1. Power BI Service:

    - Power BI Desktop

    - Power BI Services

    - Power BI Mobile

    - Power BI Gateway

    - Power BI Premium

    - Power BI Report Server

- Power BI Embedded
2. Power Pivot
3. Power Query
4. Power Map
5. Power View
6. Data Management Gateway
7. Data Catalog
8. Power BI Q&A

182. What are the Parts of Microsoft's Self-Service Business Intelligence Solutions?

Microsoft Self-Service BI has two parts:

Excel BI Toolkit: Allows users to create reports interactively through data importing from distinct data sources as well as model data according to the requirement.

Power BI: It is the online solution that empowers users for sharing interactive reports and queries that you have created with Excel BI Toolkit.

183. Differentiate between Power BI and Power BI Pro?

Power BI offers distinct kinds of features to help you get started in searching for data in a completely new way. Power BI Pro, on the other hand, caters with some additional features like scheduling data, live data sources, storage capacity, along with complete interactivity and much more.

184. Define Excel BI Toolkit?

Excel BI Toolkit allows users for creating an interactive report with importing data from a distinct range of sources and model data according to requirement.

185. What is the cost of Power BI?

Both Power BI Desktop and Power BI are free of cost. For Power BI Pro, users have to pay $9.99 per month after a 60-day free trial.

186. What does the term Power BI Desktop mean?

Power BI Desktop is a free app that can be installed on your computer to work in cohesion with the Power BI service through offering shaping, modeling, data exploration, and report creation using high interactive visualizations. Furthermore, it allows you to save your all work to a file to publish reports and data to the Power BI site for sharing with others.

187. What are the basics needed for using Power BI?

- To use Power BI, you need to have a web browser and a work email address.
- work email addresses finishing in .mil and .gov are not supported currently.

188. What is the need of signing up with work email?

Power BI does not email addresses provided by telecommunications providers and consumer email services, thus there is a need of signing up with work email.

189. Name the work email addresses that are currently supported?

Work email addresses that are finishing with .org and .edu are currently supported.

190. What formats is Power BI available in?

- Power BI Desktop—for desktop computers
- Power BI service—an online SaaS (Software as a Service)
- Mobile Power BI apps—for iOS and Android devices

191. Is there any support by Power BI available for mobile devices?

Yes, Power BI supports mobile devices. It consists of apps for iOS devices, Windows 10 devices, and Android smartphones. You can install Power BI apps from the below app stores:

- Google Play

- Apple Store

- Windows Store

192. What are the Building blocks in Power BI?

The building blocks of Power BI are,

- Visualizations

- Data Sets

- Reports

- Dashboard

- Tiles

193. What is Visualization?

Visualization is a process to represent data in pictorial form like tables, graphs or charts based on the specific requirement.

194. What is a Report?

The report is a Power BI feature which is a result of visualized data from a single data set. A report can have multiple pages of visualization.

195. What is Power Pivot and what are the filter writes in Power BI?

Power Pivot is an in-memory component that enables storing compressed data. It is used to build data models, relationships, creating formulas, calculated columns from different resources.

Filters are applicable in:

- Visualization level

- Report Level

- Page-Level

196. What data sources can Power BI connect to?

The following data sources that support DirectQuery in Power BI are as follows:

- Amazon Redshift

- Azure Data Explorer

- AtScale (Beta)

- Azure SQL Database

- Azure HDInsight Spark

- Google BigQuery

- Azure SQL Data Warehouse

- HDInsight Interactive Query

197. Why do we need BI?

You can take data and create reports at the click of a button.

Power BI – Consolidated Interview Questions

You can take data and create reports at a button click. It helps in attracting new customers to service and monitor existing customers.

You can keep track of information and set your goals accordingly. In general, building an ETL solution (Extraction, Transformation, and Loading) ultimately helps to make better decisions.

The ROI is very high

Helps to make unwanted data into progressive information

198. Does Power BI store data?

Datasets are the data sources that are uploaded or connected to databases. These sources include Excel workbooks and Power BI Desktop files. The following are also included in your data capacity. Reporting Services on-premises visualizations are pinned to a Power BI dashboard.

199. What is a Power BI Desktop?

Power BI Desktop is a free desktop application that can be installed on your computer. It cohesively works with the Power BI service by providing advanced data modeling, shaping, exploration, and creating reports with highly interactive visualizations. It enables users to save the work to a file or publish your reports and data right to your Power BI site to share with others.

Below are the distinct Excel BI add-ons.

- Power Query to find, edit and load external data

- Power View for designing interactive and visual reports

- PowerPivot to analyze data modeling

- Power Map for displaying insights in 3D Map

200. What must be installed to use Power BI?

To use the Power BI service for free, you need a work email and a web browser. With this, you can explore data as well as create reports in Power BI Desktop. The mobile app can be downloaded from the following stores:

Google Play, App Store and Windows Store.

201. How one can get started with Power BI?

There are some resources to get assistance and get started with Power BI. They are as follows:

- Webinars
- Power BI Blog
- You can get started with an article on Power BI
- You can get started with a video on YouTube
- Last but not least, joining a related community and get answered

202. What is SSBI?

SSBI stands for Self-Service Business Intelligence. It can also be termed as accessing data analytics to empower business users to divide, clean, and interpret data. SSBI has made it easy for end-users to access their data and create various kinds of visuals to acquire useful business insights. Anyone who has basic data knowledge can build reports for creating spontaneous and shareable dashboards.

203. What is a Dashboard?

The dashboard is used to visualize the strategic data of one or multiple reports in a glance.

204. What is the difference Between SUM() and SUMX()?

Sum function (Sum()) takes the data columns and aggregates it totally but SumX function (SumX()) lets you filter the data which you are adding.

205. What is CORR function and when it is used?

CORR is a correlation function that provides a correlation between two distinct variables ranging from -1 to 1.

206. What are the advantages of Power BI?

Here are the top advantages of Power BI

- Power BI integrates well with the existing application
- It contains rich and personalized Dashboards.
- publishing reports in a secure way
- Quick accessibility to data which means there is no speed and memory issue.

207. What are the data destinations for Power Queries?

- There are two destinations for output we get from power query:
- Load to a table in a worksheet
- Load to the Excel Data Model

208. What are the different connectivity modes in Power BI?

- Import
- Direct Query

209. What is the Power BI Service?

Power BI Service is a cloud-based analytics solution that helps you to create dashboards and publish, design reports, collaborate and share the reports with internal and external stakeholders.

210. What is the data source filter?

Power BI – Consolidated Interview Questions

A data source filter is a parameter of data filtering before loading into machines.

211. What are the Different Products in the PowerBI family?

Below are different Power BI services/products:

- Power BI Desktop
- Power BI Services
- Power BI Mobile
- Power BI Gateway
- Power BI Premium
- Power BI Report Server
- Power BI Embedded

212. What is Power View?

Power View is a data visualization technology, which lets you create interactive graphs, charts, maps and other visuals to bring life to your data. It is available in Excel, SQL Server, SharePoint, and Power BI.

213. What data sources can Power BI connect to?

The Power BI data sources are extensive, which are divided as follows:

Files: Data can be imported from Power BI Desktop files (.pbix), Excel (.xlsx, xlxm), and Comma Separated Value (.csv).

Content Packs: It refers to the collection of related files or documents that are stored as a group. There are two types of content packs in Power BI, firstly those from service providers including Google Analytics, Salesforce or Marketo, and those created and shared by other users in the organization.

Connectors: To connect databases and other datasets including Database, Azure SQL, and SQL Server Analysis Services tabular data, etc.

214. Which language is used in Power Query?

A new programming language is used in a power query called M-Code. It is easy to use and similar to other languages. M-code is case sensitive language.

215. What is the Power BI Designer?

Power BI is a stand-alone application to make Power BI reports and then upload them to Powerbi.com, it does not require excel. It is the combination of Power Pivot, Power View, and Power Query.

216. How to import the data in Power BI desktop?

Go to getting data Sources and click on your required sources (Excel, SQL, CSV) then Load it. Click on the Data view to view that data.

To choose the table click on the fields and you can pick a visualization to generate a report.

217. Which datasets are used to create a dashboard with streaming data tiles?

Streaming datasets (we need to have data which is cached in memory before we use streaming data sets)

Hybrid Datasets

218. Describe DAX.

DAX stands for Data Analysis Expressions. It is a collection of operators, functions, and constants used to calculate in formulas and return values. In other words, it helps you create new info from data you already have.

219. How is data security implemented in Power BI?

Power BI applies models with Row Level Security.

- Dynamix security involves using USERNAME functions in definitions.

- A DAX expression can be applied on tables filtering their rows at query time.

- A table is typically created in the model that relates to specific dimensions and roles.

220. How Dynamic filtering in Power BI is performed?

Dynamic Filtering in Power BI is done by the following steps:

- Once all the data are set up publish detail report to Power BI

- Publish it to Group Work Space

- Create Filter Link

- Create a DAX calculated Column

- Public Overview Report

221. What is the procedure to buy Power BI Pro?

Power BI license can be purchased at powerbi.com. However, you can also get assistance from Microsoft partners to aid using Power BI implementation.

222. Is the Power BI service accessible on-premises?

The user cannot avail the service as an internal or private cloud service. However, with Power BI and Power BI Desktop, the user can connect to their on-premise data sources securely.

223. Which is the language used to calculate column/calculated field in Power Pivot?

Data Analysis Expression (DAX) is used to calculate column fields in Power Pivot.

224. What is DAX?

DAX is a formula for computing calculated field and column. For doing a basic calculation and data analysis, it is used on data in power pivot.

225. What are the column values that DAX supports?

It is not capable of inserting or modifying data

It cannot be used to calculate rows, though you can calculate measures and calculated columns.

226. Explain the Power Pivot Data Model.

It is a model that is made up of data types, tables, columns, and table relations. The data tables are generally constructed to hold data for a business entity.

227. Define Power Query.

Power Query is an ETL tool to clean, shape, and transform data without any code using intuitive interfaces. With this:

You can import data from various sources like to databases from files

Append and join data from a wide range of sources

You can shape data as needed by adding and removing it

228. Name the language that is used in the power query.

M-code which is a new programming language is used in Power Query. This language is easy to use and is quite similar to other languages. Also, it is case sensitive.

229. Name the data destinations for Power Query.

Two destinations are there for output we receive from the power query. They are:

Load to Excel Data Model

Load to a table in a worksheet

Microsoft Power BI Interview Questions for Experienced

230. Explain the Power BI Designer.

Power BI Designer, a standalone app that is used to create reports in Power BI and to upload it to Powerbi.com. It is a combination of Power View, Power Pivot, and Power Query.

231. Is there any process for refreshing Power BI reports one uploaded to the cloud?

Of course, Power Bi reports can be refreshed with Data Management Gateway and Power BI Personal Gateway.

232. What is the major difference between Power BI personal Gateway and Data Management Gateway?

Power BI Personal Gateway is used for reports that are deployed in Powerbi.com. Data management, on the other hand, is an app installed the gateway on source data machines to deploy reports on Sharepoint and schedule to refresh automatically.

233. What is the use of split function?

The split function is used for splitting the string database on the given delimiter.

234. Name all the platforms for which the Power BI app is available.

Power BI app is available for:

- Android
- iPhone and iPad
- Windows tablets and Windows Desktops
- Coming for Windows phone soon

235. Differentiate between older and newer Power BI.

There is a new design tool that is used in the new Power BI called Power BI Desktop. It is a standalone designer, including Power Pivot, Power View and Power Query in the back end. Whereas, Older Power BI consists of excel add-ins. In the newer Power BI version, there are several graphs available including treemap, line area chart, waterfall, combo chart, etc.

236. Is it possible in the power pivot data model to have more than one active relationship between two tables?

No, it is not possible. There cannot be more than one active relationship in the power pivot data model between two tables. It is possible to have only one active and many inactive relationships.

237. What is the purpose of the 'Get Data' icon in Power BI?

When users in Power BI click on the icon "Get Data", a drop-down menu appears displaying all data sources from which data can be ingested. Data can directly get ingests from any source such as files in Excel, XML, PDF, JSON, CSV, and SharePoint folder databases and formats such as SQL, SQL Server Analysis Services, IBM, Access, Oracle, MySQL, and much more.

238. What is Row-level Security?

Row-level security restricts the data that users view and access, based on filters. To configure row-level security, users can define rules and roles within Power BI Desktop and publish them to Power BI Service. Also, the username() function can be used to restrict data in the table to the current user.

However, to enable row-level security, a Power BI Pro subscription account is essential, and Excel sheets can be used when converted to the .pbix file format.

239. What are the general data shaping techniques?

The common data shaping techniques are:

- Removing Columns and Rows

- Adding Indexes

- Applying for a Sort Order

240. Which data sets can be used to create dashboards with streaming data tiles?

- Streaming datasets

- Hybrid Datasets

241. What are the KPIs in Power BI?

KPIs are Key Performance Indicators, which evaluates the organization's performance in distinct areas by evaluating measurable goals and values. A KPI has a measure or base value that is evaluated against target values. It includes a comparison of the performance with the target. The KPI also helps you evaluate the analysis performances with their graphical representation. Thus, KPIs will show whether your goals have met or not.

242. What could be the difference between Distinct() and Values() in DAX?

The Distinct() and Values() are the same. The only difference between them is that the function values don't calculate null values whereas distinct () calculates even the null values.

243. State the advantages of the Direct query method.

The advantages of Direct query method are listed as follows:

User can build huge data sets data visualizations using the Direct Query Method, but Power BI desktop supports data visualizations on smaller sets alone. There is no limit to the dataset for direct query method and a 1GB dataset limit is not applicable in this method.

244. What is What if the parameter in power bi?

If you want to put a scenario and based on that if you wanted to see the visuals, the best is What if parameter. It helps you to forecast data and perform advanced analytics. For example, if you have set up the product discount from the what-if parameter from 1 to 10. And user can change the values and see the changes in profit, sales, revenue, margin etc. that helps in detailed analysis.

245. What is the incremental refresh?

Incremental refresh is used to refresh the newly added data to avoid truncating and loading data.

246. What are the three main tabs in Reports development Window?

The major tabs in Reports development Window are as follows:

- Relationship tab

- Data Modeling Tab

- Report Tab

247. How many types of default Graphs (Visualizations) available in Power BI?

Around 26 Views

248. What are Slicers in Power BI?

Slicers are the visual filters, which are present in the report page of Power BI. It helps us to sort and filter information on a packed report.

Slicers unlike filters present as a report visual and you can select values on it while analyzing the report data.

249. What is the major difference between a Filter and Slicer?

Using Normal filters users were not allowed to interact with dashboards or reports, but using slicers we can interact with dashboards and reports.

Power BI – Consolidated Interview Questions

250. What is a parameter in Power BI?

A Parameter in Power BI is a dynamic filter that is used in the calculation fields. It is based on the parameter value result that can vary.

251. Difference Between New Measure and New column?

A new column is an area in Power Bi where the physical data is stored when logic is applied, whereas, the measure is where the calculations are performed on the fly based on dimensions. Measure unlike Column won't store any physical data.

252. What are the different joins in Power BI?

- Horizontal Joins to append data from multiple tables.

- Vertical Joins to merge the data from multiple tables.

253. What is meant by Gateway and what are its different types?

The Gateway acts as an extension between azure cloud administration and on-premise data source. There are two major types of Gateways listed as follows:

- Individual Gateway

- On-Premise Gateway

254. What is the Embed Code?

There is an option in Power BI service, which publishes to the web to generate a link address for the Power BI report and can be shared across clients.

255. How do you Hide and Unhide a Specific Report in Power BI?

In the menu bar, choose Selection pane and hide/unhide the report and the action to pass to bookmark.

256. How do you compare Target and Actual Values from a Power BI report?

Gauge chart is used to compare two different measures where the Target and Actuals are inferred.

257. What is the Time Intelligence function?

It is a function that allows manipulating data using time periods.

258. What are Power Queries major Data Destinations?

There are two destinations for output we get from power query:

- Load to a table in a worksheet

- Load to the Excel Data Model

259. What is z-order in Power BI?

Z-order is a design strategy used to arrange visuals over shapes. It can also be defined as a method applied to implement when reports consist of multiple elements. Moreover, this can also be used to refresh the display when the order of items in a report is changed.

260. Can we Refresh Data Reports that are uploaded to the Cloud?

Yes, you can refresh the data reports which are uploaded to the cloud. Power BI personal gateway and Data management gateway helps you acquire the same.

261. How are a Power BI Dashboard and Report different from each other?

To understand the difference between Power BI Dashboard and Report, let's run through some quick points.

Capability	Report	Dashboard

Pages	Can be of one or more pages.	Consists of one page only
Data sources	It has a single dataset per report.	Can have data tiles from one or more datasets or reports.
Filtering	Can perform slicing, filtering, and highlighting.	Cannot filter or slice reports.
Set alerts	No option for setting alerts.	Enable setting email alerts.
Featured reports	No option for creating a featured dashboard.	Enables to set only one dashboard as a featured dashboard.
Accessing tables and fields in datasets	Provides options to view dataset tables, values, and fields.	Cannot view or access underlying datasets tables and fields.

262. How to Toggle Between Two Option and Make it Interact with the rest of the Visualizations in a Report?

Toggling is an action that is achieved in Power BI reports when there exist two or more dimensions. With "Enlighten Slicer", you can show this in Power BI and can be imported from Marketplace.

263. How can You Change the Value Measure to Show Multiple Measures Dynamically?

You can dynamically change and switch functions to show multiple measures using harvesting measures.

264. What does rank() do?

Rank() calculates regular competition rank thus returning identical values. You can ask for ascending or descending values in the second argument accordingly.

265. How do I Prepare for a Power BI Interview?

The main aspect to learn before attending any PowerBi interview is "how the data representation and general business intelligence is going to work!"

266. Is Business Intelligence a Good Career?

One of the great reasons for choosing a career in BI is the on-demand outlook. According to a report from the US Bureau of Labor Statistics, the demand for expert BI managers and analysts expected to soar to 14% by 2026, with the overall need for data professionals to climb to 28% by 2020.

267. What is Content Pack?

A content pack is used to share the data, data sets or dashboard within the organization. It takes place over the BI website and can be shared with multiple users also.

268. How Important is Power BI?

Dashboards, datasets, and reports are the heart of Power BI, and they enable users to create personalized dashboards combining cloud-born and on-premises data in a single view. It allows monitoring the most important data enterprise-wide and from all their business apps.

269. Is Power BI better than Tableau?

Both Tableau and Power BI allow the user to connect to distinct data sources. However, Tableau provides better support to connect to a different data warehouse, and Power BI is heavily integrated with Microsoft's portfolio like the Azure cloud platform.

270. Is Power BI free to Use?

Users can use Power BI for free. However, the Power BI Pro subscription avails more from Microsoft Store. The subscription offers an enhanced version of various features available with the free Power BI account. Most business users use the subscribed account as it offers more data refreshers per day and other features as compared to the free version.

271. Is Power BI hard to Learn?

Any data analyst can quickly connect with any data source, summarizing the findings into simple reports without any programming experience. With Power Pivot built into the Power BI, analytics measures were developed using DAX query language from Microsoft.

272. Is Power BI hard to use?

Power BI doesn't require users to write SQL code like BI tools but requires the MS Excel knowledge.

273. Is Data Analyst a Good Career?

Data is useless without proper analytics. Any professional with analytical skills can easily master the ocean of Big Data and become a crucial asset to the organization boosting the business as well as career. There are several on-demand job opportunities in Big Data management and Analytics and are constantly growing.

274. What are the essential applications of the Power BI?

Power BI is mainly used by:

- PMO - Project Management Office
- Developer & Database Administrator
- Business & Data Analyst
- IT Team, IT Professional
- Data Scientist
- Consumer for End User Report

275. Is Power BI better than Excel?

Power BI is a more powerful tool compared to Microsoft Excel. Power BI is easy to use and is much more flexible while Microsoft Excel is not so handy to use. Power BI is mostly used for data visualization and dashboard sharing to a large number of users while Microsoft Excel is mostly used for in-depth driver analysis.

276. How do I export from power BI to excel?

In Power BI, a user can export any dashboard or visual. To export your data, choose the ellipses (3 dots) in the top-right side of any visualization and choose the icon :Export data. Your data is exported as a.CSV file. You can even save and open the file in Excel.

277. How do you manage a role in Power BI?

Follow these steps to manage a role in Power BI

Step 1: Import data into the Power BI Desktop report

Step 2: connection

Step 3: Select the Modeling tab.

Step 4: Select Manage Roles.

Step 5: Select Create.

Step 5: Provide a name for the role.

Step 6: Select the table that you want to apply a DAX rule.

Step 7: Enter the DAX expressions.

Step 8: After creating DAX expression, select the checkbox placed above the expression and validate the expression.

Step 9: Select Save.

278. How do you answer behavioral interview questions?

These can be answered in four simple steps as follows:

Step 1: Situation. Describe the situation or set the scene

Step 2: Task. Describe the issue or problem you were confronted with

Step 3: Action

Step 4: Results

279. Give the difference between Power BI vs Tableau.

Here are key differences between Power BI vs Tableau

Feature	Power BI	Tableau
Data visualization	Focuses only on modeling and reporting	Best tool
Cost	Less expensive	Very expensive since it uses data warehousing
Machine Learning	It is associated with Microsoft Azure.	It has python Machine learning.
User Interface	Simple and easy to use	Use a customized dashboard
Data handling	It drags down slow when handling huge data	Handles bulk data

This is the list of Power BI interview questions and answers for beginners as well as experienced professionals. We've covered all the core Power BI aspects which help you to crack a Power BI interview. If your wish is to build a career in Business Intelligence, check out our Power BI Training Certification that comes with instructor-led live training. This will help you gain mastery of Power BI and succeed in your career with the best placement.

280. Why we need BI?

We can take data and create the reports at the click of a button.

Helps in attracting new customers to servicing and monitoring existing customers.

We can keep Track of information and set our goals accordingly. In general, completely building an ETL solution. (Extraction, Transformation, Loading) ultimately helping management to make better decisions.

The efficiency of an Investment (ROI) is very high here.

Making unwanted data into progressive information.

281. How to import the data in Power BI desktop?

This is the basic Power BI Interview Questions asked in an interview. Go to getting data Sources (where we find data sources from a different domain) and select the sources (Excel, CSV, SQL) then Load it. To see the data, click Data view.

To choose the table click on the fields and you can pick a visualization to generate a report.

282. What are the Building blocks in Power BI?

The building blocks of Power BI are,

1. Visualizations.

2. Data Sets.

3. Reports.

4. Dashboard.

5. Tiles.

283. What is power Pivot and what are the filter writes in Power BI?

Power Pivot is an in-memory component that enables highly compressed data storage. It is used to build a data model, relationship, creating formulas, calculated columns from various resources.

Filters are applicable in:

- Visualization level

- Page Level

- Report Level.

284. Give the difference between Power BI Gateway and Data Management Gateway?

Power BI Gateway – It is a software that works on-premise Network (the data that are not stored in the cloud). It can be used for a single data or multiple data sources (SQL Server, SQL SERVER ANALYSIS SERVICES, other data sources, files, share point). The data are stored encrypted in the gateway-cloud service.

Data Management Gateway – This component gets continuous data, expose tables and views.

285. What is the need of the new selection pane in the report Power BI desktop?

It is used to control the tab order between visuals on a page.
We can combine two or more visual page into one visual group.
It is used to select data in a visual for highlighting and drill down.

286. What data sets can be used to create a dashboard with streaming data tiles?

1.Streaming datasets (we need to have data which is cached in a memory before we use streaming data sets).
2.Hybrid Datasets.

287. What are DAX and the criteria to write DAX Expressions that references Calculated columns and measures?

This is the advanced Power BI Interview Questions asked in an interview. DAX is the language used by Power BI, abbreviated as Data Analysis Expressions. It is a functional Language, the execution flows with function calls. They are structured to work with tables.
Example of DAX formula
= SUM(FILTER(Values('Date[Year]'),)))

Execution in DAX starts from inner function and works outside. It includes a variety of Time intelligence functions. There are two types of context:

1. **Row context –** It applies to measures.

2. **Filter context –** Applying filters to calculations.

When referencing a Calculated column, we must include a table name and DAX code automatically has row context for the table in which calculated column is defined.

When referencing a measure, we can optionally include a table name.

288. How Dynamic filtering in Power BI is performed?

Dynamic Filtering in Power BI is done by the following steps:

- Once all the data are set up publish detail report to Power BI.

- Publish it to Group Work Space.

- Create Filter Link (Ex: in url tab(? filter = Salesperson// Employee))

- Create DAX calculated Column.
- Public Overview Report

289. What are the building blocks of Power BI?

Power map, power view, power pivot, power query, power BI desktop, power Q & A.

290. What is Vizualization?

Visualization is a process of representing the data in pictorial form like graphs or tables or charts based on the requirements

291. What is a Dashboard?

Dashboard is used to visualize the strategic data of one or multiple reports in a glance.

292. What are the Different types of filters?

Filters are broadly classified into three types based on their levels and they are as follows

- visual level filter
- report level filter
- page level filter.

293. What are Tiles in Power BI?

it is a feature of power BI services and can be said as a still of the data or snap shot of the data which can be pinned to the dashboard.

294. What is on-premise Gateway?

On premise gate way acts as a bridge which is used to transfer the data which is on premise (not on cloud) in a safe and secure way .

295. What is Content Pack?

Content pack is used to share the data ,data sets or dashboard with the people in the organization ,it takes place over BI website and can be shared with multiple people also.

296. What is DAX?

It is used for creating Expressions and formulas , and is a library of functions and operators.

297. What are the features of DAX?

Dax is a library which is a collection of functions and operators which can be used in formulas to calculate one or more values and it in a simple way it is all about creating new information from data that already exists in your model.

298. What is difference Between SUM() and SUMX()

Sum function takes the columns of data and aggregate it and will give the total but sumX function lets you filter the data which you are adding

299. How the Filter DAX is used?

FILTER DAX, it is used to filter the data in column based way depending on the functions, FILTER(Table,[Sales] > 100)

300. What is difference CALCULATE() and CALCULATETABLE()?

The difference between calculate and calculate Function is that Calculate excepts and returns a single value , where ass calculate table except and returns a table. Calculate: It is used to produce a single value , whereas Calculate Table is used to Produce a whole table.

301. What is a Report?

Report is a feature of Power BI , which is a result of visualized data from a single data set ,A report can have multiple pages of visualization.

302. What are the advantages of Power BI?

- Integrates well with the existing application

- It contains Rich and personalized Dashboards.

- Publishing of reports in a secured way

- Quick accessibility to data which means there is no memory and speed issue.

303. What are different connectivity modes in Power BI?

- Import

- Direct Query

304. What is Excel BI Tool kit?

It can be explained as the plugins of the Excel which enables to shape, transfer, create and Project the analysed data are Power Query, Power View, Power Pivot, Power Map which are said to be the heart of the Power BI and which gives it a boost.

305. What is Data refresh?

Data refresh is a feature of Power BI that connects to an external or on premises data source and refreshes the data of the dataset with in the power BI service and not in the local file.

306. What are data alerts?

Alert work on data that is refreshed ,when data is refreshed BI looks for an alert and if it reaches the alert threshold or the limit then the alert will be triggered.

307. Why TOP N is not available for the Page level and Report Level Filter?

As the page level filter and report level filters are associated with multiple visuals.

308. What is a calculated column?

it can be defined as calculating expression of DAX where the data in a row is calculated and stored in a new column.

309. What is a Bookmark?

Using bookmarks in Power BI result in capturing the configured view of a report page in that particular time which also included filters and the state of visuals, where this bookmark can be used a short cut to come back to the reports that you add as a bookmark.

310. What is a slicers?

it is a canvas visual filter which is used in Power BI desktop where users who are viewing can segment the report by using values like geometric region ,it is one of the important filter in visualization.

311. What are synchronize slicers?

It is a feature in Power Bi which helps to synchronize the slicers over multiple reports.

312. What is a parameter? How and where we set it?

Parameter is the value you wanted to receive from user on live time, it can be set in Power Query editor by selecting manage parameters and setting it up with the respective fields of the table/sheet parameter can be defined as set of input values which are set depending up on the requirement.it can be set as follows select manage parameters<<power query editor <<set it up with the respective fields of the table/sheet.

313. How to show the value in percentage?

Select the visual calculated value in the visualization tab -> select the below arrow -> show value as -> percent of grant total Select the visual calculated value in the visualization tab -> select the below arrow -> show value as -> percent of grant total.

314. How to setup hierarchy in Power BI?

When you have set of fields that is on hierarchy eg. Product Category and Product names, you can set up hierarchy by dragging the product name over the product category so that a new hierarchy field is created where we can drill down the data and see the detailed data consider you have list of countries and cities you can create hierarchy as follows in the fields pane << drag city field onto country field<< the hierarchy will be created.

315. What is Power BI Service?

Power BI Service is a cloud based analytic solution where it helps you to design reports, create dashboards and publish ,collaborate and share the reports with internal and external stakeholders power Bi service is a cloud based solution which is used to make reports ,visualization of data ,creating dashboards so that one can publish collaborate and share among the stake holders.

316. What are the different components in Power BI?

The different components we use in power bi are Power BI Service, Power Query, Power Pivot, Power View, Power Map, Data Management Gateway, Power BI Q&A, Data Catalog, Power map ,power view ,power pivot ,power query ,power BI desktop ,power Q & A.

317. What is power BI Desktop?

Power BI desktop is a free application which can be installed in your local files and can be used for visualzing and tranforming the data and making dashboards with it.

318. What are the different DAX Functions?

The different DAX functions are

- 1.Aggregation functions,
- Counting functions,
- Logical functions,
- Information functions,
- Text functions,
- Date functions"

319. What are the mostly used DAX Functions?

The mostly used aggregate DAX are MIN, MAX, AVG, COUNTROWS, DISTINCTCOUNT, for conditional DAX AND, OR, SWITCH are available others are ISBLANK, ISFILTERED, ISCROSSFILTERED, ALL, FILTER, CALCULATE, INTERSECT, EXCEPT, NATURAL INNER JOIN, NATURALLEFTEROUTERJOIN, SUMMARIZECOLUMNS, ISEMPTY,VAR, GEOMEAN, MEDIAN, DATEDIFF."

320. What is known as query collapsing?

process of converting the steps in power query editor to sql and executing it by source database.

321. What is data source filter?

it is a parameter to filter the data before loading into machines.

322. What are the advantages of using variables in power bi?

Variables are used to create more logical Queries and can be used for multiple DAX functions.

323. How to Calculate MTD WTD and YTD in Power BI?

We can use DAX Formulas to find MTD, YTD and WTD as given below YTD_Sales = CALCULATE(Sum(Sales[Sales_Product]),YEAR(Sales[CreatedDate])=YEAR(TODAY())) ,MTD_Sales =

CALCULATE(sum(Sales[Sales_Product]),MONTH(Sales[CreatedDate])=MONTH(TODAY())), WTD_Sales = CALCULATE(sum(Sales[Sales_Product]),WEEKNUM(Sales[CreatedDate])=WEEKNUM(TODAY()))

324. How to use calculate DAX Function?

Calculate function is mostly used in power BI from simple filters to Complex functions.

325. What is very unique in case of CALCULATE DAX Functions?

changes can only be made to filter context of measurer by using calculate DAX.

326. What is the need of selection pane in Power BI?

Selection Pane is used to have control over vizuals which needs to displayed and which need not to be displayed and also helps us to combine multiple vizual page in group and is also used in book marking.

327. What is x-velocity in memory Concept?

X-velocity in memory concept is the main engine used in power pivot. It helps to load the even large set of data into Power BI and visualize immediately without any lags.

328. How to Handle Many to Many Relationship in Power BI?

Crossfiltering option can be used in power BI to address the Many to Many relationship.

329. List out the Key Components in Power BI?

There are different components in Power BI as listed below,

- Power BI Service
- Power Query,
- Power Pivot,
- Power View,
- Power Map,
- Data Management Gateway,
- Power BI Q&A,
- Data Catalog"

330. What is the language used in Power Query Editor?

Power Query editor uses M language , it is a programing language and is also case sensitive.

331. What is a custom Vizuals?

Graphs or visuals which are not availabe in Bi desktop are imported from market for better visualization.

332. How to connect Power BI to Mysql Database?

One should install mysql database and use host name and credentials to connect to power bi.

333. Can we have multiple active relationship in Power BI?

No, We cannot set up more than one active relationship in Power BI.

334. What could be the difference between Distinct() and Values() in DAX?

The Distinct() and Values() are same but Distinct calculates the null values also.

335. What is difference between MAX and MAXA functions?

if the calculation is for numeric values then use MAX ,if it is for non numeric values then use MAXA.

336. What is What if parameter in power bi?

When you wanted to put a scenario and based on scenario you wanted to see the visuals, the best is What if parameter. It could help us with forcasting data and do an advanced analytics. Eg. IF we set up the discount of product from whatif parameter from 1 to 20. and user can change the values and see the changes in sales, profit, margin, revenue etc. which helps in detailed analysis.

337. What is incremental refresh?

it is used refresh the newly added data so that there is no need to truncate and load the entire data.

338. What is Power BI?

PowerBI is a business analytical solution, Which makes easy to connect data from Multiple data sources and make a data model which will be utilized by the across the organization and make easy to create rich visualization and sharing among organization. It makes easy to do slice and dice the metrics.

339. Different Products in Power BI family?

- PowerBI Desktop
- PowerBI Service
- PowerBI Mobile Apps
- Onpremises Gateway
- PowerBI Report Server

340. What are the kind of Licences are available in PowerBI?

- Power BI Free
- Power BI Pro
- PowerBI Premium

341. What are the three main tabs in Reports development Window?

- Relationship tab
- Datamodeling Tab
- Report Tab

342. How many default Graphs(Visualizations) in Power BI?

26 Views

343. What are three Important Tasks in Creating Dashboards in PowerBI?

There are three main Important Steps involved in creating Dashboard
1.Make sure the proper relationship between tables.
2. Data modeling according the requirement
3. Creating Reports with suitable Graphs which make sense

344. What are building blocks PowerBI?

- Visualizations
- Dataset
- Reports

- Dashboards

- Tiles

345. What are the different filters in PowerBI?

- Visual Level filters

- Page Level Filters

- Report Level Filters

346. What is the difference Between Filter and Slicer?

By using the Normal filters User cannot interact with the Report or Dashboard, but with slicer user can have an interaction with Reports and Dashboards

347. What is parameter?

Parameter is a Dynamic Filter, It can be used in the calculation Fields, based on the parameter value result will be changed.

348. What are the data types in Power BI?

1.Numeric (Decimal,Fixed Decimal,Whole)
2.Text
3.Date/Time
4.Boolean(true/false)
5.Binary

349. Difference Between New Measure and New column?

- If we create New Column based on some Logic physically data will be stored.

- If we create New measure based on some logic the calculations will be performed on the fly based on the dimension which we use,so here data physically will not be stored.

350. What is DAX?

Dax (Data Analysis Expressions) is a Formulae expression language ,It can be used in different BI tools, This is the combination of multiple functions which will be helpful in data Analysis Calculations

Q63) What are the different joins in Power BI?

1.Vertical Joins will be used in Merging the data from multiple tables
2.Horizontal Joins will be used in appending the data from Multiple tables

351. Can we have more than one active relationship between two tables?

No

352. What is meant by Gateway and what are its different types?

Gateway acts as an extension between on premise datasource and azure cloud administration.
Types:

- Individual Gateway

- On Premise Gateway

353. What are the two ways to use power bi?

- Power BI service

- Power BI desktop

354. What is Power BI service?

Power BI service is a cloud-based application which is hosted in com.

355. What is Power BI desktop?

Power BI desktop is a free – open source application which can be installed in your PC. The reports developed in power bi can be published to Power BI service.

356. What are the features of Power BI desktop?

- Able to pull in data from variety of sources
- Create relationships between your data and enrich your data model
- Create and save your reports
- Upload and publish your reports.

357. In terms of Pricing, how can power BI be categorized?

- Power BI (Free)
- Power BI Pro (Licensed)

358. What are the different types of refresh in Power BI?

- Package Refresh
- Model/data Refresh
- Tile Refresh
- Visual Container Refresh

359. What are the different connectivity modes in Power BI?

- Import Mode
- Direct Query Mode

360. What is meant by Gateway and what are its different types?

Gateway acts as an extension between on premise datasource and azure cloud administration.
Types:
- Individual Gateway
- On Premise Gateway

361. What is Content Pack?

The Content pack can have dashboards, reports and relevant data bases which can be shared across to clients

362. What is Embed Code?

There is an option in Power BI online (Power BI service) that publish to web which will generate a link address for the power BI report. This link can be shared across to clients.

363. What are the different components in Power BI application?

- Power BI desktop
- Power Pivot
- Power Query

- Power VIEW
- Power MAP

364. What are the report components available in Power BI?

- Visualizations
- Data sets
- Reports
- Dashboards
- Tiles

365. How do create actions and navigations in Power BI?

To Navigate to a certain report on click, you must Book mark a page and assign the book mark to a button or icon.

366. How to Group different columns existing in a data set?

Grouping the columns of a data set can be achieved in DAX using summarize ()

367. How to toggle between two options and make it interact with rest of the visualizations in repor?

Toggling Action can be achieved in Power BI reports, when in case there are two are more dimensions. This can be showcased using an "Enlighten Slicer" in Power BI which can be imported form Market Place.

368. How can you identify which user has logged in to Power BI server or viewing the report from Power BI?

The way to identify the user is to create a DAX column and embed "username ()" or "principalusername ()", which will retrieve information on the user has logged in.

369. How do you filter on all the reports in a specific page in Power BI dashboard?

The column or data that is to be filtered across all reports in Page should be dragged to "Page Level Filter Section" which will help the same.

370. How do u hide and unhide a specific report in Power BI?

We have to go to selection Pane in the menu bar and hide/unhide the report and the action can be passed to book mark.

371. Which chart can be used to represent two different measures in dual axis in Power BI?

The simple work around to form dual axis in Power BI is to use a "Line and Clustered Chart" embedding two different measures to Line Values and Columns Value.

372. How can u download excel files which has millions of records from a Power BI report?

To download large extracts of data, we can host the excel file to a share point, which will generate a .xlsx link, which can be embedded to "Text" or "Button". On clicking on the Text link or Button. The excel file gets downloaded directly which is hosted in share point or some other base location.

373. Q86) How do you compare Target and Actual Values from a Power BI report?

To compare two different measure, we have to use a Gauge Chart from where the Target and Actuals can be inferred.

374. How to represent different levels of hierarchy of data in one singe visualization?

Step 1. Create a hierarchy by grouping the required data from the data tab and pull that into Axis Tab and Enable drill down option by clicking on down arrow on the chart.
Step 2. Pull all the hierarchical columns separately in to the axis pane in the order of their hierarchy and enable the drill down action by

clicking on down arrow on the chart.

Note: Both Step 1 and Step 2 will serve the same purpose.

375. Which language is used along power query?

There is a language called M-Code which is used along with power query and it is also easy to use and highly case sensitive.

376. What is power pivot?

It is a data modelling component which allows data compression, aggregation and calculation very efficiently.

377. What is power query?

It is a self-service ETL ("Extract"Transform" Load) tool and allows users to pull data from different sources.

378. What is power view?

It is a visualization tool which allows users to drag and drop for easy and quick visualisation.

379. What is power map?

It is 3D data visualiation tool which allows users to create interactive visualization on tables and charts.

380. What is DAX?

It is a formula expression language which could be used in different BI and visualisation tools.

381. What is calculate function?

It is a function which evaluates expression which modified by filters.

382. What is Filter function?

It is a function which allows you to manipulate data to create dynamic calculations.

383. What is Time Intelligence function?

It is a function which allows to manipulate data using time periods.

384. How to setup hierarchy in Power BI?

When you have set of fields that is on hierarchy of importance eg. Item Category and Product names, you can set up chain of importance by hauling the item name over the item class with the goal that another pecking order field is made where we can penetrate down the information and see the point by point information think of you as have rundown of nations and urban communities you can make progressive system as follows in the fields sheet << drag city field onto nation field<< the chain of importance will be made.

385. What is Power BI Service?

Power BI Service is a cloud-based explanatory arrangement where it causes you to configuration reports, make dashboards and distribute ,team up and share the reports with inner and outer partners control Bi administration is a cloud based arrangement which is utilized to make reports ,perception of information ,making dashboards so one can distribute work together and share among the partners.

386. What is a custom Vizuals?

Diagrams or visuals which are not availabe in Bi work area are imported from market for better perception.

387. What are the sort of Licenses are accessible in PowerBI?

- Power BI Free
- Power BI Pro
- PowerBI Premium

388. What are the three fundamental view in Reports improvement Window?

- Relationship View

- Data modeling View

- Report View

389. Can we have various dynamic relationship in Power BI?

No, We can't set up more than one dynamic relationship in Power BI.

390. What is incremental refresh?

it is utilized invigorate the recently included information so that there is no compelling reason to truncate and stack the whole information.

391. How many default Graphs Visualizations in Power BI?

26 Views

392. What are the Data types in Power BI?

- Numeric (Decimal,Fixed Decimal,Whole)

- Content

- Date/Time

- Boolean(true/false)

- Twofold

393. Difference Between New Measure and New column?

On the off chance that we make New Column dependent on some Logic physically information will be put away.
On the off chance that we make New measure dependent on some rationale the figurings will be performed on the fly dependent on the measurement which we use, so here information physically won't be put away.

394. What are the various participates in Power BI?

Vertical Joins will be utilized in blending the information from various tables
Flat Joins will be utilized in attaching the information from numerous tables

395. Can we have more than one dynamic connection between two tables?

No

396. What are the parts of Power BI?

- Power BI work area

- Power BI Online Service

- Power BI passage

- Power BI Report Server

- Power BI Mobile Apps

397. What are Building Blocks in Power BI?

- Visualizations

- Datasets

- Reports

- Dashboards

- Tiles

- Page

398. What is Visualizations?

Perception is a visual description of information. Model: Pie Chart, Line Graph, Side by Side Bar Charts, Graphical Presentation of the source information over Geographical Map, Tree Map, and so forth.

399. What is Datasets?

Dataset is a gathering of information that Power BI uses to make its representations. Eg-Excel sheets and Oracle or SQL server tables.

400. What are reports?

Report is a lot of perceptions that show up commonly on at least one pages. Eg-Sales by Country, State, City Report, Logistic Performance report, Profit by Products report and so on.

401. What is Dashboards?

Dashboard is single layer appearance of various perceptions, i.e we can consolidate at least one representations into one page layer. Eg:Sales dashboard can have pie outlines land maps and bar graphs.

402. What is Tiles?

Tile is a solitary perception in a report or on a dashboard. Eg:Pie Chart in Dashboard or Report.

403. What are the different sorts of Filter in Power BI Reports?

- Visual Level Filter

- Page Level channel

- Report Level Filter

- Drill through Filter

404. What is Visual level Filters?

These channels take a shot at just a being representation decreasing the measure of information that the perception can see additionally visual dimension channels can channel the two information and computations.

405. What is Page level Filters?

These channels work at the report page level. different pages in a similar report can have different page level channels.

406. What is Report level Filters?

There channels take a shot at the entire report sifting all pages and representations worked in the report.

407. What are the principle parts of the Power BI toolbox and what do they do?

- Power Query-gives you a chance to discover get to and combine information from various sources

- Power Pivot-a displaying device

- Power View-an appearance device for making diagrams tables and that's only the tip of the iceberg

- Power Map-gives you a chance to make geospatial portrayal of your information

- Power -gives you a chance to utilize common language to find solutions to questions.

408. What is a substance pack, and for what reason would you utilize one?

A substance pack is an instant, predefined gathering of representations and reports utilizing your picked administration (for instance, Sales power). You'd utilize one when you need to get fully operational rapidly, rather than making a report without any preparation.

409. What are probably the most well known hotspots for information in the Get Data menu?

Exceed expectations, Power BI datasets, web, content, SQL server and investigation administrations.

410. What are the classes of Data types?

- All

- File

- Database

- Power BI

- Azure

- Online Services

- Other

411. Name some regularly utilized undertakings in the Query Editor.

- Connect to information

- Shape and join information

- Group columns

- Pivot segments

- Create custom segments

- Query equations

412. What is DAX ?

So as to do information investigation on information and for figuring in power rotate, Data Analysis DAX) is utilized.

- Dax takes a shot at segment esteems

- We can change or put in information utilizing DAX

- The determined sections can be determined however the equivalent is impossible for columns utilizing DAX

413. What are the network modes accessible in Power BI?

Fundamentally there are two kinds of availability modes

- Import

- DirectQuery

414. What are the various sources that you worked away at ?

Power BI bolsters huge scope of information sources. You can snap Get information and it demonstrates to all of you the accessible information associations. It enables you to associate with various level files,SQL database, and Azure cloud or even web stages, for example, Face book, Google Analytics, and Salesforce objects

415. What information sources would i be able to associate with?

- The rundown of information hotspots for Power BI is broad, however it very well may be assembled into the accompanying:

- Content packs for administrations, with instant dashboards, reports, and datasets for administrations, for example, Salesforce. Notwithstanding building up an information association, Power BI gives pre-fabricated dashboards and reports for every one of these administrations.

- Connectors to databases and different datasets, for example, Azure SQL Databaseand SQL Server Analysis Services forbidden information.

416. What are the different Excel BI include ins?

- Power Query—discover, alter and load outside information
- PowerPivot—for information displaying for investigation
- Power View—structure outwardly and intuitively reports
- Power Map—show bits of knowledge on 3D Map

417. Types of Data Refresh in Power BI

- Bundle Refresh
- Model/information invigorate
- Tile invigorate
- Visual compartment invigorate

418. How will you share your Power BI report to customer?

- Substance Pack
- Install Code

419. What is install code in power BI

We have a choice in Power BI online that convey to web which will create a connection address for the demanding Power report. We can share that connect to our customer to view Power BI report with no sign in/login conventions.

420. What are the gateways available in Power BI?

- On-premises information door:
- On-premises information door (Personal mode)

421. How to apply information security in Power BI report?

- A DAX look can be valuable on a table sifting its lines at question time.
- Dynamic security include the utilization of USERNAME works in security job definition.
- typically a table is made in the model that relates clients to explicit measurements and a job.

422. What is Natural language search choice in Power BI?

A characteristic language based learning for communicate with information as a feature of the Power BI for Office 365 advertising. As you type your inquiry picks the best perception to show your answer; and the representation changes powerfully as you alter the inquiry. Likewise causes you group your inquiry with recommendations, auto-complete, and spelling amendments.

423. Can we join two unique information sources in same Power BI dashboard?

Indeed. It is conceivable in Power BI. In Power BI Online, we can blend perception from comparable reports in your Power BI account into one single dashboard utilizing pin independent of the information sources.

424. What is the contrast between Power BI Desktop and Power BI on the web?

Power BI Desktop is a windows application which be fit for be kept running on our constrained PC. Power BI work area can be utilized to build up the reports interface with assortment of information source from our PC to the information in the neighbourhood PC or the information in the server. We can circulate the report from Power BI work area to Power BI online once finished the improvement.

Power BI is a cloud based arrangement. We can apply internet browser to interface with Power BI on the web. We have the option to play out a similar advancement take a shot at Power BI online however a few restrictions there.

425. What is the contrast among SUM and SUMX in DAX work?

Total capacity takes the sections of information and total it and will give the aggregate however sumX capacity gives you a chance to channel the information which you are including

426. How the Filter DAX is utilized?

Channel DAX, it is utilized to channel the information in section put together path depending with respect to the capacities, FILTER(Table,[Sales] > 100)

427. What are Data alarms

Ready work on information that is revived ,when information is invigorated BI searches for a caution and on the off chance that it achieves the ready edge or the utmost, at that point the alarm will be activated.

428. Why TOP N isn't accessible for the Page level and Report Level Filter?

As the page level channel and report level channels are associated with different visuals.

429. What is a Bookmark?

Utilizing bookmarks in Power BI bring about catching the arranged perspective on a report page in that specific time which additionally included channels and the condition of visuals, where this bookmark can be utilized an easy route to return to the reports that you include as a bookmark.

430. What are slicers?

It is a canvas visual channel which is utilized in Power BI work area where clients who are survey can section the report by utilizing esteems like geometric district ,it is one of the significant channel in representation.

431. What are synchronizing slicers?

It is a component in Power Bi which synchronizes the slicers over various reports.

432. What is a parameter? How and where we set it?

Parameter is the worth you needed to get from client on live time, it tends to be set in Power Query supervisor by choosing oversee parameters and setting it up with the individual fields of the table/sheet parameter can be characterized as set of information esteems which are set depending up on the requirement.it can be set as pursues select oversee parameters<<power question editorial manager <<set it up with the particular fields of the table/sheet.

433. How to demonstrate the percentage in rate?

Select the visual determined an percentage in the perception tab – > select the underneath bolt – > show an incentive as – > percent of give all out Select the visual determined an incentive in the representation tab – > select the beneath bolt – > show an incentive as – > percent of give all out.

434. What is ceiling function?

Ceiling functions is equivalent to roundup in excel. It do work in transform data to another format as like 3.12 results 4

435. What is the Collect function?

Excluding null values it do aggregate the spatial values. It cannot be performed anything other than Spatial data type.

Q150) What does Contains function do?

Contains function works in a way of producing logical results for the given character against the argument. Simply, TRUE if string have sub-string.

436. What is CORR function? Where we use it?

- CORR is a correlation function. It gives Pearson correlation between 2 variables. It ranges from -1 to 1.

- Where 1 refers 100% positive correlation, -1 refers 100 negative correlation and 0 refers no correlation between those variables.

437. What is the difference between Count and CountD function?

COUNT function returns count excluding NULL values. COUNTD returns distinct values excluding NULL values.

438. What does COVAR function do?

COVAR function gives the sample covariance for the given arguments. Co-variance is stated as the factor which talks about the relationship between each other and how much one variable is affected by another.

439. What is the difference between COVAR and COVARP?

COVAR directly gives the sample co-variance where COVARP is the population co-variance. Sample uses n-1 for calculation and population uses n. Where n is the number of line items.

440. What is Date function?

Date function converts any input to a date format. Input can be string, number or a date type input.

441. What does DATEADD function do?

This function adds a specified date interval for a specific part of date. Can be a day/month/year.

442. What does DATEDIFF function do?

It gives the difference between 2 dates based on the specified Date part. Could be possibly Day/week/month/year.

443. What do DATENAME function do?

DATENAME function results the name of the specified part of the date that given. To be precise, it works in a way to produce the day(Monday/Tuesday/etc..), month(January, February/etc.) or year(2018/2019/etc.)

444. What is DATEPARSE function is used for?

DATEPARSE function returns the date type object from a string input. If a data is stored in string property and must be changed to Date type, we can use DATEPARSE function to do it.

445. What is DATEPART function?

DATEPART function returns the part of the date function as an integer, where DATENAME function does the same, but returns the name of the part of the date.

446. What is the difference between DATE and DATETIME function?

DATETIME function returns the date and time type for the given number, where DATE function gives DATE type.

447. What is DATETRUNC function do?

DATETRUNC function gives you the truncated date to the respective time period you specify. In simple words, you wanted to achieve the first date of a month for all dates of the month, you can apply DATETRUNC function to transform all the dates to the first day of that month. It applies to month, week, quarter and year.

448. What does the ENDSWITH function do?

Endswith function used to return the logical results to the given string. If the sub-string is available at the end of the super string, then it returns TRUE.

449. What does the function FIND used for?

FIND function is used to return the index position of the substring from the super string.

450. What is FIRST function?

FIRST function gives the index offset for all rows from the current row. It gives the negative index values as such to give exact offset value.

451. What does function FLOAT does?

FLOAT function transforms the date type to float from integer. All values parsed will be converted to FLOAT from the given data type.

452. What is FLOOR function?

FLOOR function returns the nearest lesser integer value. Say you apply this function for 3.85, it will result you 3. Which is equivalent to round down in excel. Note that, this function is data source limited. It is not applicable for all data source.

453. What does the function FULLNAME does?

FULLNAME function returns the username from the local system. If it is connected to online profile, it returns the online profile username.

454. Is there a function to do a simple IF ELSE query?

IIF is the function which performs IF ELSE statement. It works in a way to generate the IF this else what scenario.

455. What is IFNULL function?

IFNULL function works in a way to produce IF it is not a NULL, then result the first expression, if not, return the second expression.

456. What does INDEX function do?

INDEX function is used to retrieve the index of the respective row. It works in the reverse way of FIRST function. FIRST function gives the offset index starts from 0. Index function starts with 1 and incremented by 1.

457. What is ISDATE function?

ISDATE function returns the Logical result TRUE/FALSE on a string data type. If it is returnable as Date, then it returns TRUE, if not FALSE.

458. What does ISNULL function do?

ISNULL produces logical results whether it is a NULL or not. If it is NULL, it returns TRUE, if not it returns FALSE.

459. What is the difference between the function FIRST and LAST?

LAST function returns the index offset values from the last row element. It works as the reverse of FIRST function. Index value of last row element starts with 0.

460. What is LEFT and RIGHT function do?

LEFT function returns the n number of characters from left of the given string. Right function does the same work from right. N represents number of characters.

461. What does LOOKUP function do?

LOOKUP function returns the value in the given expression for the specified target row. NULL will be resulted if in case of no match found.

462. What is the difference between LOWER and UPPER?

LOWER function returns the lowercase for the string parsed. Where UPPER function returns the uppercase value for the given string.

463. What is the difference between LTRIM and RTRIM?

LTRIM function removes the extra white space from the LEFT of the string. RTRIM removes it from the right last index.

464. What does MAKEDATE function is used for?

For the given individual values as year, month and day, it generates a Date type object.

465. What does MAKETIME function is used for?

For the given individual values as Hour, minute and second, it generates a Date type object.

466. What does MID function do?

MID function returns the string characters from the specified index position. On the string, it can be possible to extract the number of positions that we required to have.

467. What is the difference between Today & Now functions?

TODAY function gives you the current today's date, where as NOW function returns the current date and time along with.

468. How do we apply percentile function?

PERCENTILE function returns the data value of the specified percentile number. Make sure you have it in the range of 0 to 1. Also, it should be a numeric constant.

469. What is POWER function?

POWER function returns the POWER for the given number for the specified power.

470. What does rank function do? Compare other rank functions?

RANK function calculates the regular competition rank and returns the identical values. In the second argument, you can ask for Ascending or Descending values accordingly. Please refer the below image for different types of ranks listed.

471. What does replace function do?

REPLACE function replaces the sub-string found in super-String based on the given replacement. This function is as generic with SQL and Excel.

472. What is RUNNING_AVG function do?

RUNNING_AVG function gives the average value to all the cells/pane/region processed for. It works to give the average by making all those inclusive values accordingly.

473. What is SIGN function?

SIGN function returns the direction of the values. Say if the value is Negative, it returns -1, if positive then 1, if 0 then 0.

474. What does split function do?

SPLIT function works to split the string data based on the given delimiter. And returns the specific part of the text based on the token value. Note that split function is limited for some data sources. Cannot be applied to all data sources.

475. What does STARTSWITH function do?

SATRTSWITH function returns the logical answers in a way, TRUE if the sub-string is the starting string for super-string. FALSE if not so.

476. What is the difference between STDEV and STDEVP?

STDEV is the standard deviation formula for population(n). STDEVP is the function of standard deviation for sample(n-1).

477. What is the difference between VAR and VARP?

VAR is the variance formula for population(n). VARP is the function of variance for sample(n-1).

478. In general, what is the basic difference between regular functions and window functions?

Normal regular functions operate to generate expression for the whole data parts, but window functions limits itself with the offset from the current row where it produces different values accordingly.

479. What does Day, month & year function do?

Year function returns Year for the specified date, where Month function gives month & day function gives Day of the week respectively.

480. What is the difference between a report and dashboard in power BI?

Report is a page view of many visualizations, Where Dashboard is a final presentation or the final page which can be leveraged to have a solution extracted from multiple reports. In simple words, It is that which is the shorter version of reports in final format that answers business questions.

481. Specify the different types of filters?

In general, power BI filters are of 3 different types.

- Visual level filter
- Page level filter
- Report level filter

482. Do all the features of power pivot in excel is applicable in Power BI?

Mostly, not completely, it is because that, Power BI is mostly created for visualization rather than the transformation process. It do work lot effective comparing with Excel processing.

483. What is a Power BI?

Power BI by Microsoft is a cloud-based platform in which your unrelated sources of information are turned into coherent, interactive insights, and visualized format. With the help of collective work among connectors, software services, and apps, the data is transformed into the visualized format. The data that is transformed can be presented in Excel spreadsheets or the form of a cloud-based data-sharing environment.

484. Why we need Power BI?

There are many reasons for why we need Power BI, some of the reasons are as follows:

- To meet self-service and corporation business intelligence needs on a single platform we need Power BI.
- We need BI to create interactive data visualization insights across data centres.
- In finding solutions fast and accurate with the leading AI industry.
- Power BI is used to connect Excel queries with Power BI dashboards to make quick analysis and share business data in new ways.

485. What are the advantages of Power BI?

The advantages of Power BI are as follows:

- Power Bi provides us with an easy way to connect to your data sources and visualizes the information.
- It also creates quick insights from the local database or excel spreadsheets.
- Power BI even be your visualization tool, personal report, and decision engine for corporations and group projects.

486. List the features of Power BI?

The features of Power BI are as follows:

- Power BI is robust and ready for custom development, modeling, and real-time analytics.
- It creates an enhanced data-driven environment by enabling everyone to transform data into insightful visualizations.
- Power BI provides a platform to create quick and efficient custom apps and it also automates workflow to enhance business productivity.
- Provides security and built-in governance for your organization.

487. What are the differences between the Power BI service and Power BI Report Server?

Feature	Power BI Report Server	Power BI Service
Lifecycle	Services are managed fully	Modern lifecycle policy
Source data	Cloud or on-premises	On-premises or Cloud
License	Power BI Premium	Power BI Pro or Power BI premium
Creating of Reports	Creates Power BI Reports in Power BI Desktop	Creates Power BI Reports in Power BI Desktop
Gateway Requirements	No	Required for on-premise data sources

488. Define the term 'Power BI Desktop'?

Most of the people who work on Business Intelligence (BI) tasks use Power BI desktop to create reports. Power BI Desktop is a free application that we can download in our desktops to connect, visualize, and transform the data. By using this desktop we can combine different sources of data and finally combines this data into data models. These data models let your corporations build visuals and share them among other people in your organization.

489. What are the building blocks in Power BI?

There are five building blocks in Power BI, and they are:

- Datasets: Datasets can be defined as a collection of data, which is used by Power BI for creating visualizations.

- Reports: Reports are the collection of or group of visualizations that appear as a whole in one or more pages.

- Dashboards: Dashboard is the window that is mainly used to represent the collection of all the visuals on a single page.

- Visualizations: The visual representation of data in the form of charts, graphs, and the other is called visualization.

- Tiles: Collection of visualizations that appear on one or more pages.

490. What is a Power BI service?

Power BI service is an online cloud-based service for report editing and collaboration of teams. By using limited modeling we can connect different data sources in Power BI services.

491. What is the key difference between the Power BI Desktop and the Power BI service?

The significant difference between Power BI Desktop and Power BI service is that the BI desktop is used to create reports whereas, BI services are used to share the reports which are created by Business Intelligence Desktops.

492. Define Content Packs in Power BI?

The name itself says that the content packs are a collection or the package of various related documents or files or content.

493. How many types of Content Packs are there?

There are two types of content packs, and they are:

- Salesforce shared by other users in your organization.

- Services provided by Marketo and Google Analytics.

494. What are the business applications in which Power BI is used?

The following are the key business applications in which Power BI is used. They are:

- Used in an organization to find insights.

- Usage of Power BI in Mobile application development.

- In Visualizes Marketing leads and Sales in the Marketing Industry.

- For the retail industry and consumer goods.

- Power BI is the key application in the top airports like 'Heathrow'.

495. What are the parts of Power BI?

The parts of Power BI include:

- Power BI Desktop
- Power BI service
- Power BI mobile apps
- Power BI Report Server

496. What is the Power BI Report Server?

In today's World, Power BI Report Server is a solution for on-premises reporting with the flexibility of moving to the cloud in the future. This server also provides a way to manage and display KPIs and images.

497. What are the major components of Power BI?

The components of Power BI are as follows:

- Power View: It is a data visualization tool used to represent data in the form of charts or graphs.
- Power Map: Helps in processing the accurate Geo-spatial locations in the data sets.
- Power Pivot: Provides the way to data model the whole information.
- Power Query: It is a data transformation engine that is used to perform operations on the loaded data.
- Power Q&A: It provides easier ways for users to interact with reports using simple languages.

498. Define Power Pivot?

It is an Excel add-in used to create sophisticated data models and to perform effective data analysis. By using Power Pivot we can collect large volumes of data from different sources. In this, we can create data models and tables with relationships.

499. What is Power Query in Power BI?

Power Query is a mashup and data processing software which is mainly used to connect various data sources. The output that is generated by Power Query can either go to Power BI or Excel.

500. What is Power BI Embedded?

Power BI Embedded provides a simplified way to understand how developers and ISVs use Power BI capabilities using web analytics. The Power BI Embedded APIs are used for embedding reports and dashboards, this embedding provides access to the latest Power BI features app workspaces and gateways.

501. What is DAX?

DAX is abbreviated as Data Analysis Expressions, It is the formula language used by Power BI. These expressions are mainly used to perform data analysis and basic calculations in Power Pivot.

502. Define Tile in Power BI?

The single visualization on a Power BI Dashboard or in a report is called as tile.

503. Is Power BI free to use?

Well, Power BI provides a free trial version, but the best and advanced features of Power BI are accessible only if we have the Pro subscription account. Most of the business organizations use Power BI Pro to access the advanced features.

504. What are paginated reports?

These reports are the long standard reports in the SQL Report Server, now these reports are available in Power BI for use. The term 'paginated' means the reports designed are fit to the page.

505. How many types of filters are available in Power BI Reports?

Three types of filters are available in Power BI Reports, and they are:

- Report-level Filters
- Visual-level Filters
- Page-level Filters

506. How do we import and analyze data from a web page using Power BI Desktop?

Four steps are carried to import and analyze data from the webpage. They are:

- Go to get data option which is present in Hone Ribbon tab on Power BI Desktop and then select web option.
- Copy and paste the URL in the web dialog box and then click ok.
- After that, the connection is established to the particular URL, and the Power BI navigator dialog box shows the catalog of the tables on the page.
- Finally, select the Results(edit) in the Navigator page and then click edit. Now, the preview of the tables will beopened in the Power BI query editor in which we can analyze and transform the data from a web page.

507. Can the Power BI Report refreshed after they are published to the cloud?

Yes, By using gateways the Power BI Reports can be refreshed after they are published to cloud.