**1. Basics:**

1. **What is the difference between Discrete and Continuous Data?**

**Ans):-** Discrete data consists of distinct and separate values, such as the number of children in a family or the types of cars on a lot. Continuous data refers to measurements that can take on any value within a range, such as height or temperature.

1. **What is the criteria for data to land into dimensions and measures?**

**Ans):-**  Data is categorized as a dimension or measure based on the nature of the data. Dimensions are descriptive data, such as dates, categories, or locations. Measures are numeric values that can be analyzed, such as sales, profits, or quantities.

1. **What is Metadata, where is it present in the workbook?**

**Ans):-** Metadata is data that provides information about other data. In Tableau, metadata is present in the Data Source tab, and it includes details about the data source, such as the column names and data types.

1. **What happens when you aggregate or disaggregate the Data?**

**Ans):-** Aggregating the data involves summarizing the data, such as finding the average or sum of values. Disaggregating the data involves showing the individual data points, rather than the summary. This can affect the level of detail and the insights that can be gleaned from the data.

1. **You are working on a dataset, the client adds in more data to the dataset. What happens to the Visualization that you had created? Give the explanation for both Live and Extracted data.**

**Ans):-** When new data is added to a dataset, the visualization may need to be updated to reflect the changes. If the data source is live, the visualization will automatically update. If the data source is extracted, the extract will need to be refreshed to include the new data, and then the visualization can be updated.

1. **What are the file extensions in Tableau and how each one is different?**

**Ans)** Here are the main file extensions used in Tableau:

* .**twb: Tableau Workbook:** This file extension is used for saving Tableau workbooks, which contain worksheets, dashboards, and stories. A .twb file does not contain any data; it only contains the configuration and layout of the views.
* **.twbx: Tableau Packaged Workbook:** This file extension is similar to .twb, but it includes any data sources and other supporting files needed to make the workbook functional. This makes it easier to share workbooks with others who may not have access to the same data sources.
* **.tde: Tableau Data Extract:** This file extension is used for saving Tableau data extracts, which are optimized subsets of data that can be used to create visualizations. TDE files are faster to work with than the original data sources, as they are compressed and organized for efficient querying.
* **.tds: Tableau Data Source:** This file extension is used for saving Tableau data sources, which define the connection to a data source and any associated metadata. TDS files can be used to share data source configurations across different workbooks.
* **.tms: Tableau Map Source:** This file extension is used for saving custom map sources that can be used in Tableau maps. TMS files define the URL and parameters used to connect to a custom map server.

**7. Calculate Fields, Quick table calculations, LOD:**

1. **How do you create a profit ratio using the Calculated fields?**

**Ans)** To create a profit ratio using calculated fields we use these following steps:

1. Open the worksheet where you want to add the profit ratio.
2. Click on the "Analysis" menu, then select "Create Calculated Field".
3. In the "Calculated Field" dialog box, enter a name for your calculated field, such as "Profit Ratio".
4. In the formula box, enter the following formula:

SUM([Profit]) / SUM([Sales])

This formula divides the total profit by the total sales to get the profit ratio.

1. Click on the "OK" button to save your calculated field.
2. Drag and drop your new calculated field onto the worksheet, then format it as a percentage if desired.
3. You should now see a profit ratio calculated for each row or column in your worksheet.

**8. Filters:**

1. **What are the different types of filters and give their working order?**

**Ans) Context Filters**: Context filters are the first filters that Tableau applies to a view. These filters create a temporary table that only includes the selected values, and then all subsequent filters are applied to this smaller subset of data. This can help improve performance when working with large data sets.

**Dimension Filters:** Dimension filters allow you to filter the view based on one or more dimensions. You can filter by selecting individual values, ranges of values, or using wildcard or conditional expressions.

**Measure Filters**: Measure filters allow you to filter the view based on one or more measures. You can filter by selecting individual values, ranges of values, or using wildcard or conditional expressions.

**Top N Filters:** Top N filters allow you to show only the top or bottom N items in a view based on a specific measure. You can select the number of items to show and whether to show the top or bottom N.

**Relative Date Filters:** Relative date filters allow you to filter the view based on a specific date range relative to the current date, such as the last 7 days or the next 3 months.

**Top N (Percent) Filters:** Top N (Percent) filters allow you to show only the top or bottom N percent of items in a view based on a specific measure. You can select the percentage of items to show and whether to show the top or bottom N percent.

**Combined Filters:** Combined filters allow you to create complex filters that combine multiple conditions using Boolean logic (AND or OR).

**9. Dashboards & story:**

1. **What are the different device type preview that Dashboards can use?**

**Ans) Desktop:** This preview shows how the dashboard will appear on a desktop or laptop computer. The default size is 1000 x 800 pixels.

**Tablet:** This preview shows how the dashboard will appear on a tablet device, such as an iPad. The default size is 768 x 1024 pixels.

**Phone:** This preview shows how the dashboard will appear on a mobile phone. The default size is 360 x 640 pixels.

**Custom:** This preview allows you to enter custom dimensions for the dashboard to simulate a specific device or screen size. You can enter the width and height in pixels or inches.

When previewing a dashboard, We can switch between device types to see how the dashboard will appear on different devices. This allows you to optimize the layout, font size, and other design elements to ensure that the dashboard is easy to read and use on different devices.

**11. Sets, Parameters, Groups:**

1. **Parameters can be used in?**

**Ans)** Parameters can be used in the following ways:

**Filter values:** Parameters can be used to filter values in a dashboard. By creating a parameter and linking it to a field, you can allow users to select a specific value or range of values, which can dynamically update the view.

**Control chart appearance:** Parameters can be used to control the appearance of a chart. For example, you can create a parameter that allows users to switch between different chart types, such as a bar chart or line chart, or to adjust the size of the chart.

**Perform calculations:** Parameters can be used to perform calculations on the fly. For example, you can create a parameter that allows users to adjust a discount rate or a growth rate, which can then be used in calculations to generate new insights.

**Create reference lines and bands:** Parameters can be used to create reference lines and bands in a chart. For example, you can create a parameter that allows users to set a target value or a threshold, which can then be used to create a reference line or band in the chart.

**Create dynamic titles**: Parameters can be used to create dynamic titles for a dashboard. For example, you can create a parameter that allows users to select a region or a product category, which can then be used in the dashboard title to create a more personalized experience.

1. **What are the different ways to create a Parameter?**

**Ans)** There are several ways to we create a parameter :

Right-click on a blank area of the Data pane and select "Create Parameter." This will bring up the Create Parameter dialog box, where We can define the name, data type, allowable values, and other settings for the parameter.

From the Analysis menu, select "Create Parameter." This will also bring up the Create Parameter dialog box.

Drag a field from the Data pane to the "Drop Field Here" area of the "Create Parameter" dialog box. This will automatically create a parameter based on the field, using the field's data type and values.

On the "Parameter" shelf, click the "Create" button. This will also bring up the Create Parameter dialog box.

**12. Forecast:**

1. **You are provided with the dataset for the past 10yrs. How can you forecast the data for next 4 years, Quarter wise.**

**Ans)** We can use the built-in forecasting feature to forecast data for the next 4 years, quarter-wise, based on the past 10 years of data. Here are the steps to do this:

* Connect to the dataset for the past 10 years in Tableau.
* Create a new worksheet, and drag the date field to the Columns shelf.
* Change the date field to a quarter-wise view by right-clicking on the field and selecting "Quarter" under "Date Properties."
* Drag the measure that you want to forecast to the Rows shelf. For example, if you want to forecast sales, drag the "Sales" measure to the Rows shelf.
* Click on the "Analytics" pane on the left-hand side of the screen, and select "Forecast" under "Trend Lines."
* In the Forecast dialog box, set the "Forecast Length" to 16 quarters (4 years), and select "Quarterly" under "Periodicity."
* Adjust any other settings as desired, such as the level of confidence and the type of model to use.
* Click "Apply" to apply the forecast to the view.
* We can now view the forecasted data by looking at the dotted line in the view.