**TABLEAU ASSIGNMENT - Theory**

**Q1. What is the difference between Discrete and Continuous Data?**

**Ans:**

1. Discrete data is the type of data that has clear spaces between values. Continuous data is data that falls in a continuous sequence.
2. Discrete data is countable while continuous data is measurable.
3. Discrete data contains distinct or separate values. On the other hand, continuous data includes any value within range.
4. Discrete data is graphically represented by bar graph whereas a histogram is used to represent continuous data graphically.

**Example of Discrete Data:**

Number of students in the school, the number of cars in the parking lot, the number of computers in a computer lab, the number of animals in a zoo, etc.

**Example of Continuous Data:**

Age, height or weight of a person, time taken to complete a task, temperature, time, money, etc.

**Q2. What is the criteria for data to land into dimensions and measures?**

**Ans:**

**Measures** are numerical values that work on mathematical functions. For example, a sales revenue column is a **measure** because you can find out a total or average the data.

**Dimensions** are qualitative and do not total a sum. For example, sales region, employee, location, or date are **dimensions**.

**Q3. What is Metadata, where is it present in the workbook?**

**Ans:**

**Metadata** means “data about data” or data that describes other data. The prefix “meta” typically means “an underlying definition or description” in technology circles.

**In Tableau,** the Metadata API discovers, tracks, stores, and then surfaces information about Tableau content.

The content can be categorized by type (e.g., table or workbook). The content can be unique to Tableau (e.g., embedded data sources and calculated fields) and its external assets not unique to Tableau (e.g., database tables and columns). Both content and external assets can have information attached to them (e.g., tags and ratings). Both content and external assets can also have relationships to other content and external assets.

The relationships among the content and external assets and the information about each is the metadata.

**In Tableau API means,** Application Programming Interface (**API**) that lets us programmatically manage users, workbooks, data connections, and other resources on the server.

**Q4. What happens when you aggregate or disaggregate the Data?**

**Ans:**

When we **disaggregate** measures, then we are no longer looking at the average or sum for the values in the rows in the data source. Instead, the view shows a mark for every row in the data source. Disaggregating data means breaking down information into smaller subpopulations.

**Aggregation** is a mathematical operation that takes multiple values and returns a single value: operations like sum, average, count, or minimum. This changes the data to a lower granularity

**Q5. 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:**

In case of live data , the visualization will be updated immediately as there is a direct connection with data set but in case of extract we need to refresh time to time for the change to take place.

**Q6. What are the file extensions in Tableau and how each one is different?**

**Ans:**

Different file extensions in Tableau are as follows:

1. .twb = tableau work book used for structure / skeleton of data
2. .tde = tableau data extract / hyper used for data
3. .twbx = tableau work book extract used as .twb + .tde

For live connection in database server, files skeleton is stored in a form of .xml. This .xml file is stored in tableau in the form of **.twb**

But in case of extract connection, replica of the file is created and stored in data engine in the form of **.tde**

But we can save .twb & .tde files as .twbx

In tableau desktop we have 2 options while saving files, “.twb” & “.twbx”

If we choose .twb then tableau will create .tde file outside the tableau instance and we can see that .tde file.

But if we save with .twbx then we cannot see .twb & .tde files separately.

**Q1. What are the different types of filters and give their working order?**

**Ans:**

Different types of filters are as follows:

1. Extract Filters
2. Data Source Filters
3. Context Filters
4. Dimension Filters
5. Measure Filters
6. Table Calculation Filters

**Q6. What are the various Forecast length that Tableau cannot recognizes?**

**Ans:**

Forecasting is not supported for Multidimensional data sources. In Tableau Desktop, multidimensional data sources are supported only in Windows. You can publish a view that contains a forecast, and see the forecast when you view or edit the view on the web, but you cannot modify or add a forecast when you are editing a view on the web. In addition, you cannot add a forecast to a view if it contains any of the following:

o Table calculations

o Disaggregated measures

o Percent calculations

o Grand Totals or Subtotals

o Date values with aggregation set to Exact Date

**Q1. What are the different device type preview that Dashboards can use?**

**Ans:**

1. Default
2. Desktop
3. Tablet
4. Phone

**Q1. Parameters can be used in?**

**Ans:**

It can be used in a calculated fields, reference line, bins, filters.

**Q2. What are the different ways to create a Parameter?**

**Ans:**

1. By right clicking on dimensions or measures 🡪 Create 🡺 Parameters
2. View Data drop down near search bar
3. From Filter box

**Q1. You are provided with the dataset for the past 10yrs. How can you forecast the data for next 4 years, Quarter wise?**

**Ans:**

Enable forecasting from Analytic pane and then right click on the chart and then select forecast option. In that option select 4 years.