**Tableau Assignments:-**

**Theoretical Questions**

**1. Basics:**

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

Ans. Discrete data and continuous data are mathematical terms used to describe differing forms of data. Some data can only be discrete, some can only be continuous and of course there is data that can be both.

Discrete means individually separate and distinct while continuous means you are forming an unbroken whole, without interruption.

In terms of Tableau this means that Discrete data will generate rows and columns while continuous data generates axes.

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

Ans. *Dimensions* contain qualitative values (such as names, dates, or geographical data). You can use dimensions to categorize, segment, and reveal the details in your data. Dimensions affect the level of detail in the view.

*Measures* contain numeric, quantitative values that you can measure. Measures can be aggregated. When you drag a measure into the view, Tableau applies an aggregation to that measure (by default).

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

Ans. The Metadata API enables you to see relationships between the content and asset that you’re evaluating with other items on your Tableau Cloud site or Tableau Server. These items include the following:

Upstream and downstream content - including data sources, workbooks, sheets, fields, metrics, flows, and owners

Upstream and downstream assets - including databases, tables, and columns

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

Ans. When **Aggregate Measures** is selected, Tableau will attempt to aggregate measures in the view by default. This means that it collects individual row values from your data source into a single value (which becomes a single mark) adjusted to the level of detail in your view.

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

Ans. **Workbooks (.twb)** :– Tableau workbook files have the .twb file extension. Workbooks hold one or more worksheets, plus zero or more dashboards and stories.

* **Bookmarks (.tbm)** :– Tableau bookmark files have the .tbm file extension. Bookmarks contain a single worksheet and are an easy way to quickly share your work.
* **Packaged Workbooks (.twbx)** :– Tableau packaged workbooks have the .twbx file extension. A packaged workbook is a single zip file that contains a workbook along with any supporting local file data and background images. This format is the best way to package your work for sharing with others who don’t have access to the original data
* **Extract (.hyper or .tde)** :– Depending on the version the extract was created in, Tableau extract files can have either the .hyper or .tde file extension. Extract files are a local copy of a subset or entire data set that you can use to share data with others, when you need to work offline, and improve performance.
* **Data Source (.tds)** :– Tableau data source files have the .tds file extension. Data source files are shortcuts for quickly connecting to the original data that you use often. Data source files do not contain the actual data but rather the information necessary to connect to the actual data as well as any modifications you've made on top of the actual data such as changing default properties, creating calculated fields, adding groups, and so on.
* **Packaged Data Source (.tdsx)** :– Tableau packaged data source files have the .tdsx file extension. A packaged data source is a zip file that contains the data source file (.tds) described above as well as any local file data such as extract files (.hyper or .tde), text files, Excel files, Access files, and local cube files. Use this format to create a single file that you can then share with others who may not have access to the original data stored locally on your computer.

1. **Calculate Fields, Quick table calculations, LOD:**
   1. How do you create a profit ratio using the Calculated fields?

## Ans.

## Create the calculated field

In a worksheet in Tableau, select **Analysis**> **Create Calculated Field**.

In the Calculation Editor that opens, give the calculated field a name.

In this example, the calculated field is called Profit Ratio.

Enter a formula

In the Calculation Editor, enter a formula.

Formulas use a combination of functions, fields, and operators.

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

Ans. There are basically, 6 types of filters and by order of operation they are:

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

**9. Dashboards & story:**

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

Ans. Device layouts appear on the Dashboard tab, under Default. Initially, each device layout contains every item in the Default dashboard and derives its size and layout from Default as well.

Think of the Default dashboard as the parent, and the device layouts (desktop, tablet, and phone) as its children. Any view, filter, action, legend or parameter that you want to add to a device layout must first exist in the Default dashboard.

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

1. Parameters can be used in?

Ans. The parameters in Tableau are the workbook variables like a number, date, or calculated field that allows users to replace a constant value in a calculation, filter, or reference line.

* Top N Parameters in Tableau
* Date Field Parameters in Tableau
* Dynamic Measures
* Dynamic Dimensions

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

Ans. The different ways to create parameters:-

[Navigating to Create Parameter](https://hevodata.com/learn/parameters-in-tableau/#s1)

[Adding Data Types](https://hevodata.com/learn/parameters-in-tableau/#s2)

[Selecting Display Format](https://hevodata.com/learn/parameters-in-tableau/#s3)

[Selecting Allowable Values](https://hevodata.com/learn/parameters-in-tableau/#s4)

[Checking the Newly Created Parameter](https://hevodata.com/learn/parameters-in-tableau/#s5)