**1. Basics:**

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

**Ans – Discrete = 1)** The Type of data that has clear spaces between values is Discrete Data.

**2)** Discrete data is Countable.

**3)** There are distinct or different values in discrete data.

**4)** Thebar graph is used to graphically represent discrete data.

**5)** Ungrouped frequency distribution of discrete data is performed against

a single value.

**6)** Points in a graph of the discrete function remain unconnected.

**Continuous = 1)** Continuous information is information that fails into a continuous series.

**2)**  Continuous data is measurable.

**3)** Every value within a range is included in continuous data.

**4)** A Histogram is used to graphically represent continuous data.

**5)** Grouped distribution of continuous data tabulation frequencies is

Performed against a value group.

**6)** The Points are associated with an unbroken line.

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

**Ans – Dimensions ( always blue) – 1)** It contain qualitative values (such as names, dates or graphical data).

**2)** You can use dimensions to categorize, segment and reveal the details in your data.

**3)** Dimensions affect the level of details in the view

**Measures (always green) - 1)** It contain numeric, quantitative values that you can measure.

**2)** Measures can be aggregated.

**3)** When you drag a measure into the view, Tableau applies an aggregation to that measure.

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

**Ans – 1)** In simple terms, metadata is data or information about data. Metadata helps us understand the structure, nature and context of the data.

**2)**  Metadata facilities easy search and retrieval of data. Metadata also helps keep a check on the quality and reliability of data.

**3)** Metadata is the key to unlocking the value of your data.

**4)** Other Information of Metadata is any Data which conveys knowledge about an item without requiring examination of the item itself.

**5)** Because Metadata derives its value from saving human time and attention, it must be effective at distinguishing relevant and irrelevant or redundant content.

**Metadata present in the Workbook**

* After Connecting to the data source, Tableau captures the metadata details of the source like the columns and their types.
* This is used to create the dimensions, measures and calculated fields used in views.
* We can browse the metadata and change some of its properties for some specific requirements.

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

* **Data Aggregation:**
* Data Aggregation is any process whereby data is gathered and expressed in a summary form.
* When data is aggregated, atomic data rows – typically gathered from multiple resources are replaced with totals or summary statistics.
* **Data Disaggregation:**
* Disaggregation your data means that Tableau will display a separate mark for every data value in every row of your data source.
* To disaggregate all measures in the view.
* Clear the analysis > Aggregate Measures option.
* If it is already selected, click aggregate measures once to deselect it.

**5. 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.**

* **Live Data :**
* This refers to a data source which contains direct connection to real time data.
* Live connections can be used at a place where the data is real time data which when get updated, so our visualization also gets updated automatically.
* **Example-** real – time transactions.
* Live connections are slower for complex visualizations.
* Live connection are used especially in less complex visualizations with small datasets, filters, calculations etc.
* Live connections get refreshed when there is a change in the original data source.
* Live connections always rely on the database for all queries.
* **Extracted Data:**
* Extract files are the local copy of the data source that you can use to make the view.
* Extracts can be used at a place where the view can be created by subset of the data source.
* **Example-** Keeping the record of the monthly trends of hospital.
* Extracts are much faster for visualization.
* Extracts are used especially in more complex visualizations with large datasets, filters, calculations etc.
* Extracts is a snapshot of data, so they need to be refreshed to receive updates from original data source.
* However, extracts databases should not always be optimized.
* The Extracts in tableau are refreshed in two ways:
* **INCREMENTAL REFRESH**
* **FULL REFRESH**
* **INCREMENTAL REFRESH:**
* A refresh in which only the rows and columns are added which are new since the previous time you extracted the data.
* Most data sources support an instrumental refresh as it takes less time.
* Although it is faster but once in a period of time the user needs to use full refresh to ensure that the data is most up to date.
* **FULL REFRESH:**
* It refers to the refreshment of the entire extract.
* In this refresh, all of the rows are replaced with the data in the original data source.
* This kind of refresh ensure that the user has an extract copy of the original data.
* A full refresh can sometimes take a long time and be expensive on the database.

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

* **File Extensions in Tableau:**

**1.Tableau workbook(.twb) :**

* The Tableau Workbook file type is the one that you will use the most when working in tableau.
* This file type has the extension (.twb) and is set as default for the users.
* We know, a workbook in tableau is a file that contains sheets, dashboards, etc.
* All the information regarding the fields, aggregation types, styles, formatting, filters, etc is present in these files.
* The (.twb) files also contains metadata related to the existing data connection.
* A (.twb) files does not contain actual data concerning the workbook.

1. **Tableau Packaged Workbook (.twbx):**

* The Tableau Packaged workbook file type has both information about the constituents of a workbook and the data extracted from the data source.
* Tableau Packaged workbook files have an extension(.twbx)
* You can use a .twbx file type in place of a .twb(Tableau Workbook) file when you wish to share a workbook with a user who does not have access to the live data connection.

1. **Tableau Data Source (.tds):**

* The Tableau Data Source files are files that contain all the necessary information regarding a data connection made in tableau.
* When we set up a fresh connection to data source we make a lot of modifications in it as per our requirements such as setting data types, aggregations, custom fields etc.
* The .tds file helps in saving information on data connections with custom fields and table joins.
* Tableau file type only saves the information needed to establish a connection with a data source but not the actual data.
* To create a .tds file, go to the data tab on the toolbar, then choose a data source that you wish to connect to and select add to saved data source option.
* After this, save that file as Tableau data source file.

1. **Tableau Packaged data Source (.tdsx):**

* A tableau Packaged Data Source file is a file that contains information of a data source connection along with the data extracted from that source.
* The extracted data is saved as .tde file and the information on data source as .tds file
* The extracted data can be from any local file such as a text file, extract files, Excel files, Access files, etc.
* The extension of a tableau packaged data source file has the extensions as .tdsx.
* The tableau packaged data source files are used when we want to share data and other relevant information about a data source with a user who does not have access to the data source and its data.

1. **Tableau Data Extract (.tde):**

* The tableau data extract files have the extension .tde.
* These tableau files types only contain a local copy of the entire or a subset of a data from its source.
* It is important to note that the .tde files do not contain a file path or information about the data source, workbooks, dashboards etc.
* Tableau data extract files are important and useful as they are highly compressed and optimized to improve tableau’s performance
* You can use .tde files for offline work as well , one noted drawback of such tableau files types is that the data in it cannot be refreshed automatically as and when it refreshes as the source.

1. **Tableau Bookmark (.tbm):**

* Files with extension .tbm are tableau bookmark files.
* These tableau file types are most commonly used to save worksheets and share them with others so they can use it in their workbooks without having to create a new worksheet from scratch.
* To create a .tbm file, go to windows option present on the toolbar.
* From there, select bookmark and then click on create bookmark.
* This will create a .tbm file of the active worksheet.

1. **Tableau Map Source (.tms):**

* A tableau map source file contains information about maps and its elements for use in tableau.
* The extension of such file is .tms.
* As per the default settings, tableau will fetch map details like background and other layers from a certain map server or provider.
* IN Tableau, you have the option to add map details from a WMS server of your choice or a custom map from Mapbox.
* Once you create a map file (.tms) of your preference.

1. **Tableau Preference (.tps):**

* A Tableau Preference file contains all the information related to a customized color palette.
* You can create a custom color palette or a theme and save it as (a.tps) file so that you can use it all over the workbook uniformly at once.
* Tableau Preference files have the extension as.tps and exist in XML format.
* These Tableau Preference files are present in My Tableau Repository.