**1. Basics:**

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

Ans:

| **BASIS FOR COMPARISON** | **DISCRETE DATA** | **CONTINUOUS DATA** |
| --- | --- | --- |
| Meaning | Discrete data is one that has clear spaces between values. | Continuous data is one that falls on a continuous sequence. |
| Nature | Countable | Measurable |
| Values | It can take only distinct or separate values. | It can take any value in some interval. |
| Graphical Representation | Bar Graph | Histogram |
| Tabulation is known as | Ungrouped frequency distribution. | Grouped frequency distribution. |
| Classification | Mutually Inclusive | Mutually Exclusive |
| Function graph | Shows isolated points | Shows connected points |
| Example | Days of the week | Market price of a product |

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

**Ans:** Data having qualitative nature eg. Names, dates, or geographical data goes into the Dimensions Fields which is shown by the blue color and

Data which is having the continuous or numeric nature goes into the Measure fiels which is shown by the green color.

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

Ans:

* 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.
* **Location of Metadata on workbook is on the data source page of a workbook.**
* **The process of selection is -- click the "Manage Metadata" button to the left of the "Sort Fields" drop down. Drag to select all the fields. Right click and select Copy Values.**

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

**Ans:**

**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 sources -- are replaced with totals or summary statistics**.

Disaggregation:

The disaggregation of data helps to view each data source row during analyzing of data both dependently and independently

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:**

Live allows real-time data while extracts are kind of batch which needs to be refreshed from time to time to get the updated data.

So, in the case of live connection whatever changes will be done at the Datasource end that will be directly available to the tableau desktop.

While in case of extracting any changes made in the data source won't reflect in the report immediately. It will be reflected when the extract will be refreshed.

1. 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.  
(Saves the all the sheets and their connection information in a workbook file. The data is not included.)

# 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 sources and background images. This format is the best way to package your work for sharing with others who don’t have access to the data.  
(Saves all the sheets, their connection information and any local resources (e.g., local file data sources, background images, custom geocoding, etc.).

# Data Extract (.tde)

Tableau data extract files have the .tde file extension. Extract files are a local copy of a subset or entire data source that you can use to share data, work offline, and improve database performance.

# Data Source (.tds)

Tableau data source files have the .tds file extension. Data source files are shortcuts for quickly connecting to data sources that you use often. Data source files do not contain the actual data but rather the information necessary to connect to the data source as well as modifications you've made in the Data pane such as default properties, calculated fields, 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 sources such as Extract files (.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.

# Bookmarks (.tbm)

Tableau bookmark files have the .tbm file extension. Bookmarks contain a single worksheet and are an easy way to quicklhttps://www.wisdomaxis.comy share your work.

**2. Text Table, Highlight Tables, Heat Maps, Tree Map:**

1. Create a text table for the Avg (Sales) for each subcategory using Sample Superstore? List which Sub Category is got Avg (Sale) more than $1000? - **Sample Superstore**

**Ans : 1 . Copiers and 2. Machines**

1. Create a Heat Table for the order date and Region against the Sub Category based in Count of Sales with two colours diverging that is distinguished by Sum of Profit - **Sample Superstore**
2. Create a Highlight table for the States for the Order Date Year whose highlighting is done based on Sum of profits - **Sample Superstore**
3. Which customer is having maximum of sales in the year 2012? - **Global Superstore**

**Ans:** Sean Miller.

1. How much is profit share less in Pennsylvania when compared to New York? - **Sample Superstore**

Ans : 89599 K

1. Check for the pane wise percentages of sales with Category, Sub- Category and quarter wise order date, also check for the Row wise grand totals and Column wise grand totals. - **Sample Superstore**

**3. Filled Maps, Symbol Maps:**

1. Use Global Superstore. Check Which Western Country in EMEA region has least profit percentage.
2. Use **“Sample Superstore. Xls”,** which state shares boarders only profit for tables
3. Use **“Sample Superstore. Xls”,** which state has no data for Profits for Office Supplies

Ans: **Wyoming.**

**4. Bar Charts, Stacked, Side by Side:**

1. Which Customer name & Year is having all the Product Categories sum of profit less than over-all Average profit? - **Sample Superstore**
2. What is the Maximum of Life Expectancy Female for the region Africa & year 2012? - **World Indicators**

**Ans:** 78 Years

1. What is the share of the top 20 customers based on the sales amount compared to the customers based on profit amounts - **Sample Superstore**

**5. Line Graphs, Dual Line, dual axis:**

1. How can you show two different graphs in one view? - **Global Superstore**

**Ans :** By using concept of Dual Axis , we can show this.

1. Which Region is having Sum of Energy Usage>1000000 and sum of Population 65+>10? - **World Indicators**

**Ans:** Africa , Asia, Europe, Ocenia and The Americas

**6. Trendlines, Cluster, scatter Plot, boxplot, Word Cloud (Packed Bubbles), Histogram:**

1. Draw a trend line for profit as a linear function of sales only for product technology? - **Sample Superstore**
2. Create a histogram showing the number of Sales using Sales Bins of $1000. Which bins have profit ratios of more than 25%? - **Global Superstore**

**Ans:** Bin (0-1k) has profit ratio more than 25%

1. Using “**Sample Superstore”**, use order sheet create a histogram showing the number of orders using sales bins of $1000.
2. Using **“Global Superstore**”, use the orders sheet, build a scatter plot showing the sum of sales on the x-axis and sum of profits on the y axis for all products (Product name). What is the equation for linear regression for products in Technology?

**Ans:**

From the plot for technology , we can conclude that there is directly proportional relation in the price and sales of the for the product in the Technology category.

So equation will be in the form - y = mx +c

1. Use **“World Indicators”.**  Take Health Exp% GDP, Health Exp/Capita, Life Expectancy Male, Female. What are the variables that are considered to create the clusters by default?
2. **Calculate Fields, Quick table calculations, LOD:**

**(for LOD expression use the link -** [**https://www.tutorialspoint.com/tableau/tableau\_lod\_expressions.htm**](https://www.tutorialspoint.com/tableau/tableau_lod_expressions.htm) **)**

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

**Ans:**

**Step 1: Open the calculation editor.**

1. By going to the Analysis menu >>Create Calculated Field

2. Right click anywhere on the dimension or measure area >>Create >>Calculated field….

3. On the data pane – open the drop down menu on top of the dimension area >>

Create Calculated Field….

**Step 2: Name your calculation and enter your formula in the calculation editor**

formula - SUM(Profit)/SUM(Sales)

1. Global Superstore data set; Region wise year wise sales are ranked. What is the rank of some country when compared to last year?
2. What percent of total profits do the top 10 customers by Sales represent? - **Sample Superstore**

**Ans: (41140/286397)\*100 =14.36%**

1. Find the customer with the lowest overall profit. What is his/her profit ratio? - **Sample Superstore**

**Ans: Cindy stewart is the customer who has the highes loss instead profit .**

**His loss is : (6625/286397)\*100= 2.31 %**

1. Ranking States based on Sales what is the rank of state which has sales crossed $20000. - **Sample Superstore**

Ans : Rank of that state is 25th and Name of state is Missori.

1. What is the percent of orders which took more than 7 days on an average to deliver.
2. Use **“World Indicators”.** Without using table calculations what is the proper syntax to build a calculated field which will display overall total GDP on this view?

**Ans : syntax for calculating the total GDP using the calculated field function is**

**=Sum([GDP])**

**8. Filters:**

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

**Ans:** Below are different filters with there working order.

* Extract filter
* Data sourse filter
* Context filter
* Dimensional filter
* Measuere filter
* Table level filter

1. Create a list of Top 10 Products based on Profits whose sale value is more than $5000? - **Global Superstore**
2. Create a Chart with Customer Name and Profit and check for the Sale Value for top 15 Customers? - **Global Superstore**
3. Apply filter to all the worksheet, filter by year 2011, then find the sum(sales) for the highest subcategory.- **Global Superstore**
4. What is the name of 375th top most customer by sum of profits - **Sample Superstore**

Ans : Patrick Ryan.

**9. Dashboards & story:**

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

**Ans:** There are four general Device Types

a. Desktop

b. Tablet

c. Phone

d. Default

1. Create a dashboard using World Indicators showing the all the Actions that can be performed in Tableau.

**10. Time Series:**

1. Use Order date and drill down the information for Quarter and Month level separately and show the line Chart in a Continuous Form- **Global Superstore**

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

1. Parameters can be used in?

**Ans:**

There are **four standard use cases** for parameters.

They are filters, bins, reference lines and calculated fields.

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

**Ans: 1. Go menu bar and select analysis tab and then select the parmeter**

**2 . In measure pane , Right click and select create parameter.**

**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 will draw a line graph of sales vs. year . Again by drill down ,we go upto quarter level .

Then select the analytics tab , from there we select the forecast option and we will get forecast for next 13 month . Then selection the line of the plot we will set the year parameter =4 so that we can achive the forecast upto the 4 years.

1. Use **“Sample Superstore”.** What is the Sales Forecast Estimate for the month of September 2018?

Ans: Sales forecast for month September 2018 is **101871.**

**13. Pie Chart:**

1. Create a Pie Chart using regions and sum of sales, sort the pie in ascending order, increase the size in the view and label them with Count of Quantity and Sum of Profits- **Sample superstore**