Data joining is a common requirement in any data analysis. You may need to join data from different tables in a single source or join data from multiple sources.

Tableau provides the feature to join the tables by using the data pane that is available in the Data menu.

A join means combining columns from one or more tables in a relational database. It also creates a set that can be saved as a table, or it can be used as it is.

Joins are specifies into five types:

A join section is used to combine rows from two or more tables, based on a related column between them.

- 1. Cross Join: Cross join produces rows which combine each row from the first table with each row from the second table.
- 2. Inner Join: An inner join returns the matching rows from the tables that are being joined.
- 3. Natural Join: Natural join is not used any comparison operator. It does not concatenate the way.
- 4. Outer Join: An outer join is an extended form of the inner join.
- 5. Self-Join: The self-join is used to join a table with itself. It means that each row of the table is combined with itself as well as with every other row of the table.

Step 1: Prepare the Worksheets Before creating a dashboard, you need to prepare the individual worksheets (visualizations) that you want to include. Ensure that each worksheet has the necessary fields and filters to display the desired information.

Step 2: Create a New Dashboard To create a new dashboard, click on the "New Dashboard" button located in the bottom left corner of the Tableau interface. Alternatively, you can go to the "Dashboard" menu and select "New Dashboard."

Step 3: Arrange the Layout In the dashboard layout, you can add various objects such as sheets, text boxes, images, and filters. Use the layout containers and objects to organize and arrange your visualizations.

Step 4: Customize the Dashboard Customize the dashboard by adjusting the size, position, and formatting of the elements. You can resize containers, change fonts, add titles, and adjust the overall appearance of the dashboard.

Step 5: Add Interactivity (Optional) You can enhance your dashboard by adding interactivity through actions and filters. Actions allow users to interact with one visualization and affect the others, while filters help users focus on specific subsets of data.

Step 6: Save and Share the Dashboard Once you have completed designing your dashboard, save it by clicking on the "Save" button in Tableau. You can then share the dashboard as a Tableau workbook or publish it to Tableau Server or Tableau Public for wider accessibility.