## Data Joining:

-> Data joining is a very common requirement in any data analysis. You may need to join data from multiple sources or join data from different tables in a single source. Tableau provides the feature to join the table by using the data pane available under Edit Data Source in the Data menu.

### Basically Tableau provides 4 type of joins:

1. Inner join
2. Left
3. Right
4. Full outer join

## Tableau files & Servers:

-> Tableau can be connected to different type of files MS Excel, text File,Json file, pdf file etc.

Tableau can connect to your data server too.

-> Tableau can be connected to SQL Server,  Mysql Server, Oracle Server, Amazon Redshift server and then select the database, table, and columns to work with.

Tableau supports 2 types of connectivity options -

Live

Extract

**Difference between Live & Extract is :**

**-> In live we work with the dataset that is resided remotely and the data size is too big to copy into the local system.**

**-> But in case of extract we copy the dataset into our local system and work easily on that particular dataset using function or we can also do modelling on that particular dataset.**

## Live Connection:

**-> There is a direct connection with the Data present in the data source.**

**-> Advantage: We will always get the latest data into the workbook automatically; while we are interacting with the workbook, or every time we reload the Dashboard.**

**-> Disadvantage: Performance might be slow, as there is going to be network dependency and the performance of the data source will determine the performance of Tableau.**

## Extract Connection:

-> This is where we can fetch a copy of the data from the data source and save it locally (either on the local machine or a shared folder in a drive) and access the data from there.

-> Advantage: We get offline access to the data, and as we would be accessing the data from our own machine or folder on the Internet, the performance will be better than Live connection.

-> Disadvantage: No “Live” data. As we would be working with the data that has been extracted in the past, we may miss out on the latest updates to the data.

**Difference between Tableau Public & Tableau Desktop**

-> Tableau Public is a free version of the Tableau Desktop tool with a few limitations.

-> It has very limited Data Connectivity options.

-> By using Tableau Desktop we can connect to hundreds of data sources including Big Data connections like Hadoop.

-> It is not possible to save the workbooks created on Tableau Public locally on our system. A local save option is not available.

-> It can only be saved to the Tableau Public Server/Gallery, which is an open forum, from where any other person who has access to the Tableau Public Server can access the workbook and download it as well.

-> Tableau Public does not support the "Live" connection to any data source. All the data sources used in Tableau Public are "Extract" connections by default.

-> Meaning, when you connect to data from Tableau Public, the data is extracted and saved or packaged internally in the workbook itself.