Deep-dive into Tableau Part 1

Contents

Steps involved for creation of Tableau Report

There are three basic steps involved in creating any Tableau data analysis report.

Connect to a data source

Choose dimensions and measures

Apply visualization technique

Step 1 : Connect to a data source

Tableau can connect to all the popular data sources which are widely used. Some examples include:

- File Systems such as CSV, Excel, etc.
- Relational Systems such as Oracle, Sql Server, DB2, etc.
- Cloud Systems such as Windows Azure, Google BigQuery, etc.
- Other Sources using ODBC

Connect

Search for Data

Tableau Server

To a File

Microsoft Excel
Text file
JSON file
Microsoft Access
PDF file
Spatial file
Statistical file
More...

To a Server

MySQL
Oracle
Amazon Redshift
Microsoft SQL Server
More...

Saved Data Sources

Sample - Superstore
World Indicators

Open

Open a Workbook


Superstore


Sample Dashboard - F...

Sample Dashboard - S...


Test

Advanced Spatial Files...


Hexbin Map Starter


Hexbin Map Starter

Oregon_Starter


Context Filters and Da...


Sheet Swapping and C...

Student Survey Starter

Annual Cohort Purcha...

Slope Chart Starter

Bump_Chart_Starter

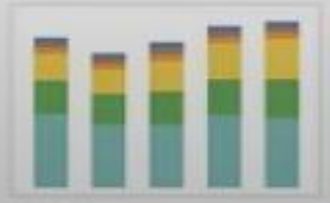
Control Chart Starter

Sample Workbooks

More Samples


Superstore


Regional


World Indicators

Search

Sort by Name (a-z)

Installed Connectors (76)

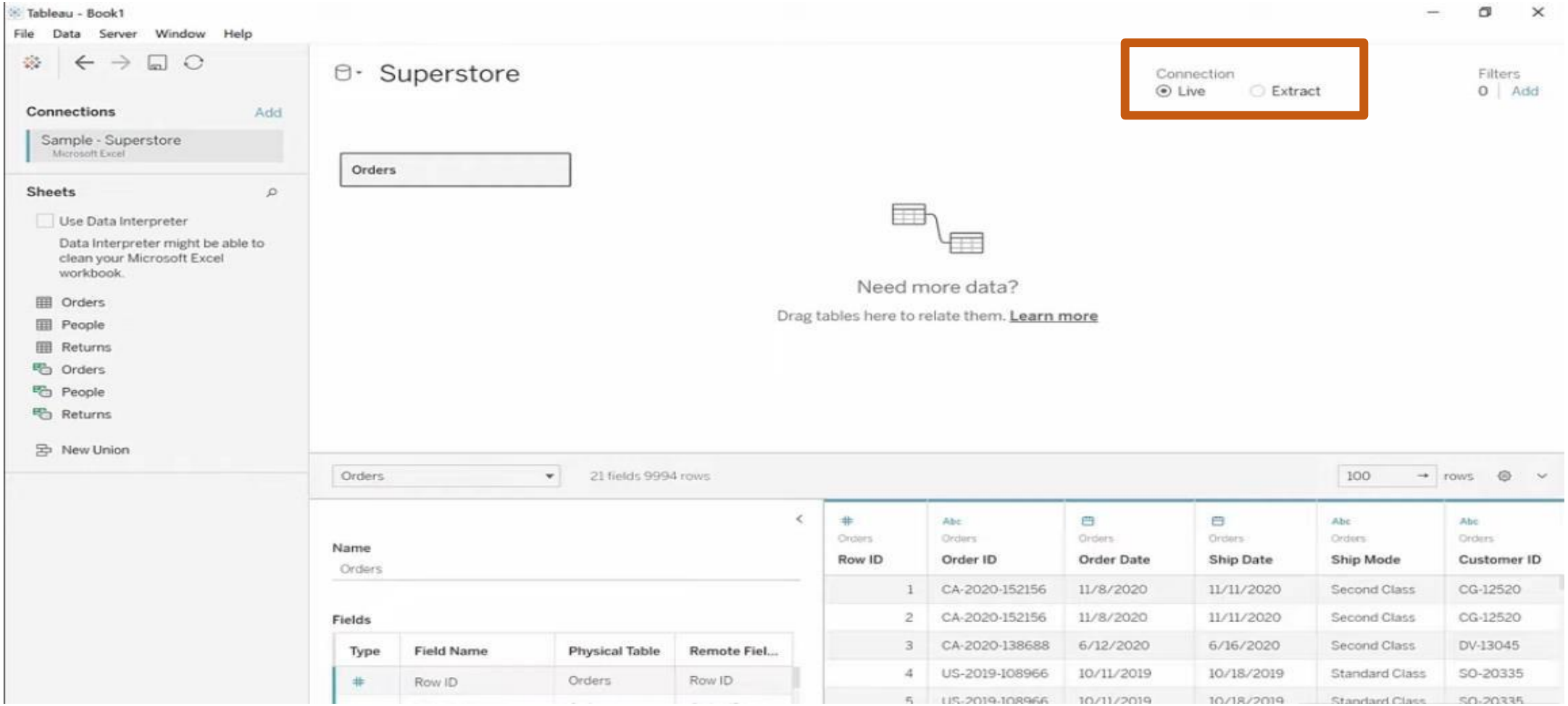
Actian Matrix
Actian Vector
Alibaba AnalyticDB for MySQL
Alibaba Data Lake Analytics
Alibaba MaxCompute
Amazon Athena
Amazon Aurora for MySQL
Amazon EMR Hadoop Hive
Amazon Redshift
Anaplan
Apache Drill
Aster Database
Azure Data Lake Storage Gen2
Azure SQL Database
Azure Synapse Analytics
Box
Cloudera Hadoop
Databricks
Datorama
Denodo
Dremio
Dropbox
Esri ArcGIS Server
Exasol
Firebird 3
Google Ads
Google Analytics
Google BigQuery
Google Cloud SQL
Google Drive
Google Sheets
Hortonworks Hadoop Hive
IBM BigInsights
IBM DB2
IBM PDA (Netezza)
Impala
Intuit QuickBooks Online
Kognitio
Kyvos
LinkedIn Sales Navigator
MapR Hadoop Hive
MariaDB
Marketo
MarkLogic
Microsoft Analysis Services
Microsoft PowerPivot
Microsoft SQL Server
MonetDB
MongoDB BI Connector
MySQL
OData
OneDrive
Oracle
Oracle Eloqua
Oracle Essbase
Pivotal Greenplum Database
PostgreSQL
Presto
Progress OpenEdge
Qubole Presto
Salesforce
SAP HANA
SAP NetWeaver Business Warehouse
SAP Sybase ASE
SAP Sybase IQ
ServiceNow ITSM
SharePoint Lists
SingleStore
Snowflake
Spark SQL
Splunk
Teradata
Teradata OLAP Connector
TIBCO Data Virtualization
Vertica
Web Data Connector

Other Databases (JDBC)
Other Databases (ODBC)

Additional Connectors (14)

Actian ODBC by Actian
Elasticsearch by Elastic
Incorta Connector by Incorta
Kyligence Connector by Kyligence
MarkLogic by MarkLogic
Ocient JDBC by Ocient
Oracle NetSuite by Tableau
Qubole Hive by Qubole
Salesforce CDP by Salesforce
SAP SuccessFactors by Tableau
SQream DB by SQream Technologies
Starburst Enterprise by Starburst
Stratio Crossdata by Stratio BD
Yellowbrick by Yellowbrick Data

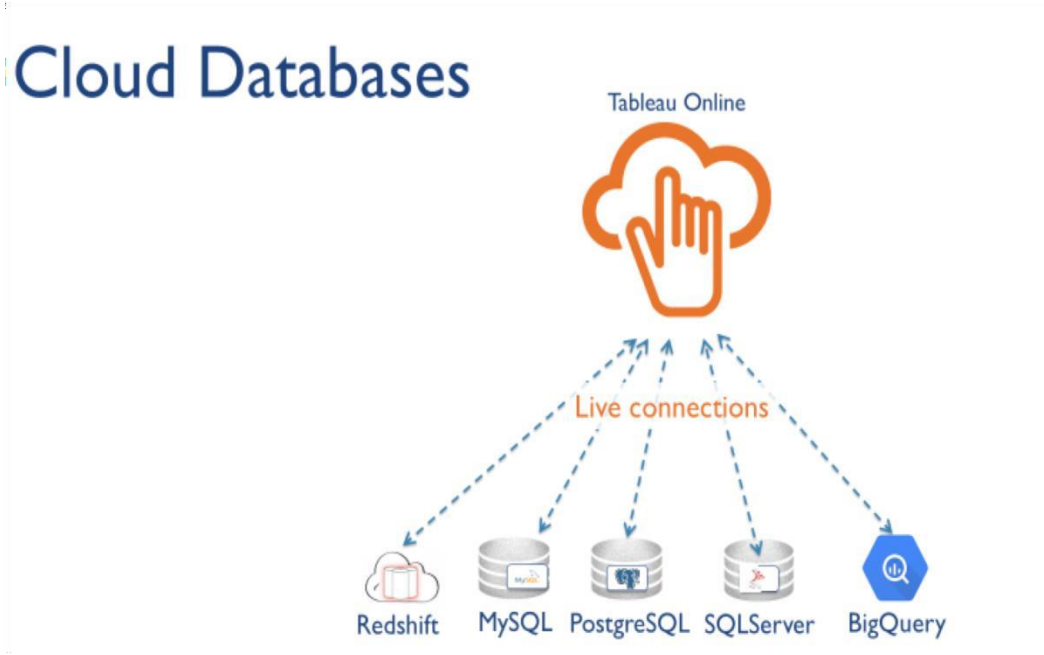
Connection to Excel file

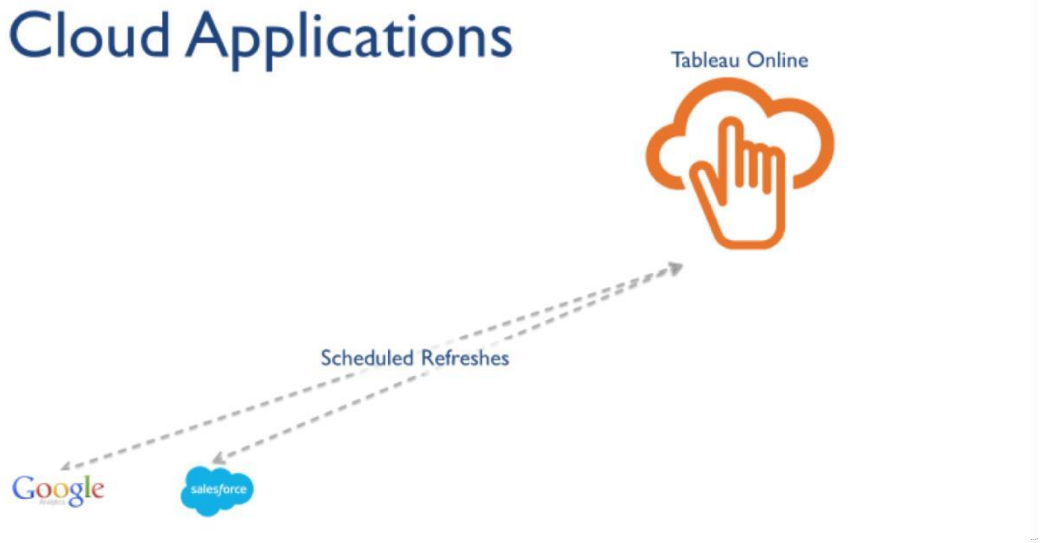


Live vs. Extract connection

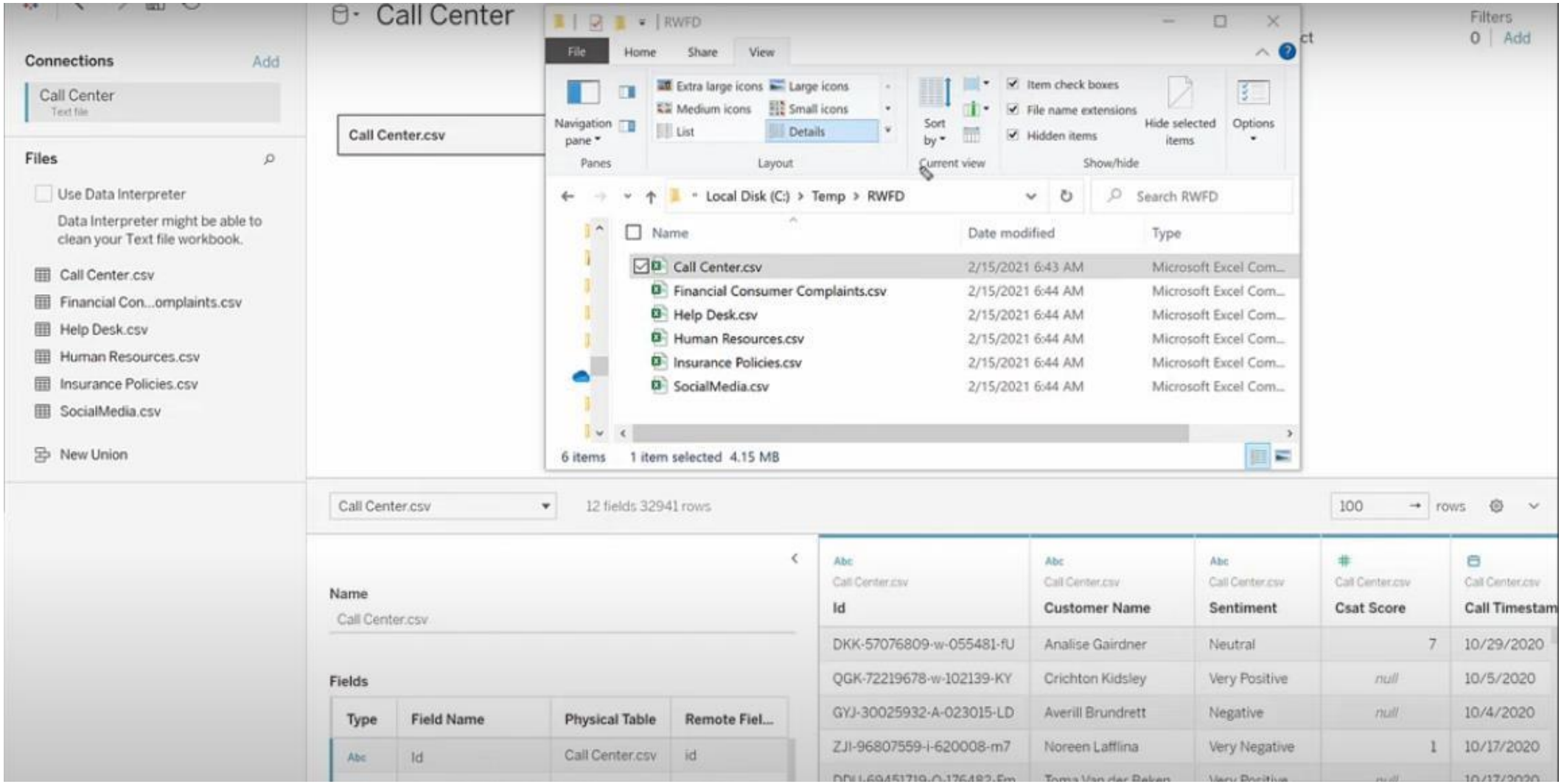
Live
- Allows real time data
- Not preferable for bulky data
- Slower than Extract due to live updating of data
- Rely on database queries
- E.g. Newly coming patient data at hospital

Extract
- Batched data need to be updated time to time
- Preferred for bulky data
- Much faster than Live
- Not always depend on database queries
- E.g. daily or weekly trends of patient data at hospital

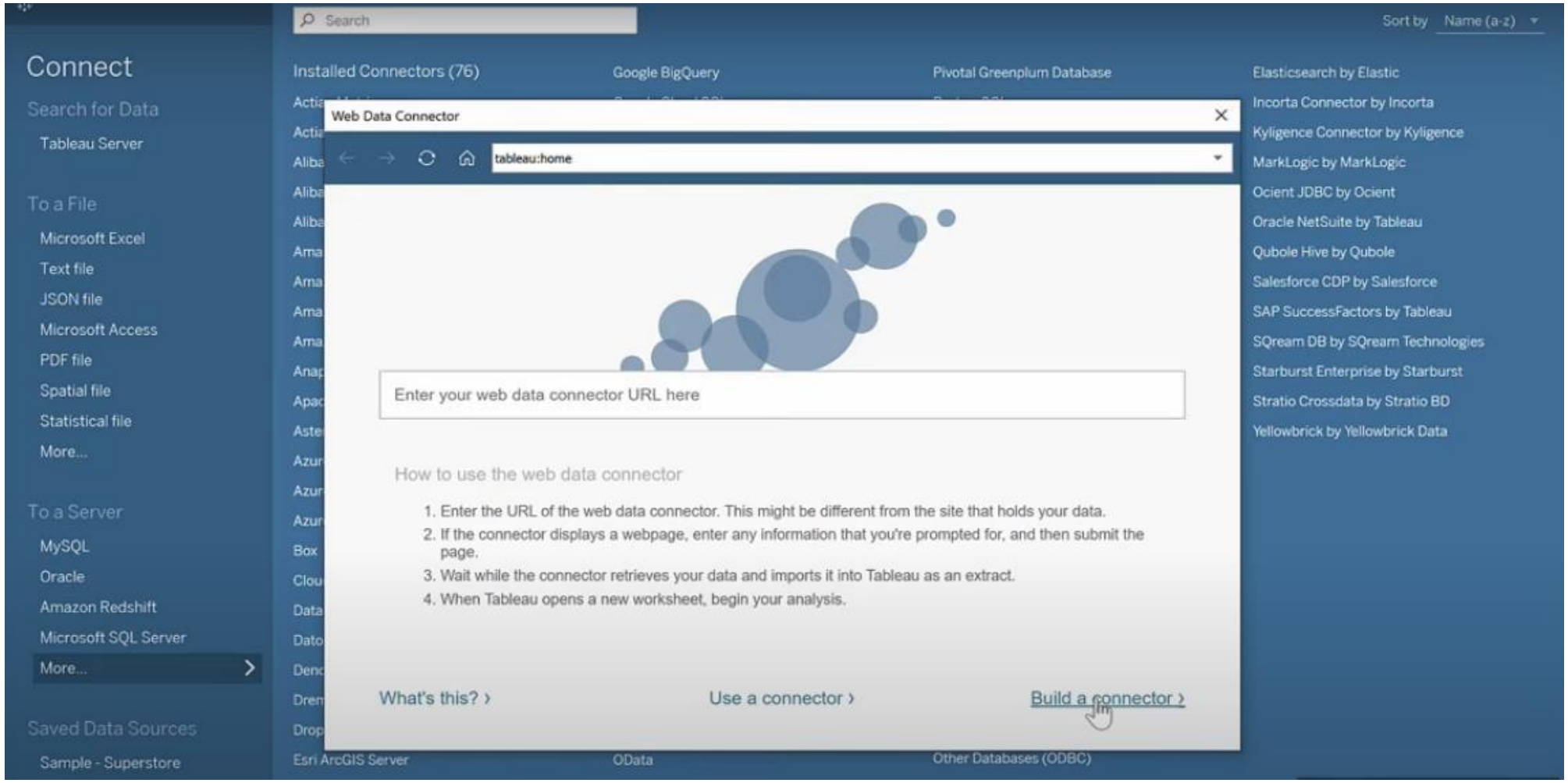




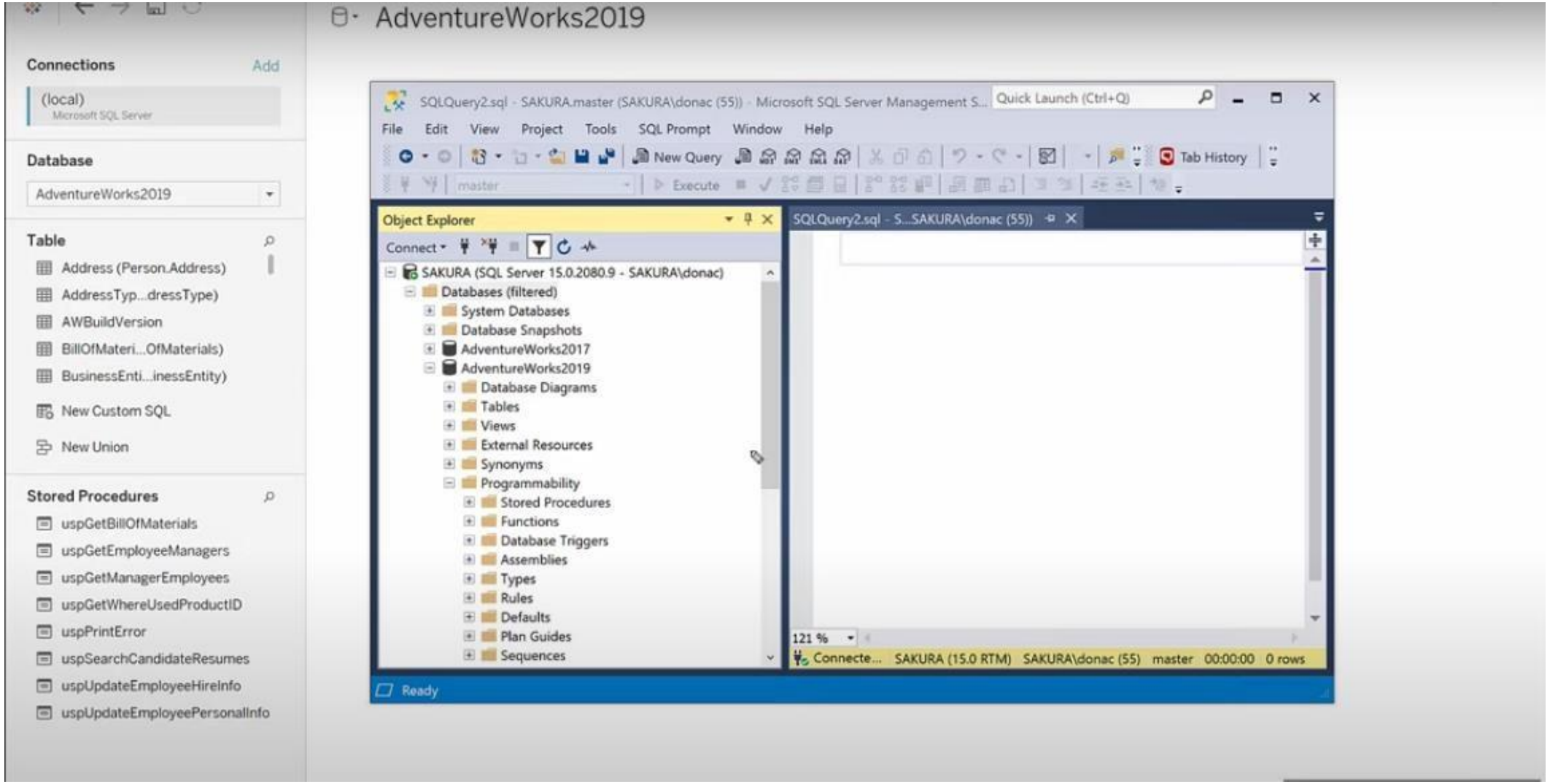
Connection to CSV file



Connection to Web Data Connector



Connection to SQL

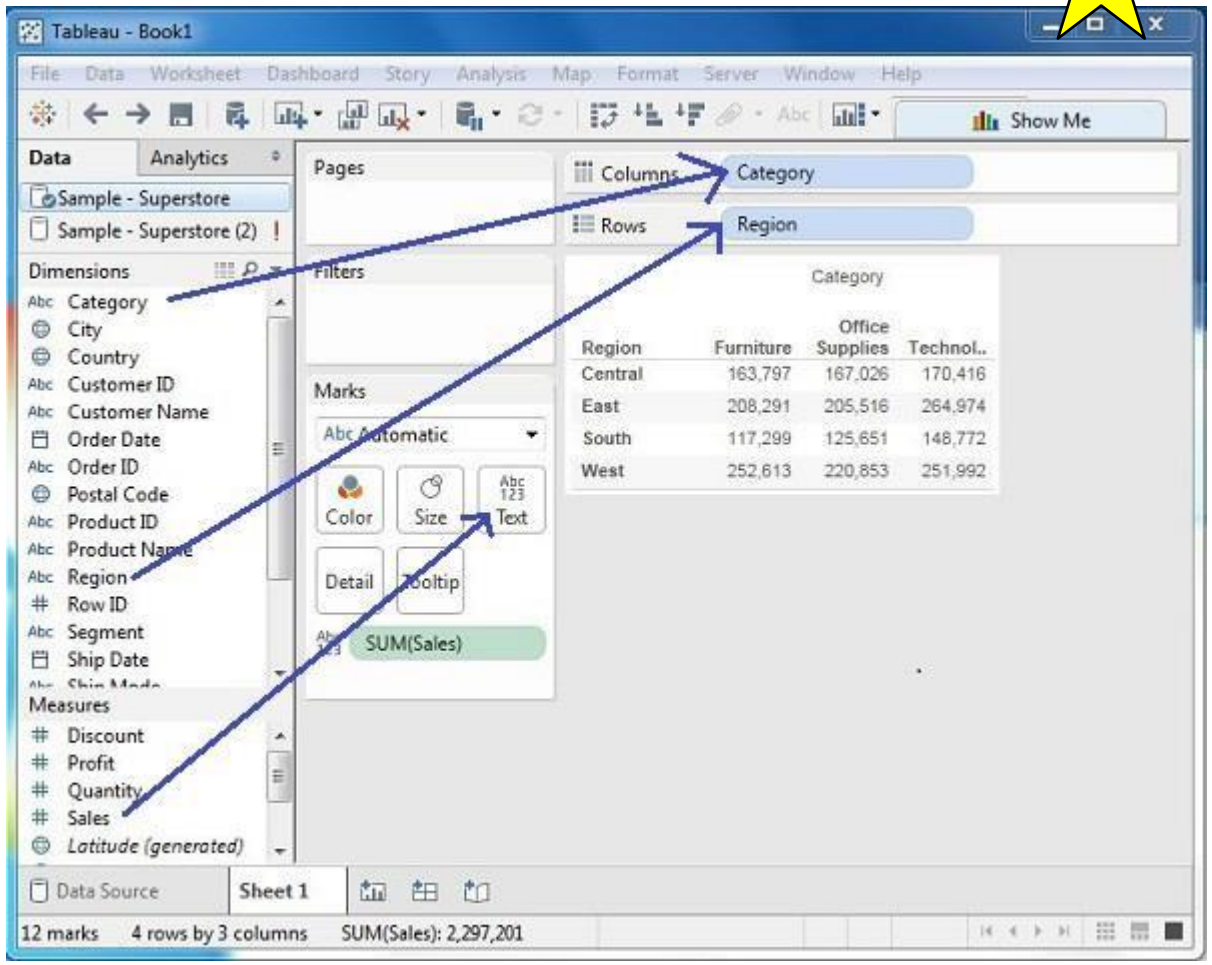


Step 2 : Choose Dimensions and Measures

- When data gets imported for the first time, Tableau automatically classifies fields into dimension and measure.

- We can change the default classification done by Tableau with simple drag and drop operations

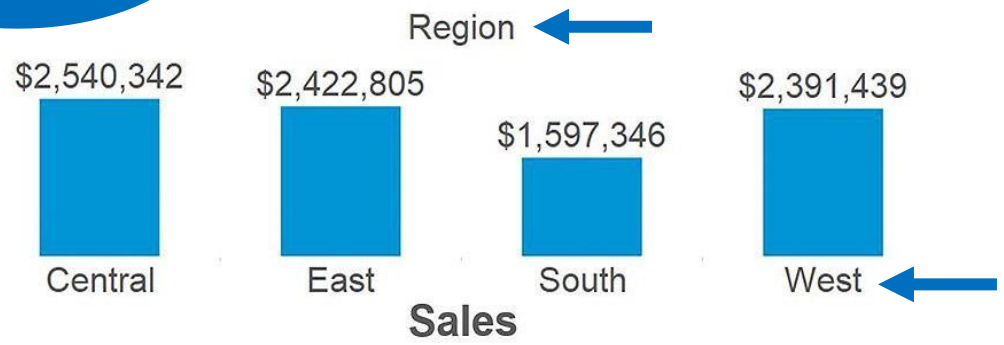
- What are dimensions and measures ?



Dimensions & Measures

- **Dimensions** are fields that can be considered as independent variable
- Usually fields that cannot be aggregated and are used for row or column headings
- Example: Regions

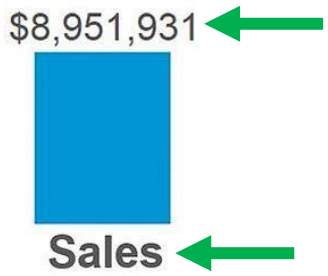
Qualitative



In Tableau, Dimensions (marked in **BLUE**) are the categories of things in your data that you want to compare

- **Measures** are dependent variable i.e., their values are functions of one or more dimensions
- Usually fields that can be measured, aggregated, or used for mathematical operations
- Examples: Sales

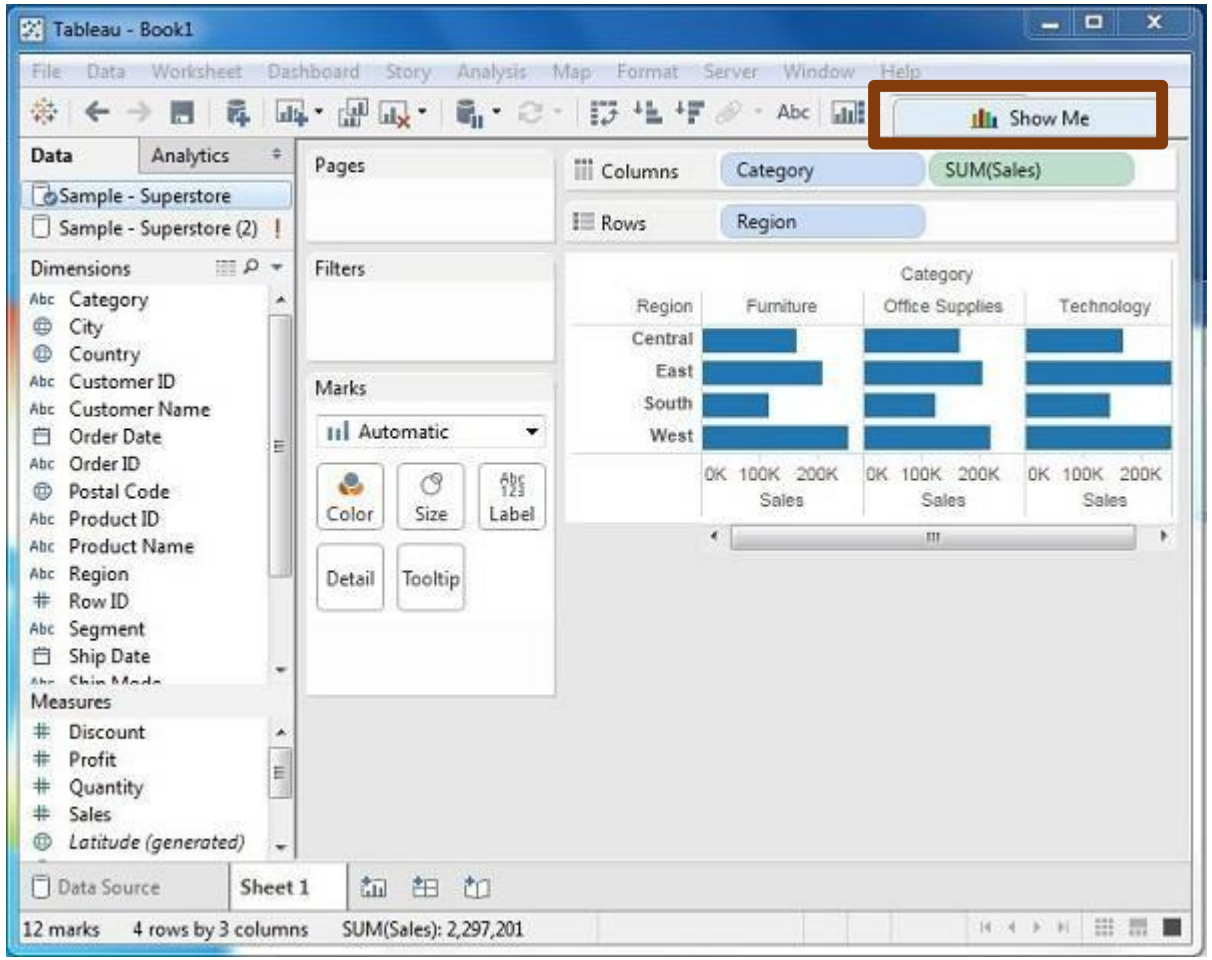
Quantitative



In Tableau, Measures (marked in **GREEN**) are the different metrics you want to use to compare those things

Step 3 : Apply Visualization Technique

There are different forms of graphs, charts ,maps and other visualization techniques available as per selected dimension and measure



Thank you