Data Exploration using Tableau

A Comprehensive Guide to Data Analysis and Visualization

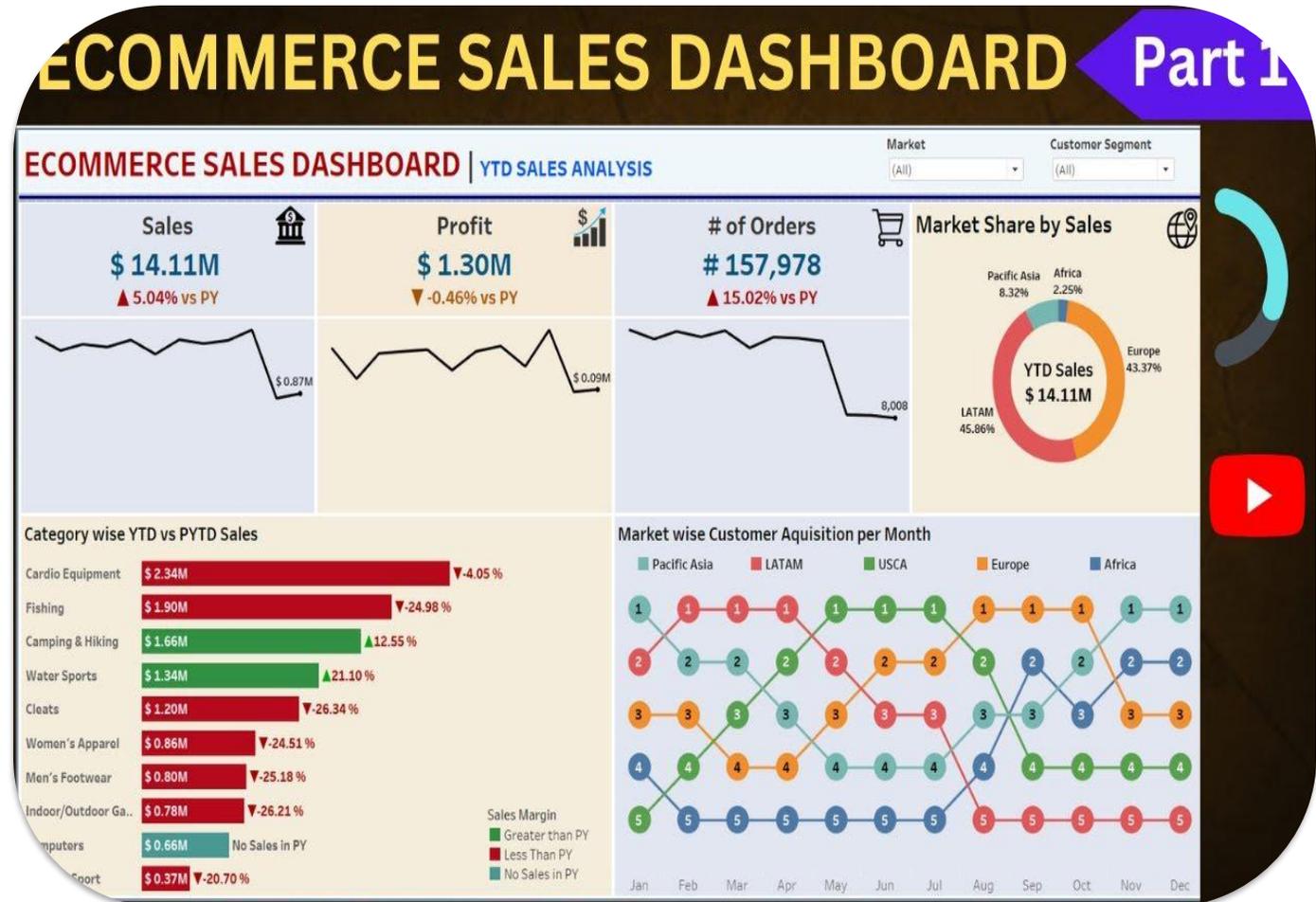# What is Data Exploration?

- Process of analyzing and visualizing data

- Identifying patterns, trends, and insights

- Understanding data characteristics

EDA Workflow Process

| Data Collection |
| Import Libs |
| Load Dataset |
| Initial Overview |
| Data Cleaning |
| Data Transform |
| Univariate |
| Bivariate |
| Multivariate |
| Insights |
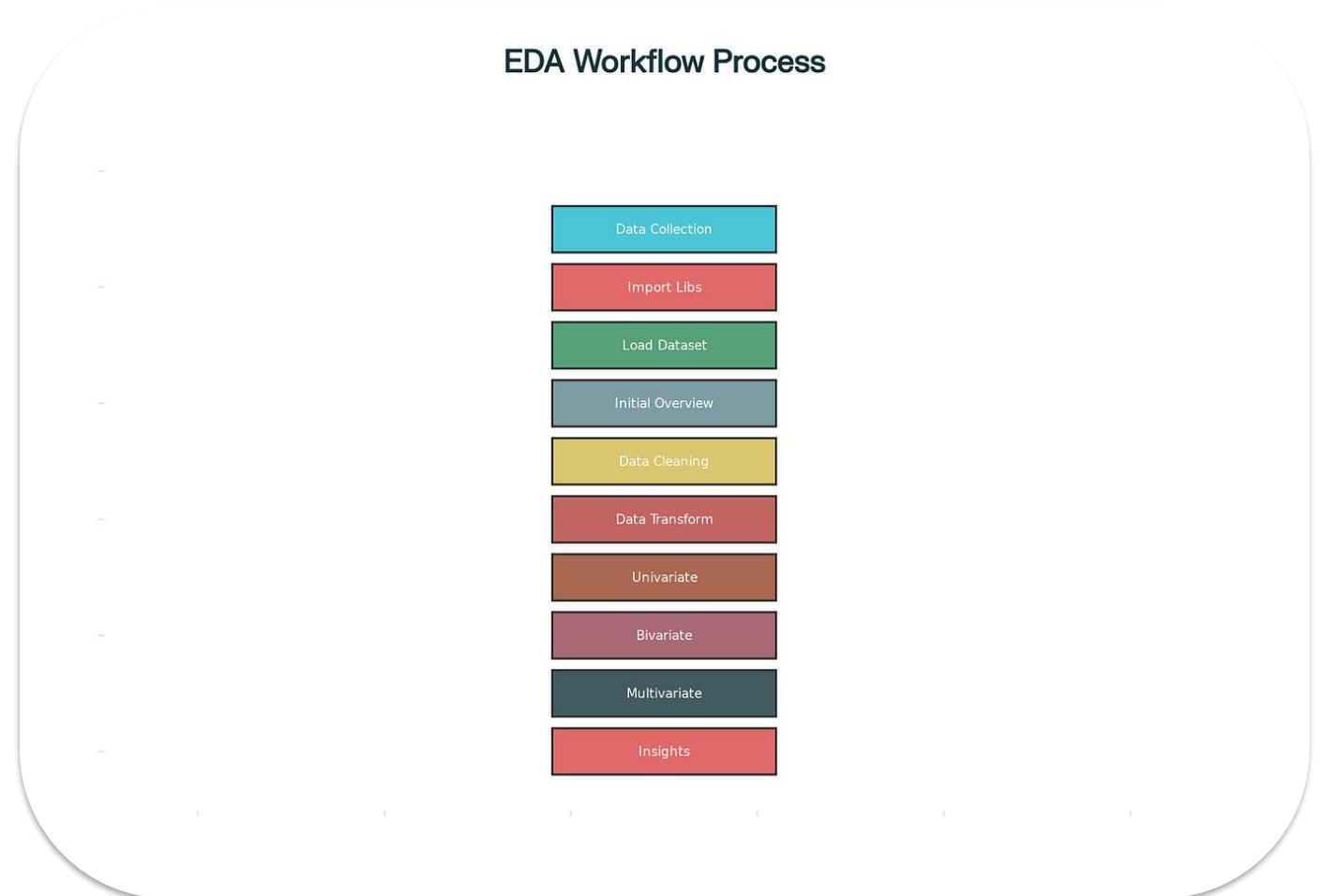
- Powerful data visualization tool

- Drag-and-drop interface

- Interactive dashboards

- Supports multiple data sources

Tableau Workspace

- Data pane - shows fields

- Sheets area - for building views

- Cards - marks, columns, rows

- Shelves - for placing fields

Data Connection

- Excel, CSV, text files

- SQL databases

- Cloud data sources

- Web data connectors

Dimensions vs Measures

- Dimensions (Blue) - categorical data

- Measures (Green) - numerical values

- Data types: string, date, number, boolean
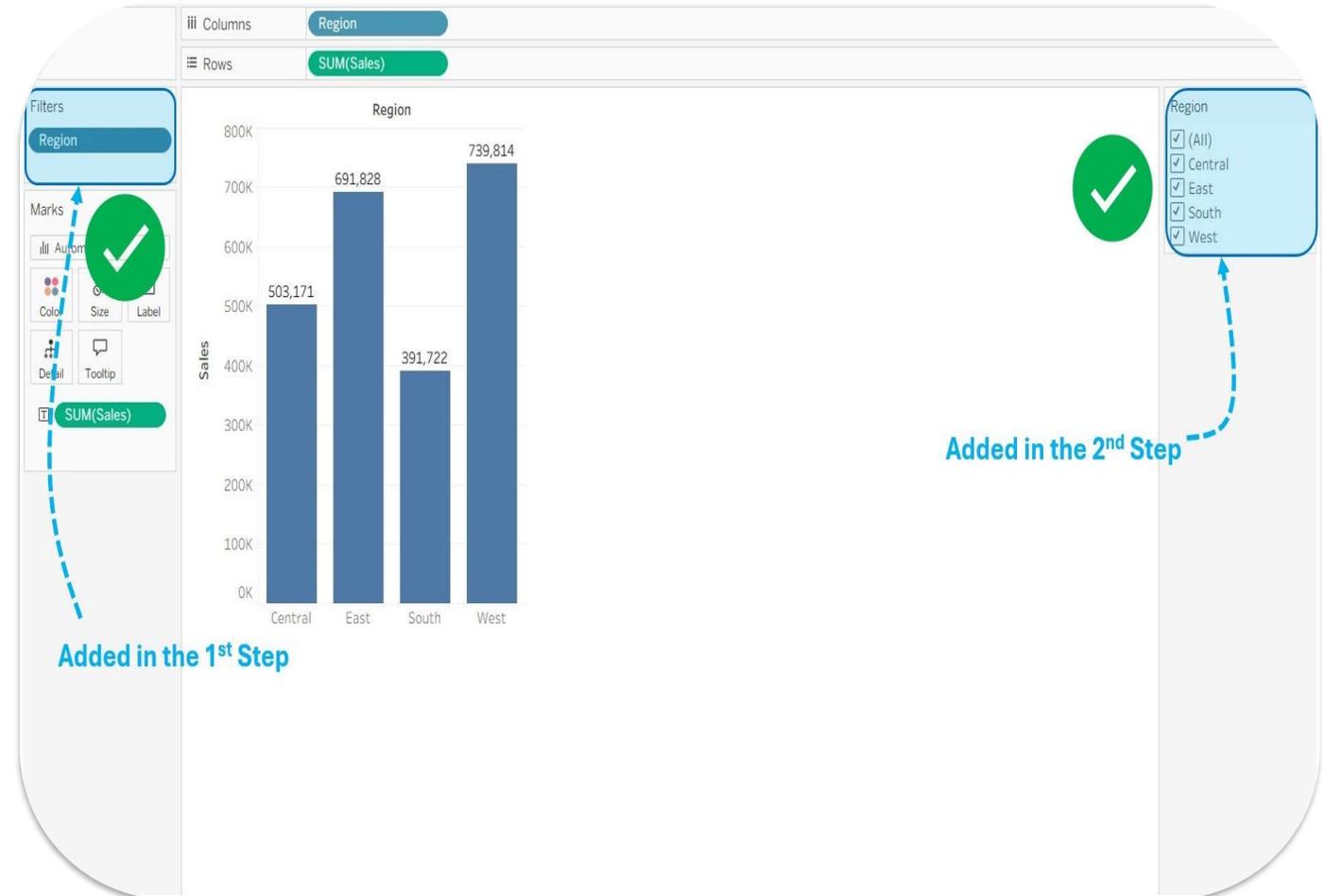
- Conversion possibilities
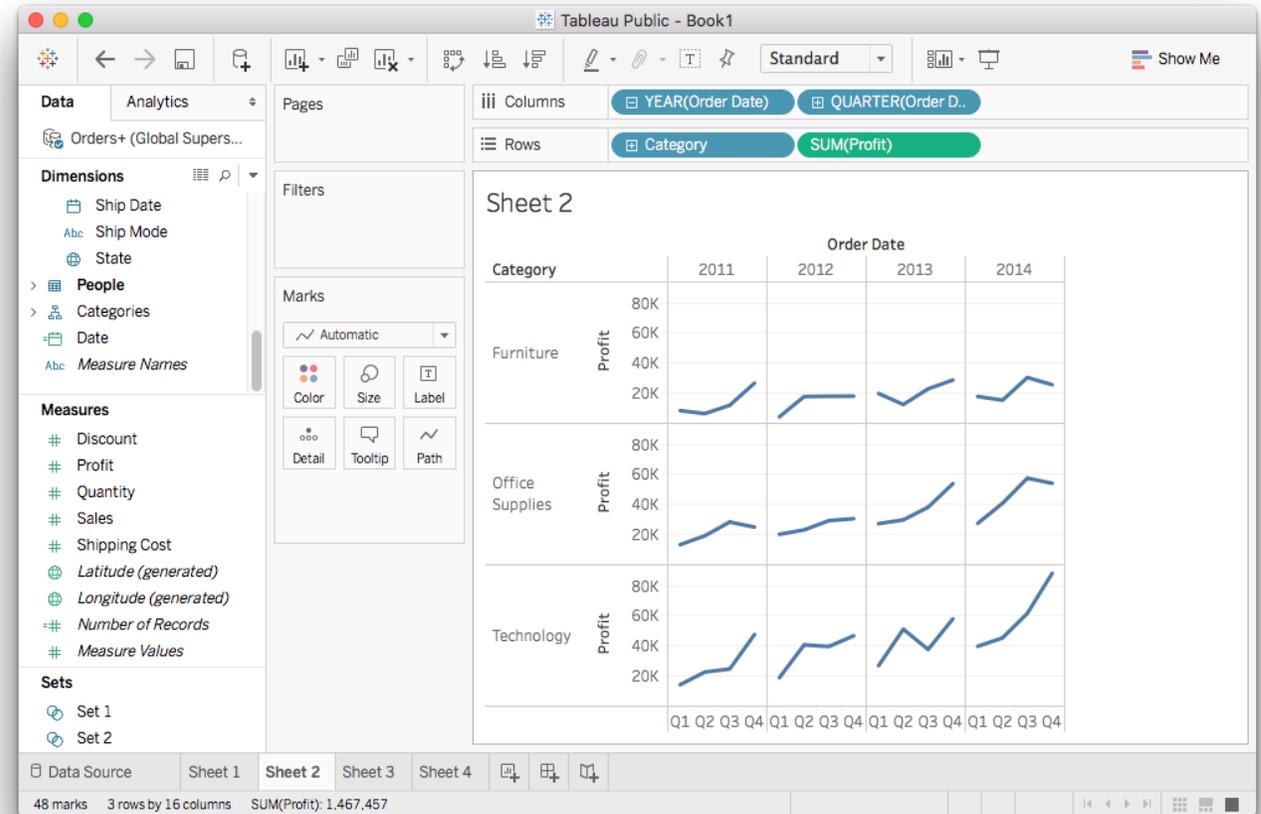
- Drag fields to shelves

- Select chart types

- Customize marks

- Add filters and calculations
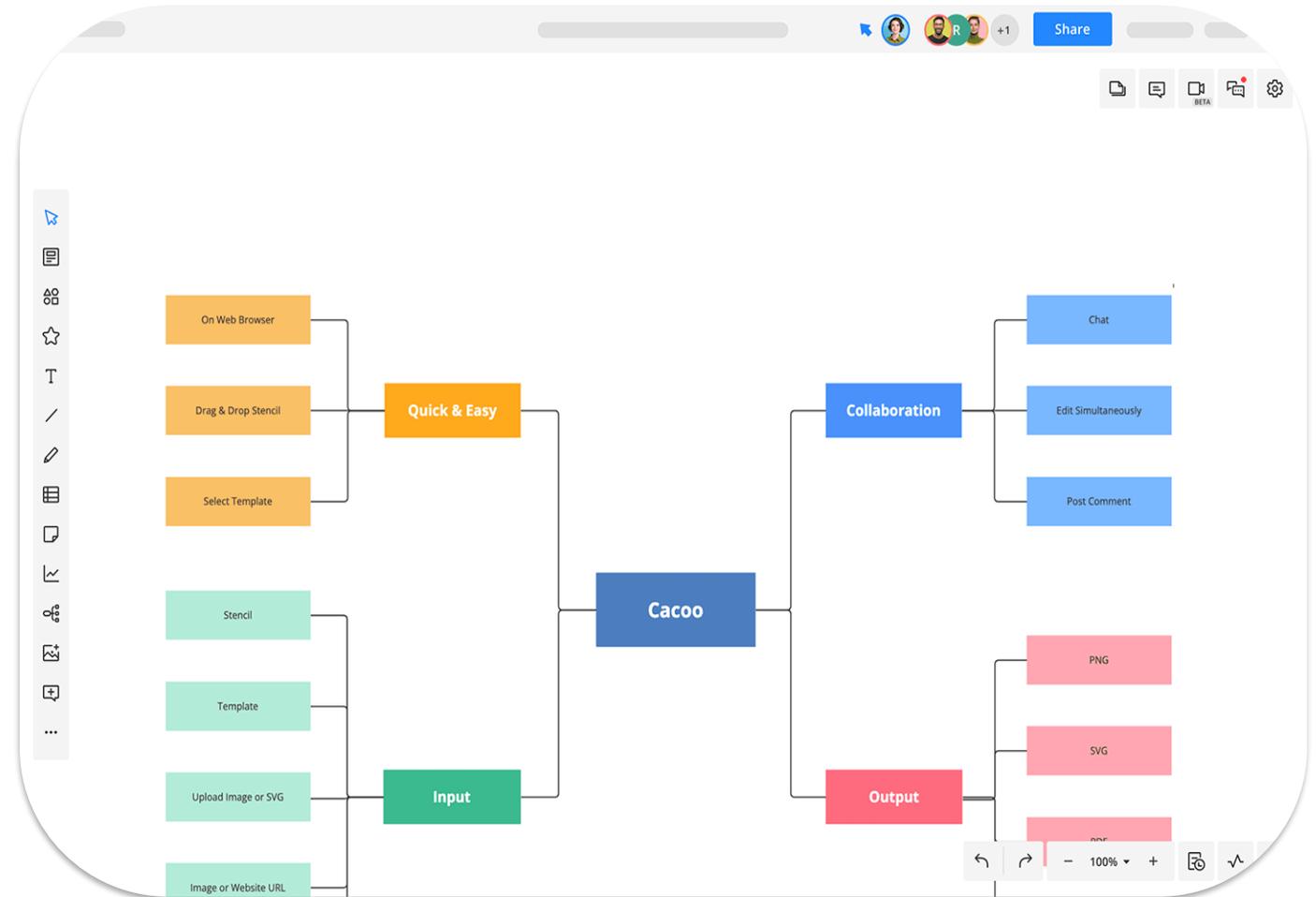
Interactive Analysis

- Apply filters

- Create hierarchies

- Use parameters

- Build interactive dashboards

Data Exploration with Tableau

- Data Sources

- Data Preparation

- Visualization

- Analysis

- Insights

- Dashboards

- Data exploration reveals hidden patterns

- Tableau simplifies data visualization

- Drag-and-drop for easy chart creation

- Interactive dashboards enhance understanding

- Multiple data source support