

EDA is an approach to analyzing datasets to summarize their main characteristics, often using visual methods. It helps in understanding the structure of data, spotting anomalies, testing hypotheses, and building intuition.

Tableau superstore dataset is considered for this assessment. It is the widely used dataset. It is accessible within Tableau Desktop installations and it is available in tableau online resources. The link for the dataset. The dataset consists three tabs such as Orders, Returns and People

Problem statement

The management of Superstore needs actionable insights into product profitability, customer behaviour, discount impact, regional performance and operational efficiency for optimizing business strategies, enhancing customer satisfaction, maximizing profit etc. These insights enables Superstore to make data driven decisions.

Data Source

Data Variables

<https://public.tableau.com/app/learn/sample-data>

In Orders table, Row ID is the unique identifier for each row. Order id represents the unque identifier for each order. Order date indicates the date an order was placed. It is useful for time – series analysis. Customer ID is the unique identifier for each customer

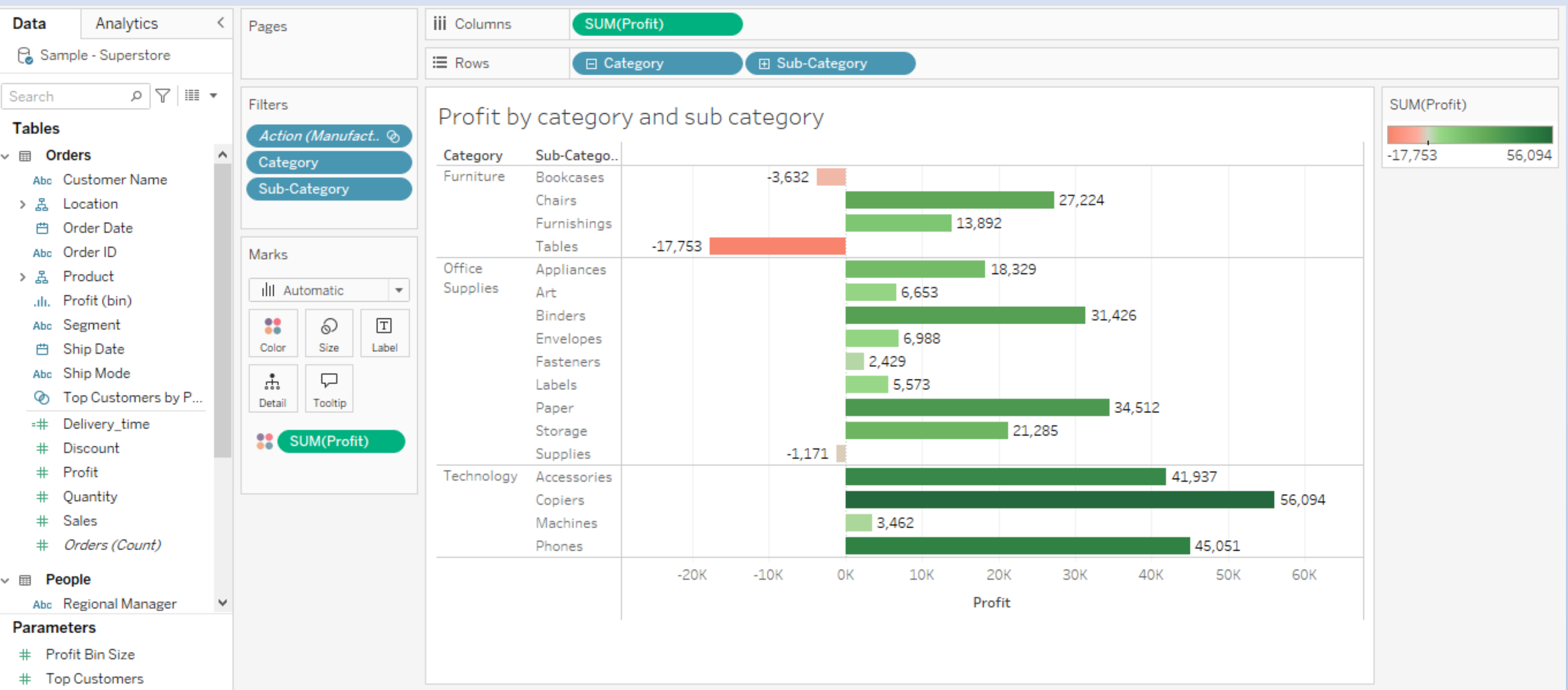


Fig1: Profit by category and sub category

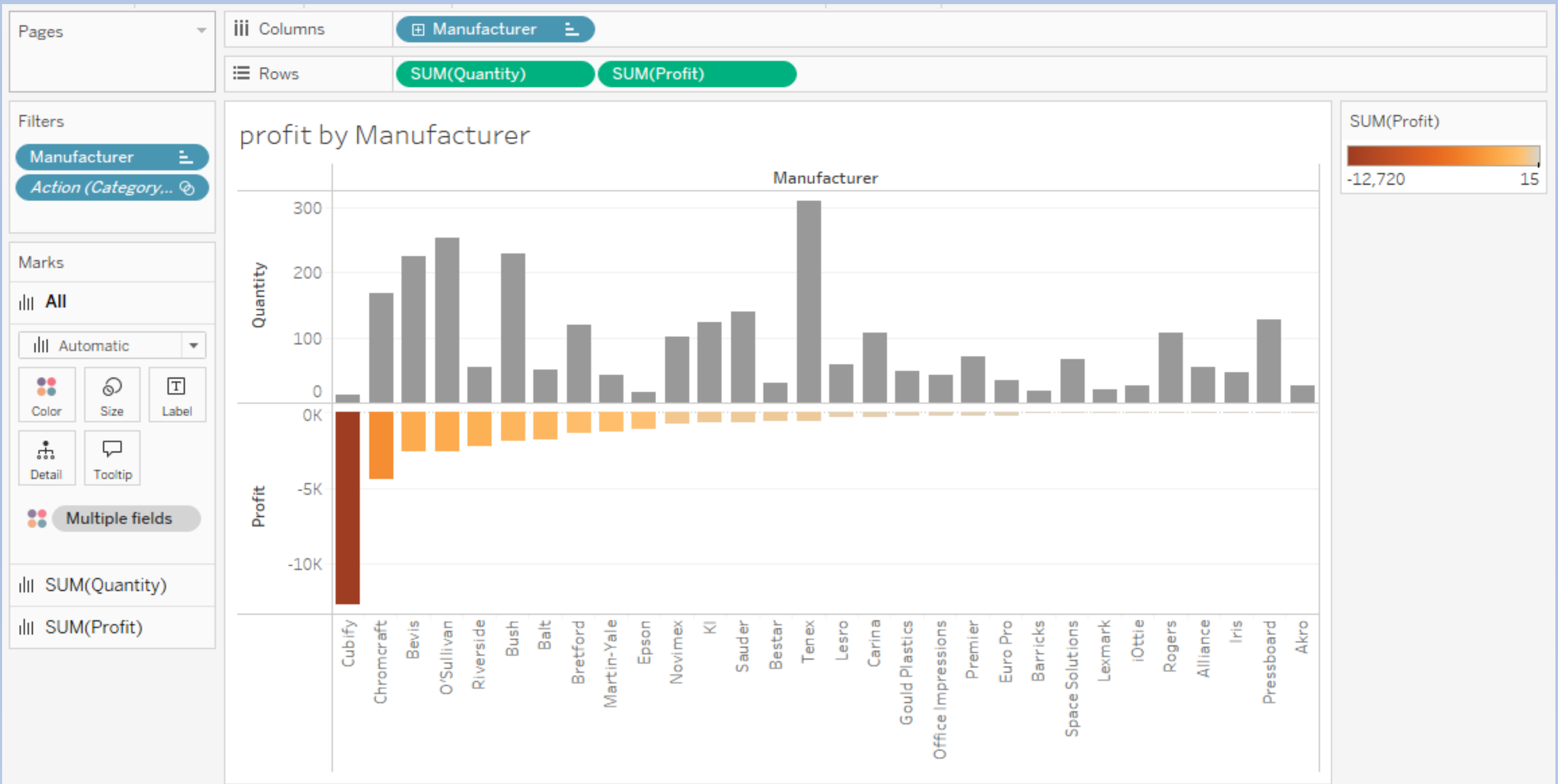


Fig2: Profit by Manufacturer

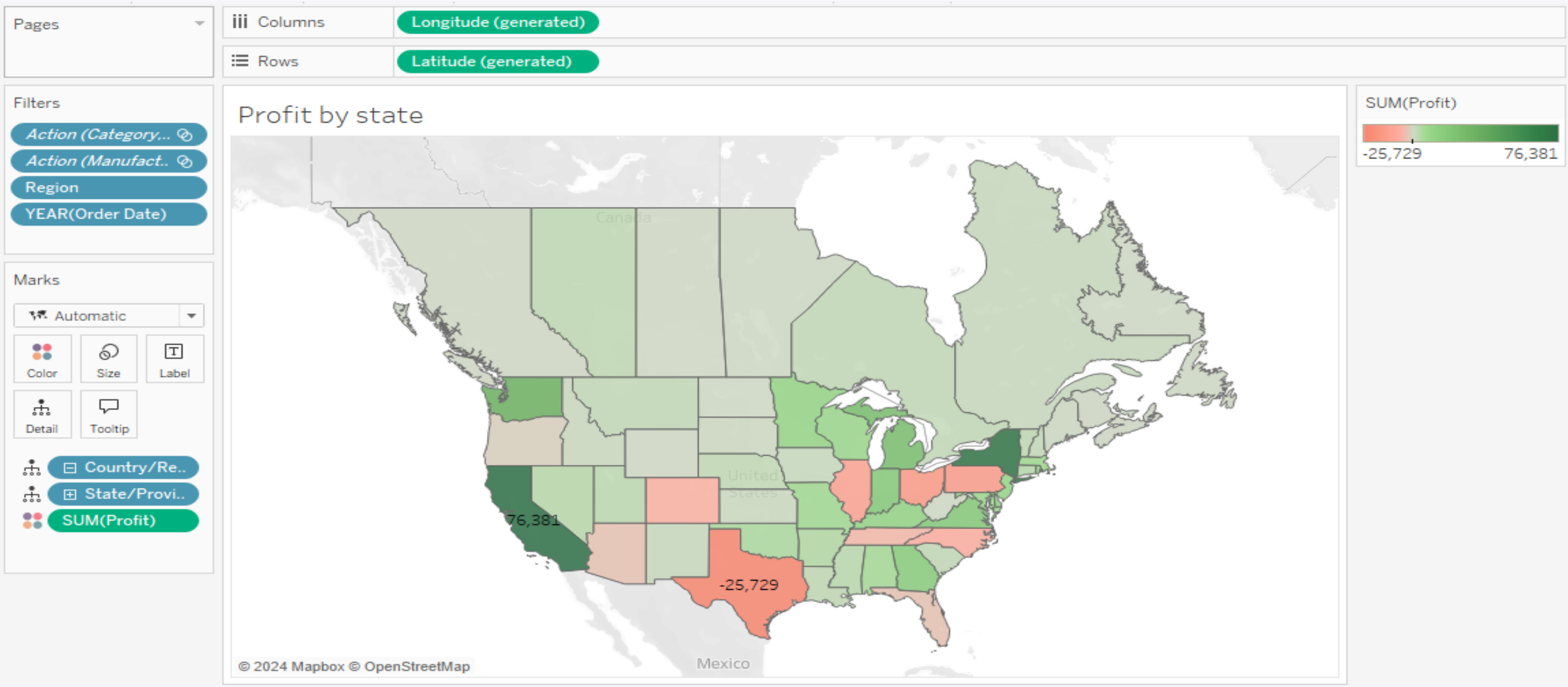


Fig3: state view of the data

Map is used to display profit by state. By dragging state and profit into the visualisation canvas, Tableau will display the data in the Map. Profit has to be dropped into the “color” option of “Marks” card.

The target audiences for this dashboard are senior management and regional sales managers. This dashboard provides visual representation of profit across different state that enables the business to monitor where the business is most as well as least profitable geographically.

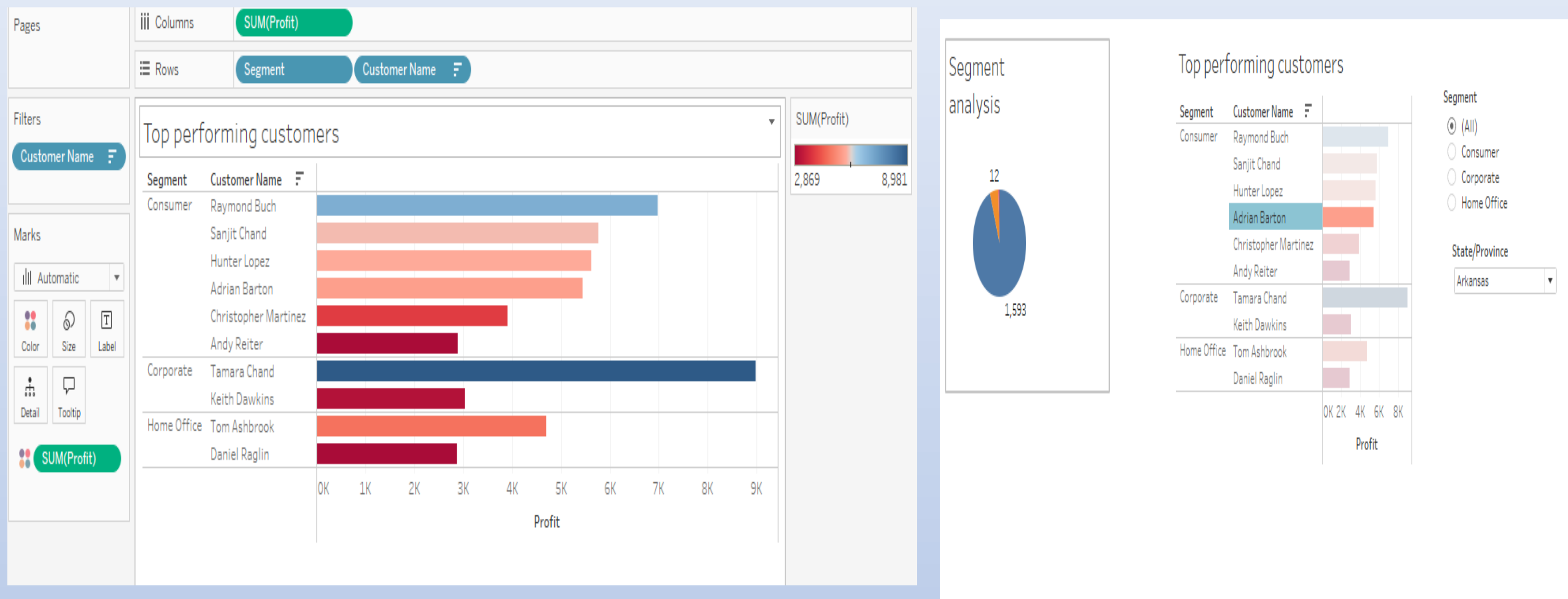


Fig4: Top Performing customer

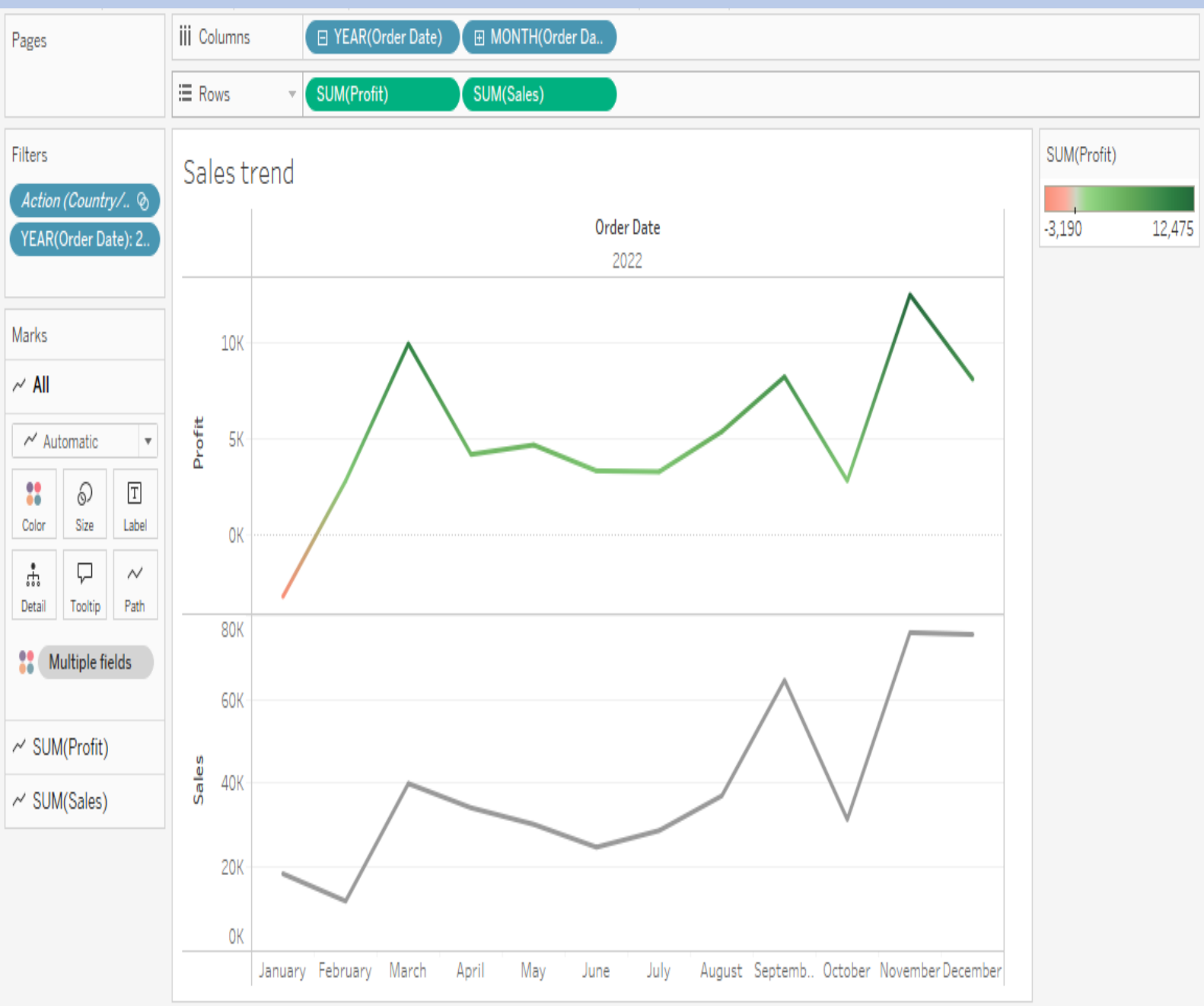
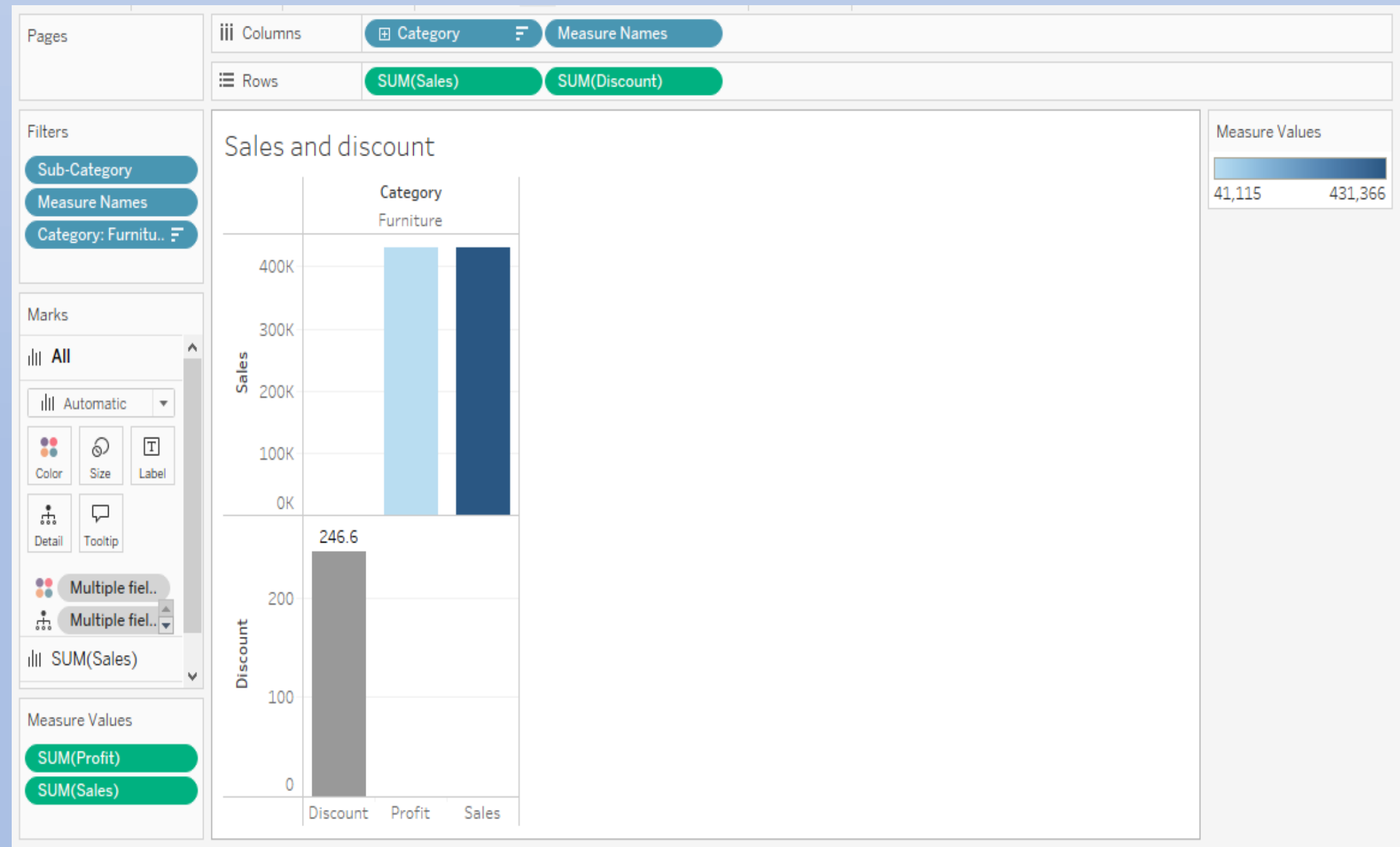


Fig6: Sales and discount (L) and Line chart showing Sales and profit

This visualisation illustrates the relationship between, discount, profit and sales. In this dashboard, category “Furniture” is selected to study the relationship between discount, profit and sales

References

Mahfuza, R., Uddin, R. S., Rahman, Y., & Hai, M. A. (2021, December). A Comprehensive Framework for Superstore Business with Employing Effective Clustering Techniques. In *2021 24th International Conference on Computer and Information Technology (ICCIIT)* (pp. 1-6). IEEE.

Janssen, D. (2024). *Product Recognition in Store Environments: A Deep Learning Approach* (Master's thesis, University of Twente).