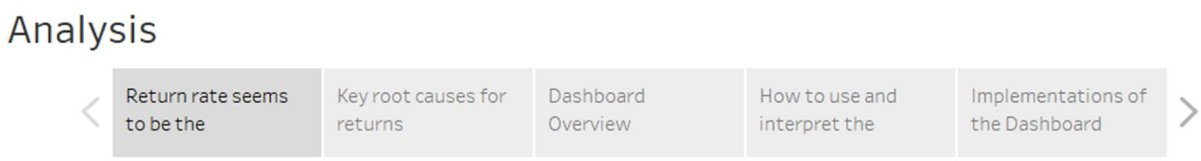
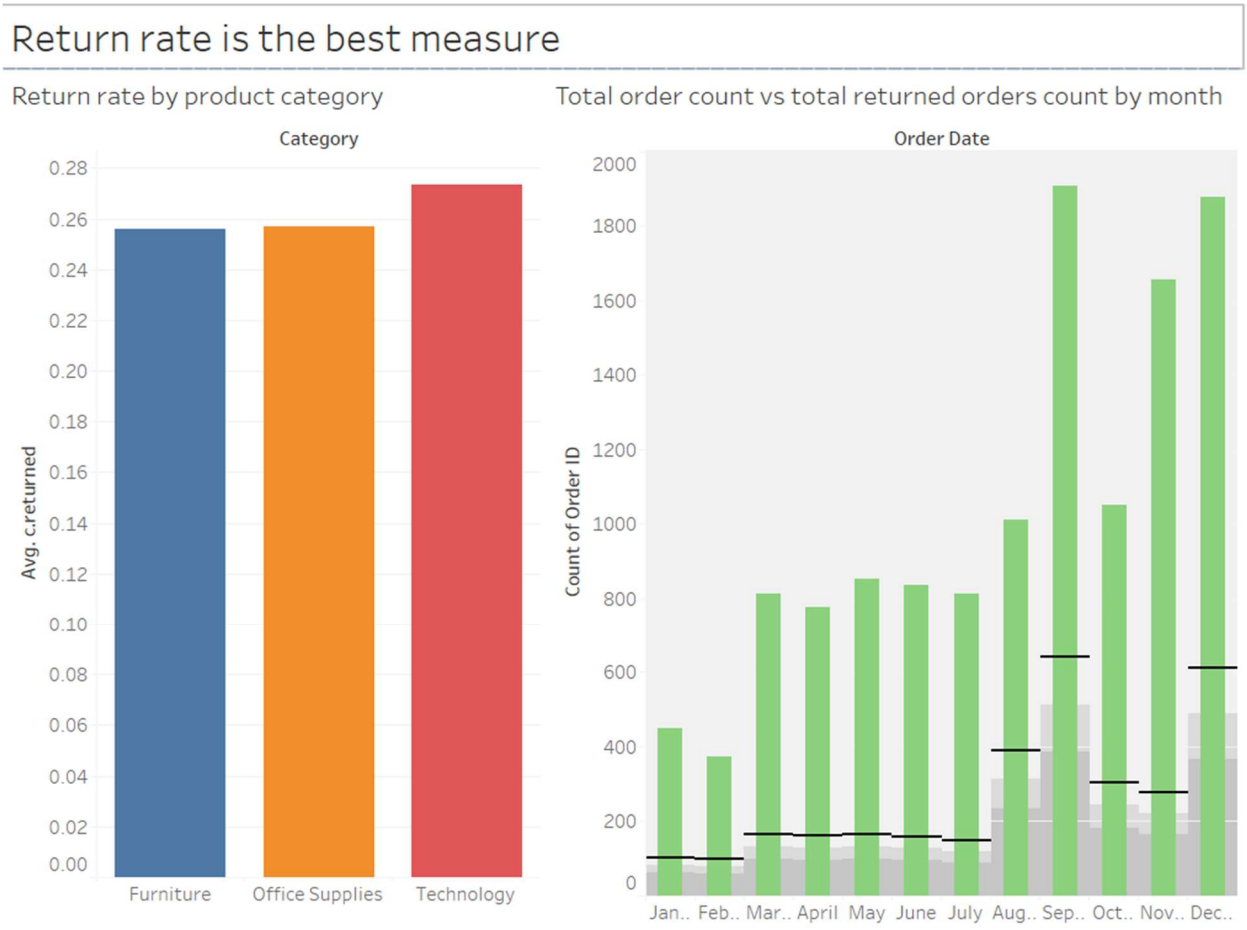
1.0 Presentation story captions

Please Note each title down below represent a tab from the story/presentation with visualization inside that tab and the explanations.



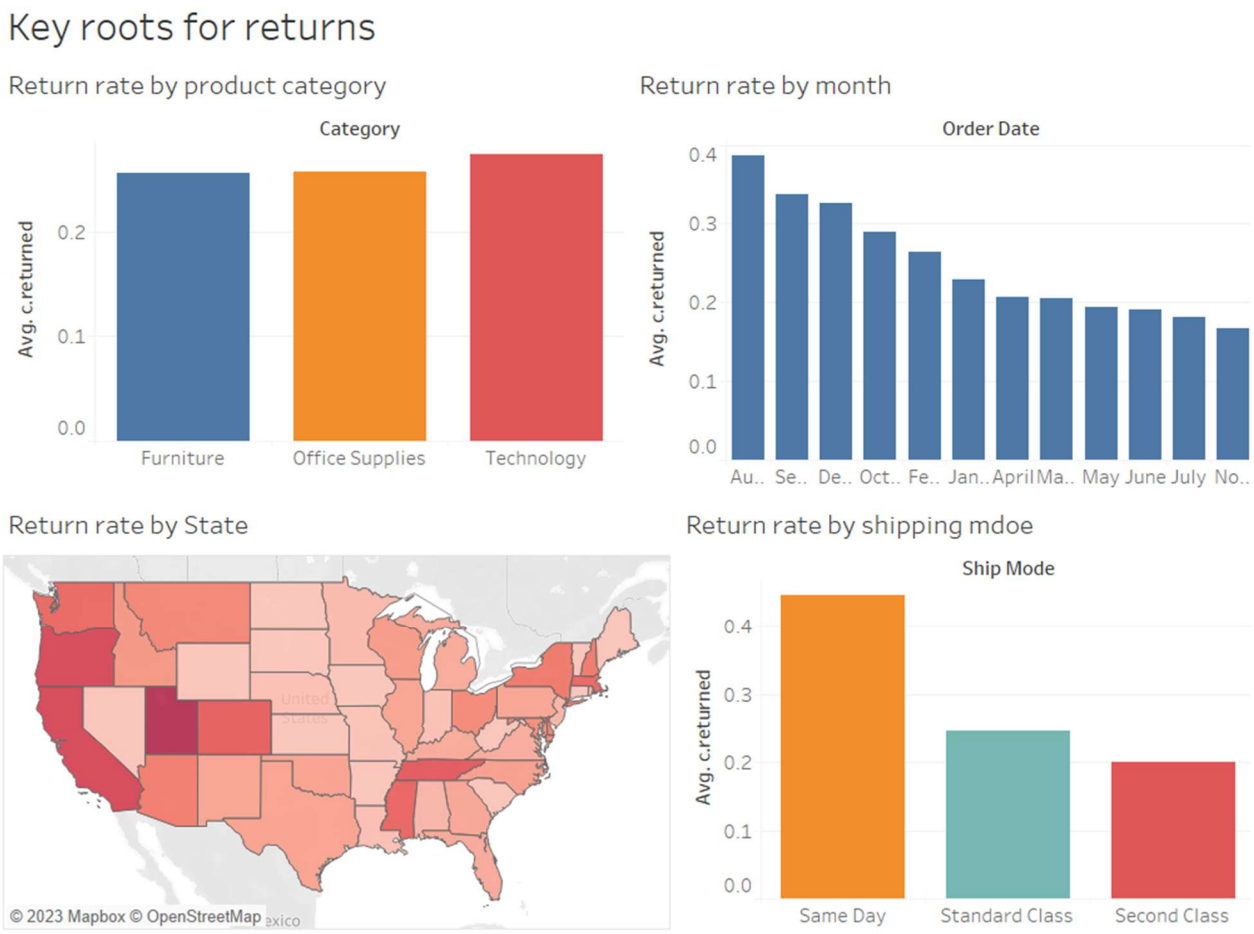
1.1 best returns measure



Return rate can be used most often to draw the biggest picture. For example, from the left graph we can click on any category and have an idea of the return rate on that category which makes more sense rather than giving the count of returned items per category. This can be applied to different data records like ship mode, subcategory, month etc.. from all those records we can get the return rate to have an idea about the percentage of items returned on that category or subcategory per month, shipping mode etc. Nonetheless, on the graph to the right I tried to use the count of returns per month

compared to the total orders. The green bar shows the total orders on that month while the black line crossing each green bar shows the total number of returned items on that month. This also makes sense, but it could have been easily replaced by an average return rate per month graph.

1.2 Key roots for returns



After I explored carious parts of the data, We can see from the dashboard above that once of the main roots causes of returns is the technology category as it has the highest return rate among all categories and thus the superstore should explore this category in more details to find which subcategories has the highest return rate and try to come up with the solution.

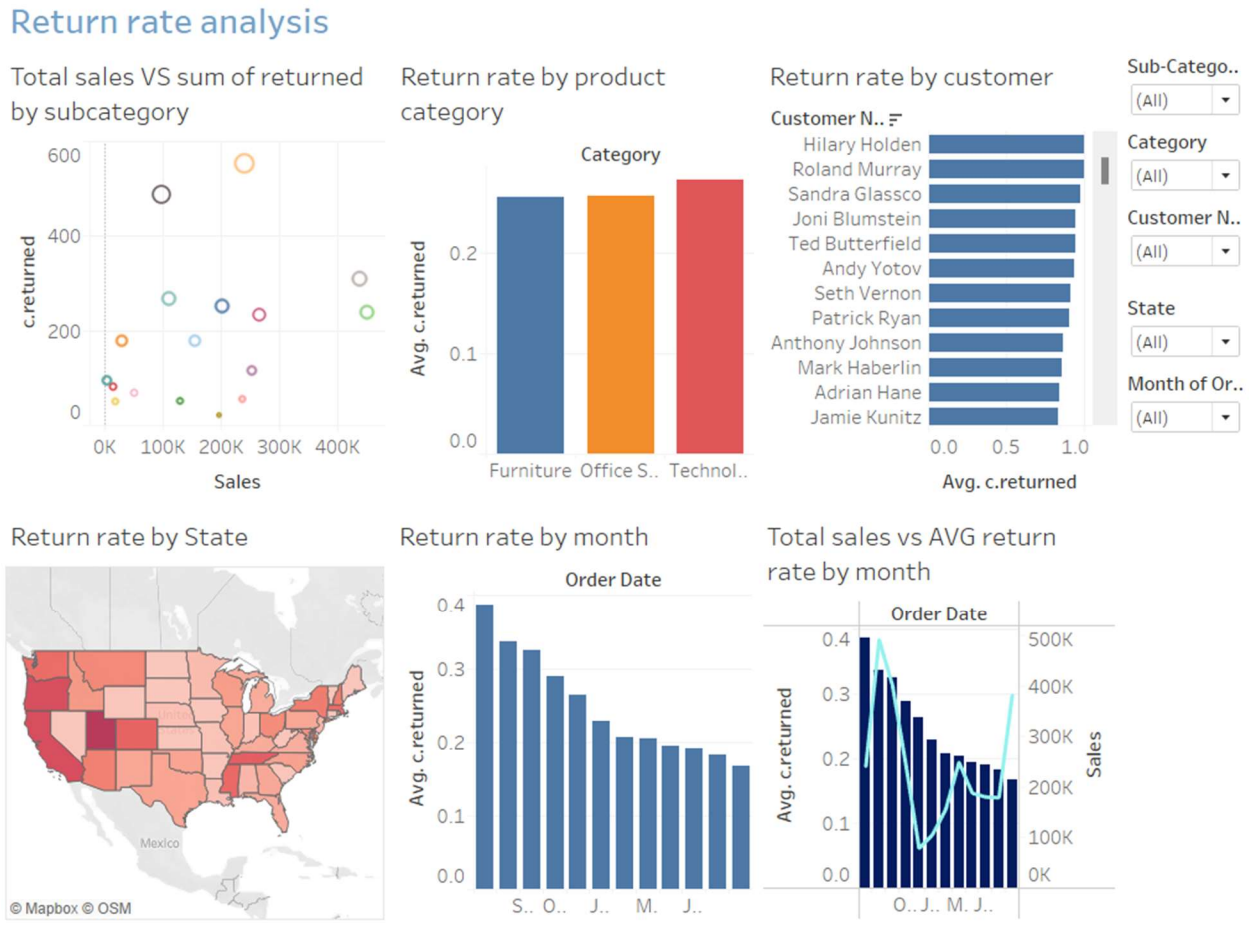
Also we can see from the top right graph that months of August, September, December, and October are also has the highest return rate all year round which could be because

of the growing sales as the holidays are approaching and thus many people return items in some subcategories for various reasons.

The Map also shows the states with the highest rate of return in the US and thus by clicking on each we can see the return rate. The superstore can also dig in into more details to find why those states top the highest return rate.

Same day shipping is also one of the main causes for return according to the data. That could be mainly because of the rush in sending some orders and thus errors in sending the right items or also problems of keeping the items safe and in good condition because of rushed shipping.

1.3 Dashboard Overview



From the dashboard we can see that the first top left scatter plot is used to check the relationship between total sales and sum of returns by subcategory. As we can see some subcategories have higher sales with less returns while some subcategories have less sales and higher returns rates. We can use the filters in the right side to check and

compare any two subcategories. The conclusion is there isn't an apparent correlation between sales and returns by subcategory. The relationship depends really on the subcategory.

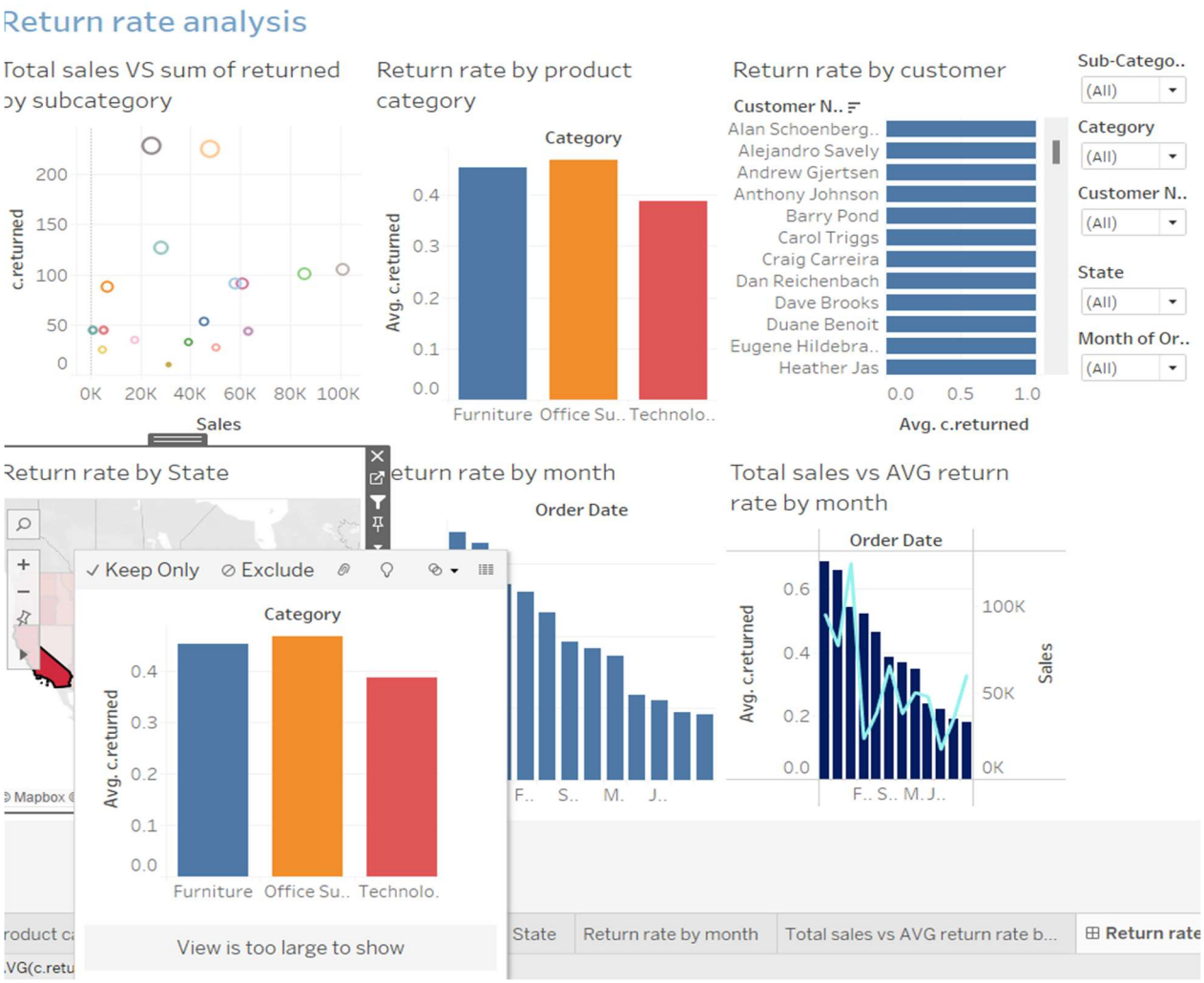
The Middle top bar chart basically represents the return rate by category. We can see that technology has the highest return rate.

The top right bar chart shows the names of customers with the highest return rate.

The map to the bottom left basically shows the return rate by state. The more the color gets to dark red, the highest the return rate in that state.

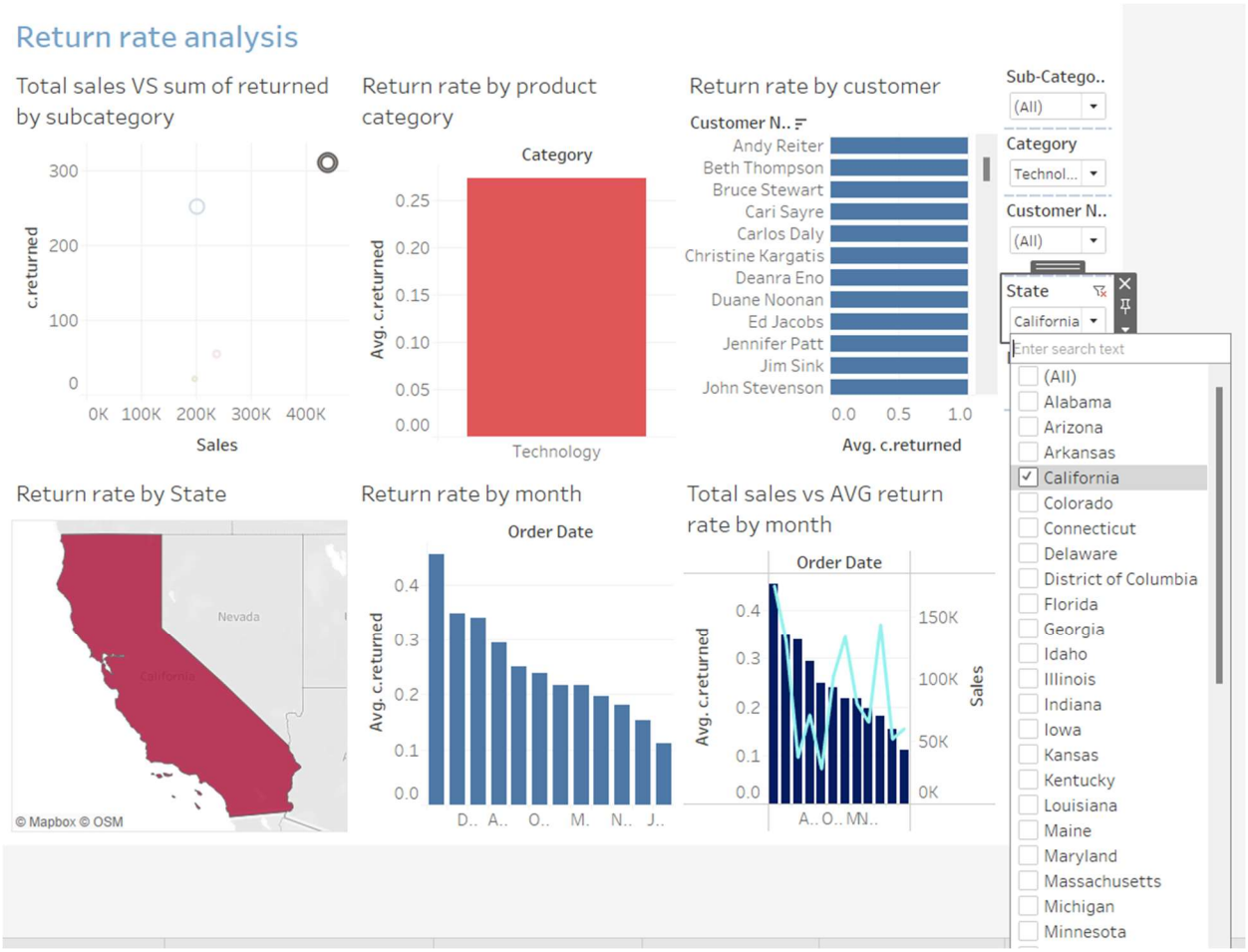
The middle bottom bar chart shows the return rate by month and the last composite chart shows the total sales along with return rate for each month.

1.4 Demonstration of how to use and interpret the Dashboard



As we can see from the screenshot above, we have filters on the right side. These filters allow us to choose from, subcategory, category, state, and month. I also added a tooltip to map so once you hoover a state you can see the return rate per category on that state. If you click on a state also all other graphs show data according to the state chosen. For example, if you click on California on the map all other graphs, show data regarding California like relationship between total sales and return rate on scatter plot, names of customers with the highest return rate in California, return rate per month for the state of California and the average return rate vs sales per month. You can always customize from filters in order to get the information you need by subcategory etc and see how return rates change per subcategory or category in particular states, months and also see how sales correlate with return rates on that particular category, subcategory, month, Or state.

1.5 Implementation of the Dashboard



Above as we can see I filtered the state of California along with technology category only.

We can see in the top left graph that the correlation between sales and returns in all subcategories under technology. For example, the higher the sales, the higher the returns for phones and accessories while although sales are high for machines and copiers, returns are way lower compared to phones and accessories in California. We Can also see that the return rate in technology in the State of California is a little above 25%. Also, we can see the names of the customers with the highest return rates. The months with the highest return rates and how total sales correlate with return rate per month for the same state.