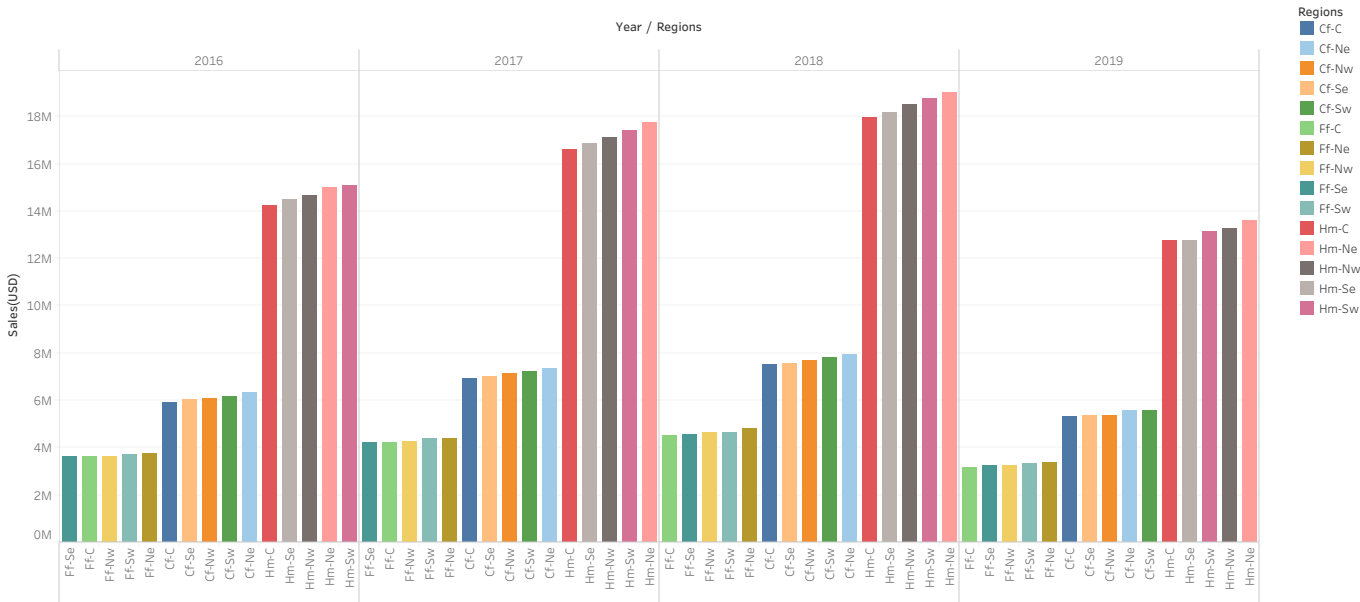
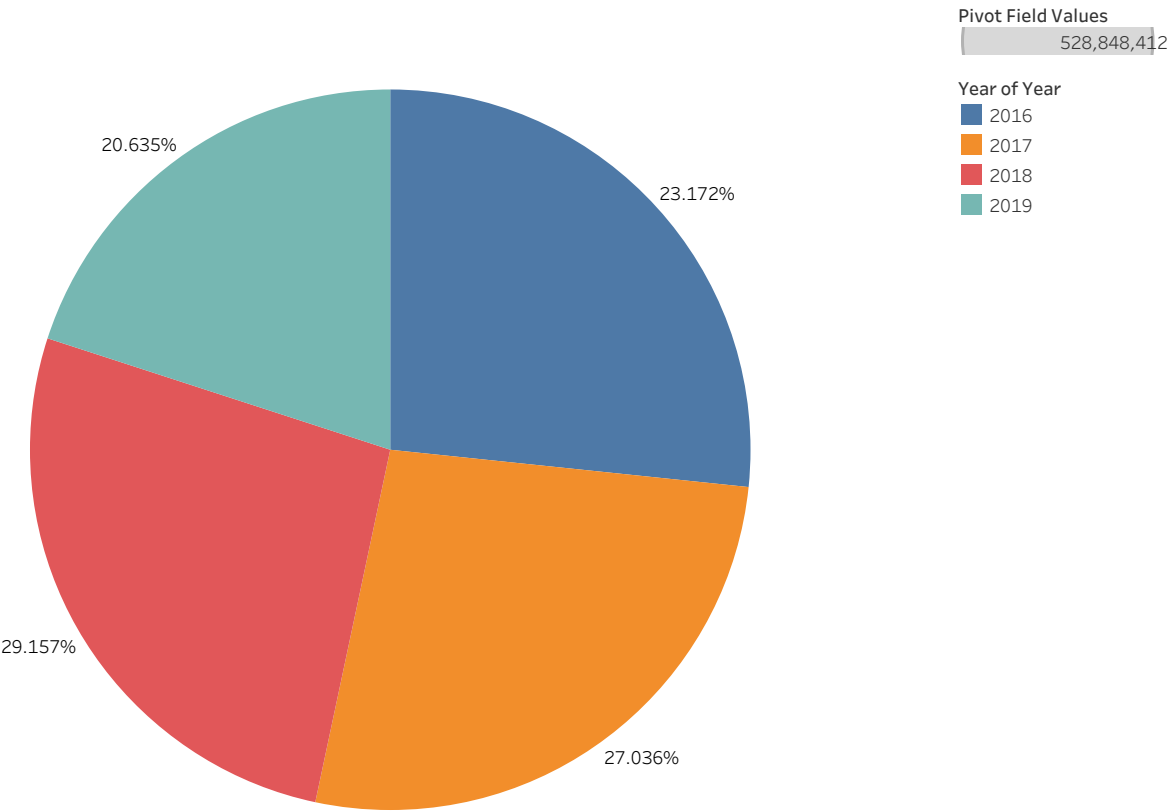


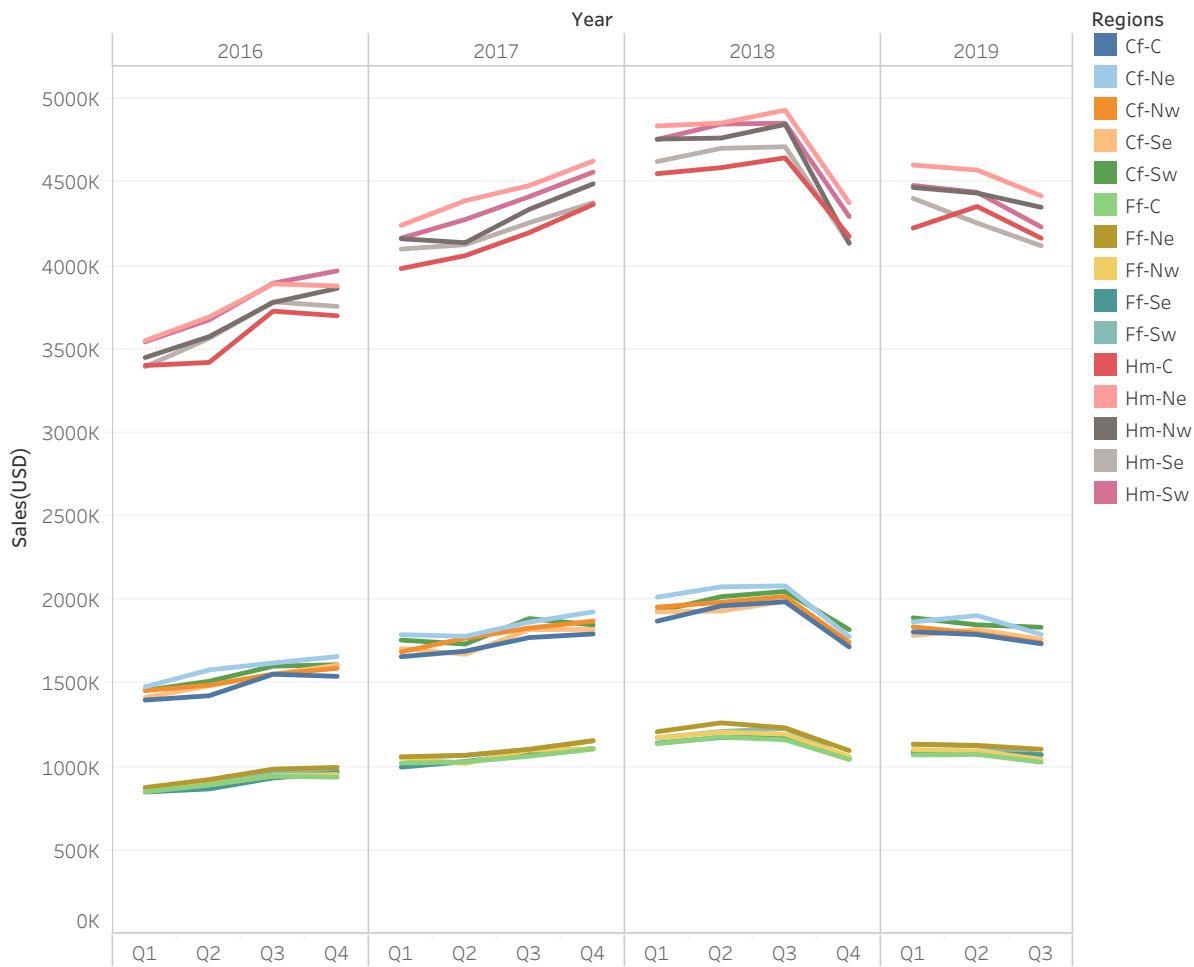
Sales Across 4 years ranked by regions



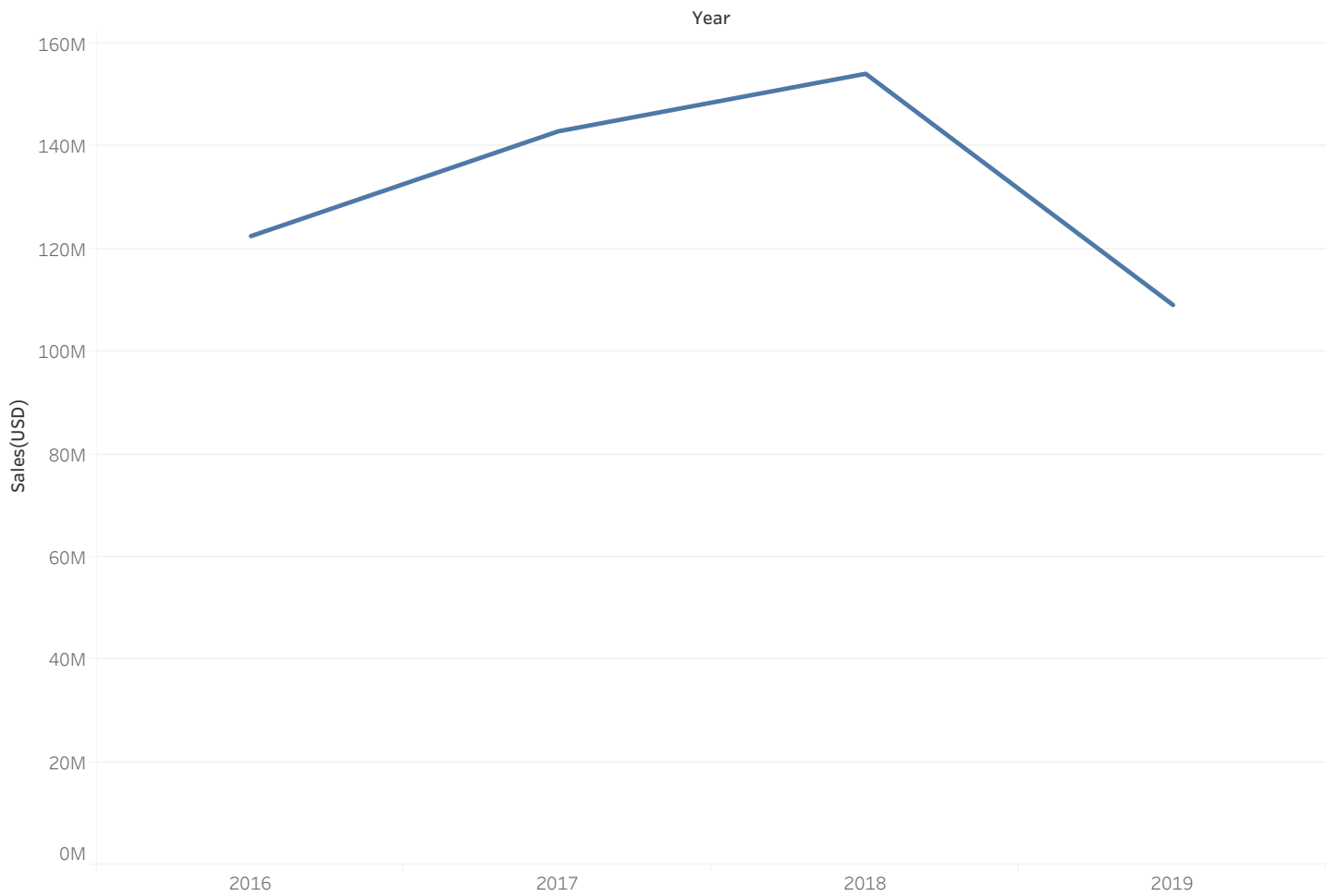
Share of Total Sales of each year



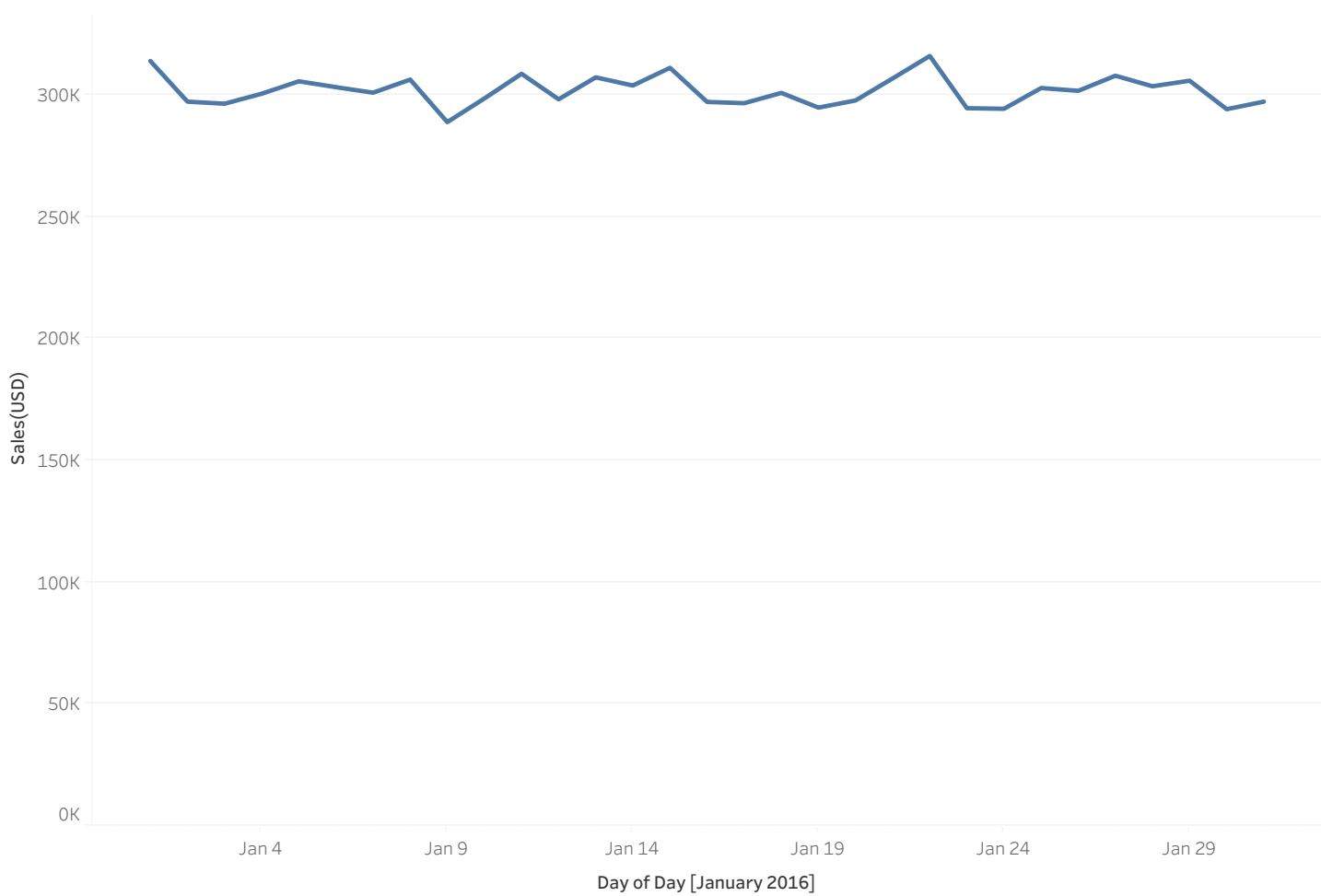
Sales Trend by regions across quarters of 4 years



Aggregate Sales Trend

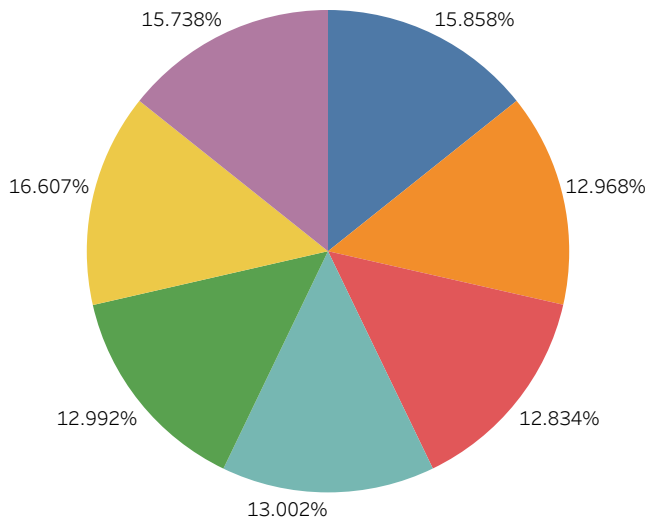


Aggregate Daily Sales Across Jan 2016

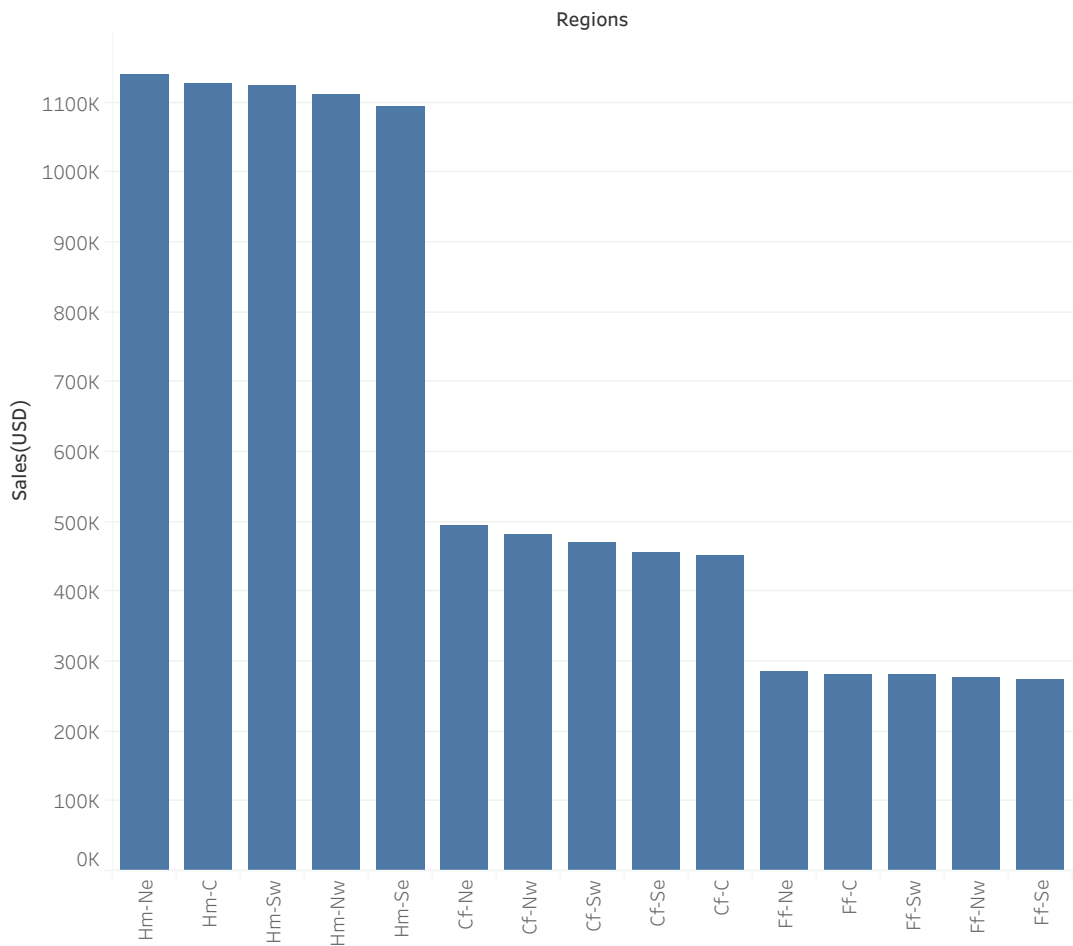


Share of Monthly Percentage Sales by days in a week (Jan 2016)

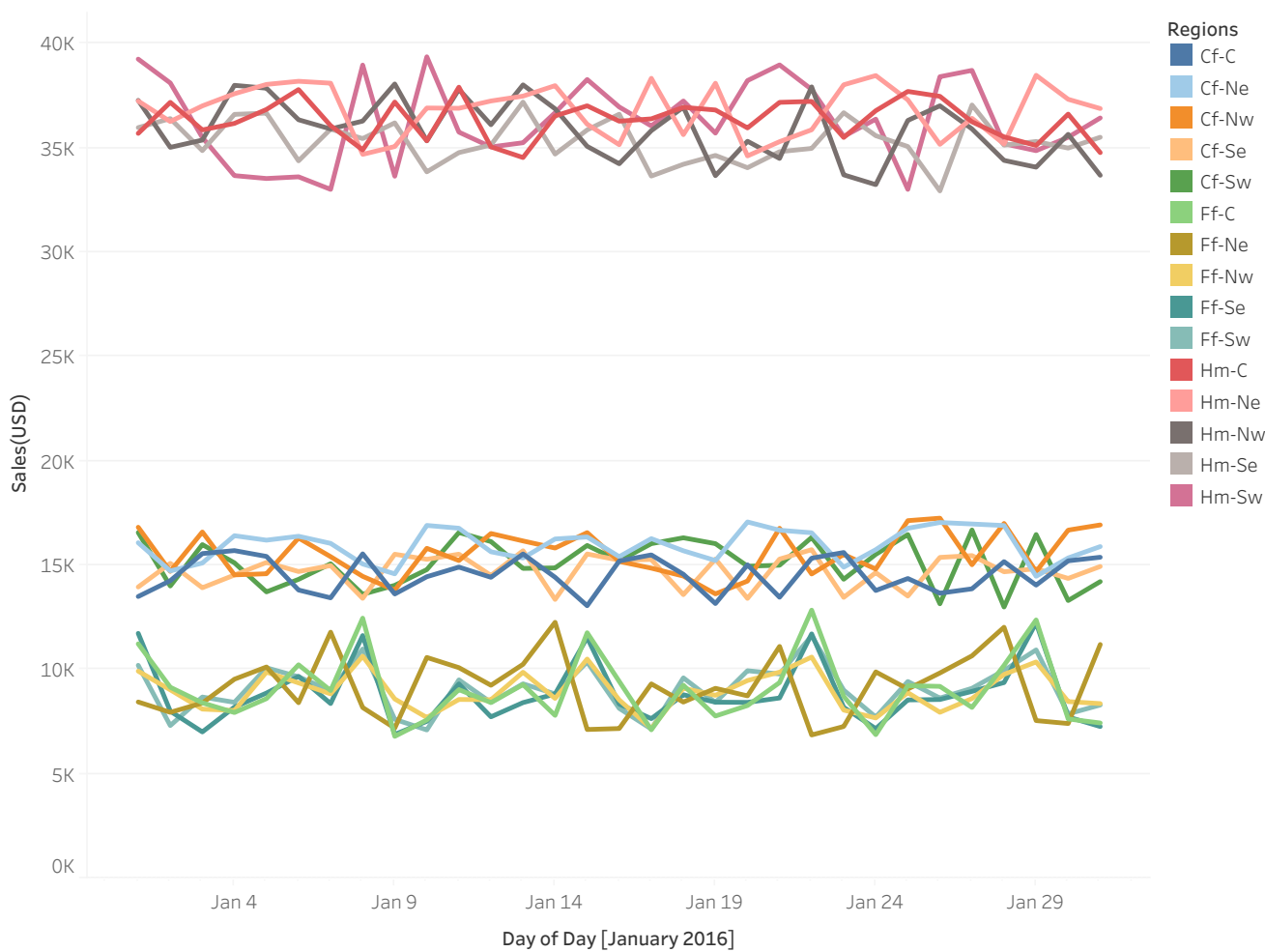
- F1
- Sunday
 - Monday
 - Tuesday
 - Wednesday
 - Thursday
 - Friday
 - Saturday



Sales in Jan 2016 by region



Sales Trend across Jan 2016 by region



Hey CEO,

I have some exciting news for you. My analysis has shown that sales have indeed been decreasing since the last October. This might be due to the introduction of veggie burgers or other factors.

Starting from analysis on a high level, out of total sales across the last four years, 2017 and 2018 have the most sales, while in 2019 we have the lowest sales in the four-year time span. This raises a red flag for further investigation. Diving down into lower granularity, each menu item has drastically different sales. Hamburger has been the predominate revenue source for us, with chicken fillet and fish fillet ranking below. Moreover, the decline in sales seems to have a chain effect: not only hamburger sales have decreased but also the other items. This might refer to consumer behaviors that they mainly come to us to have hamburgers and when hamburgers are no longer attractive to them, they would also stop buying other items. This also means other items might be auxiliary. Non-surprisingly the declines in sales started from last year in October and continued to have an overall decline this year. This might suggest we might not take enough measures to counteract the market change.

I also present an analysis of January sales data in 2016, where the overall growth trend has begun. Hopefully, this would point to some possible solutions. First of all, most of the sales are focused on the weekend, which is no surprise. This means we might need to focus on creating more appealing meals with some additional benefits(coupons) around the weekend. Also, we might need to have new recipes on hamburgers that fit the market as soon as possible since the sales of hamburgers are much more predominant than other menu items. Moreover, we might need to start changing from the North East, South West and North West areas which are the driving forces of sales.

Please take a look at the file and website I sent you and come up with your own judgments. If there is any question please get back to me!

Submission PDF:

https://github.com/Yizong98/DSC106_HW2/blob/master/Submission%20PDF.pdf