BUS5VA- ASSIGNMENT 2

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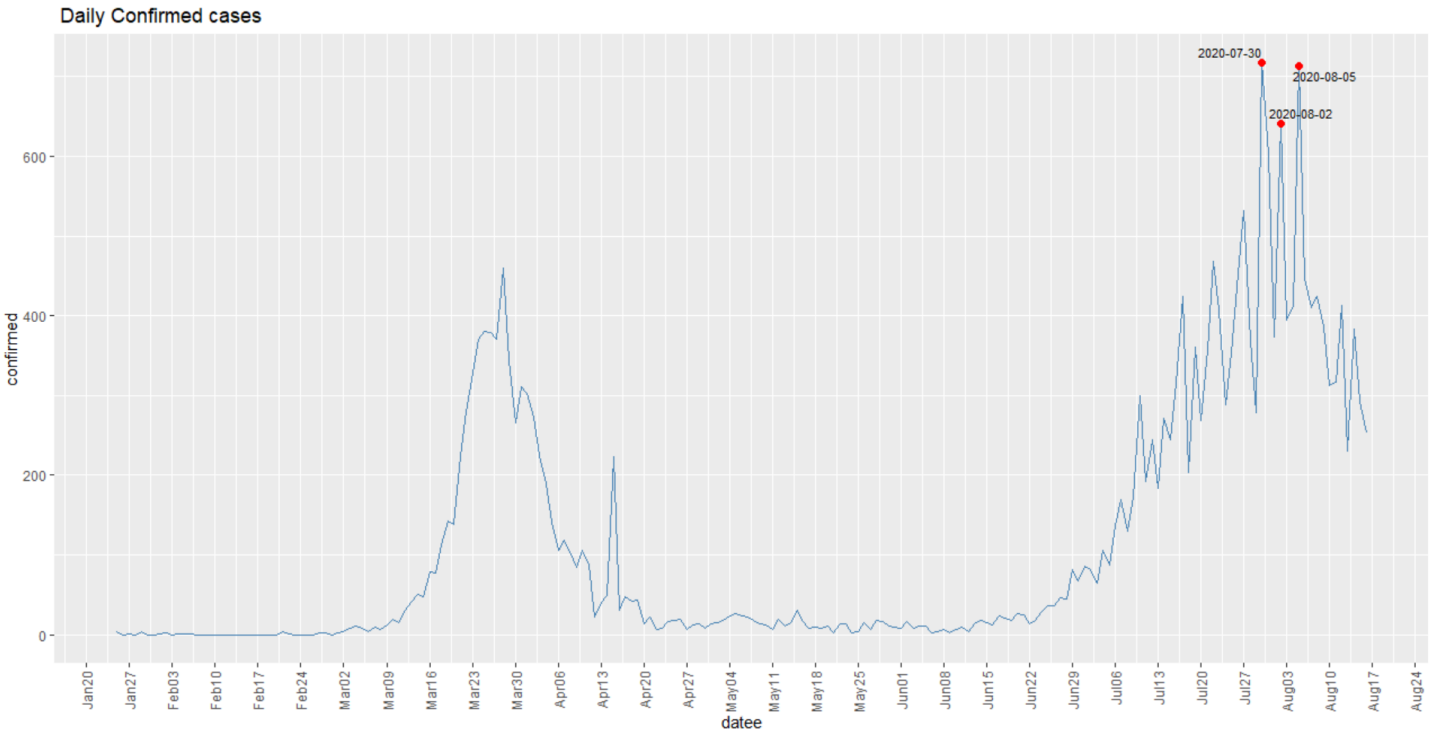
"This is my own work. I have not copied any of it from anyone else."

Bhargavi Singaravelu – 20113574

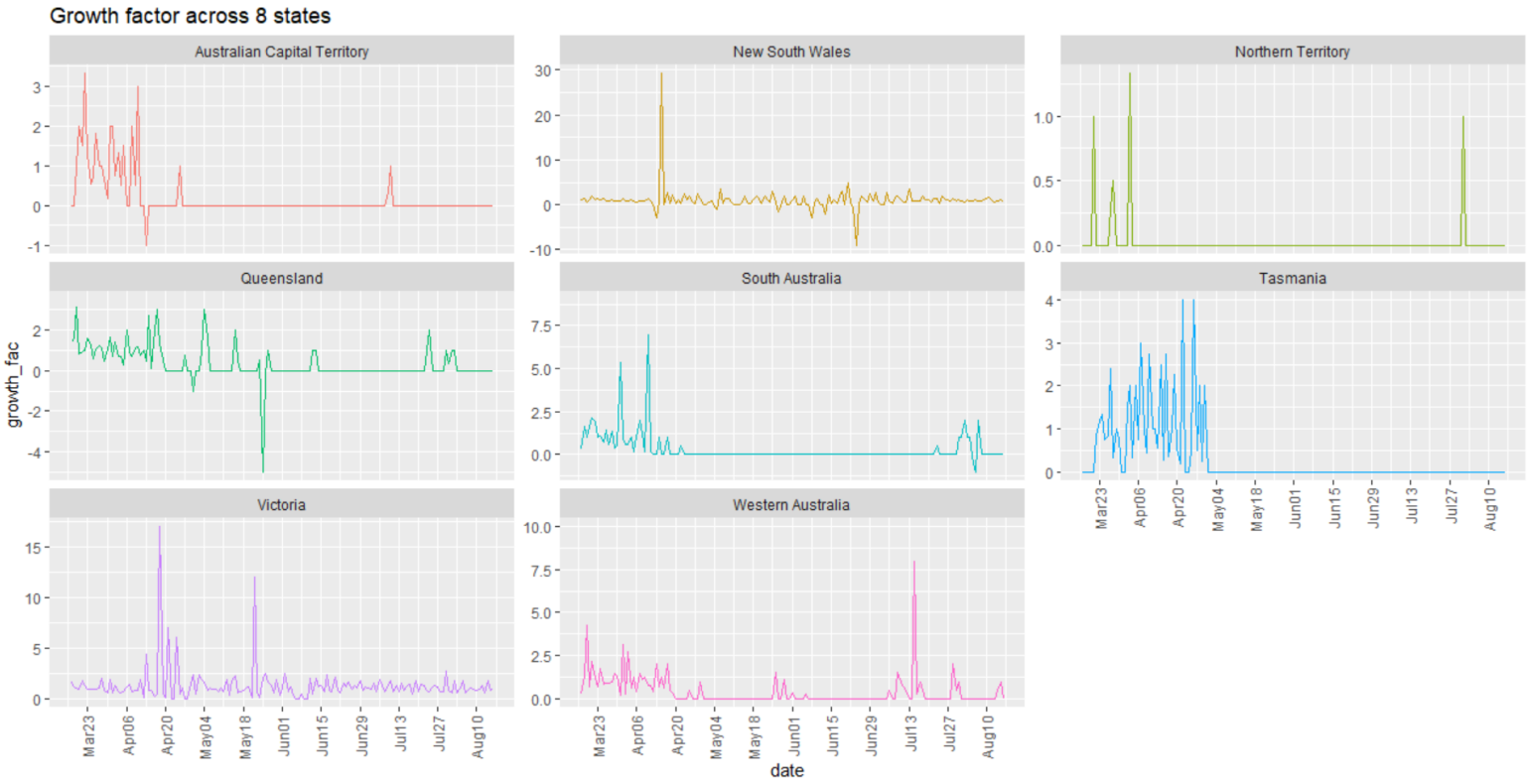
Task 1

Plot 1:



Plot 1 is the visualization of the given Covid-19 dataset which gives the truest reflection of daily confirmed case numbers based on case notification dates. A line graph is used to show the change in the number of daily confirmed cases over time. The X- axis represents the date and the Y-axis represents the count of the daily confirmed case. The three red dots on the line highlights the top 3 highest number of daily confirmed cases and the date are labelled.

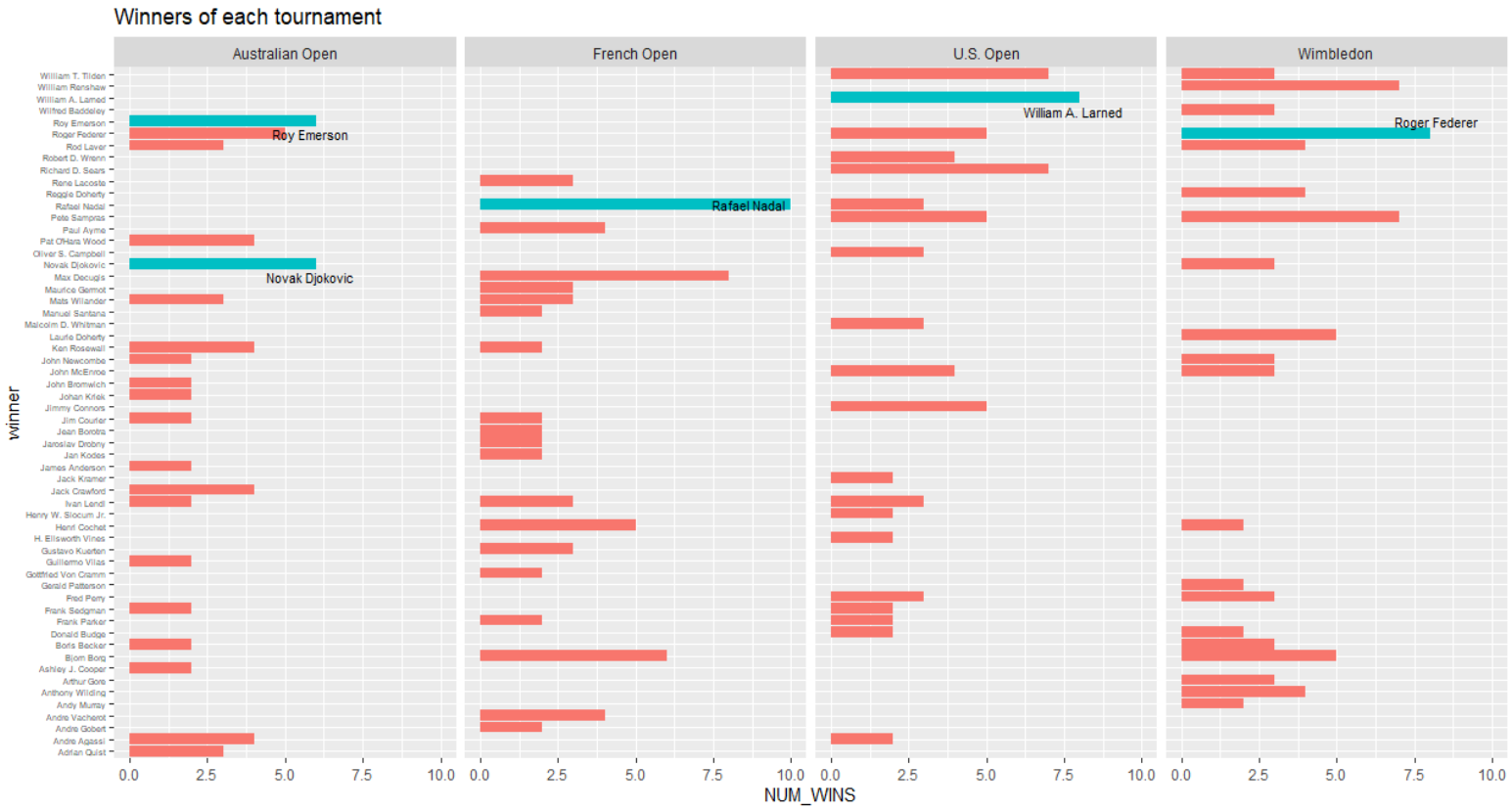
Plot 2:



Plot 2 visualization is individual line graph representation of the growth factor across each of the 8 states in Australia. Different color has been used to discriminate between different states and make visualization more understandable. The comparison of the growth factor across the different states is done by the concept of faceting where each panel shows different state's growth factor change over time.

Task 2

Plot 1:

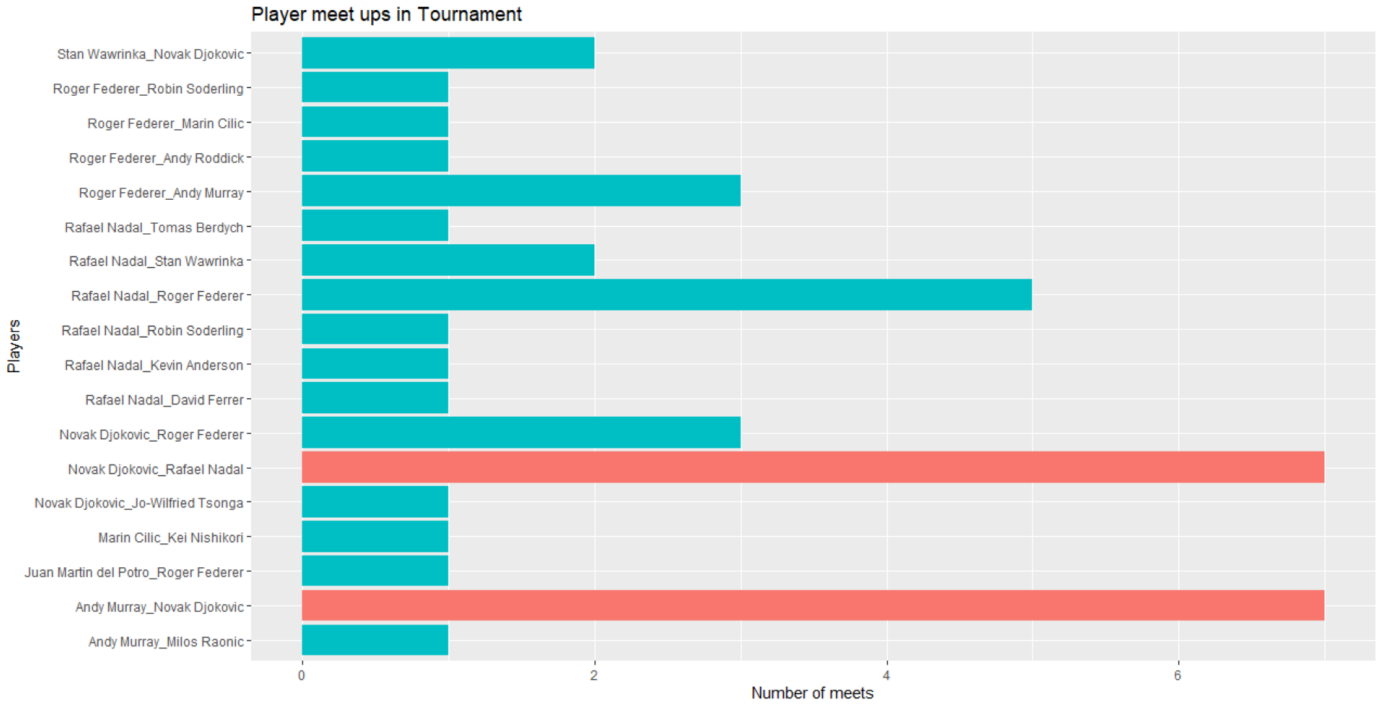


Plot 1 is a facet grid of four bar charts representing the winners of four different tournament given in the dataset. This facet grid representation shows whether the winner has participated in a tournament or not. The tournament: Australian Open (Dec), Australian Open and Australian Open (Jan); are considered as Australian Open Tournament. Each bar chart compares the performance of the winner based on the number of wins in the tournament and the winner with maximum wins of the tournament is highlighted (Blue) and their names has been labelled. The X axis is the count of number of wins. and Y axis has all the winners of the tournaments.

From the plot above, we can see that Winners of each tournament:

- U.S. Open: William A. Larned
- Australian Open: Novak Djokovic, Roy Emerson
- Wimbledon: Roger Federer
- French Open: Rafael Nadal

Plot 2:

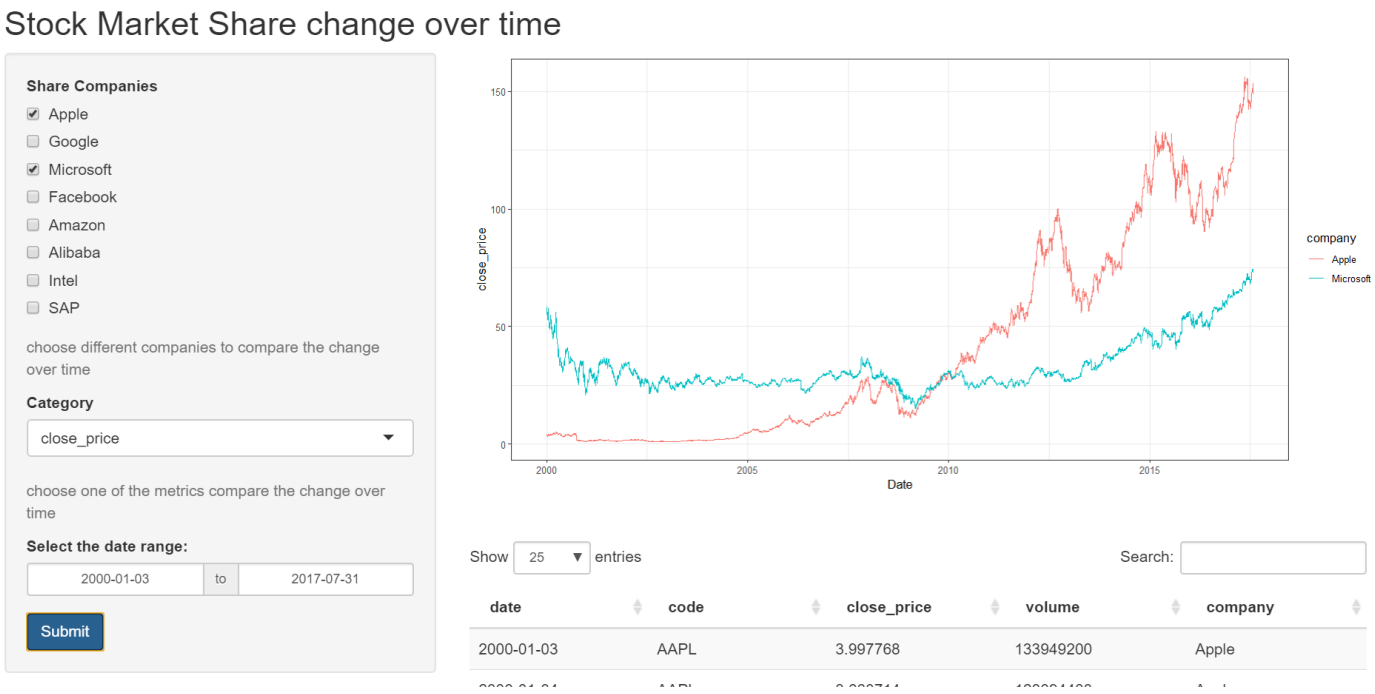


Plot 2 shows the number of times the players (winners and runner up) have met during each of the Grand Slam tournament finals for the 40 most recent tournaments. The players with highest number of meets are highlighted. The Y-axis represents all possible combination of players who have met at least once during the tournament and the X-axis is count of number of times the players have met during the tournament.

From the plot, we can see that these players have met the maximum number of times:

Players	Number of times met
Novak Djokovic and Rafael Nadal	**7**
Andy Murray and Novak Djokovic	**7**

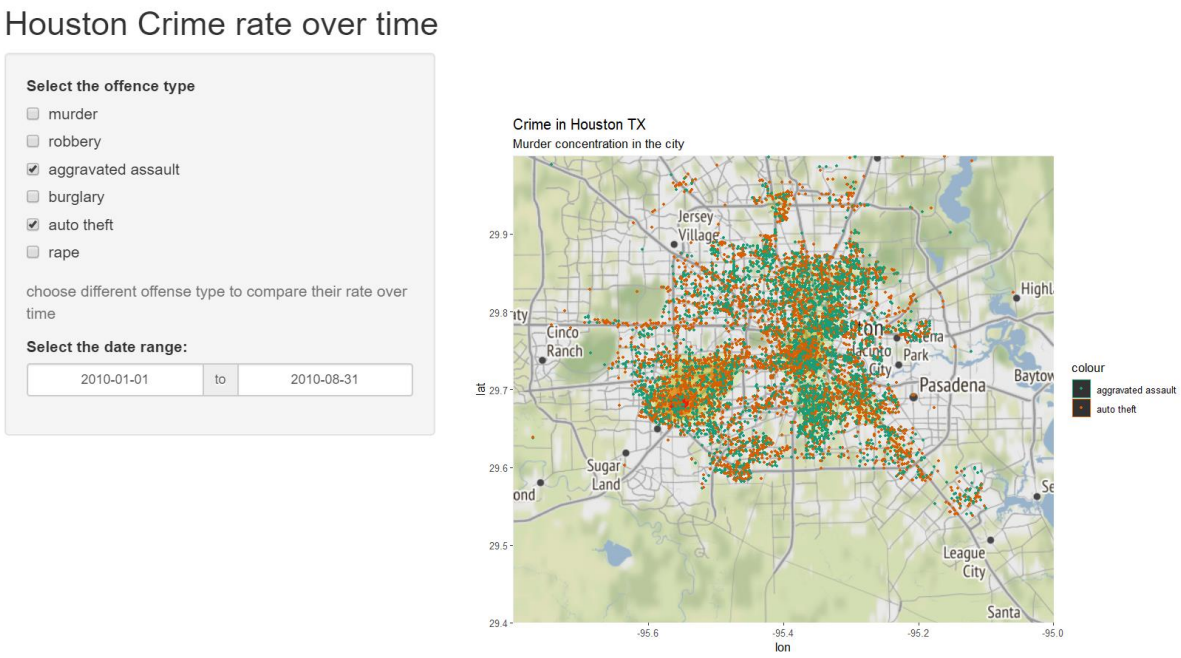
Task 3



This interactive visualization shows the change in chosen share over time based on either the closing price or the share volume and also allows comparison of shares performance between two or more companies. The side bar panel is an interactive user interface which allows user to select various combination of input. Multiple share companies can be selected for comparison and different color has been used to discriminate between the companies. Users can also compare the performance of multiple companies within specific time period by adjusting the date range. The main panel displays the output plot which is a simple line graph shows the change in chosen share over time and a data table with values based on the selected inputs.

The above plot above shows the comparison of share performance between two companies: Apple and Microsoft based on the closing share price of the day (USD) in the time period: 3 Jan 2000 to 31 July 2017 and we can note that the closing share price of Apple has been gradually increasing over the years.

Task 4



This interactive visualization shows the concentration of offence types in the Houston map by Dot density which use points on the map to explore spatial relationships. The side bar panel is an interactive user interface which allows user to choose different combination of offense type and the date range. Offense types are differentiated by colors and multiple offense can be selected for comparison. The area with high concentration of the offense is highlighted with color gradient (red).

The plot above shows the dot density of the offense types: aggravated assault (Green) and auto theft (Orange) between 1 January 2010 to 31 August 2010. We can see that both these offenses are highly concentrated in Meadows Place and the midtown of Houston during this given period.