Homework 10

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Group Members

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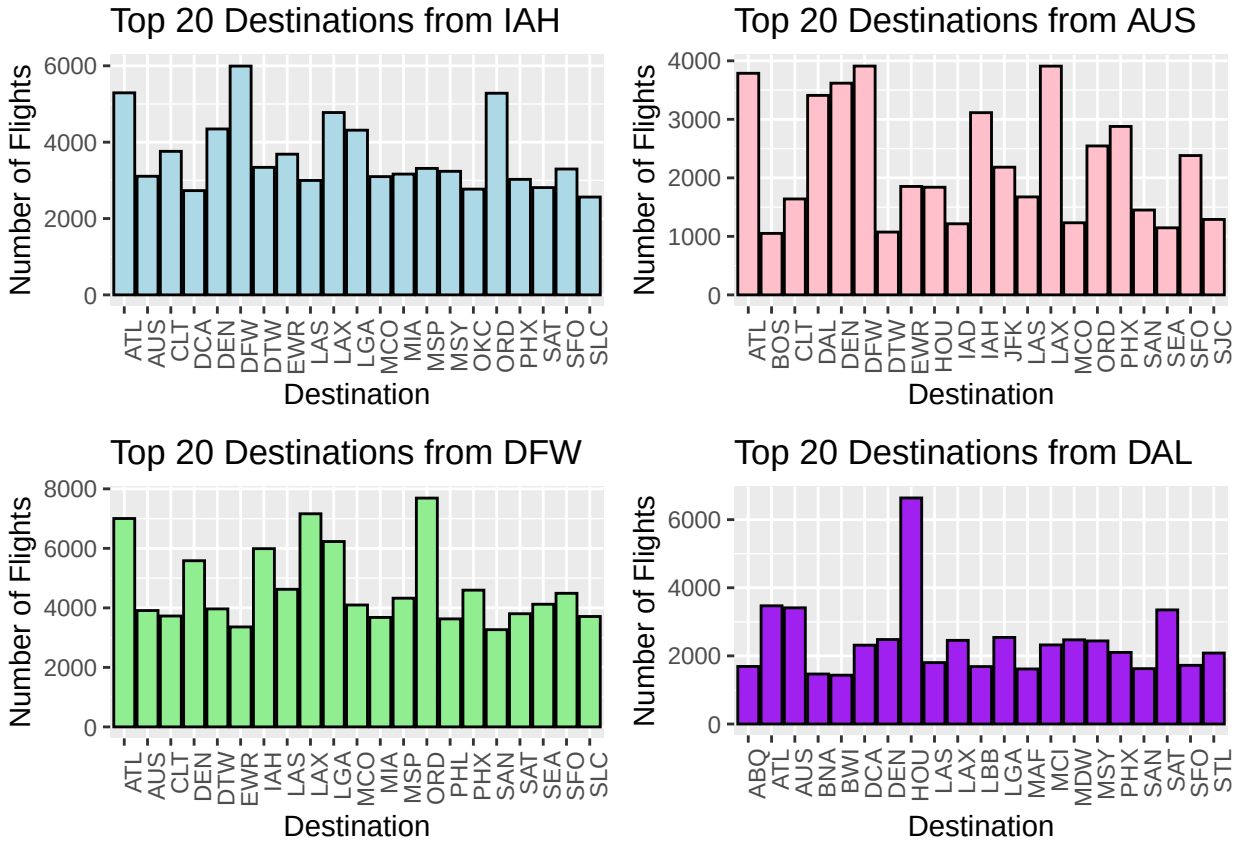
Task 1: Combine related plots into one visualization

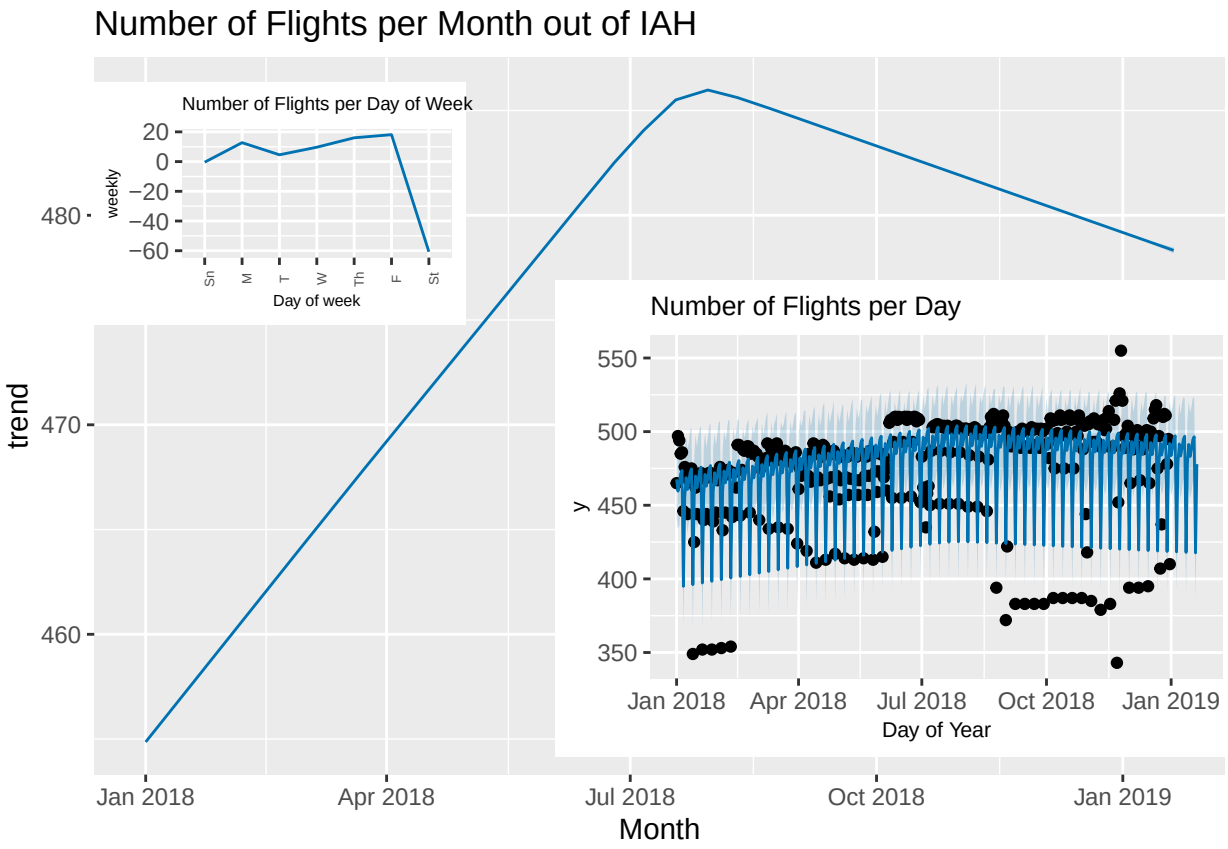
For the first task, we decided to create a plot of the number of flights going to the top 20 destinations from Houston, Austin, Dallas DFW and Dallas DAl.

```
## [1] "DFW" "IAH" "DAL" "AUS"
```



Task 2: Embed other plots into a plot with empty space

For this task, we decided to display time series analysis on our flight data. We first calculated the number of flights per month out of IAH and realized there is a lot of whitespace around this plot. We then added a plot of the number of flights per day out of IAH and a plot of the number of flights per day of week out of IAH to the white spaces in the plot of the number of flights per month out of IAH.

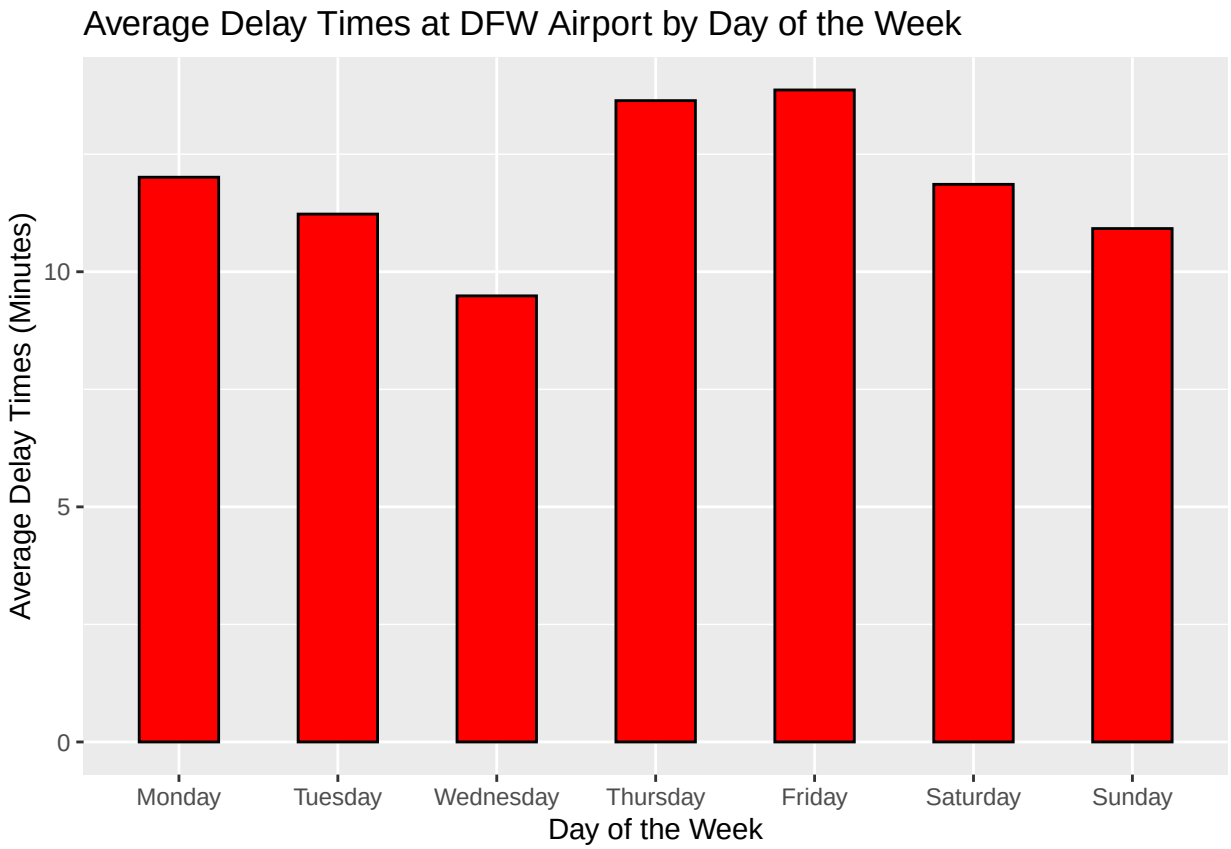


Task 3: Replace two ggplots and/or base plots with a version done from scratch using grid and its primitives.

For this task, the first ggplot we decided to replace was a plot of the average delay times at DFW Airport per each day of the week.

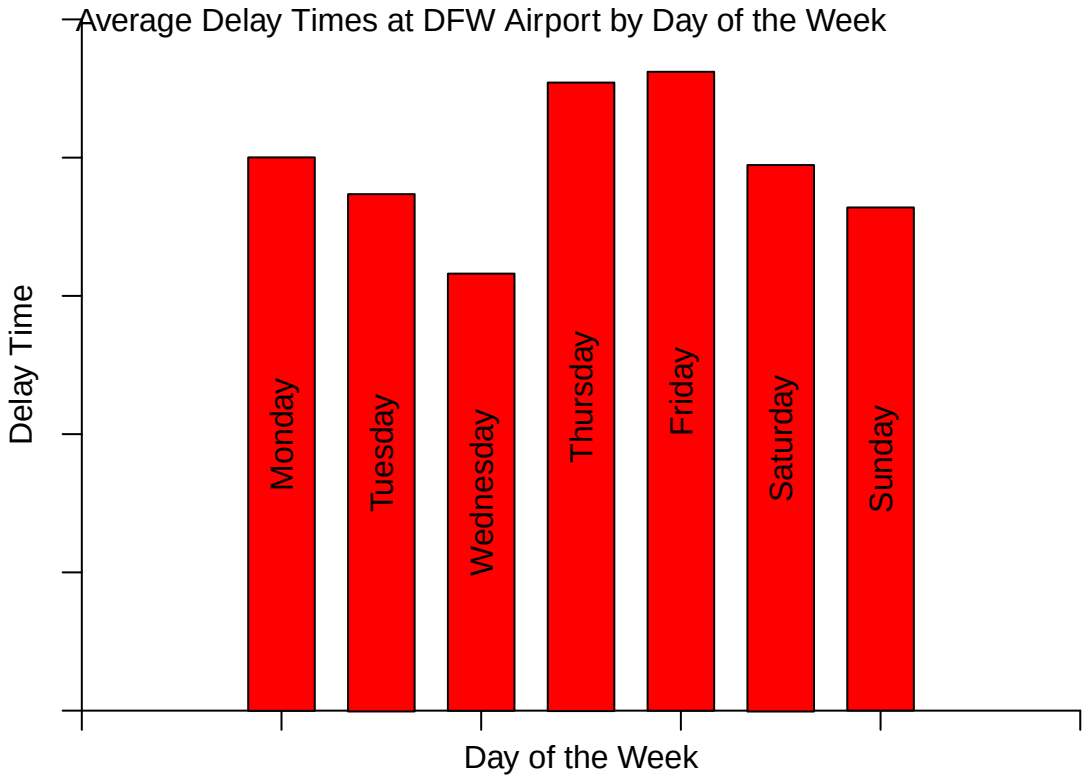
Plotting the original plot using ggplot. (as mentioned in OH, we could not get the plots side-by-side)

```
usingGg
```



Plotting the recreation of the plot using grid. (as mentioned in OH, we could not get the plots side-by-side)

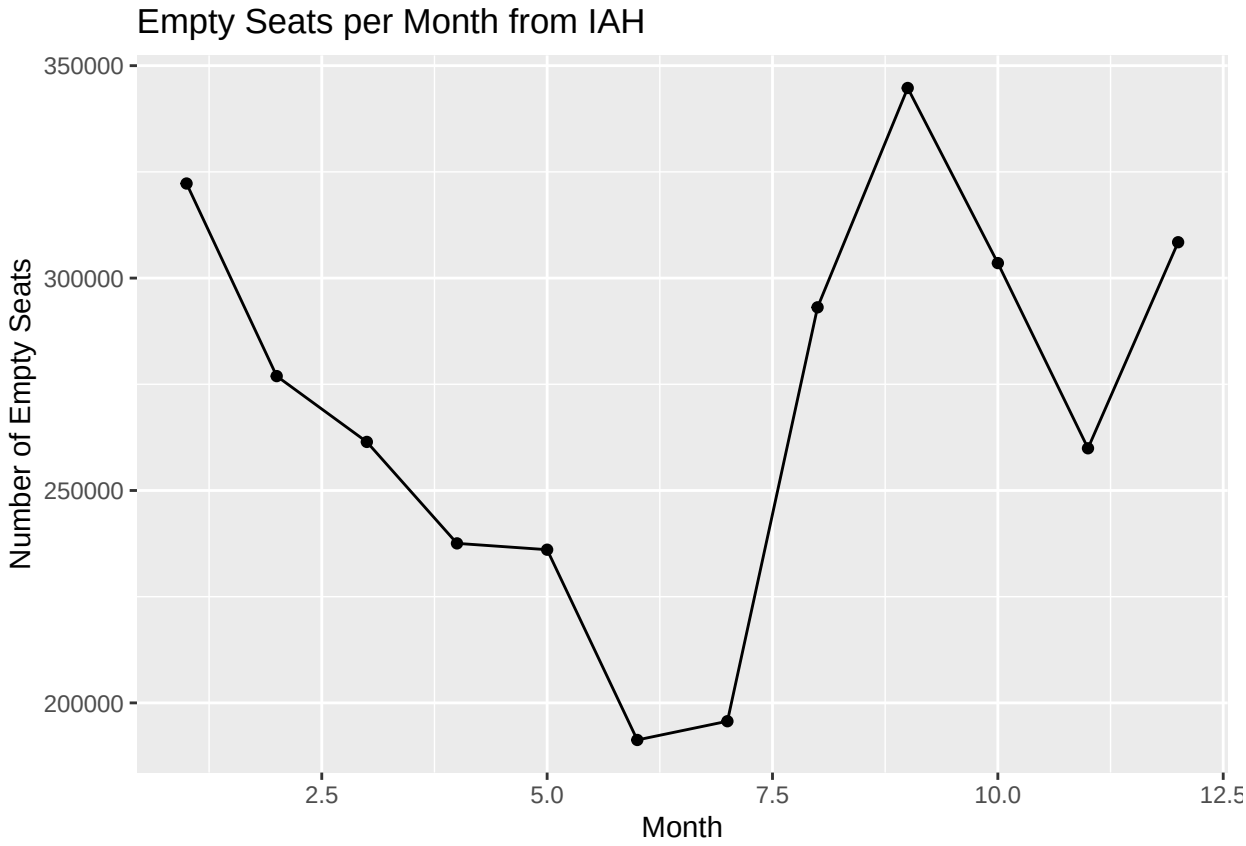
```
my.grid.plot(avg_delays$delayTime)
```



The second ggplot we decided to replace was a plot of the empty seats per month for all the flights out of IAH.

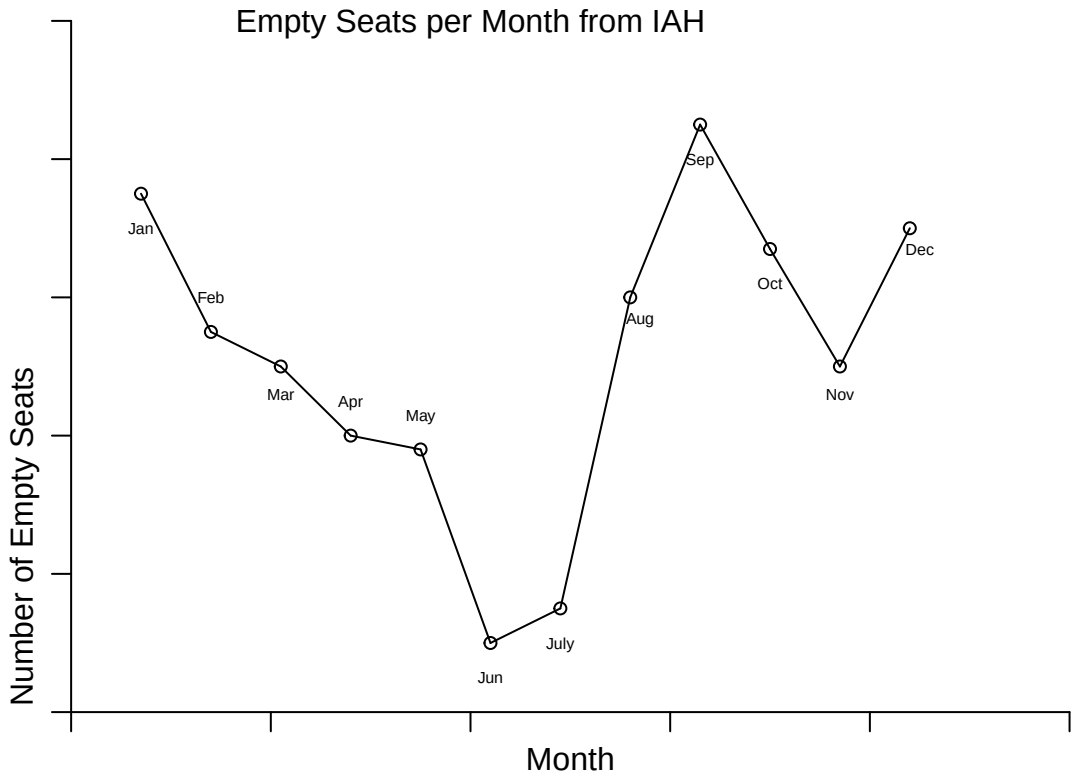
Plotting the original plot using ggplot. (as mentioned in OH, we could not get the plots side-by-side)

```
usingGg
```



Plotting the recreation of the plot using grid. (as mentioned in OH, we could not get the plots side-by-side)

```
my.grid.plot2(seats$EMPTY)
```



Draft of Original Visualization (killer plot)

Here is the rough draft of what we would like our final killer, original visualization plot to look like. The plot will take the shape of a luggage. Each dot in the luggage represents an airport a flight from IAH flies to. The size of the dot represents the number of people that are transported there; the more people, the bigger the dot. The color of the dot represents the sentiment traveller have towards the airport, with red being a negative experience and green being a positive experience. The lines between the dots represent the number of flights between those two airports; the thicker the line, the more flights. The legend of the plot will be included in the luggage tag, to give information about the luggage contents as luggage tags are intended to do.