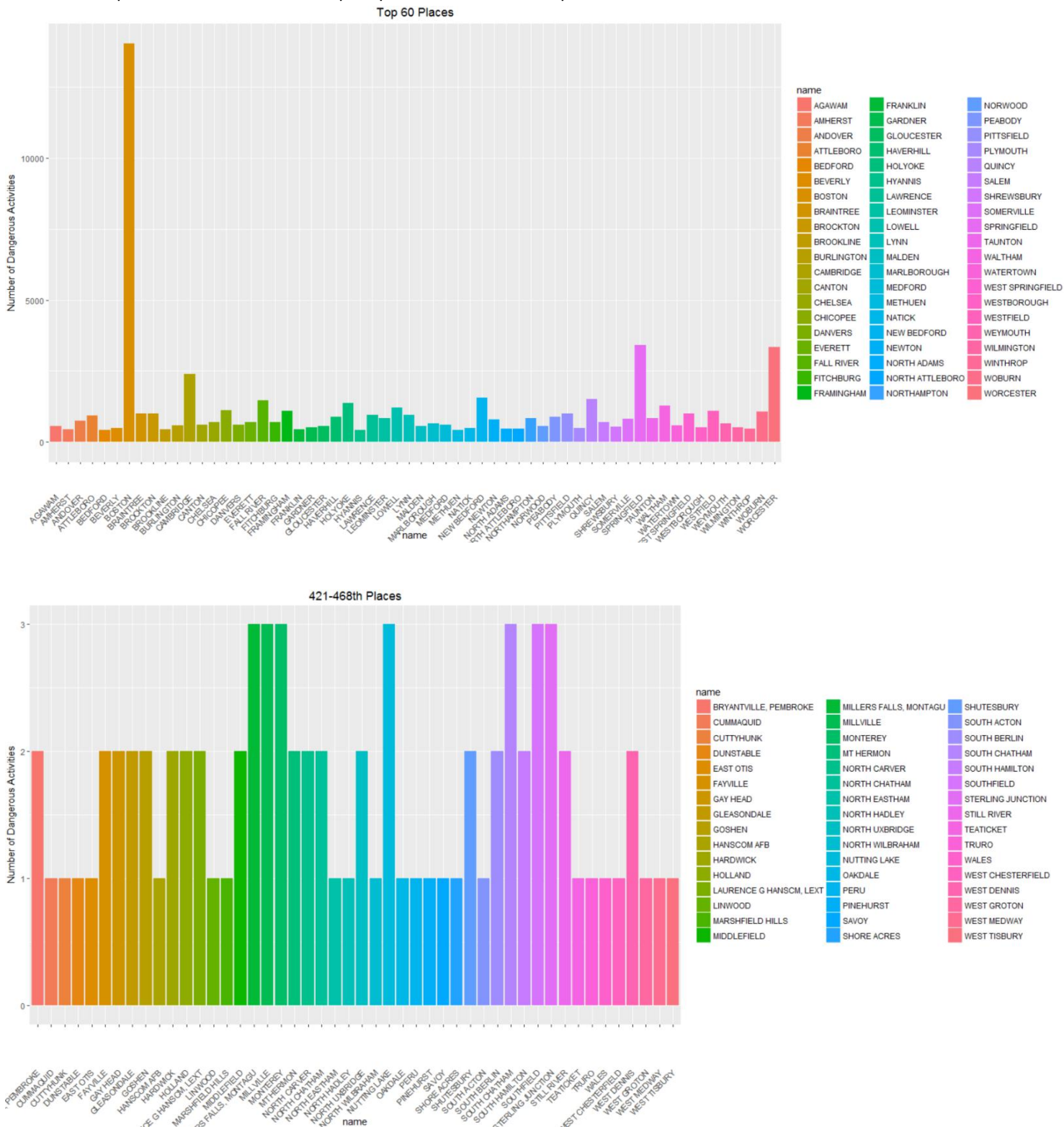


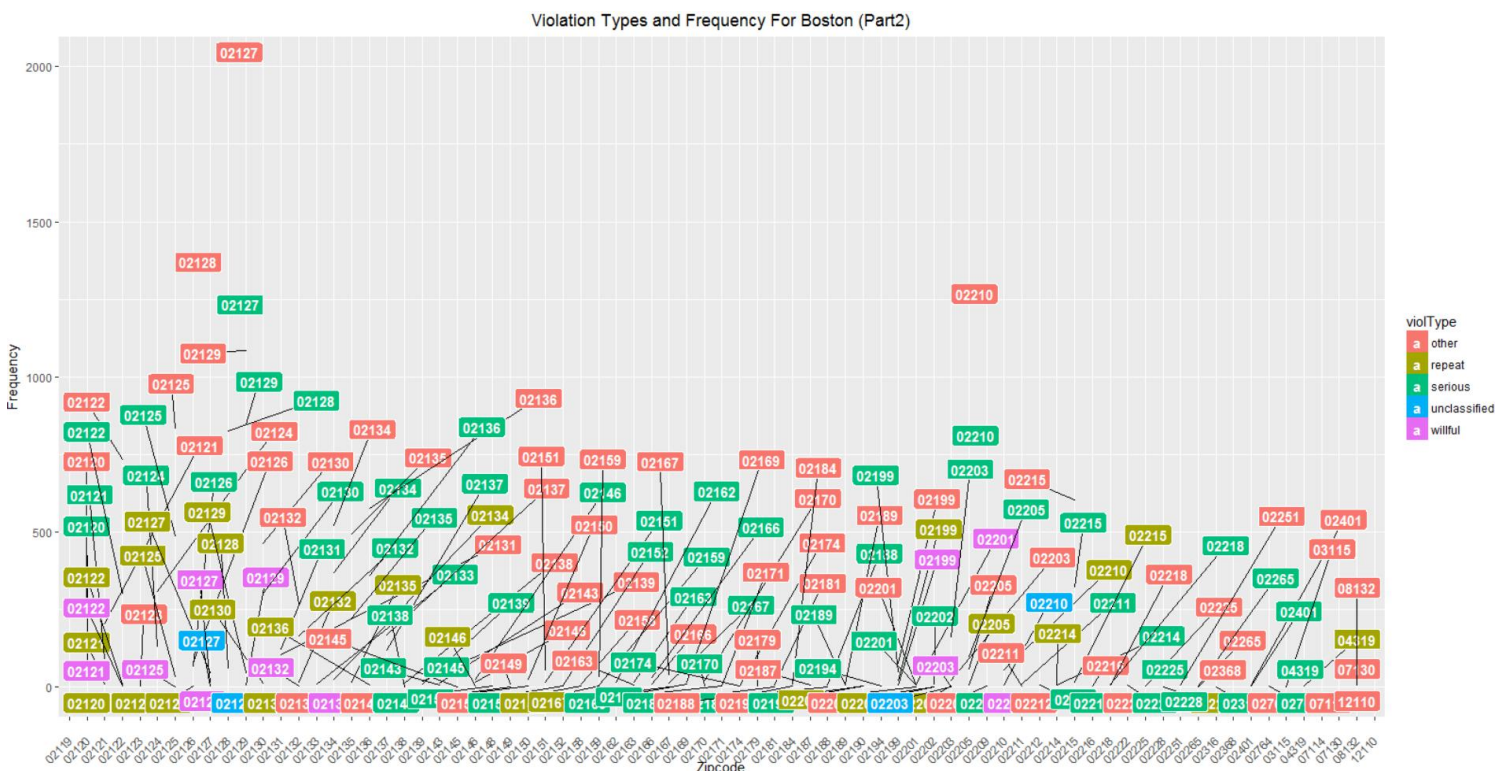
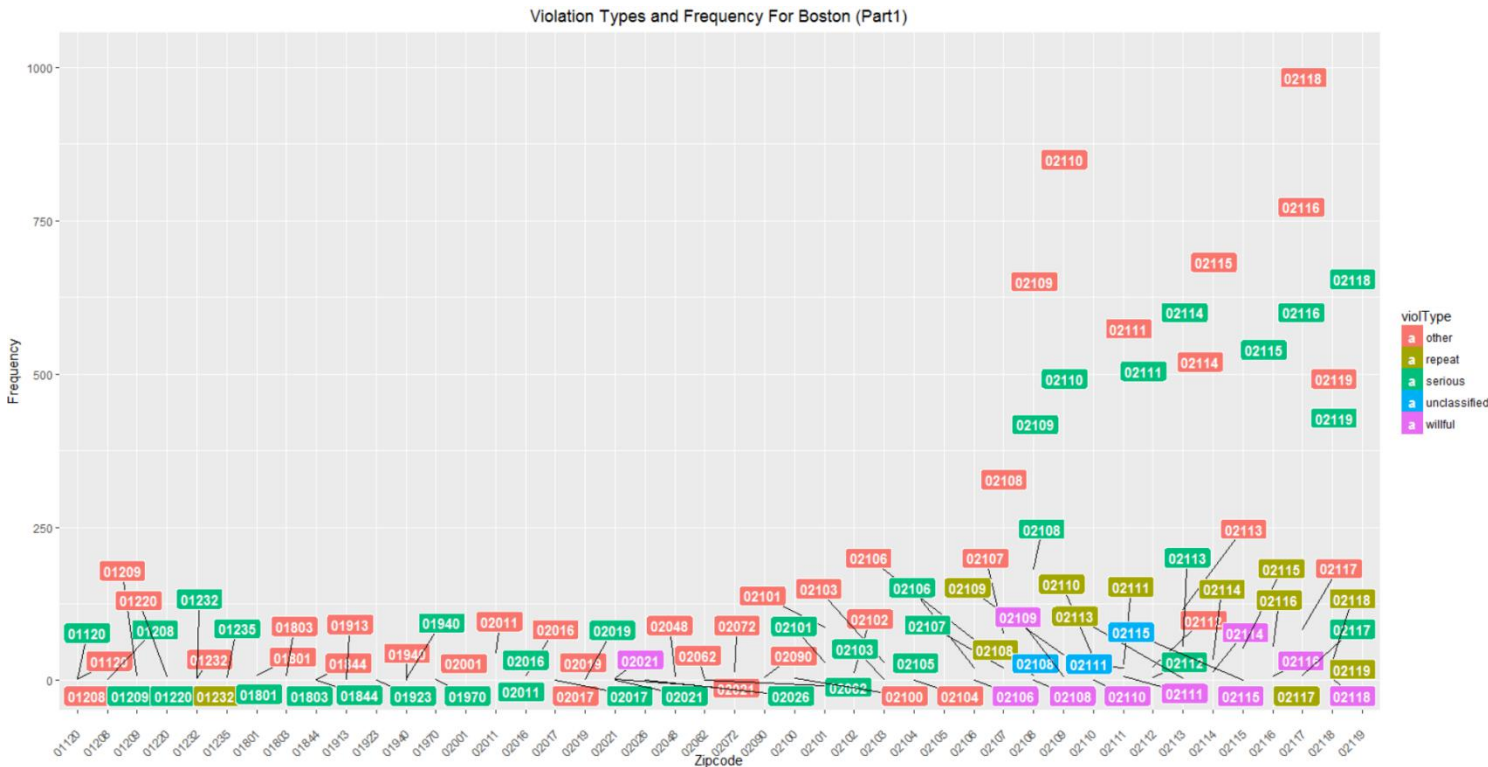
Plots From the R code

- In the code, I arrange the data in **descending order**, and split it into 8 parts because it is easier to plot and the plot will be clearer. Then I plot the number of events that happened for each places in MA. Here I only put 2 of them
The two plots that I choose is the top 60 places and the last 47 places.



From the first graph, it is clear and easy to see that **Boston** has the largest number of activities.

2. In the second part, I plot the frequency of violations by the zip code in MA. Since it is also a large data, I split the data into 2 part. The zip codes are labeled on the graph and I use the package **ggrepel** so that the labels will not overlap. The color of the label represents the type of violations and it is demonstrated on the right side of the graph.



It is clear that there are some places that have more violations that happen, and it is easy to find which type of violation it is by looking at the color.

Notice that the x-axis is the zipcode but it does not mean any numeric values. It is just for convenience because in this way I can plot the data by the order of zip code.