

### Homework 3

1. The Boston crime dataset can be downloaded using the link below
2. <https://data.boston.gov/dataset/crime-incident-reports-august-2015-to-date-source-new-system>
3. Use the above dataset to generate the following visualizations using ggplot 2
  - a. Stacked bar plot with DISTRICTS as x-axis, number of incidents as y-axis and stack the bar plot by DAY\_OF\_WEEK
  - b. Heat map with DISTRICTS as x-axis, DAY\_OF\_WEEK as y-axis, and fill the heat map with total number of shooting incidents
  - c. Plot line graphs with DAY\_OF\_WEEK as x-axis, total number of shooting incidents as y-axis. Use facet\_grid to generate multiplots of the above plot by YEAR
  - d. Box plots with DAY\_OF\_WEEK as x-axis and number of incidents as Y-axis. Compute mean of each box plot and represent as a blue circle
  - e. Dotplot with MONTH as the x axis and total number of incidents as y-axis
  - f. What visualization would you chose to show distribution of number of incidents of crimes by OFFENSE\_CODE\_GROUP and how it changes according to year? Include the code to visualize the output.