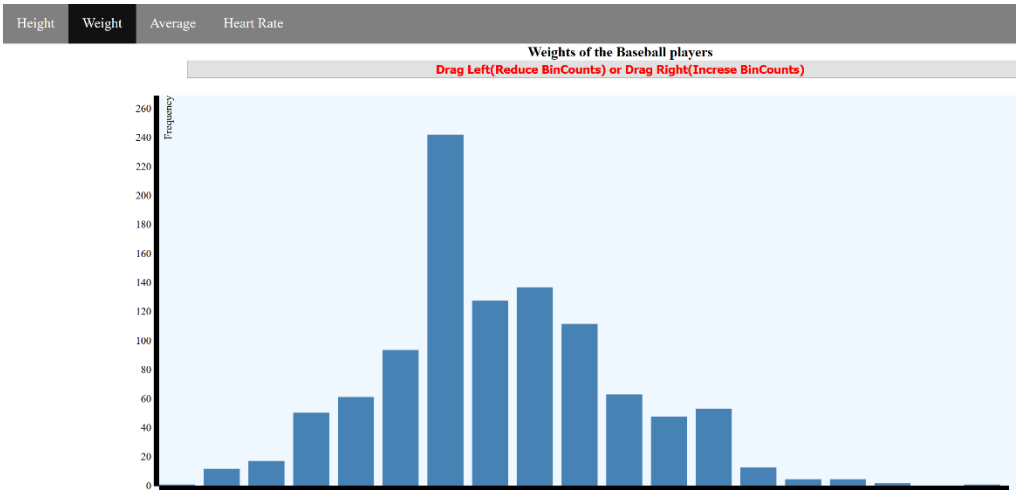
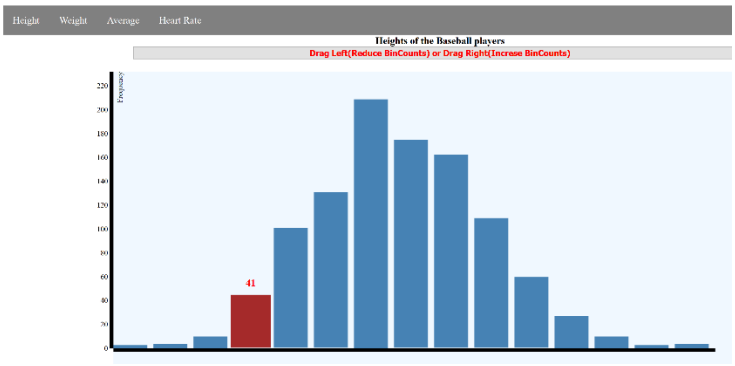
LAB REPORT – 1

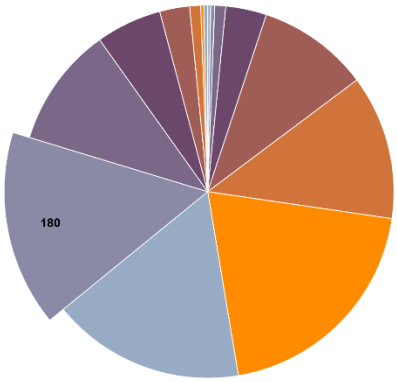
1. Chosen dataset: Baseball players.
   The data set containing 1,157 baseball players including their handedness (right or left handed), height (in inches), weight (in pounds), batting average, and home runs.
2. Tasks*:*
   a. pick a variable and bin it into a fixed range
   Following four variables are chosen, height, weight, average, heart rate. It is binned to fixed range by finding the max and min of chosen variable and dividing it across fixed number of bins.
   b. create a bar chart of the variable you picked in 1
   If the variable picked is height, a bar chart is created for that variable. X-axis has the bins of equi-width and y-axis has the frequency i.e. the number of baseball players having height in that range/lying in that bin width.
   c. using a menu, allow users to select a new variable and update chart.
   Create a navigation menu bar to select variable and update chart.



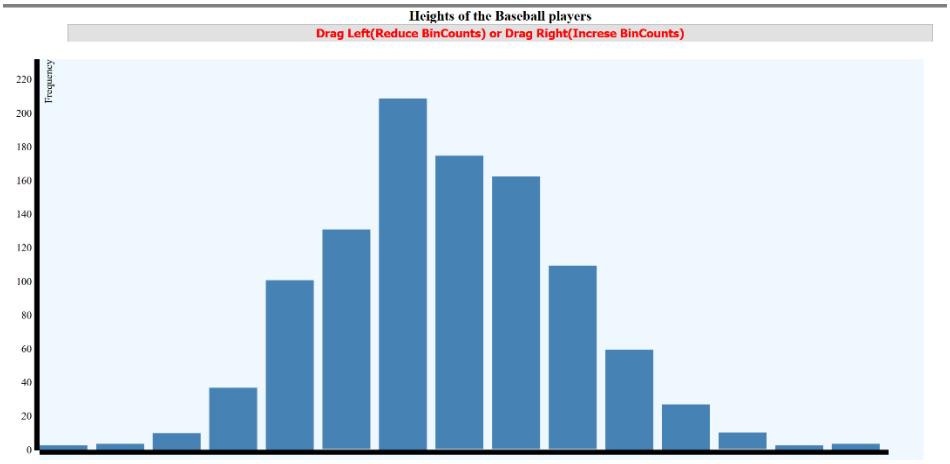
   d. only on mouse-over display the value of the bar on top of the bar
   The frequency of the bar is displayed on mouse over.
   e. on mouse-over make the bar wider and higher to focus on it
   The bar is made wider, higher and changed color on mouse-over.



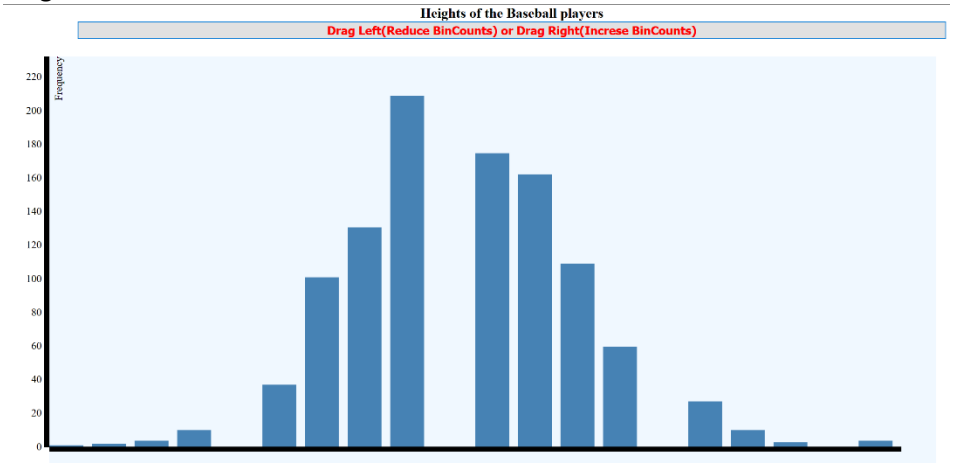
f. on mouse-click transform the bar chart into a pie chart (and back)



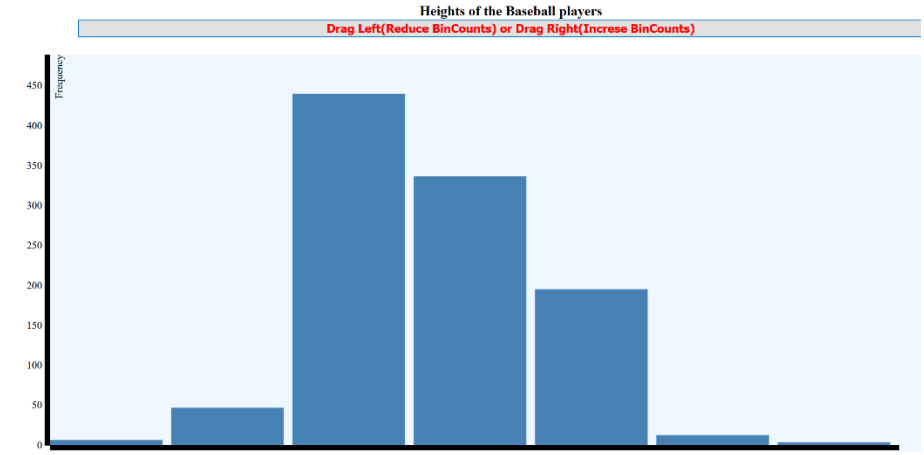
g. mouse moves left (right) should decrease (increase) bin width/size



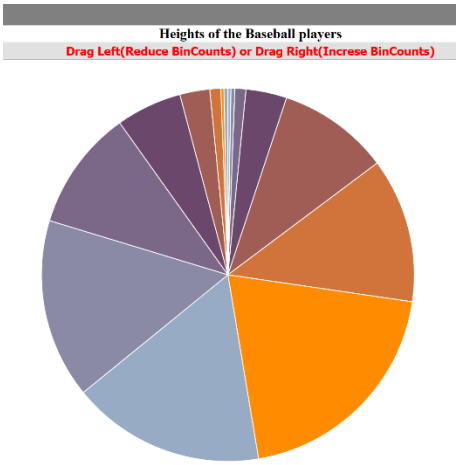
Original bar chart

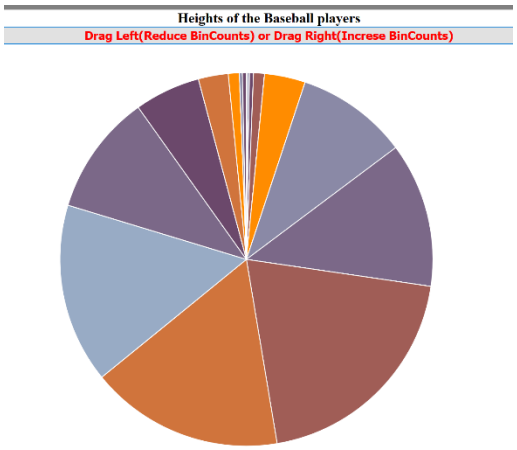


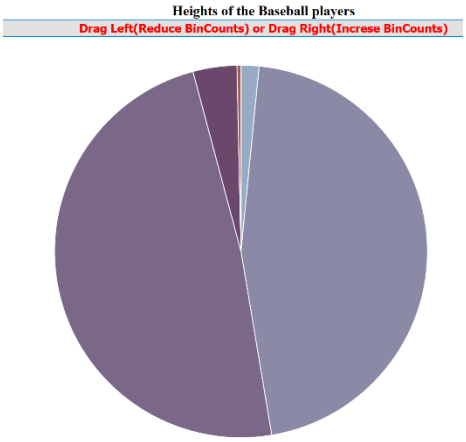
Bar chart after mouse drag to right. Number of bins have increased.



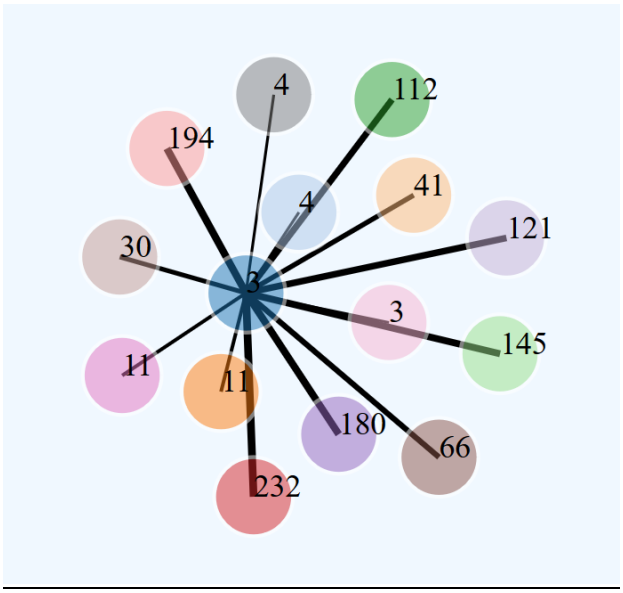
Bar chart after mouse drag to left. Number of bins have decreased.







h. on mouse-click create a force-directed layout using a chosen distance
Force chart is created on mouse click for the selected variable. The link width is the frequency of the variable. So, for a given variable, the bar chart, pie chart and force chart are cycled one after another with mouse click.


4
112
194
4
41
121
30
3
3
145
11
11
180
66
232