Explore the dataset on California’s cities following the instructions below.

Extra points will be awarded to students who document their code well and demonstrate originality of thought.

1. Check for null values 2mks
2. If there are null values replace them with either the (mean, medium, mode) of each column or drop all the rows altogether 4mks
3. What is the mean, max, min, std, medium of the ten lowest values of

latitude values 4mks

1. Display the ten cities with the least value of elevation in Meters 3mks
2. What are the top ten cities with the highest population totals 2mks
3. Plot the relationship of the top ten highest areas in feet with their respective population totals 3mks
4. Plot the relationship of the top ten cities in feet with their respective

population totals 3mks

1. Plot a histogram of the area\_total\_sq\_mi and describe the pattern of the data (you can use 20 bins for the histogram plot) 2mks
2. Normalize the values of the area\_total\_sq\_mi, plot a histogram of the values and describe the pattern of the data after normalization. 3mks
3. Using a plot analyze the relationship of the population total by the area

total in sq mi 3mks

1. Assuming population\_total to be our target value, fit the data onto a linear regression model and evaluate the performance of the model 6mks