**ASSIGNMENT-2 (5530-0001)**

**JYOTHI MODUGULA ID: 16340132**

**Step 1**: Load the data set and view the summary

A picture containing table

Description automatically generated

**Step 2**: Check for missing or null values

Graphical user interface

Description automatically generated with low confidence

**Step 3**: Generate a random sample with 25 observations

Text

Description automatically generated with low confidence

**Step 4**: Print the mean and max values

Text

Description automatically generated

**Step 5**: Plot a graph of the above stats

Chart, bar chart

Description automatically generated

**Step 6**: Calculate the BMI

A picture containing table

Description automatically generated

A picture containing text

Description automatically generated

**Step 7**: BMI distribution for population

Chart, histogram

Description automatically generated

**Step 8**: BMI distribution for sample

Chart, histogram

Description automatically generated

**Step 9**: Calculating the mean of blood pressure and sample

Text

Description automatically generated

**Step 10**: Plot bootstrap, mean, standard deviation, percentiles

Chart, histogram

Description automatically generated

Text

Description automatically generated

**Conclusion:**

By comparing the histograms and line plots, we observe that the bootstrap means, standard deviations, and percentiles are all closer to the population values.

That implies that the bootstrap samples are representative of the population and that we can reasonably estimate the statistics for Blood Pressure using them.