1)

Text

Description automatically generated

Text

Description automatically generated

Graphical user interface

Description automatically generated

Graphical user interface

Description automatically generated

2)

A screenshot of a computer

Description automatically generated

A screenshot of a computer

Description automatically generated

3)

Text

Description automatically generated

Chart

Description automatically generated

Chart, histogram

Description automatically generated

Graphical user interface

Description automatically generated

In this code, we create 500 bootstrap samples of 150 observations each and calculate the mean, standard deviation, and 90th percentile of each sample. We then compare the distributions of the bootstrap means, standard deviations, and 90th percentiles with the population distribution of BloodPressure using histograms and vertical lines representing the population statistics.

Based on the histograms, we can see that the distribution of the bootstrap means and standard deviations are centered around the population mean and standard deviation, respectively. The distribution of the bootstrap 90th percentiles is slightly shifted to the right compared to the population 90th percentile, suggesting that the population 90th percentile is higher than the bootstrap 90th percentiles on average. Overall, the bootstrap statistics are similar to the population statistics, suggesting that the sample statistics are likely representative of the population.