ASSIGNMENT 3&4

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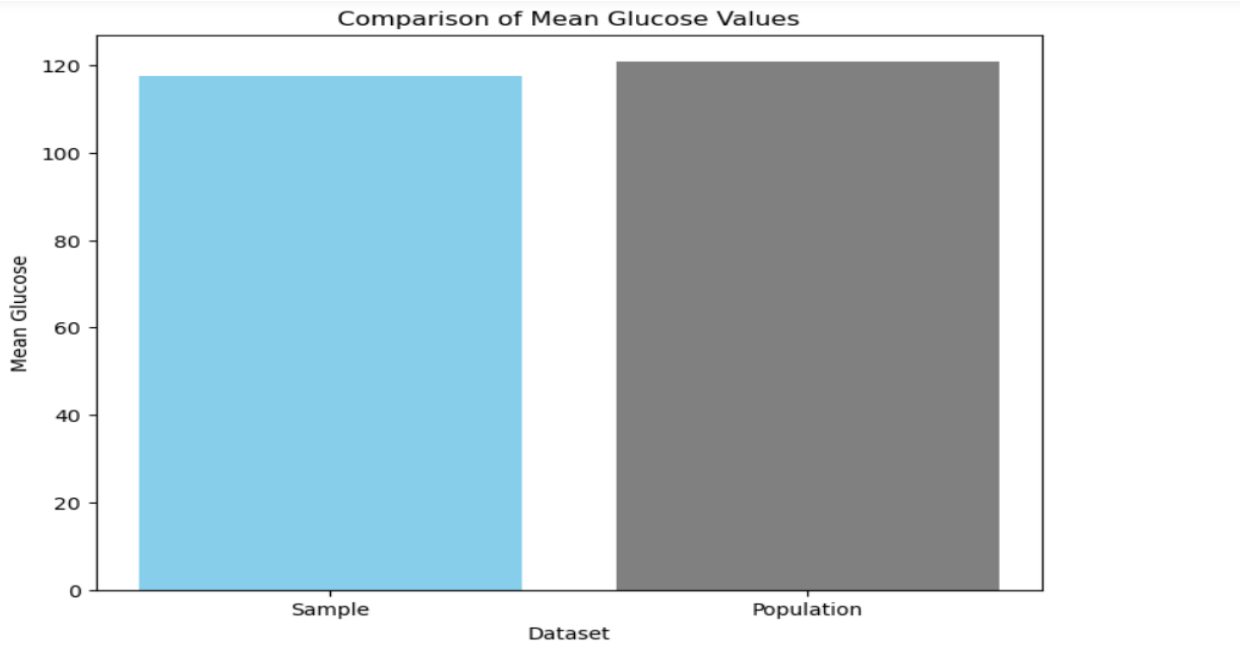
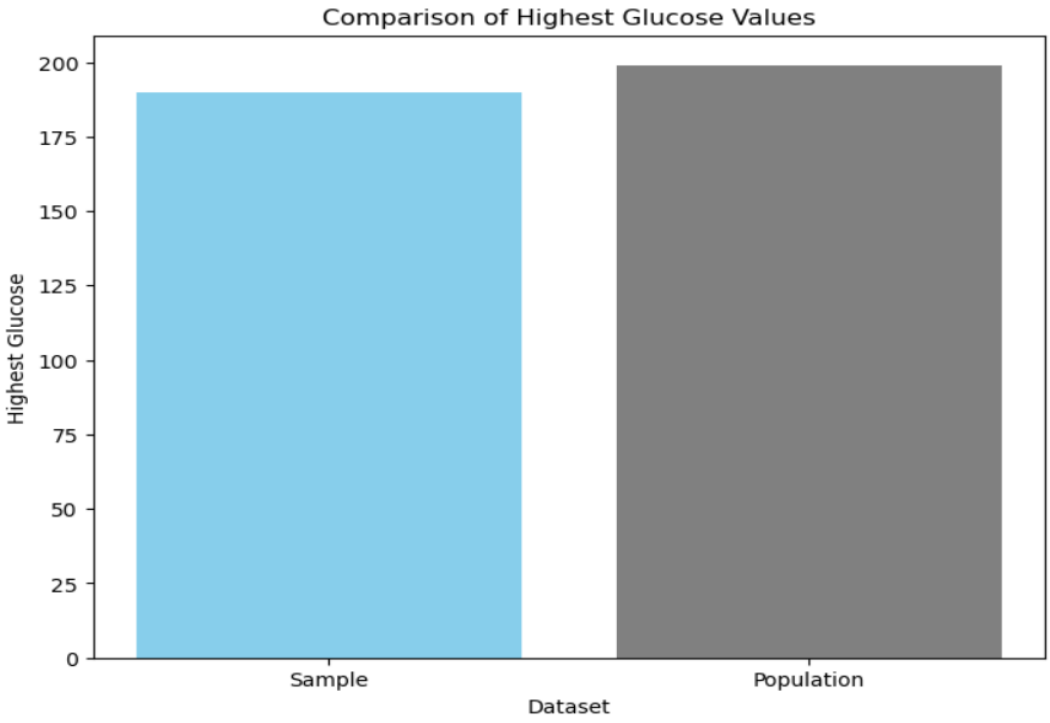
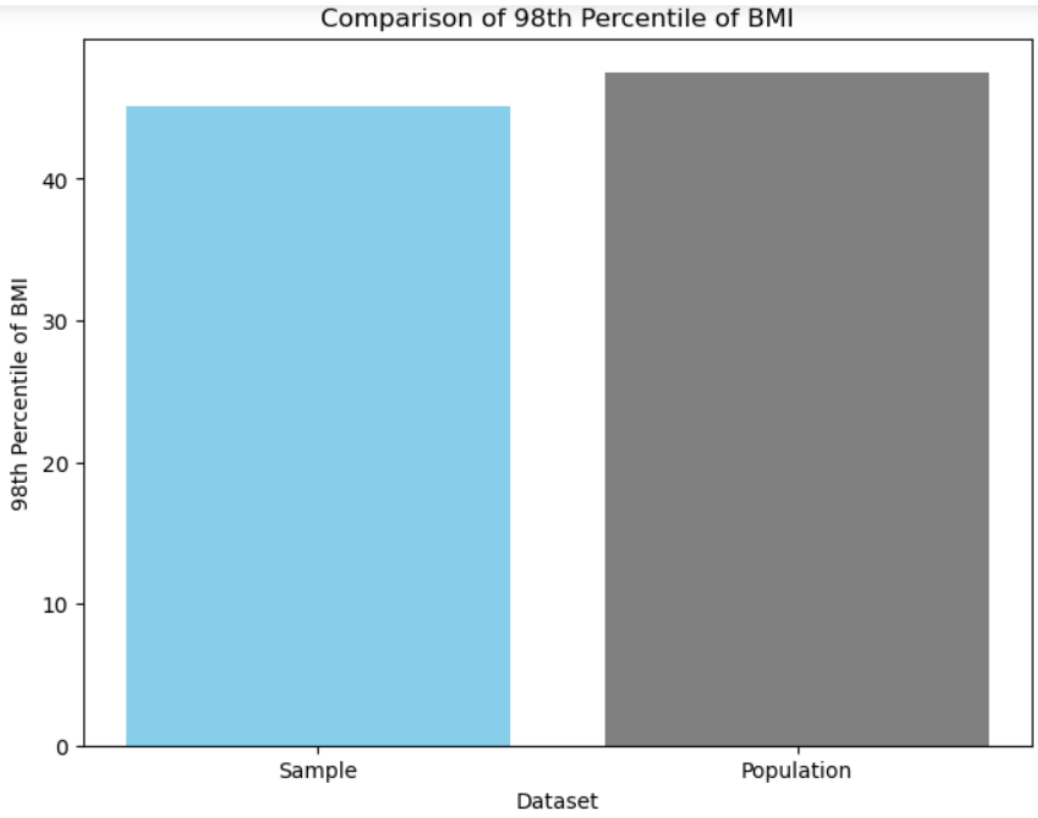
2)

a)





b)

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Sample 98th Percentile of BMI: 45.144
Population 98th Percentile of BMI: 47.52599999999996
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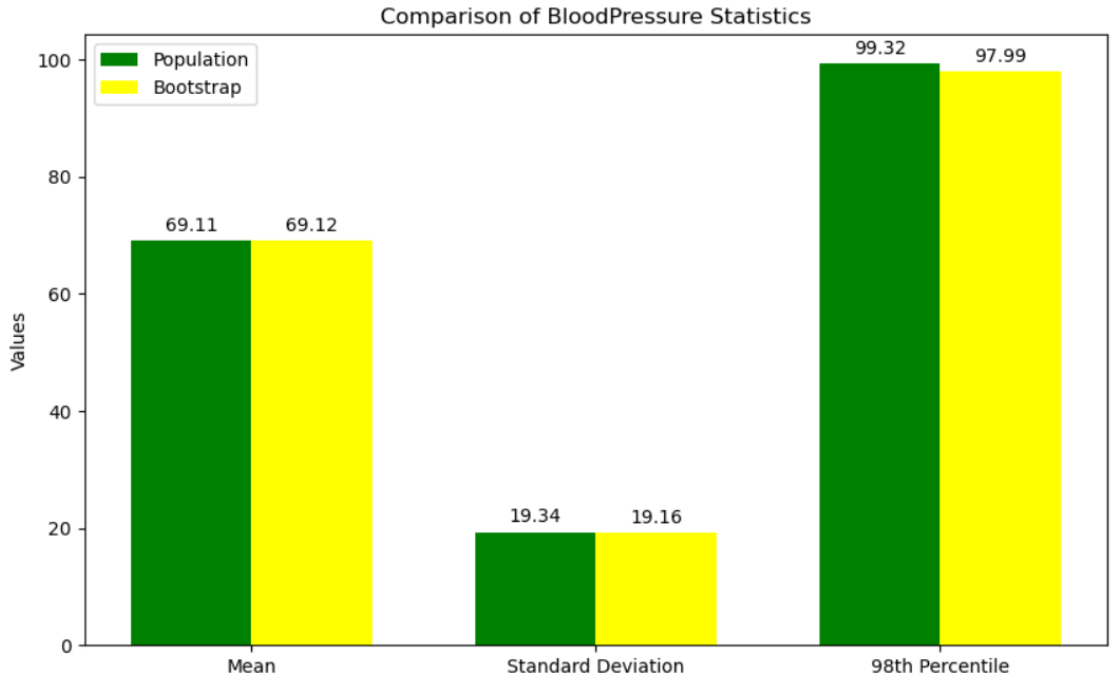
c)




```
Population Mean: 69.10546875
Population Standard Deviation: 19.343201628981696
Population 98th Percentile: 99.31999999999994

Average Bootstrap Mean: 69.1154
Average Bootstrap Standard Deviation: 19.159684852068725
Average Bootstrap 98th Percentile: 97.98596000000002
```

Report on my findings

After generating 500 bootstrap samples of 150 observations each from the population data for BloodPressure, I calculated the average mean, standard deviation, and percentile for each bootstrap sample. Then, I compared these statistics with the corresponding statistics from the population data.

By comparing above statistics (Mean, Standarad Deviation and 98th percentile), we can observe how the bootstrap samples reflect the distribution and characteristics of the population data. If the bootstrap samples closely match the population statistics, it indicates that the samples are representative of the population. Conversely, significant deviations may suggest issues with the sampling process or characteristics of the population.