**IT24102361  
Sharanjan.S  
Lab - 08**  
  
1. Calculate population mean and variance of the dataset.

A computer screen shot of a computer code

Description automatically generated

2. Get 30 random samples of size 5, with replacement and calculate sample mean and sample variance for each sample.

A close-up of a white background

Description automatically generated

A white background with black and white clouds

Description automatically generated

A computer code with blue text

Description automatically generated

3. Calculate mean and variance of the Sample Means.

A close-up of a logo

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4. Compare and state relationship (if any) Population Mean and the Mean of Sample Means.

A white background with black and white clouds

Description automatically generated

A close-up of numbers

Description automatically generated

5. Compare and state relationship (if any) Population Variance and the Variance of Sample Means.

A number and a number

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A close-up of a number

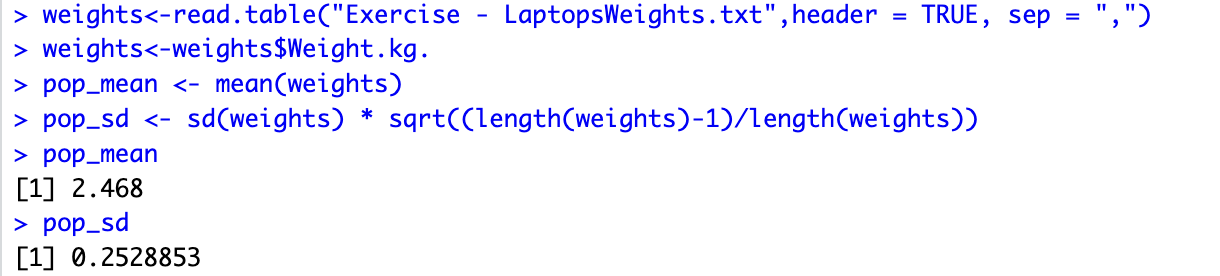
Description automatically generated

Exercise

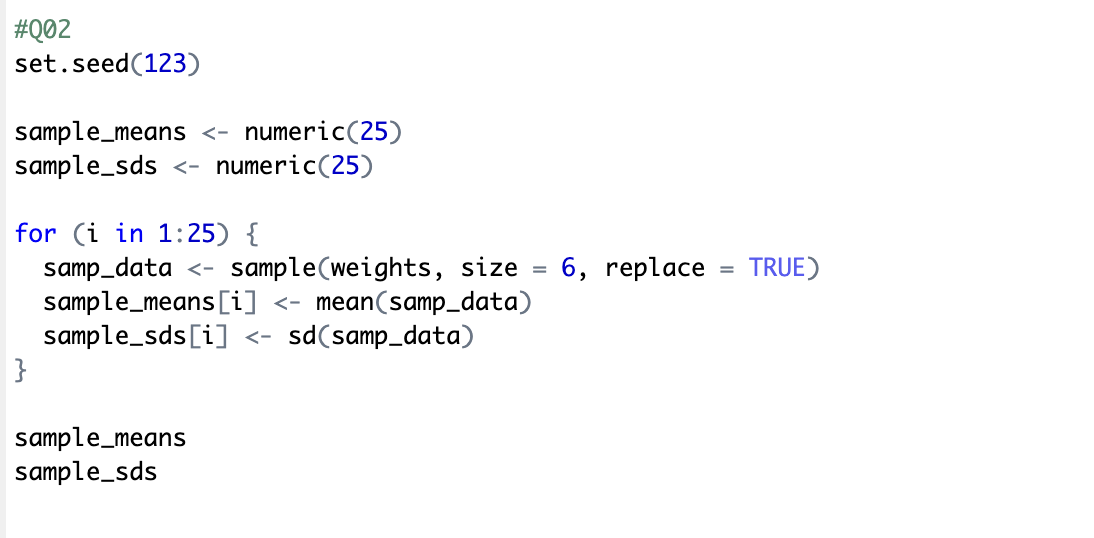
1. Calculate the population mean and population standard deviation of the laptop bag weights.

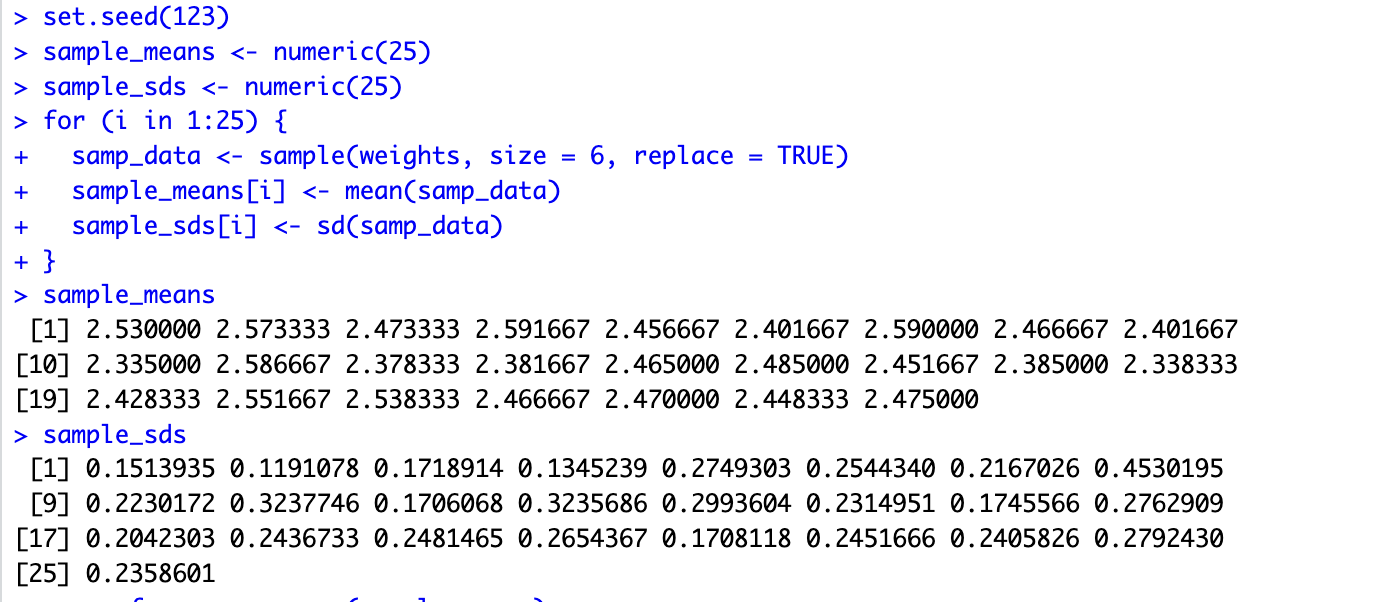
A screenshot of a computer program

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2. Draw 25 random samples of size 6 (with replacement) and calculate the sample mean and sample standard deviation for each sample.





3. Calculate the mean and standard deviation of the 25 sample means and state the relationship of them with true mean and true standard deviation.

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A close-up of a computer screen

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