**Response for Assignment 6.2**

Below shows the step wise calculation of Variance

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| --- | --- | --- | --- | --- |
| Data | Data - Mean | Square of (Data-Mean) | Sum of Squares | **Variance** (Divide Sum by N-1) |
| 3 | -55.5 | 3080.25 |  |  |
| 21 | -37.5 | 1406.25 |  |  |
| 98 | 39.5 | 1560.25 |  |  |
| 203 | 144.5 | 20880.25 |  |  |
| 17 | -41.5 | 1722.25 |  |  |
| 9 | -49.5 | 2450.25 |  |  |
|  |  |  | 31099.5 | 6219.9 |
|  |  |  |  |  |
|  |  |  |  |  |
| Mean | 58.5 |  |  |  |

1. Step 1: Calculate Mean of the data points, which is 58.5 in this case
2. Step 2: Subtract Mean from each data point
3. Step 3: Square each value (derived from subtraction in Step 2)
4. Step 4: Calculate sum of Squares (derived in Step 3) – 31099.5 in this case
5. Step 5: Divide Sum of Squares by N-1 (6-1=5 in this case) – **62199.9 is Variance**
   1. As this is not mentioned whether these data points are from Population or Sample, it is assumed that this is Sample.
   2. If the data points are from Population, we divide by N (no of observations)
   3. If the data points are from Sample, we divide by N-1 (no of observations - 1)

\*\* Excel sheet showing the calculation is also uploaded on Github assignment