Assignment 2: Explain the formula for standard deviation and variance. Save as Assignment2.doc and upload it on Github repository.

Standard Deviation is the average distance from the mean. And Variance is the average squared distance from the mean. This means Standard deviation is the square root for variance and variance is average square deviations from the mean. This also means variance is measured in larger metrics than standard deviation. For example, meters squared would be an appropriate variance measurement whereas the standard deviation would be measured in the same increments of the original data (minutes/meters).

STANDARD DEVIATION FORMULA: σ = √(∑(x−¯x) ( x − x ¯ ) /n)

VARIANCE FORMULA: σ^2 = (∑(x−¯x) ( x − x ¯ ) /n-1)