Plotting, Salting, Smoothing 1
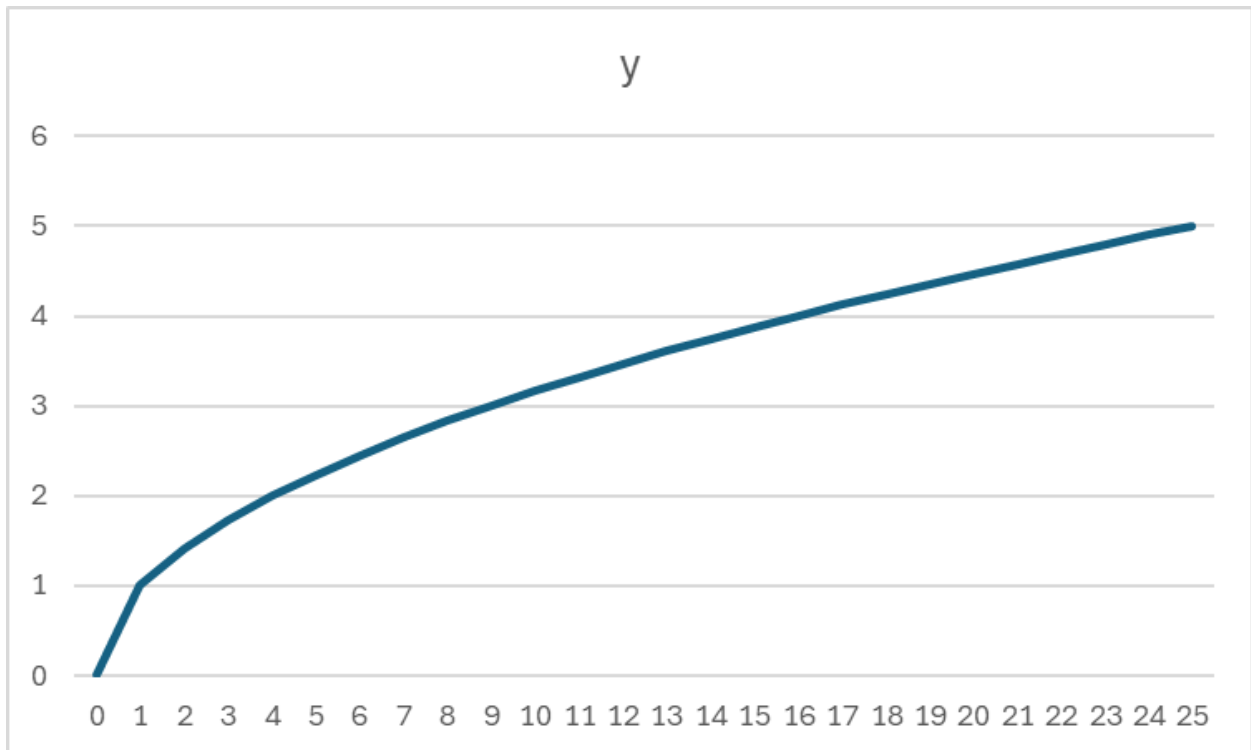
Ahmed Malik
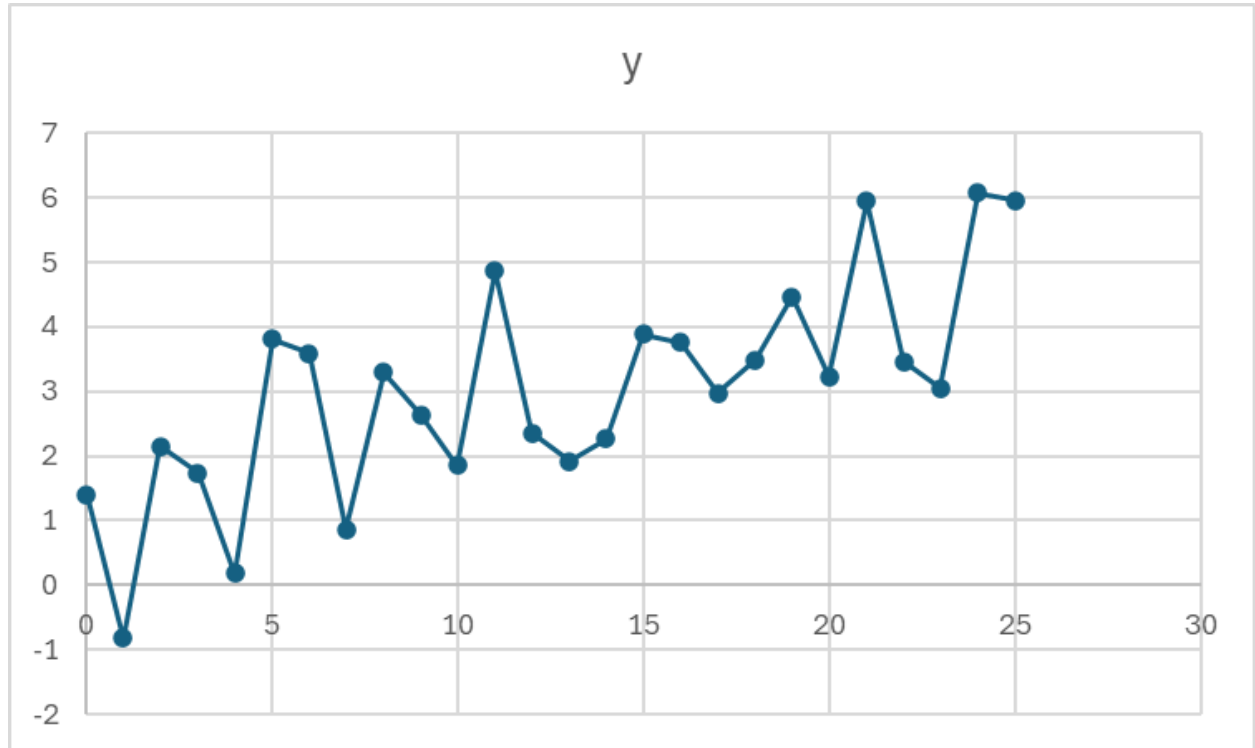
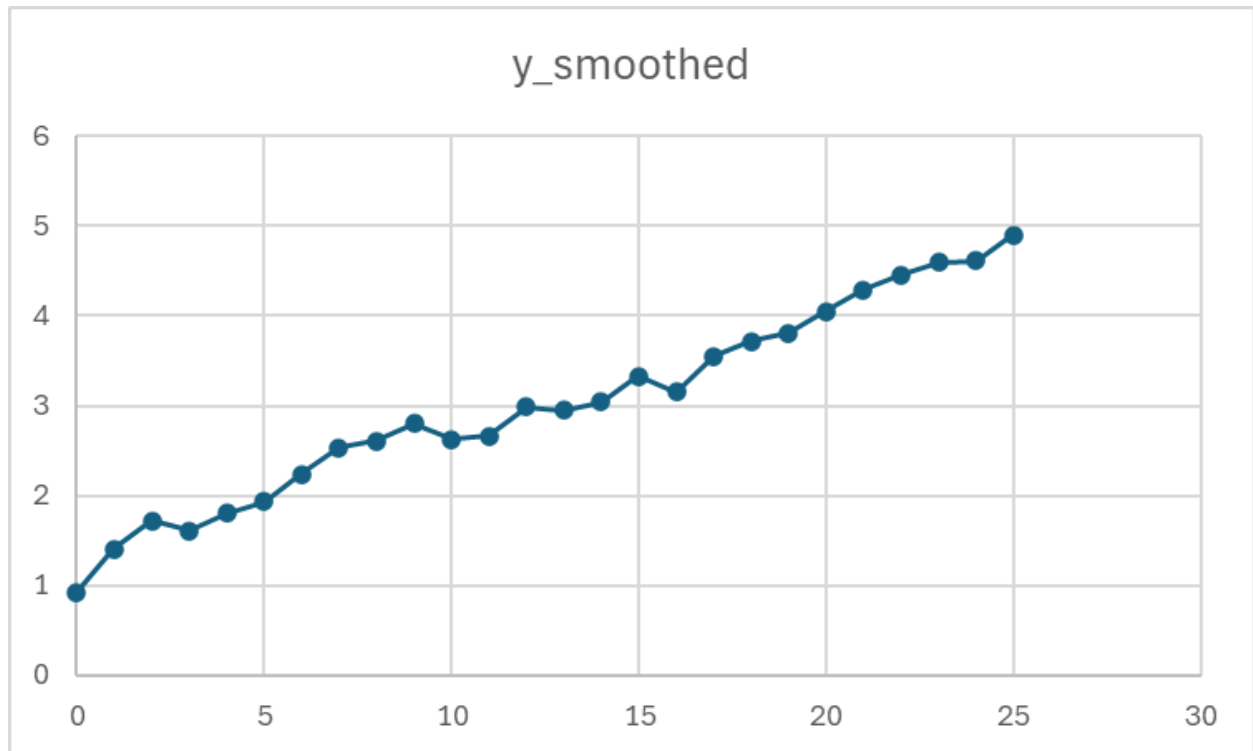The function I chose is the sqrt(x) function
Using Java

- The Plotting is achieved by loading the x and y values for my function into a csv. Then opening the csv we can obtain the graph

- The salting is achieved by adding a random number, between -1 and 1, which then can be multiplied by the amount the user would want to salt. The resulting graph looks like this

- The smoothing is achieved by averaging a group of neighboring values in a list. For each value, it calculates the average of itself and the nearby values within a specified range (or window). The resulting graph is

y_smoothed

As you can see, the resulting graph is much less volatile than the salted graph, showing that the smoothing worked.