Program Salt & Smooth

Statslibrary2

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2023

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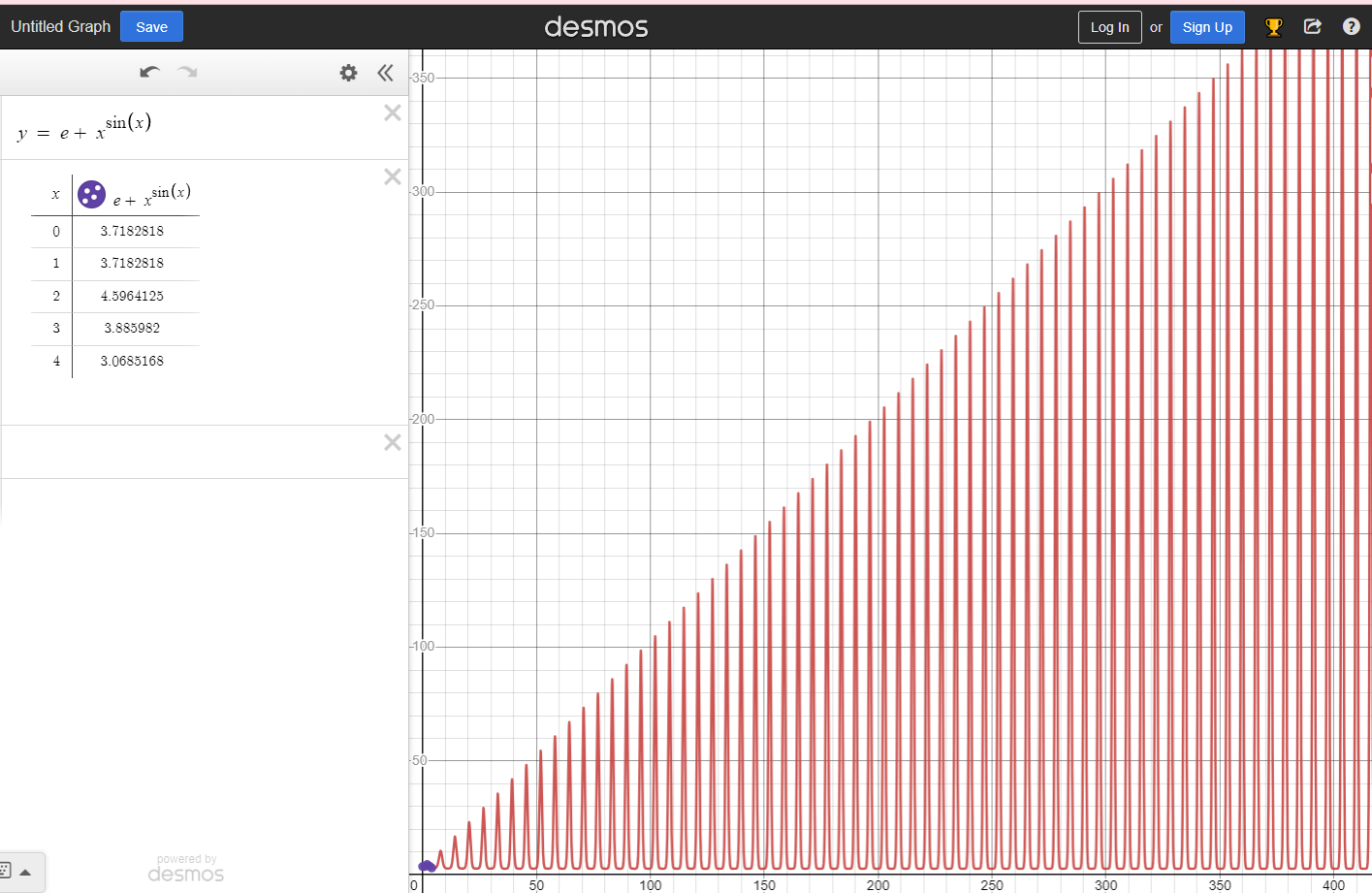
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# Plot, Salt, Smooth

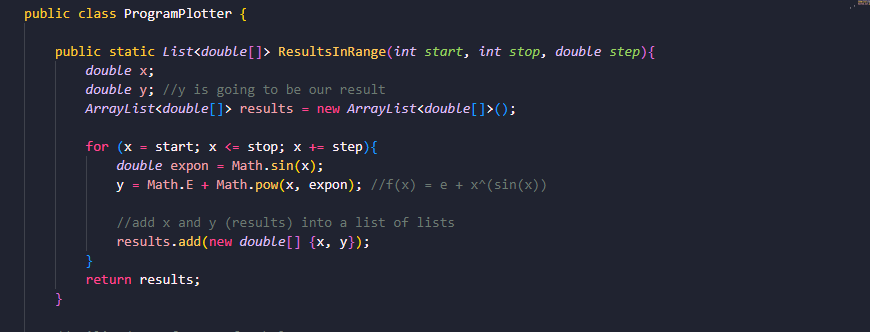
## The Function

The function that was chosen for this assignment was . This equation was chosen due to the way the graph appears, and its higher challenge to implement. The function includes both the eulers number, an exponent, and sin(x).



## Program Plotter

# ProgramPlotter.java was implemented with two methods, one for writing results into a CSV file, and one that calculated the function results. The method ResultsinRange method is as shown below.



The ResultsinRange method takes the parameters for when you want the x-value to start, stop, and the increments of it as well. It takes each input, calculates the result (which is the corresponding y-value), and adds it to a new ArrayList called results. It returns the list, allowing the CSVWriter to use the list and write a CSV file with your choice of file name.

## Salter

## Smoother

# Maven

# Matlab Octave

Program Used:

MatLab

Tutorial Used:

<https://www.mathworks.com/help/matlab/ref/plot.html>

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https://www.youtube.com/watch?v=aD8k4pYUBOk

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# Report

JfreeChart and Apache:

<https://commons.apache.org/proper/commons-math/userguide/stat.html>

Using the StatUtils utility class:

1.2

// Compute statistics directly from the array

// assume values is a double[] array

double mean = StatUtils.mean(values);

double std = FastMath.sqrt(StatUtils.variance(values));

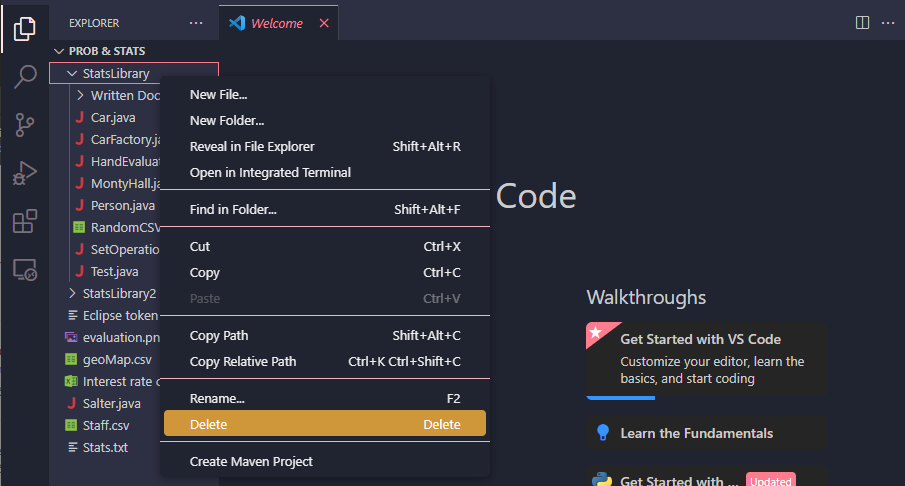
double median = StatUtils.percentile(values, 50);

// Compute the mean of the first three values in the array

mean = StatUtils.mean(values, 0, 3);

You can use this to do the smoothing

Or when using Mav select Create Maven Project after downloading maven extension (if you don’t already have it)



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After right clicking maven project and selecting custom command

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