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Probability and Applied Statistics

**Plotter Salter Smoother Java**

Imported javax and jfree charts needed. Created an array and used a dataset that went from 1-9 using only odd numbers which I plotted, salted, and smoothed. Tricky part was creating graph properly and having lines output because lines would not output on graph it seemed as if it were underneath the graph. Iterated it 3 times for regular plotting, then salting data, the smoothing data.

**Plotter Salter Smoother Apache**

This followed a similar step as before except we added in apache which changed formatting and gave graph a different outlook. Creating chart was easier this time around to print out data.

**Plotter Salter Smoother Matlab**

Watched a walkthrough on how Matlab works and asked for help from engineer friend who walked me through how to pass data through. Found this to be relatively easy as there was no word play trickery. Everything was just plot, title, smooth. The ide shows how it is most effective for scripting.

**Stats Library**

I had to figure out firstly how to call on the correct imports to call on so I could pass Poisson probability, hypergeometric probability , and Uniform distribution through. I then wrote a loop to iterate for 5 times while its calculating the probability/distribution. Following this I used a method that we are all familiar with in statistics, drawing cards and likelihood to draw premier cards such as Aces from a deck.

**Research Project**

Gathered dataset from online that gave me a random list of 100 different numbers. Some problems felt more fun to do than others simply because I could see real-world use for it such as seeing how many defective machines could be produced from a factory. Finding this out can be applied to real world applications because if you were to own your own business, a vital part of business is figuring out how much dead money you may be giving up so discovering that perhaps out of 50 machines produced, 5 of them are being produced defective that can be a massive loss depending on the type of machine that is being produced. Something small like a computer part can be a loss of $50 whereas something like a car can be a loss of $50,000.