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CIS 1030-001

Section 1

**Data Tools**: For this section, I did not really learn anything. It is all about basic excel commands and formulas. I absolutely do see how this is useful, as it contains formulas I have used in excel previously in the Navy. The lessons themselves I feel weren’t setup very well, as the clickable links didn’t allow any experimenting or learning by via inputs or writing the different formulas to arrive at the correct answer. So while I already knew about these different functions and formulas, I feel that someone who didn’t would not learn very effectively.

**Big Data**: The incredible and immense amount of data out there greatly surprised me. The fact that the internet archive (AMAZING resource!) also has multiple backups of Khan Academy alone each at least 30 petabytes was startling to read. Very thorough, and makes a great point to what an amazing thing the internet archive is doing. The amount of data that needs to be stored is staggering. It is no small wonder there is such a critical need for rare earth minerals. Which begs the question. As they run out, what next? But also, is there really a need to store every little bit of data?

**Bias in Machine Learning**: In the criminal justice part of the chapter the bit about algorithms under-estimating white recidivism and overestimating black recidivism was extremely interesting. That, coupled with the difficulties with facial recognition with people with darker skin tones definitely leads to racism/bias whether it is intended or not. As these things are used in law enforcement, this can and will lead to unintended consequences.

**Unit Test**: The unit test did a fine job at assessing the three different areas covered in the lesson. However, many of the questions were extremely repetitive. As an experiment I went through the unit test five times to check out the test bank, and by the fourth time I had already seen all of the questions. There were many questions that appeared in each attempt of the test, so even without learning any of the lesson it would be very easy to brute force your way to a full grade.

Section 2

Hypothesis: Using politicians elected for the first time post 1944 will have a higher number of Democrats than Republicans.

Conclusion: While the youngest politician elected is Republican, my hypothesis is supported due to the mean age of politicians when first elected is younger for Democrats.

Testing: See excel file.