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CS 3600 – B
23 Nov 2020
Project 4

Question 5

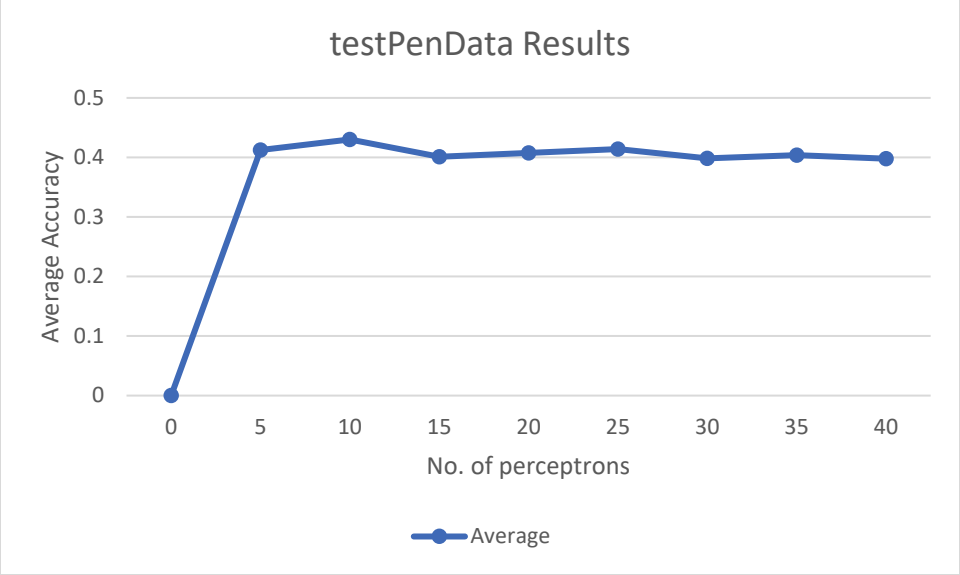
testPenData Results		
Max	**Average**	**Standard Deviation**
0.90651801	0.900686106	0.005242095

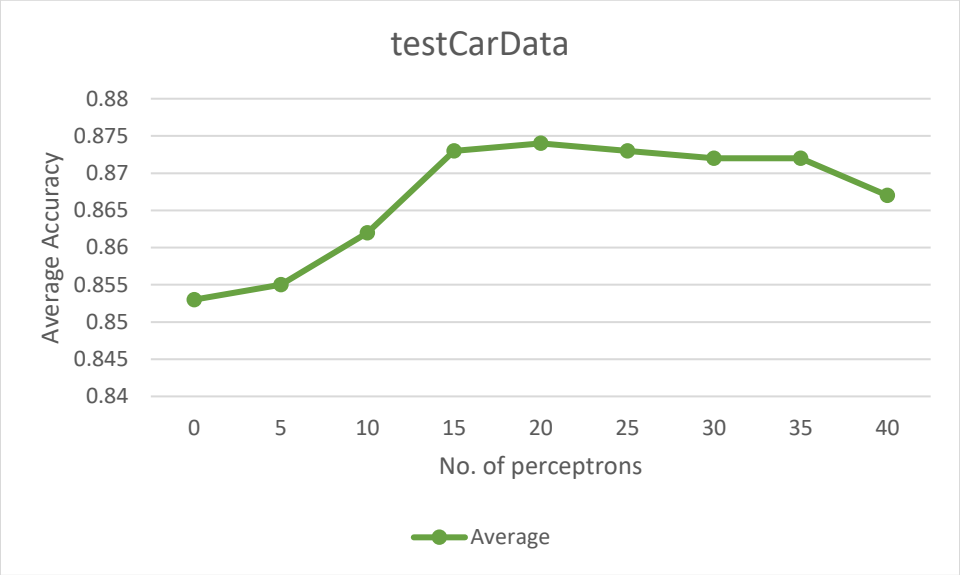
testCarData Results		
Max	**Average**	**Standard Deviation**
0.985	0.974	0.008602325

Question 6

testPenData Results									
Perceptrons	**0**	**5**	**10**	**15**	**20**	**25**	**30**	**35**	**40**
Max	0	0.789594	0.81275	0.792739	0.802173	0.782733	0.812464	0.806175	0.813036
Average	0	0.412178	0.430189	0.401372	0.40749	0.413951	0.398399	0.403602	0.398056
Standard Deviation	0	0.295803	0.307639	0.301371	0.303588	0.299933	0.29193	0.311561	0.303242

testCarData Results									
Perceptrons	**0**	**5**	**10**	**15**	**20**	**25**	**30**	**35**	**40**
Max	0.965	0.965	0.975	0.975	0.9	0.965	0.965	0.97	0.98
Average	0.853	0.855	0.862	0.873	0.874	0.873	0.872	0.872	0.867
Standard Deviation	0.10008	0.100797	0.104	0.112454	0.092682	0.108148	0.108968	0.10201	0.093327





Analysis: In both cases, accuracy has a tendency to increase as the perceptron count increases from 0 to 10. However, for the pen example, the accuracy remains relatively constant despite a constant increase in perceptron number. The car data set follows this trend as well with a few key differences. First the accuracy continues to increase until the number of perceptron is 15. Secondly, the car data set is far more accurate than the pen data set and is also more consistent.