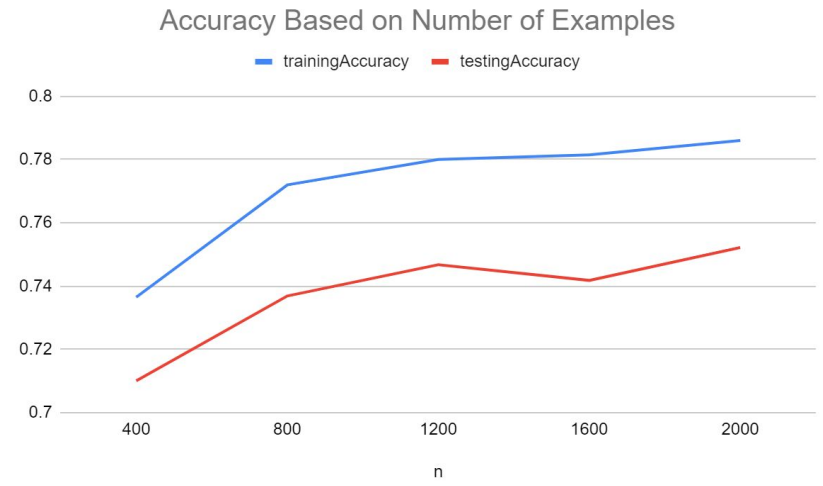
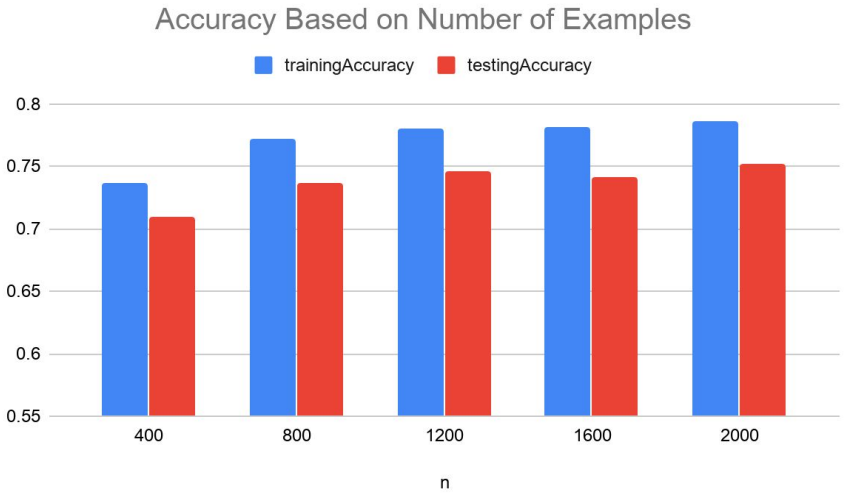
Homework 1 (Part 4 and 5)
Machine Learning CS4342
Linda Puzey and Matthew StLouis

n	trainingAccuracy	testingAccuracy
400	0.7365	0.7100656455142232
800	0.772	0.736870897155361
1200	0.78	0.7467177242888403
1600	0.7815	0.7417943107221007
2000	0.786	0.7521881838074398

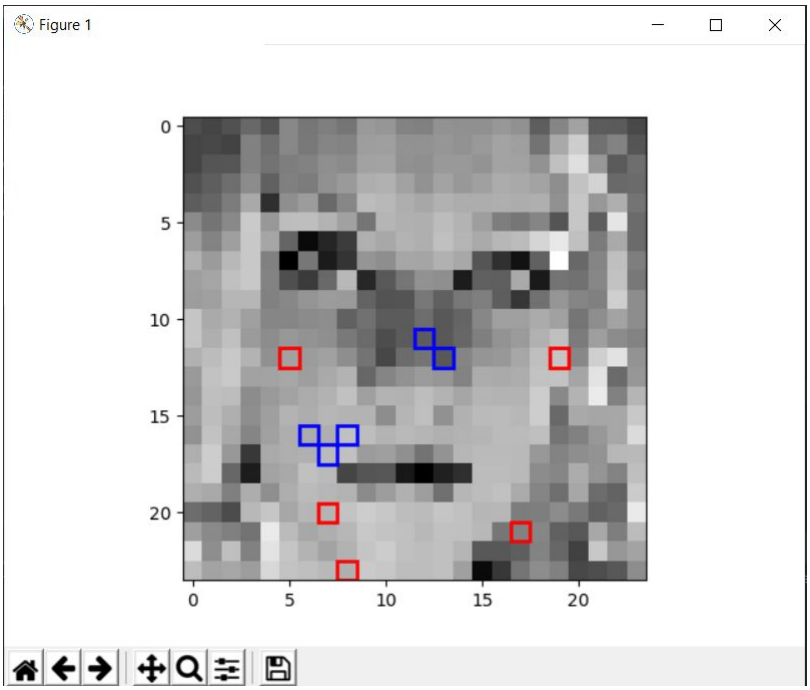




4. Characterize in words how the training accuracy and testing accuracy changes as a function of n, and how the two curves relate to each other. What trends do you observe?

From the data and graphs, we observed that the training and testing accuracy increase linearly as the number of examples increases. As the sample number gets higher the accuracy seems to saturate. The training accuracy is higher than the testing accuracy due to overfitting of the samples.

Visualizing Features



Final Predictors used:

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[[20.  7. 17.  7.]
 [21. 17. 16.  8.]
 [12.  5. 11. 12.]
 [23.  8. 16.  6.]
 [12. 19. 12. 13.]]
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