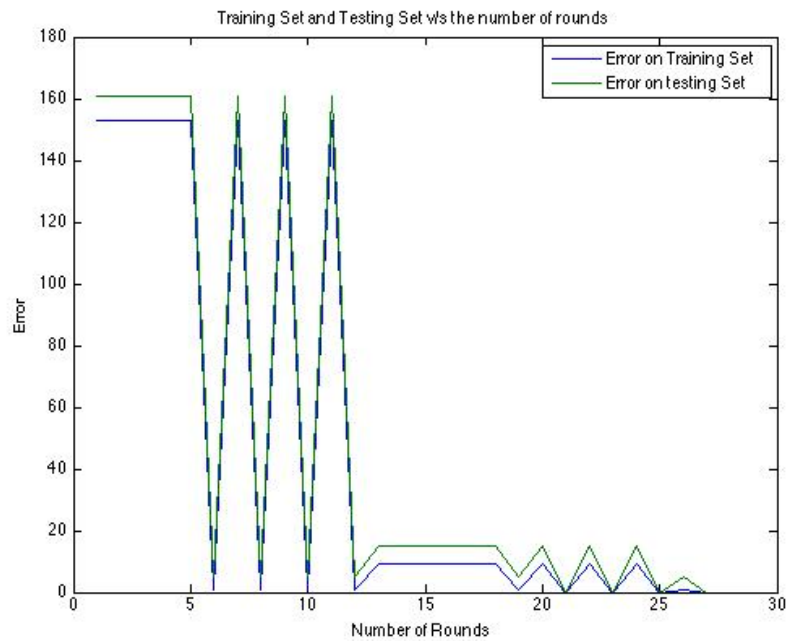


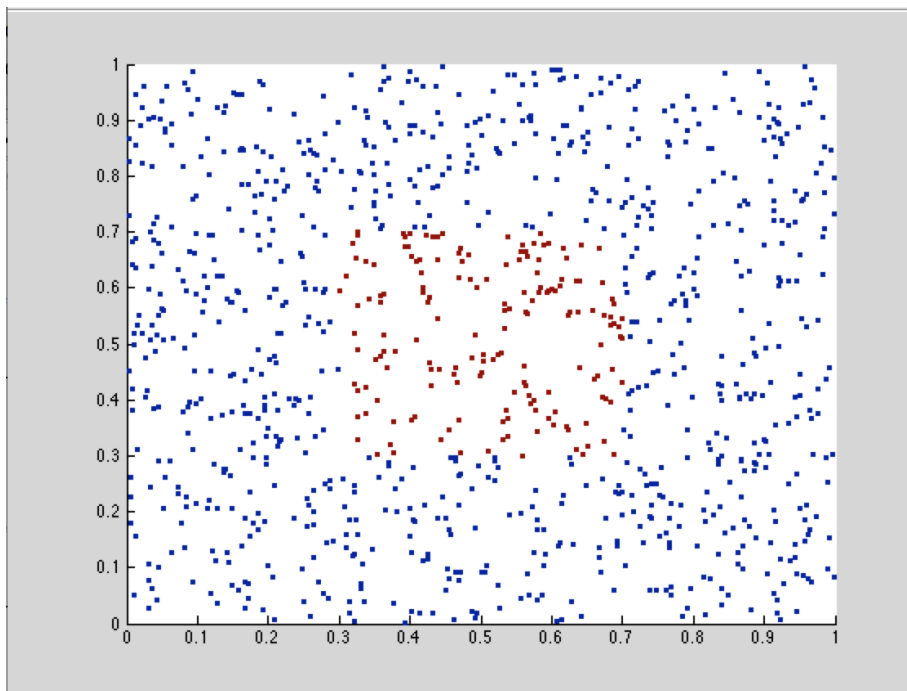
Note: The final plots and graphs have been attached. The code can be used to further see plots for each round, though the same have not been attached.

DATASET 1

Error on the Testing Set (Final Round) is 0.

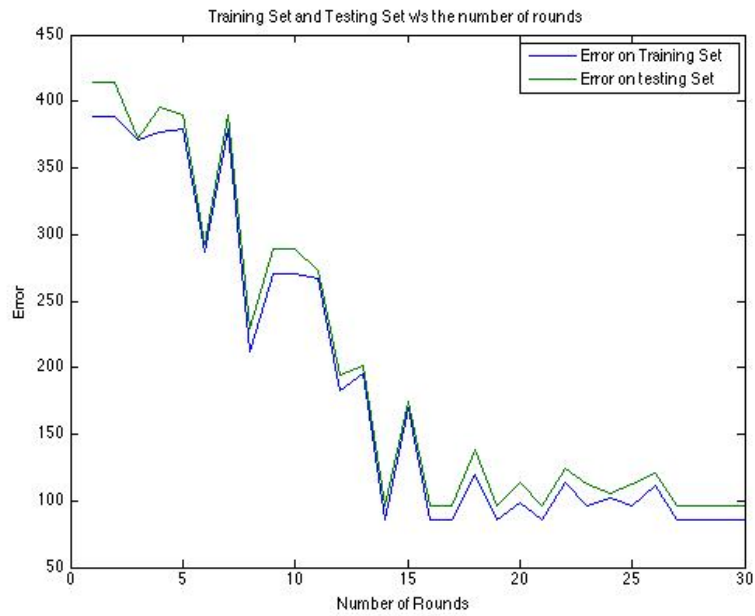


Scatter Plot:

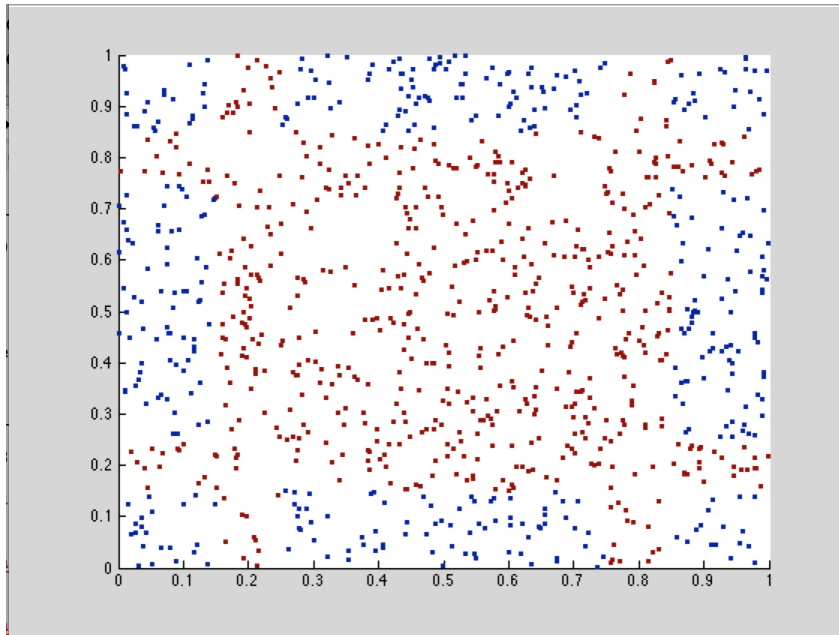


DATASET 2

Error on the Testing Set (Final Round) is 96.

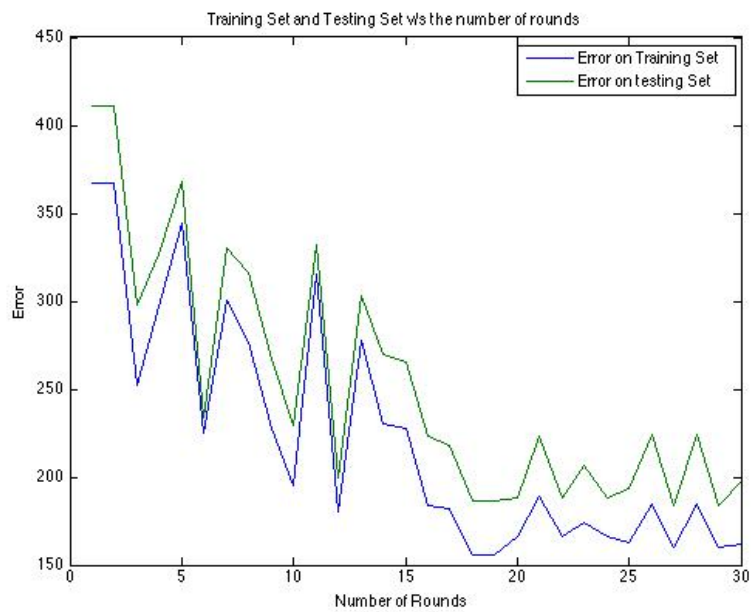


Scatter Plot:

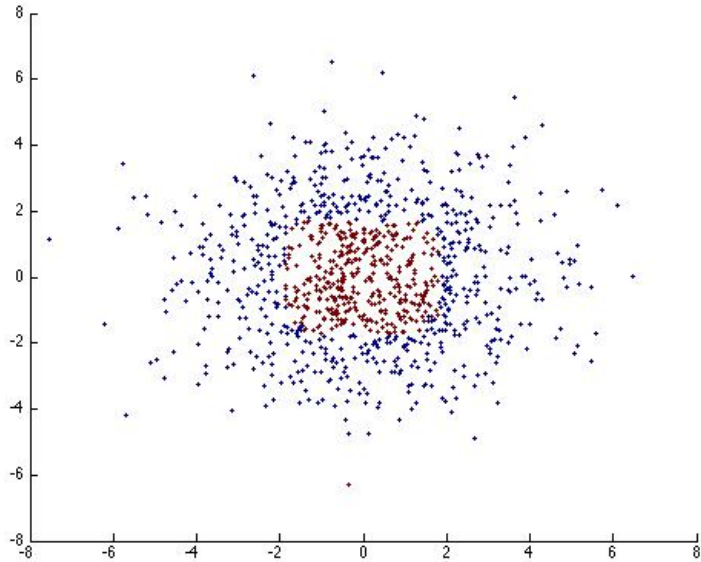


DATASET 3

Error on the Testing Set (Final Round) is 48.

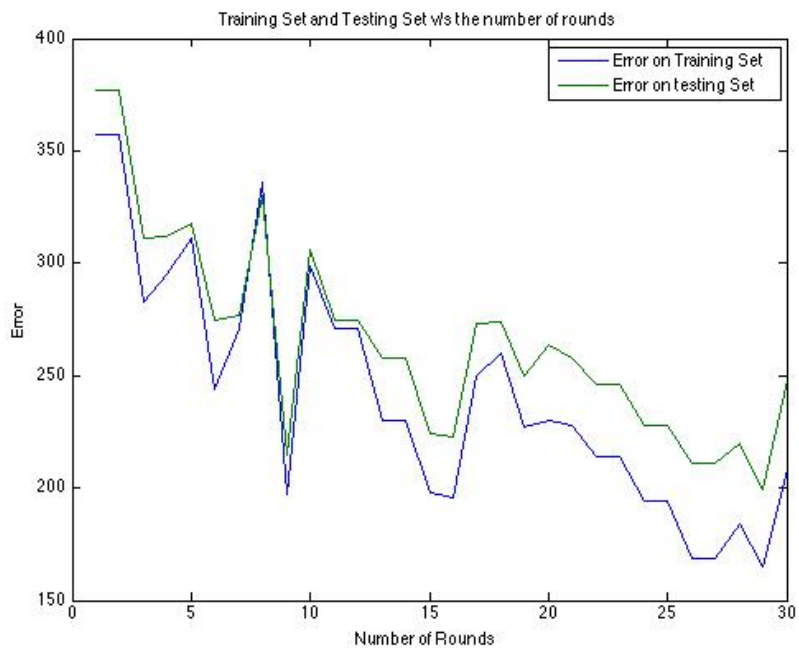


Scatter Plot:

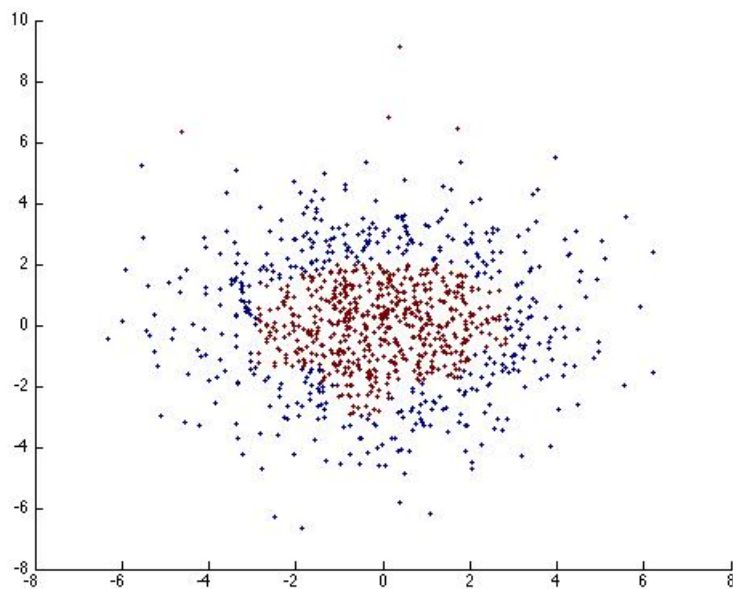


DATASET 4

Error on the Testing Set (Final Round) is 198.



Scatter Plot:



We can clearly see that in the fourth dataset, the ring structure has not been detected. In this case, we not only have circular classifiers but also added ring complexity. We were able to

separate in the third case, because we did a hack somehow, approximating a circle using lines. But here, that approximation would be problematic for the outer ring. Hence, the solution is to change the classifier model, this linear model given in the question won't work.

DATASET 5

Error on the Testing Set (Final Round) is 14. (This is for the digit '3')

