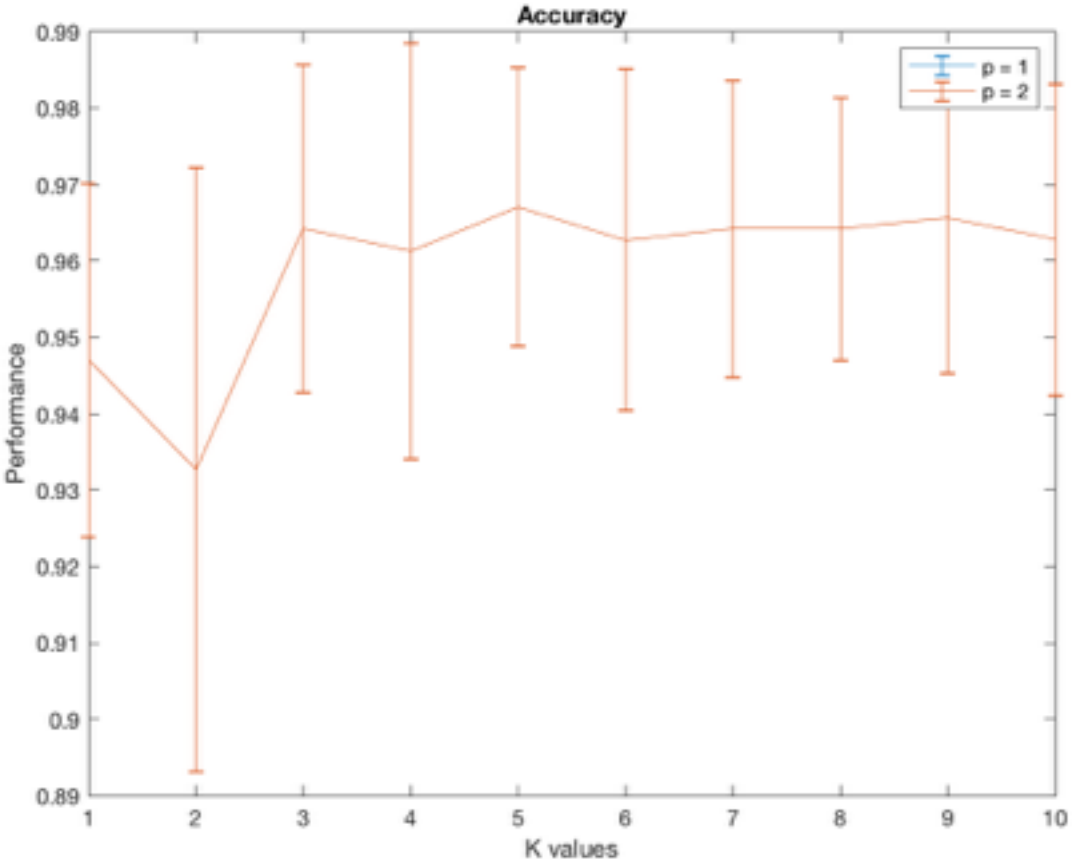
Jonathan Kaneshiro
861195520
Late Days used in this assignment: 1
Total late days used: 1

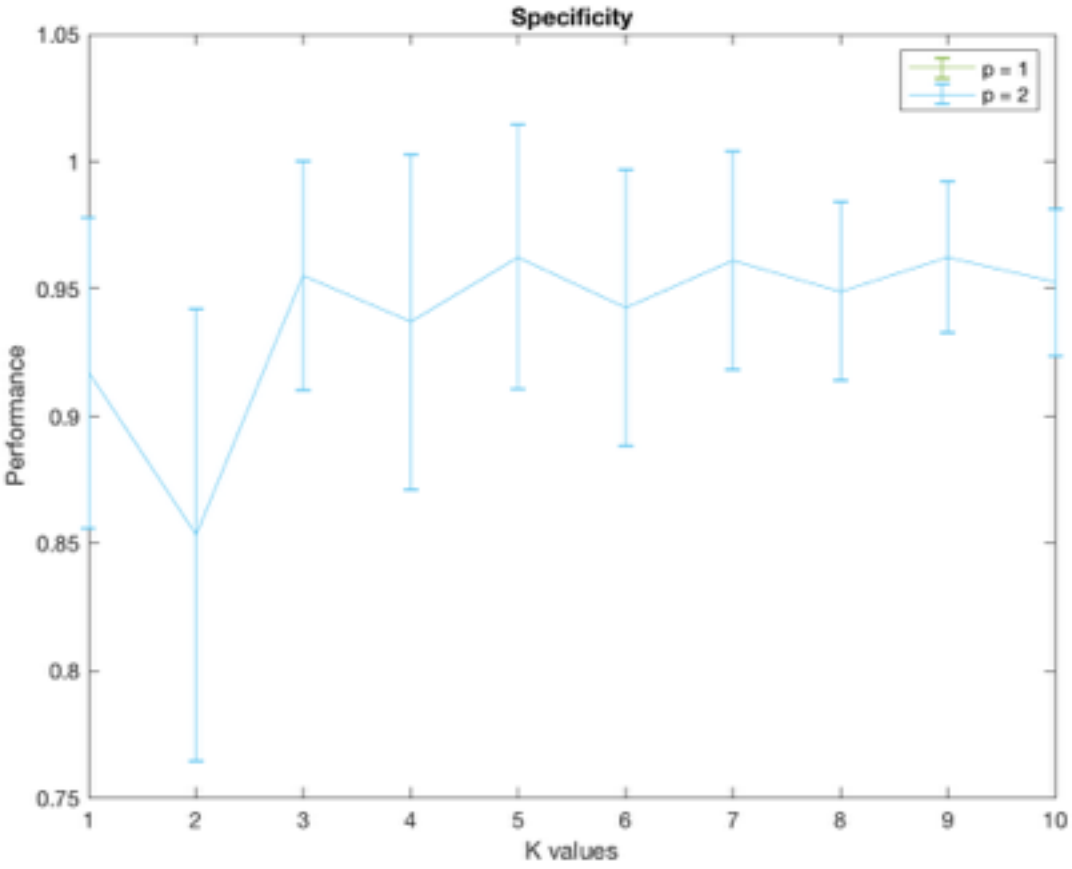
Question 0:
For missing data, I took the average of the data set and rounded it up in each column for the labels. With the corresponding missing data in the specific row and column, I filled in the average for that index.

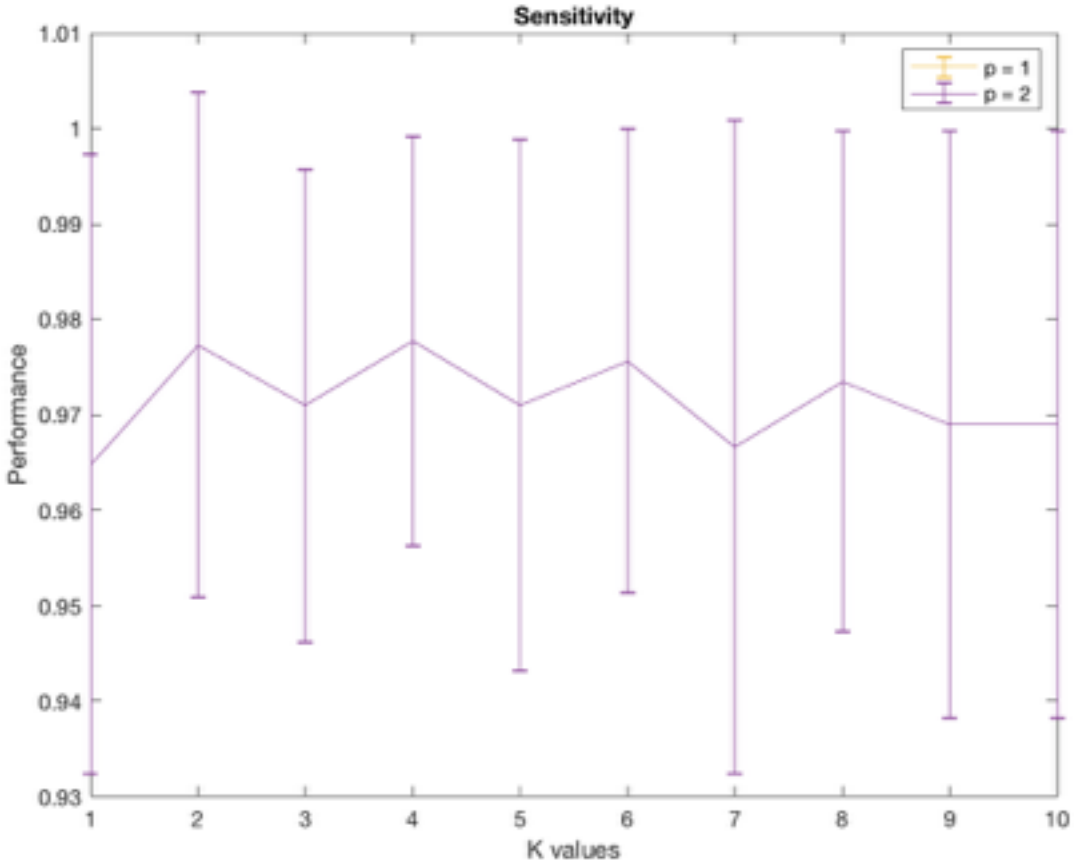
Question 1:
My results for y_pred is under y_pred1.mat. I used the lp norm similar to assignment 1 where k = 1 and p = 2. I used the top 80 as the training set and the bottom 20 as the testing set.

Question 2:
For the 10 folds, I had 9 subsets of 70 and the last one with 69 items. With k = 6 and p = 1, it yielded the best accurate performance. The accuracy, specificity, and sensitivity matrices are organized with the first 10 rows (10 folds) for p = 1, the last 10 rows (10 folds)for p = 2, and each column is for k. For the mean and standard deviation matrices, the rows are for each k and the first 3 columns are for p = 1 and the last 3 columns are for p = 2. For sensitivity, k = 1 and p = 1 performed the best. For specificity, k = 6 and p = 1 yielded the best performance.

Question 3:
My attempt:
creates w with input_x's rows x 1 matrix
initializes w_init with random numbers [0,1]
iterates through rows
creates an output y with same rows
for each row
benign is pos
malignant is neg
produces a sign
produces that in w matrix


Accuracy
p = 1
p = 2
Performance
K values
0.99
0.98
0.97
0.96
0.95
0.94
0.93
0.92
0.91
0.9
0.89
1
2
3
4
5
6
7
8
9
10


Specificity
p = 1
p = 2
Performance
K values
1.05
1
0.95
0.9
0.85
0.8
0.75
1
2
3
4
5
6
7
8
9
10


Sensitivity
p = 1
p = 2
Performance
K values
1.01
1
0.99
0.98
0.97
0.96
0.95
0.94
0.93
1
2
3
4
5
6
7
8
9
10