CS498 AML

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Problem 1

Part A
Naïve Bayes Classifier (20% of data for evaluation)
Accuracy: 0.7555556

1	0.725490196078431
2	0.745098039215686
3	0.751633986928105
4	0.77124183006536
5	0.738562091503268
6	0.777777777777778
7	0.803921568627451
8	0.77124183006536
9	0.758169934640523
10	0.810457516339869
Average	0.7653595

Part B
Naïve Bayes Classifier with NA values in missing values for attribute 3, 4, 6, 8
Accuracy: 0.7555556

1	0.758169934640523
2	0.73202614379085
3	0.797385620915033
4	0.797385620915033
5	0.718954248366013
6	0.73202614379085
7	0.718954248366013
8	0.77124183006536
9	0.725490196078431
10	0.803921568627451
Average	0.7555556

Part C
Naïve Bayes Classifier using caret and klaR library.

Accuracy: 0.7444444

1	0.712418300653595
2	0.73202614379085
3	0.738562091503268
4	0.764705882352941
5	0.745098039215686
6	0.69281045751634
7	0.784313725490196
8	0.751633986928105
9	0.790849673202614
10	0.73202614379085
Average	0.7444444

Part D
SVM Classifier

Accuracy: 0.7581699

The accuracy of Naïve Bayes Classifier and SVM classifier are around 75%.