Exercise 3 Report

Part1: Parameter List

For part 1, parameter list contained the following:

Condition Tables – Used to lookup the probabilities for certain attribute values given a condition. Each attribute value has an associated probability that can be look up which saves processing time.

Prior Probability – Stores the probability of a certain number of conditions

Av2_c2.mat: Accuracy = 0.890917

2 Attribute Values

2 Conditions

2nd condition had a higher percentage of errors

```
Enter a filename to load data for training/testing: av2_c2.mat

ConfusionMatrix =

        1298        106
         145        752

*************************************************
Overall Accuracy on Dataset av2_c2.mat: 0.890917
*************************************************
```

Av3_c2.mat: Accuracy = 0.893535

3 Attribute Variables

2 Conditions

2nd condition again had a higher percentage of errors

```
Enter a filename to load data for training/testing: av3_c2.mat

ConfusionMatrix =

        1298        106
         139        758

*************************************************
Overall Accuracy on Dataset av3_c2.mat: 0.893525
*************************************************
```

Av7_c3.mat: Accuracy = 0.862609

7 Attribute Variables

3 Conditions

3rd Condition contained the highest percentage of errors confused mostly with 1st Condition

```
Enter a filename to load data for training/testing: av7_c3.mat

ConfusionMatrix =

        1195           0          90
           3         631         135
          54          34         158

*************************************************
Overall Accuracy on Dataset av7_c3.mat: 0.862609
*************************************************
```

Part2: Parameter List

For part 2, parameter list contained the following:

Mean – Calculates the mean of each attribute for each condition

Standard Deviation – Calculates the standard deviation of each attribute for each condition

Prior Probability – Stores the probability of a certain number of conditions

Avc_c2.mat: Accuracy = 0.832247

Continuous Attribute Values

2 Conditions

1st Condition contained the higher percentage of errors.

```
Enter a filename to load data for training/testing of part 2: avc_c2.mat

ConfusionMatrix2 =

        1042         326
          60         873

*************************************************
Overall Accuracy on Dataset avc_c2.mat: 0.832247
*************************************************
```