CS 6375 MACHINE LEARNING Project-3

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Results:

For SVM-p5.py, classifier is trained using polynomial kernel - 5% of the data

Accuracy obtained: 0.9560632688927944

.
```
Reading training data
29 examples, 30 features, 2.0 categories.
Reading testing data
569 test examples.
Pre processing data
---train
['poly']
---evaluate
 number of support vectors:  [5 4]
acc: 0.9560632688927944
```

For SVM-p10.py, classifier is trained using polynomial kernel - 10% of the data

Accuracy obtained: 0.9595782073813708

.
```
Reading training data
57 examples, 30 features, 2.0 categories.
Reading testing data
569 test examples.
Pre processing data
---train
---evaluate
 number of support vectors:  [5 5]
acc: 0.9595782073813708
```

For SVM-e5.py, classifier is trained using exponential kernel (rbf)- 5% of the data

Accuracy obtained: 0.9332161687170475

```
Reading training data
29 examples, 30 features, 2.0 categories.
Reading testing data
569 test examples.
Pre processing data
---train
---evaluate
 number of support vectors:  [6 4]
acc: 0.9332161687170475
```
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For SVM-e10.py, classifier is trained using exponential kernel (rbf)- 10% of the data

Accuracy obtained: `0.9472759226713533`

```
Reading training data
57 examples, 30 features, 2.0 categories.
Reading testing data
569 test examples.
Pre processing data
---train
---evaluate
 number of support vectors:  [14 16]
acc: 0.9472759226713533
```

References:

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