**Assignment 2**

**Submission deadline :26/3/2020**

1, understand and implement naive bayes classification for iris data set

2. Implement naive bayes for classification of your mails as spam or non spam using scikit learn

3. Implement decision tree using Scikit learn

4. Train the system to predict whether golf can be played or not when a new data is given using decision tree and naïve bayes

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| --- | --- | --- | --- | --- | --- |
|  | **OUTLOOK** | **TEMPERATURE** | **HUMIDITY** | **WINDY** | **PLAY GOLF** |
| 0 | Rainy | Hot | High | False | No |
| 1 | Rainy | Hot | High | True | No |
| 2 | Overcast | Hot | High | False | Yes |
| 3 | Sunny | Mild | High | False | Yes |
| 4 | Sunny | Cool | Normal | False | Yes |
| 5 | Sunny | Cool | Normal | True | No |
| 6 | Overcast | Cool | Normal | True | Yes |
| 7 | Rainy | Mild | High | False | No |
| 8 | Rainy | Cool | Normal | False | Yes |
| 9 | Sunny | Mild | Normal | False | Yes |
| 10 | Rainy | Mild | Normal | True | Yes |
| 11 | Overcast | Mild | High | True | Yes |
| 12 | Overcast | Hot | Normal | False | Yes |
| 13 | Sunny | Mild | High | True | No |

6. Use SVM to implement credit card fraud detection using SCkit Learn . **Data set and description: credit\_fraud.arff**

**NOTE**

Hint: Questions 1 and 4 u can use the codes done in class. do slight modifications to run on the given data set

Q2 you just need to know how to scrape data from your own mail box and dump it into a file . Rest everything is already taught in the class