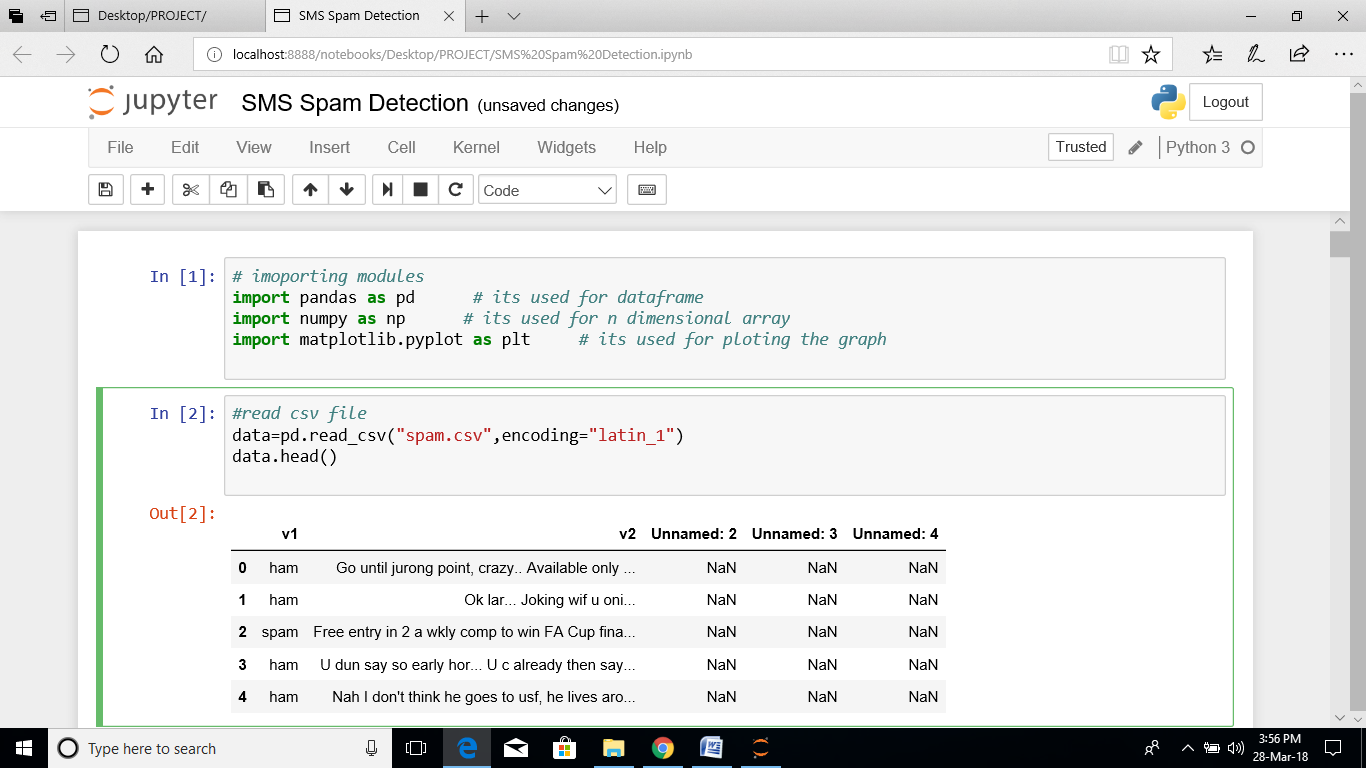
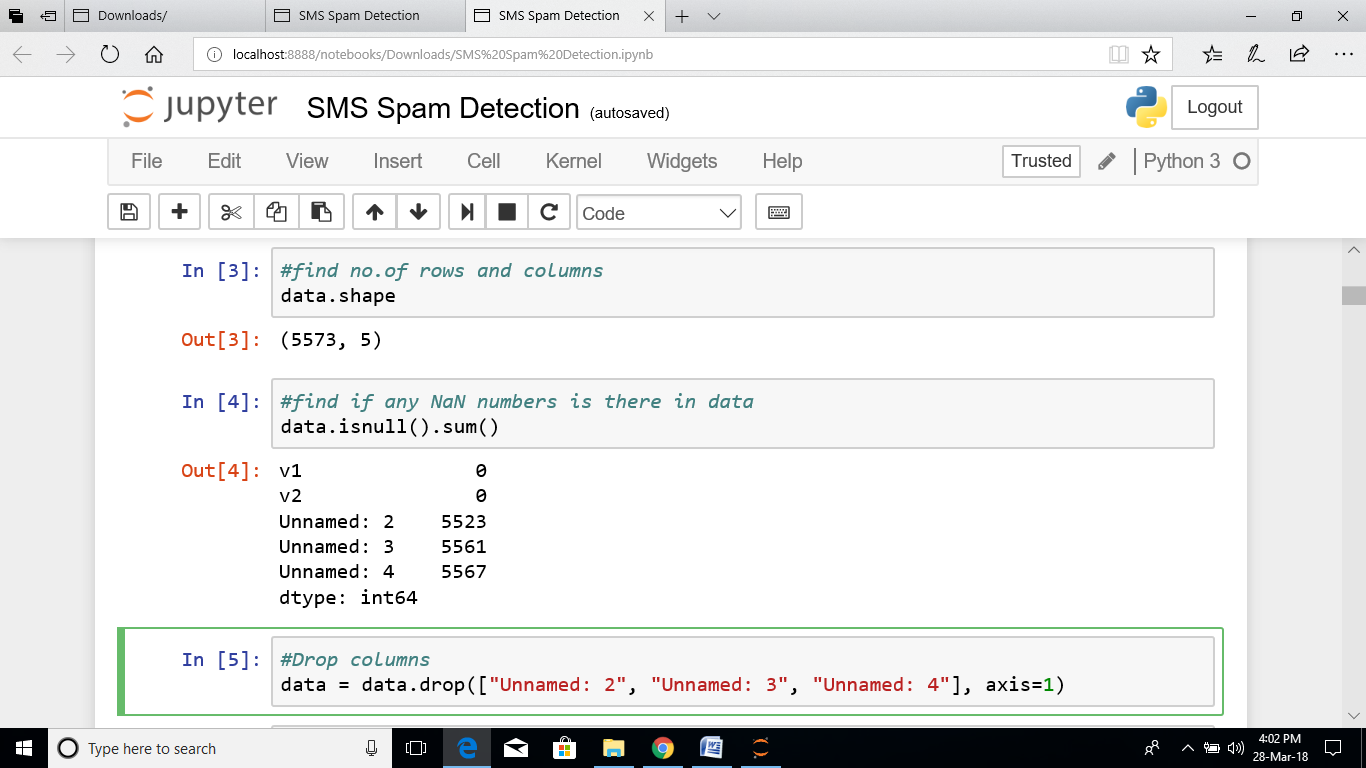
**SMS SPAM DETECTION:**

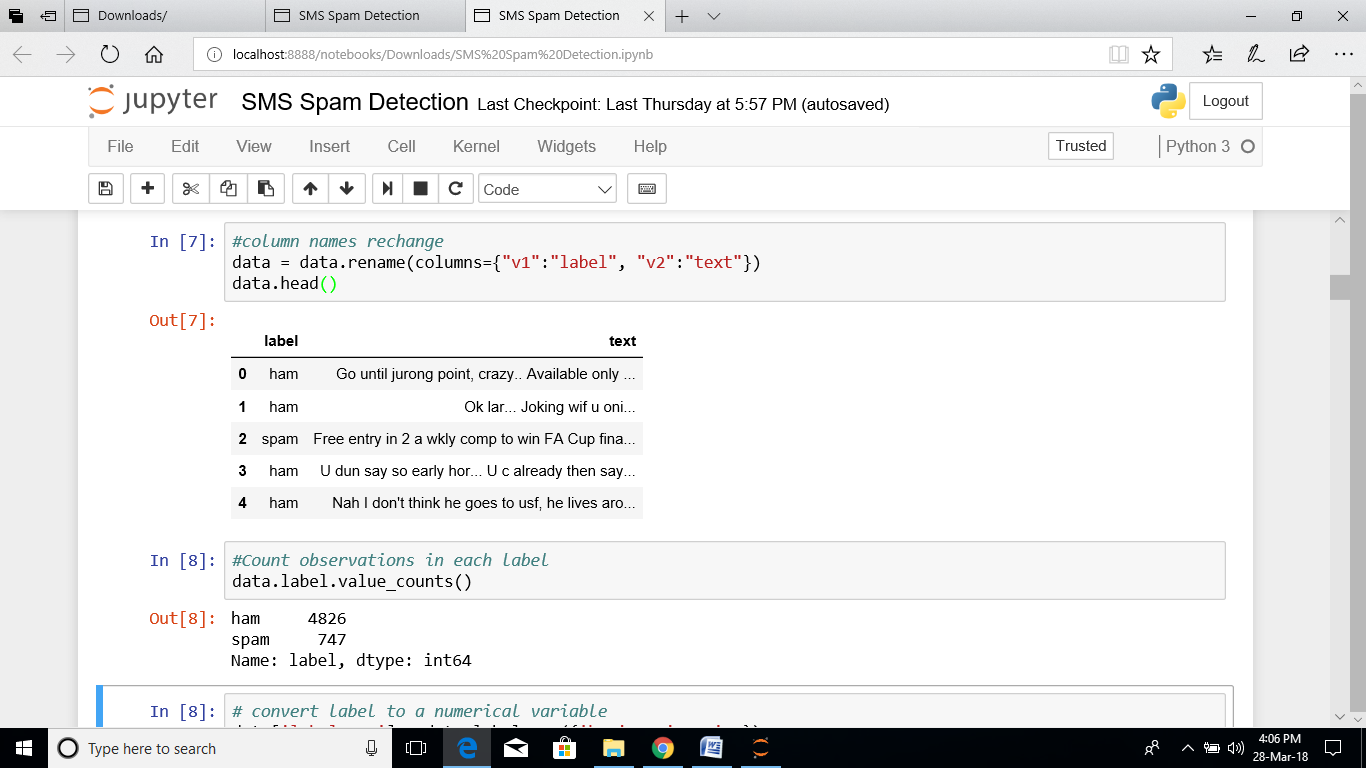
****

**Fig 9.1. Reading the Data**

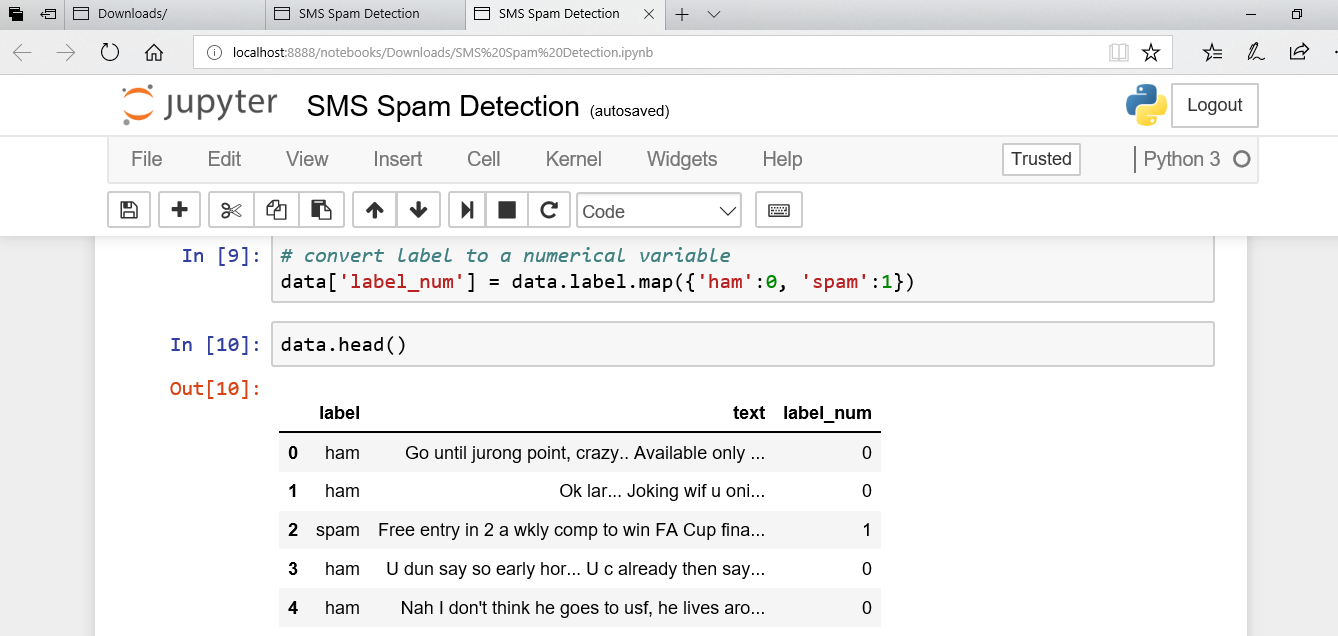
****

**Fig 9.2. Checking the Empty Data and Drop the columns**

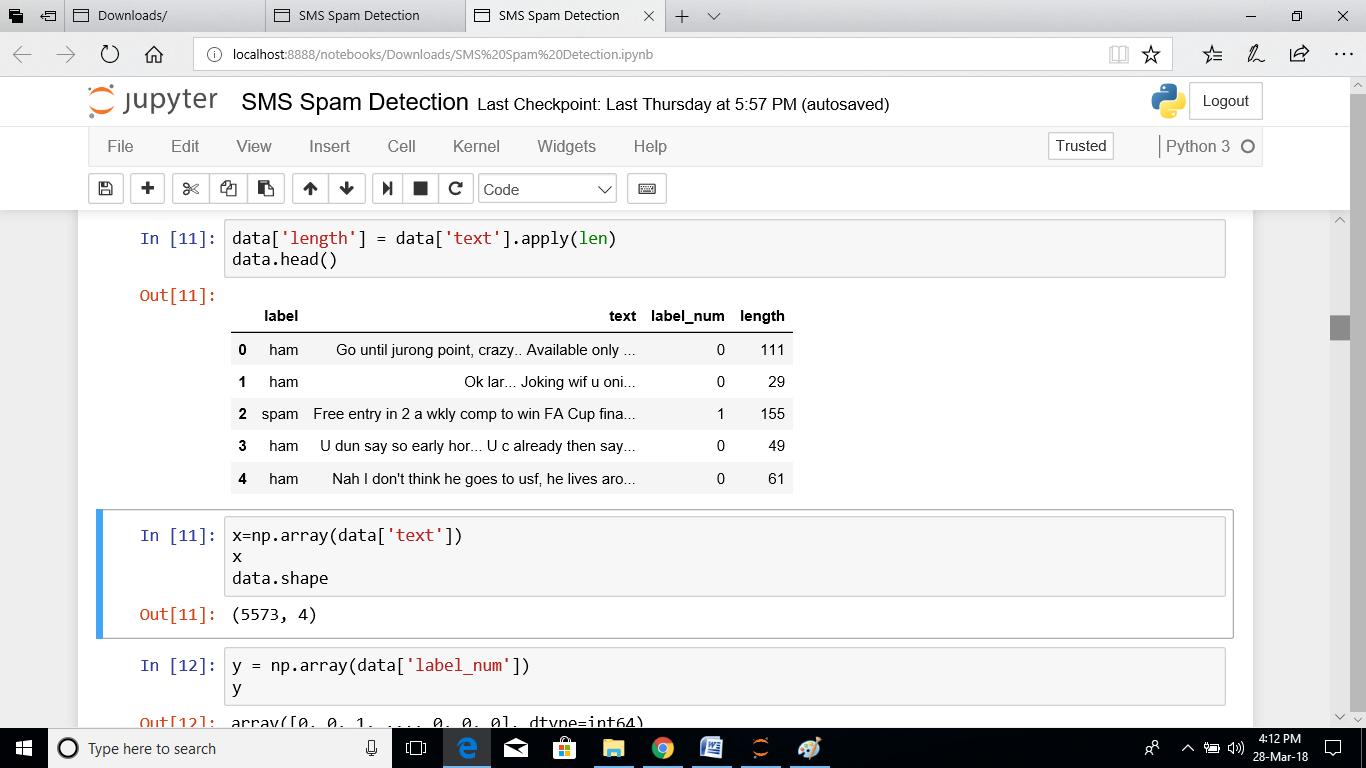
**(Data pre-processing)**

****

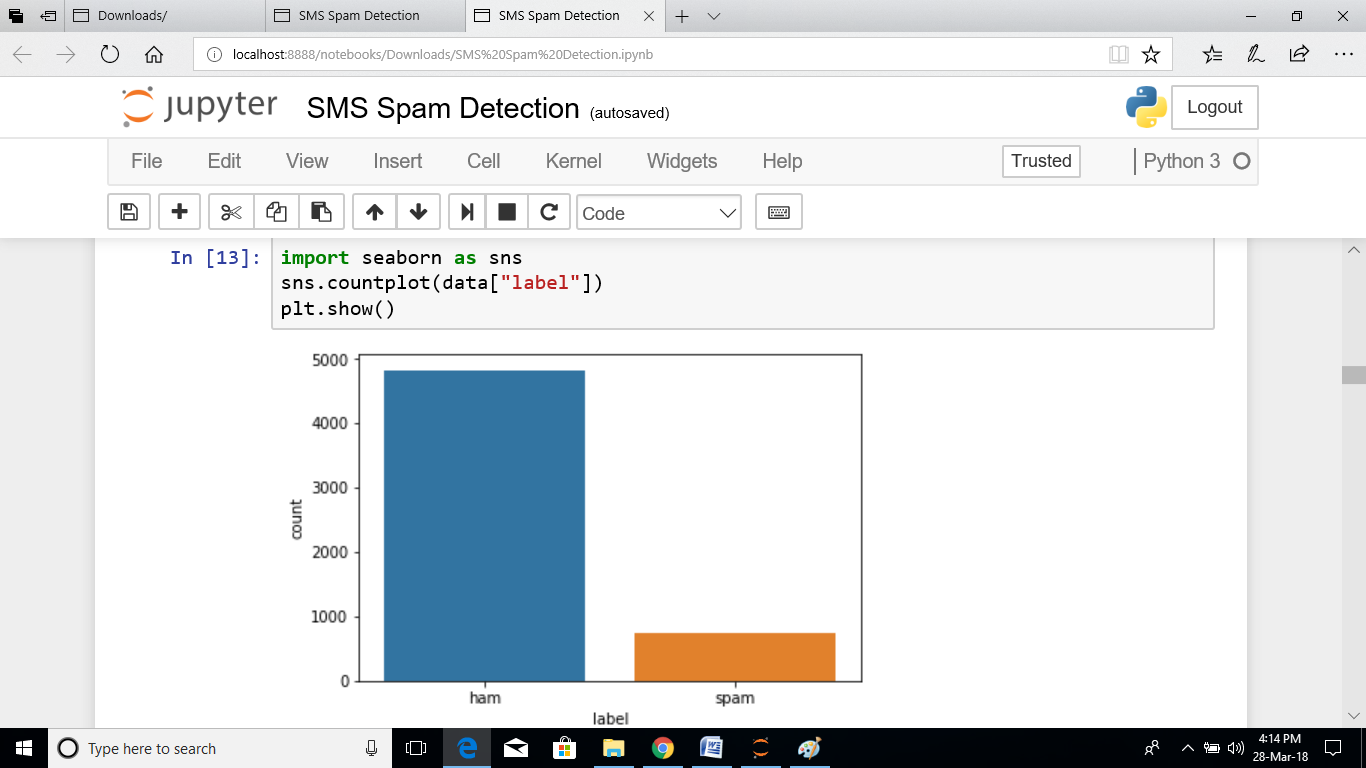
**Fig 9.3. After data pre-processing view the data**

****

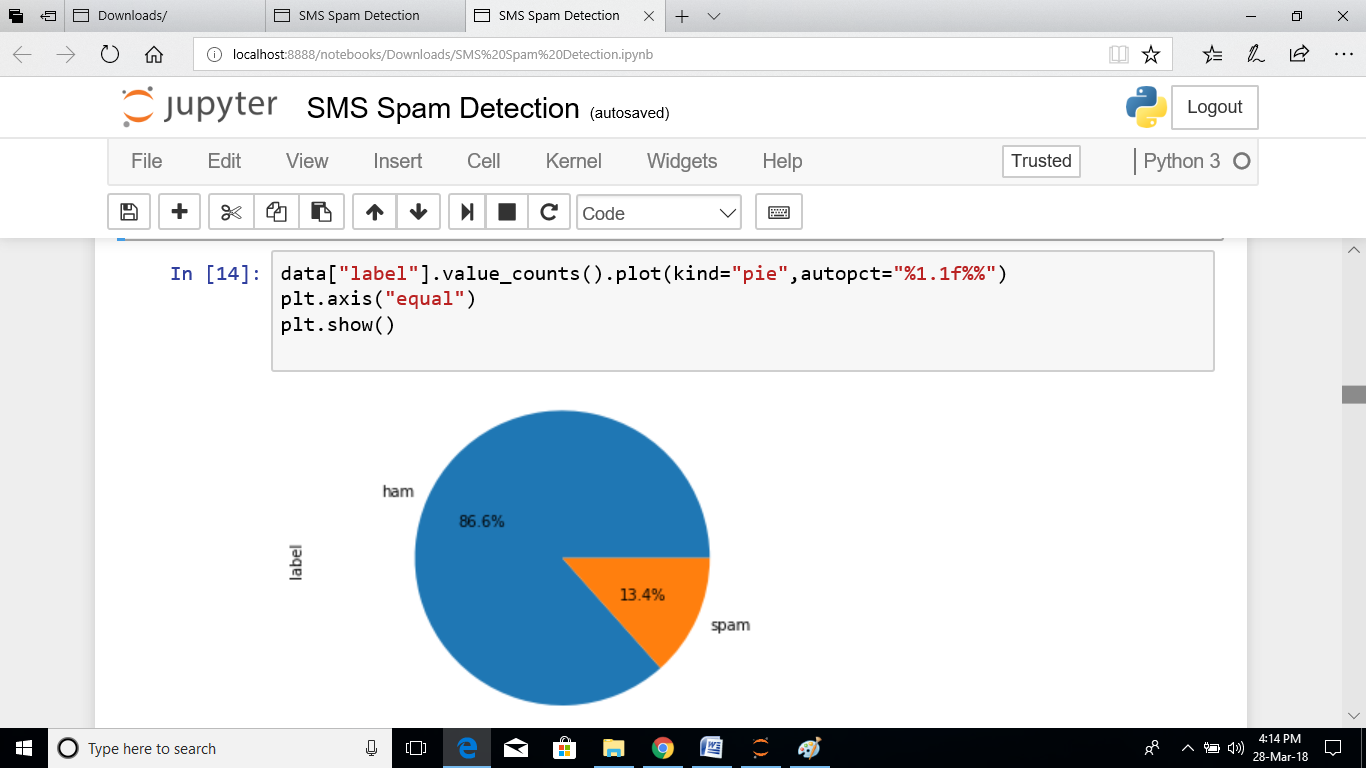
**Fig 9.4.the label can be rename as 0, 1 using .map function**

****

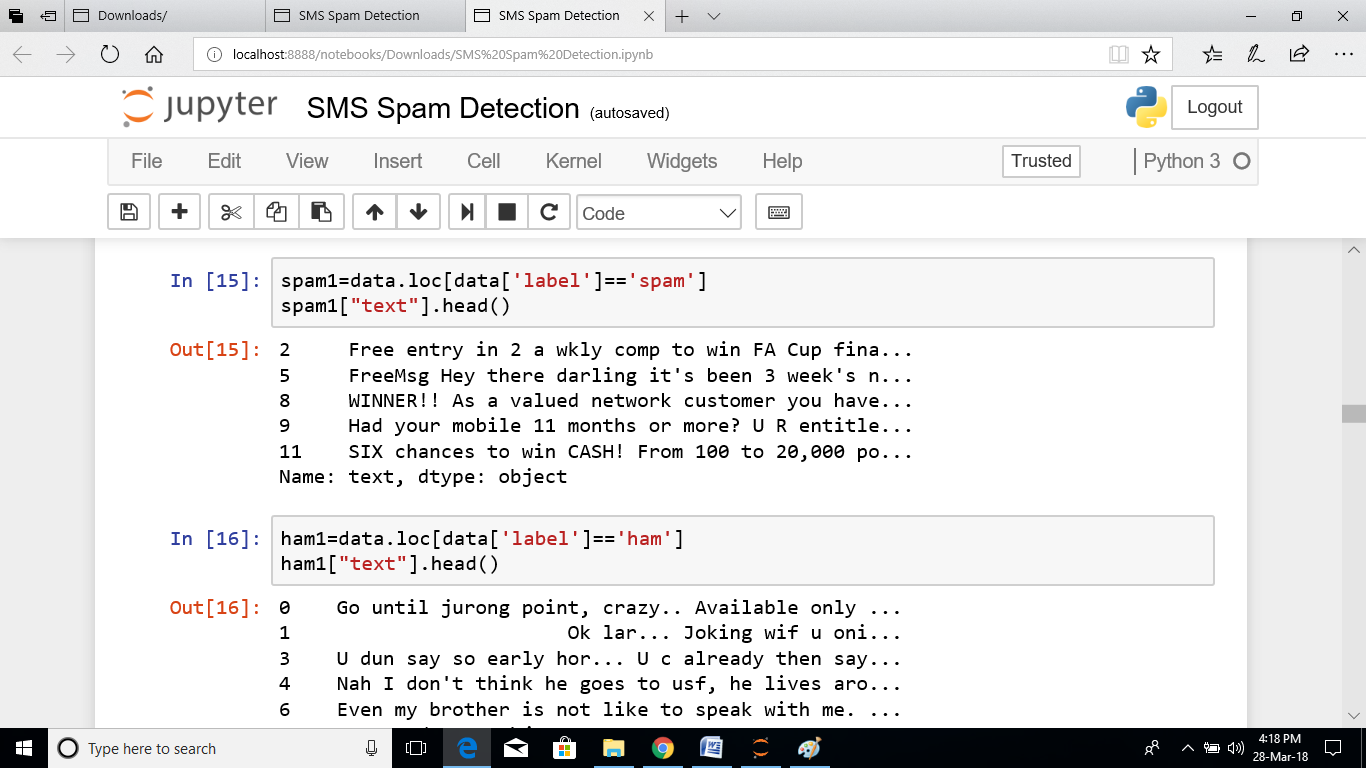
**Fig 9.5. Finding the lenth of messages and assiging x,y values**

****

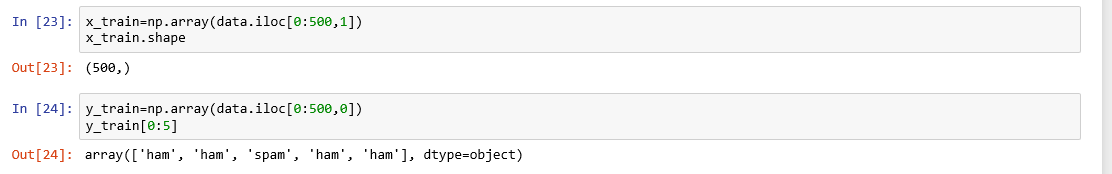
**Fig 9.6. Plotting the bar graph**

****

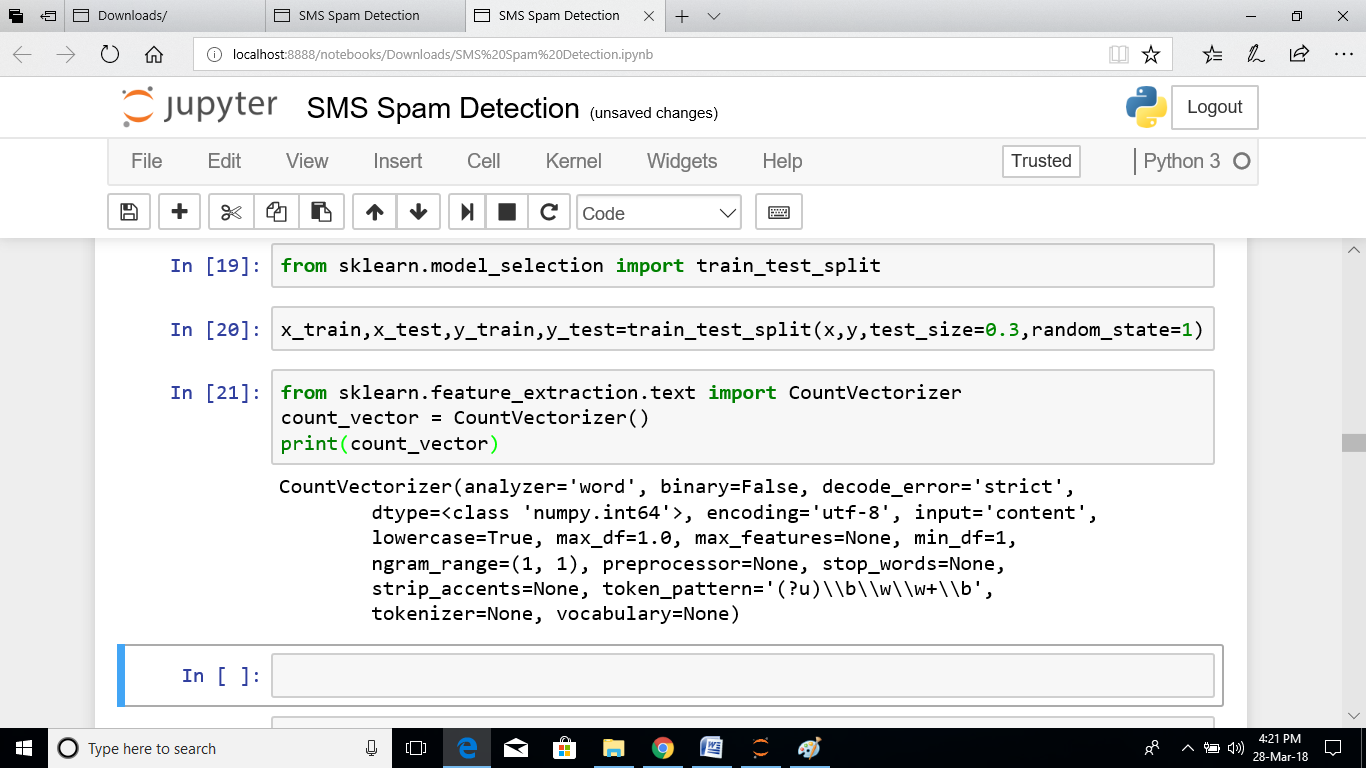
**Fig 9.7. Plotting the pie chart**

****

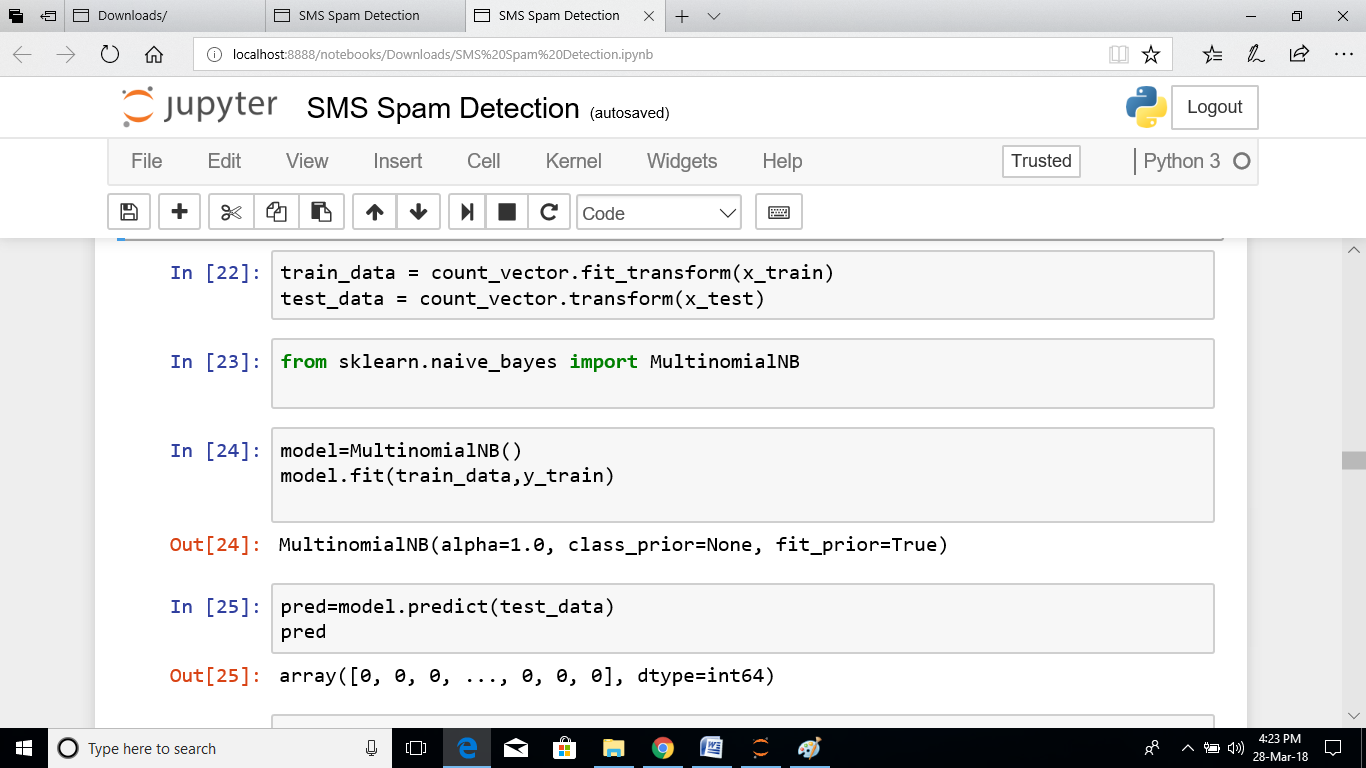
**Fig 9.8. Checking the spam and ham messages**

****

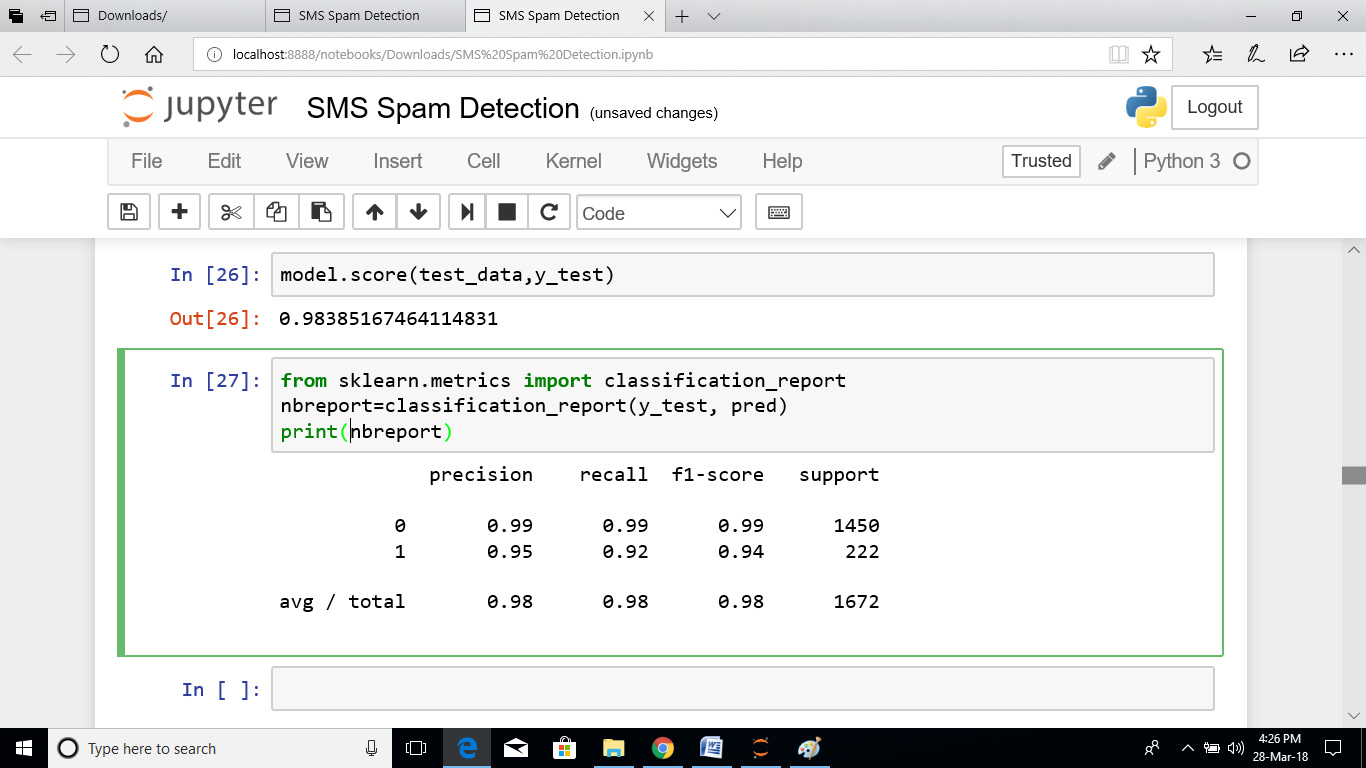
**Fig 9.9. Assign the x, y values**

****

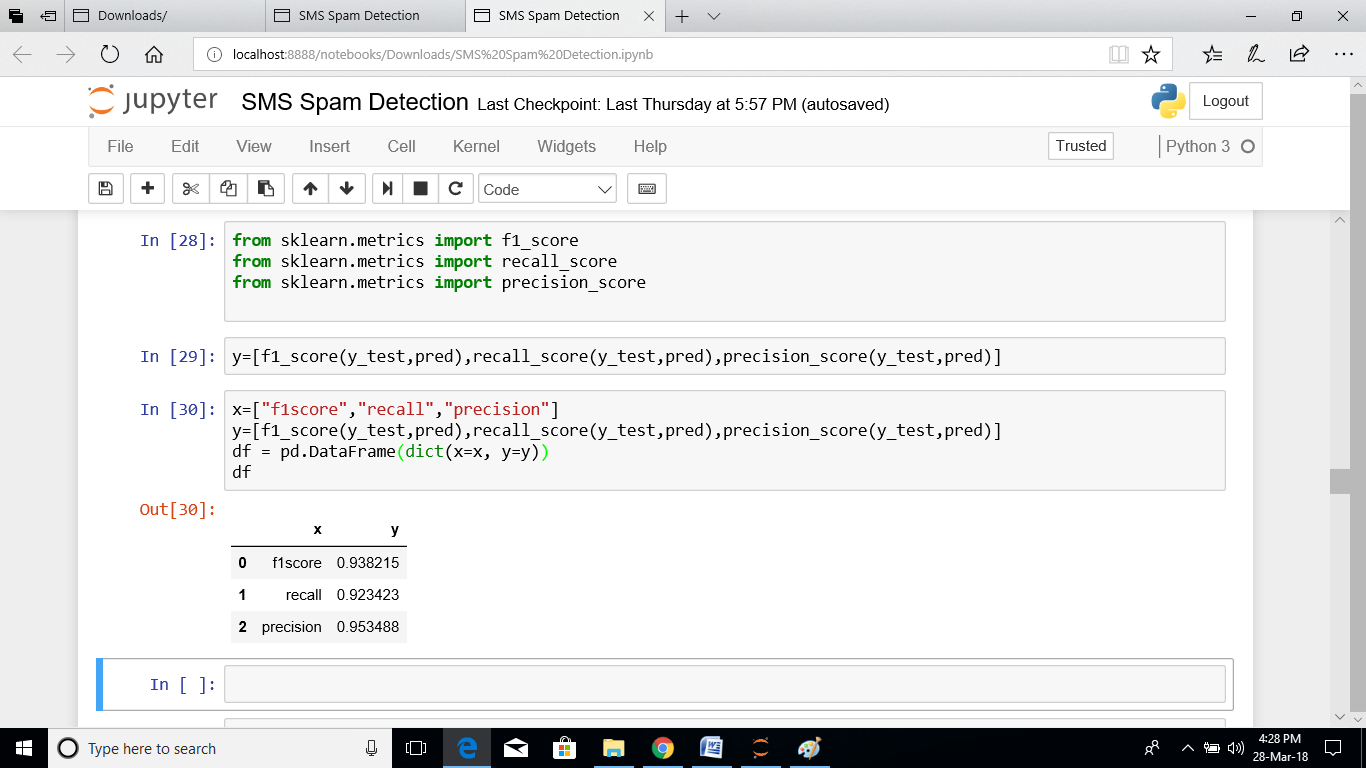
**Fig 9.10. Importing module and count vector split the data**

****

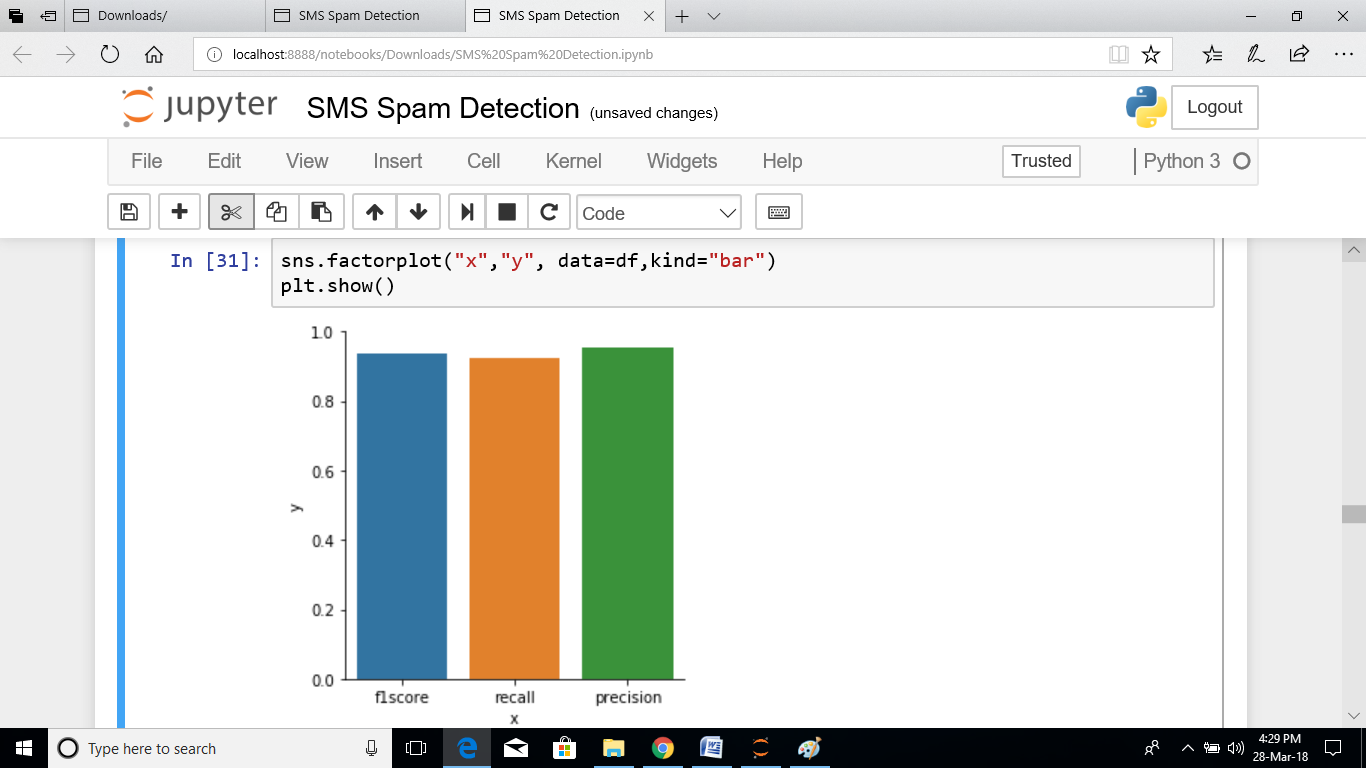
**Fig 9.11. Importing Naive Bayes algorithm from sklearn**

****

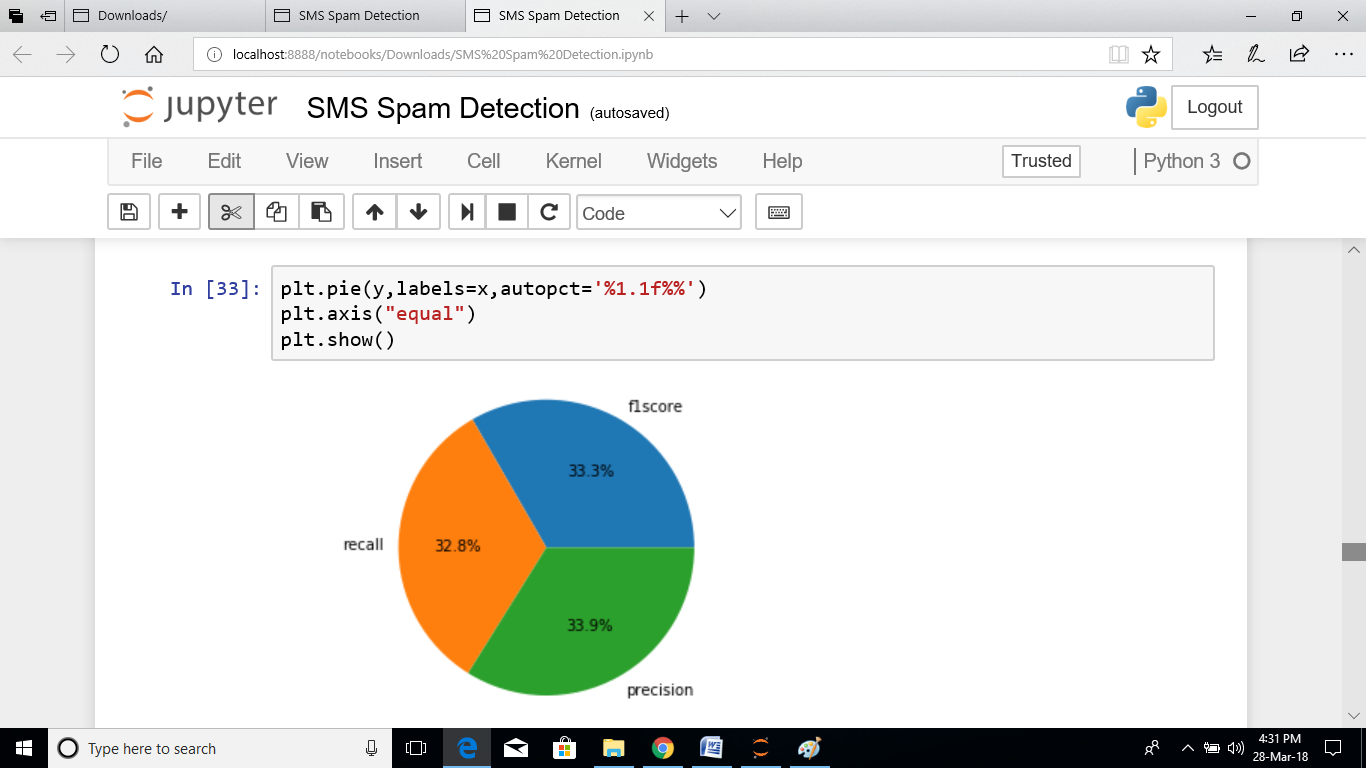
**Fig 9.12. Testing finding the accuracy**

****

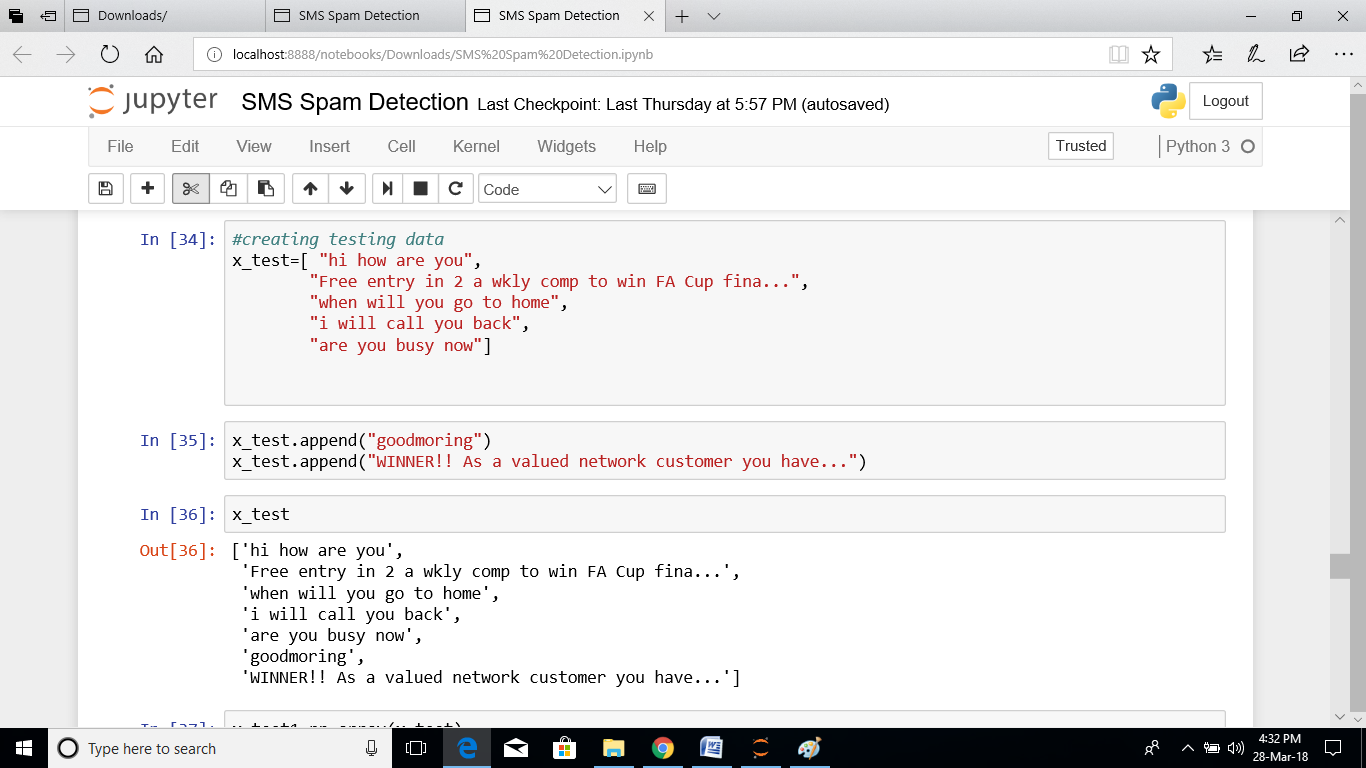
**Fig 9.13. Importing precision, recall, f1-score from sklearn**

****

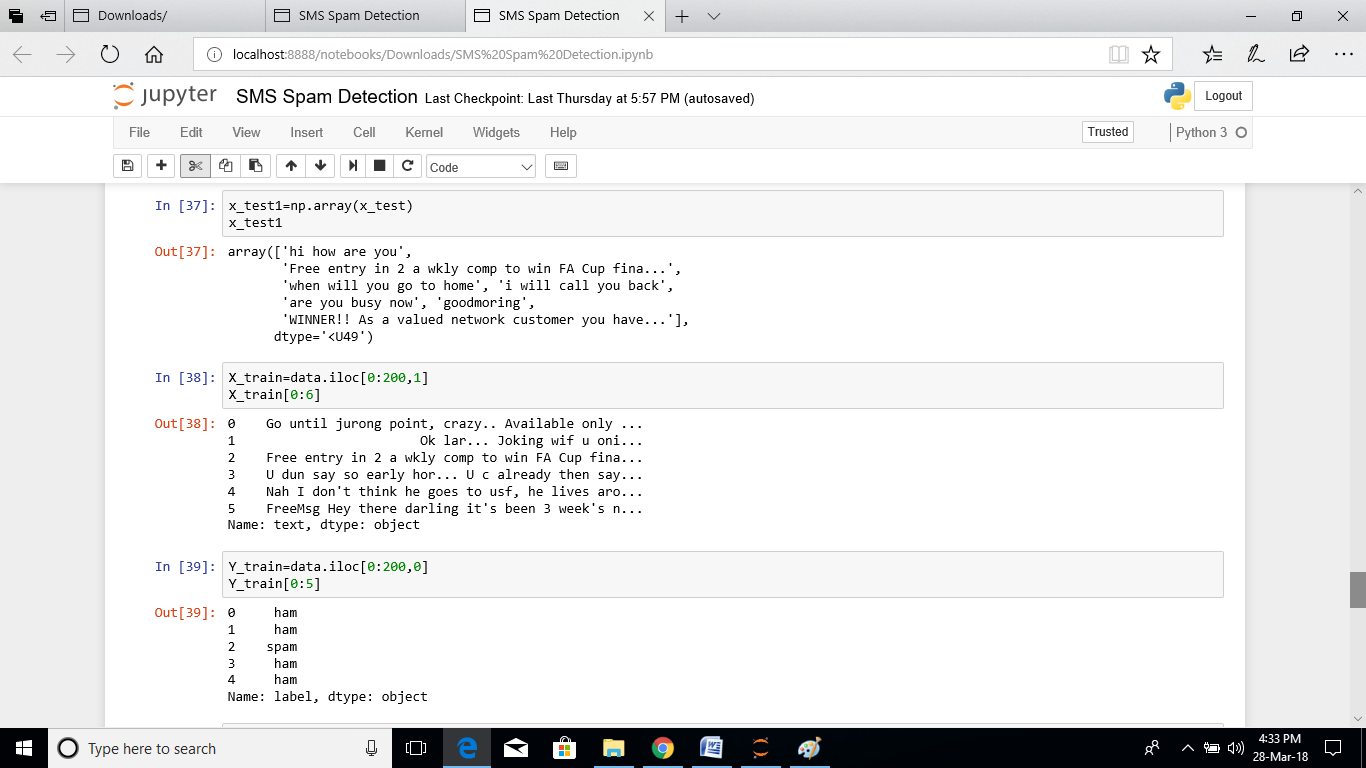
**Fig 9.14. Plotting the testing bar graph**

****

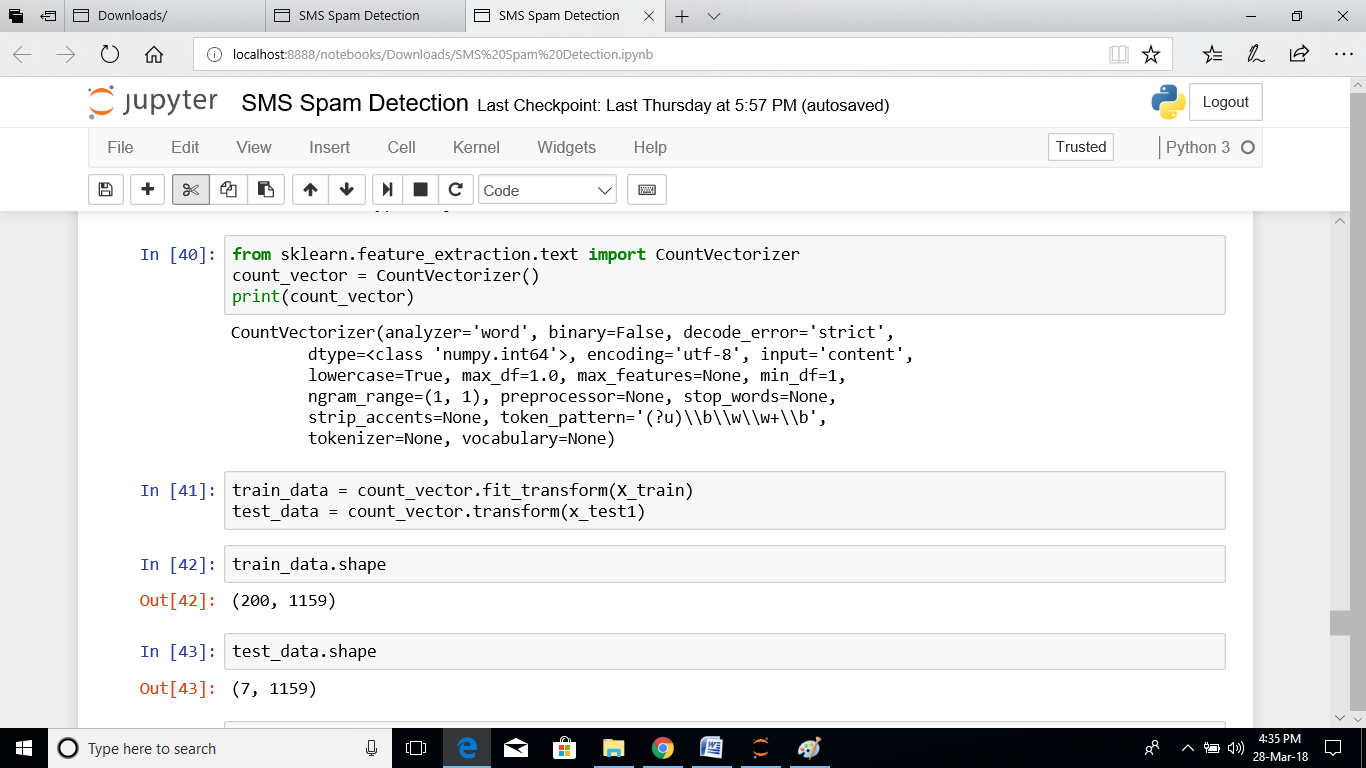
**Fig 9.15. Plotting the pie chart for testing**

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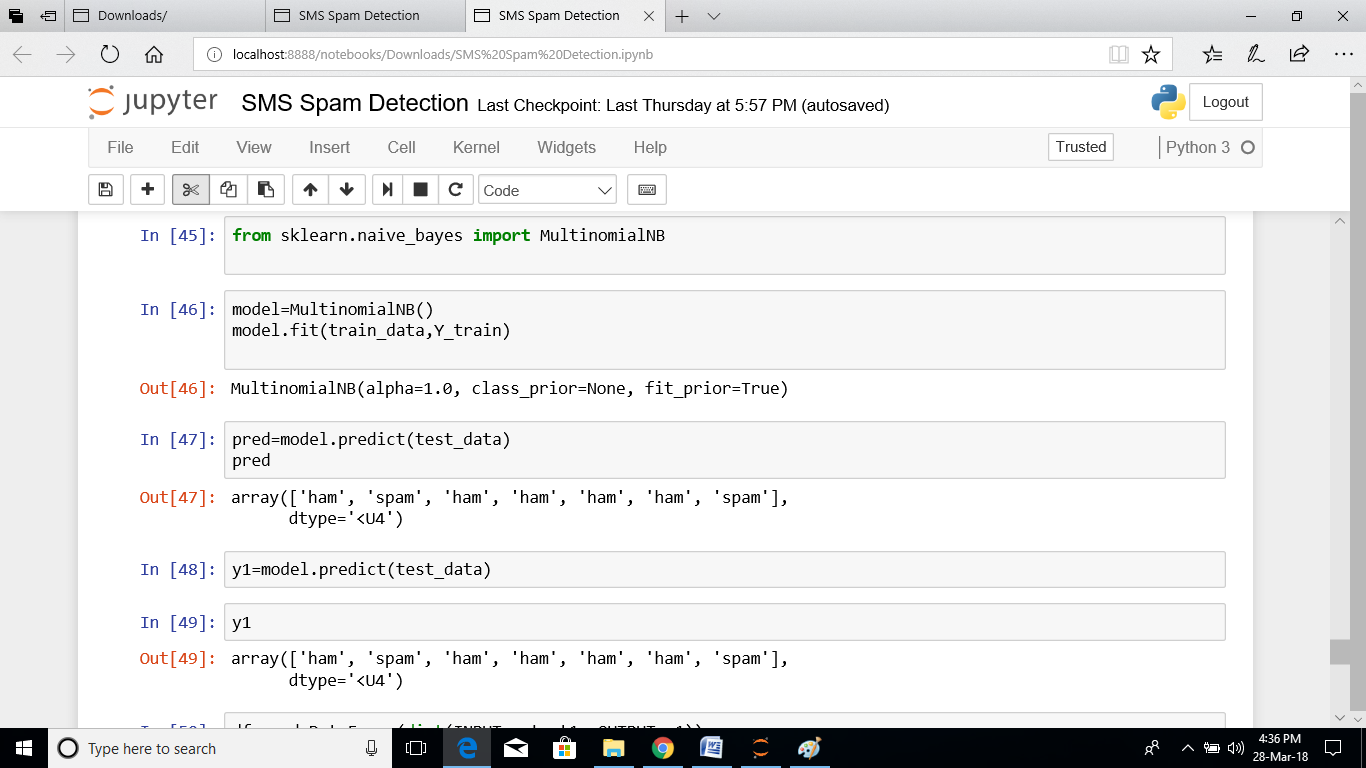
**Fig 9.16. System reading the new data from user**

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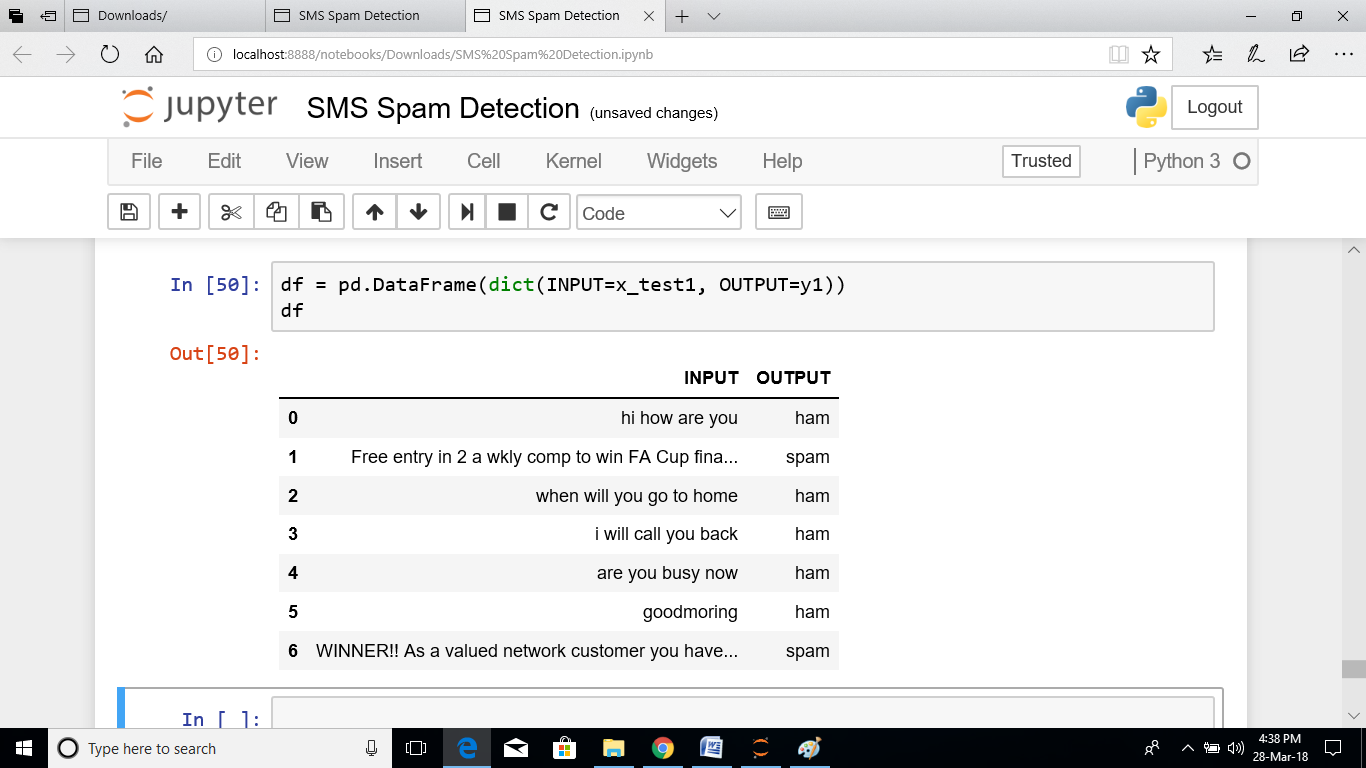
**Fig 9.17. New data converting into array and comparing with train data**

****

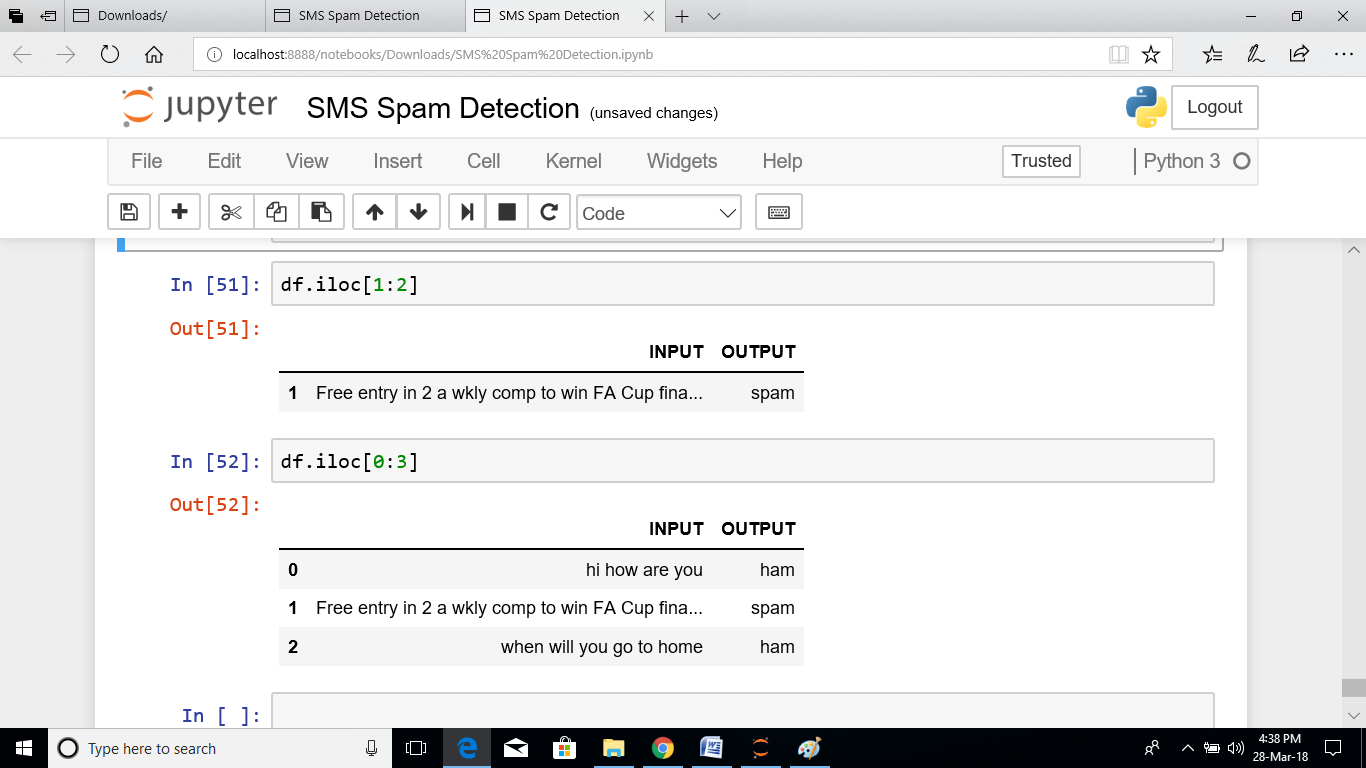
**Fig 9.18. Using fp-growth algorithm with use of feature extraction**

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**Fig 9.19. Applying Naive Bayes algorithm to predict the data**

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**Fig 9.20. Output of our project**

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**Fig 9.21. to view the particular data**