Machine Learning Algorithms: From Math to Code
Assignment for Naive Bayes

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1 Ch13.m

For this problem set, you should complete the missing code for Ch13.m, and submit it with a report describing your results in a compressed .zip file on canvas.

After you finish Ch13.m, if you set

```
flg = 1;
```

you should get the following output in command line.

```
>> Ch13
K = 3

error rate: 2/75=0.0267
Cm =
    22     0     0
     0    23     2
     0     0    28

error rate: 1/75=0.0133
Cm =
    28     0     0
     0    25     0
     0     1    21
```

And if you set

```
flg = 2;
```

you should get the following output in command line.

```
>> Ch13
K = 10

error rate: 67/1120=0.0598
Cm =
   112     1     1     1     0     1     0     0     0     0
     0   116     0     0     1     0     1     2     1     1
     1     1   106     0     0     0     0     1     0     0
     0     1     1   107     0     0     0     2     4     2
     0     1     0     1   103     0     0     0     1     2
     0     0     0     0     0   102     0     0     6     0
     0     3     0     0     0     1   107     0     1     0
     0     1     2     0     0     0     0   103     4     3
     1     1     0     2     0     3     1     1    97     1
     0     2     1     0     2     0     0     2     1   100

error rate: 92/1120=0.0821
Cm =
   105     0     0     0     0     0     2     0     1     0
     0   101     0     0     0     0     0     1     0     0
     1     0   111     0     0     0     1     0     2     0
     0     0     0    92     0     1     0     7     6     1
     0     0     1     0   109     0     0     2     1     3
```

```
1    1    0    0    0   110    0    1    3    0
0    3    0    0    0     2  106    0    1    0
1    0    3    1    0     0    0  101    1    4
0    0    2    1    1     7    1    6   96    3
0    3    0    0    6     0    0    6    4   97
```

In the report, you should

1. Include the outputs in command line for flg = 1 and flg = 2.

Note: The results will vary depending on how you choose the training and testing set, but the error rates should not vary too much from the results above.

Notes

1. Source code and report should be compressed into a single .zip file named **Group_xx.zip** and handed on the canvas before **next monday midnight, July 17 23:59**.