

```
1 #1 - Read in the CSV file "ML_HW_Data_FisherIris.csv
   " into a matrix named as "Iris". Please do NOT output
   the whole matrix in our answer.
2 import pandas as pd
3 import numpy as np
4 Iris = pd.read_csv("C:/Users/pragy/Downloads/
   ML_HW_Data_FisherIris.csv",header=None, delimiter=",",
   )
5
6 #2 - Display total number of rows and total number of
   columns of the matrix "Iris".
7
8 row,columns = Iris.shape
9
10 print("Rows:", row)
11 print("Columns:", columns)
12
13 #3. Display all the row numbers (i.e. record numbers
   ) that have the 5th column less than 0.
14 Row_Numbers = Iris[Iris[4] <0].index
15 print("Row Numbers:", Row_Numbers)
16
17 #4. Remove the rows with the 5th column less than 0
   from the "Iris" matrix. Please do NOT output the
   whole resulting matrix in our answer.
18 Iris = Iris.drop(Iris[Iris[4]<0].index)
19
20 #5. Display total number of rows and total number of
   columns of the "Iris" matrix again.
21
22 row,columns = Iris.shape
23
24 print("Row:", row)
25 print("Columns:", columns)
26
27 #6. Copy the first 4 columns in the new "Iris" matrix
   into a new matrix "X". Please do NOT output the
   whole resulting matrix in our answer
28 X = Iris.iloc[:, :4]
29
30 #7. Copy the 5th columns in the new "Iris" matrix
```

```
30 into a new variable (or matrix) "Y". Please do NOT  
   output the whole resulting matrix in our answer.  
31  
32 Y = Iris.iloc[:, 4:]  
33  
34 #8. Display the maximum value and the minimum value  
   of EACH column in "X".  
35  
36 Xminmax = X.agg([min, max])  
37 print(Xminmax)  
38  
39 #9. Display total number of elements (i.e. items) in  
   the third column of the matrix "X" that are greater  
   than 36.  
40  
41 totalitems = len(X[(X[2]>36)])  
42 print("Total no of Elements in the third column > 36  
    = ", totalitems)  
43
```