1. Read in the CSV file “FisherIris\_ML.csv” into a matrix named as “***Iris***”

df = pd.read\_csv('Iris.csv', header=**None**)

2. Display **total number of rows** and total number of columns of the matrix “***Iris***”.

len(df)

150

len(df.columns)

5

3. Display all the **row numbers** (i.e. record numbers) that have the 5th column less

than 0.

print(df.loc[df['E'] < 0, ['E']])

E

10 -10

23 -12

58 -10

89 -12

108 -11

136 -11

4. Remove the rows with the 5th column less than 0 from the “***Iris***” matrix.

df.drop(df[df['E'] < 0].index, inplace = **True**)

5. Display **total number of rows** and **total number of columns** of the “***Iris***” matrix

again.

A B C D E

0 2 14 33 50 0

1 24 56 31 67 1

2 23 51 31 69 1

3 2 10 36 46 0

4 20 52 30 65 1

.. .. .. .. .. ..

145 20 50 25 57 1

146 13 40 23 55 2

147 2 17 34 54 0

148 24 51 28 58 1

149 2 15 37 53 0

[144 rows x 5 columns]

6. Copy the first 4 columns in the new “***Iris***” matrix into a new matrix “***X***”.

print("First 4 Columns Of Dataframe : ")

print(first\_n\_columns)

print('Type:')

print(type(first\_n\_columns))

7. Copy the 5th columns in the new “***Iris***” matrix into a new variable (or matrix) “***Y***”.

df['E']

8. Display the **maximum value** and the **minimum value** of **EACH column** in “***X***”.

df.apply(lambda s: pd.Series([s.min(), s.max()],

index=['min', 'max']))

9. Display **total number of elements** (i.e. items) in the third column of the matrix

“***X***” that are greater than 36.

df.loc[df['C']>36]

np.sum(df['C'] >36)

15