

Question 2 (6 points)

Choose either **Python** or R for the entirety of this question.

Python:

A) Select the answer to complete the assigned task (2pts)

You have the following DataFrame df:

month	eggs	salt	spam
jan	47	12.0	17
feb	110	50.0	31
mar	221	89.0	72
apr	77	87.0	20
may	132	0.0	52
jun	205	60.0	55

Of the months April, May, and June, calculate how many had eggs>100

- A) (df.loc[['apr', 'may', 'jun'],]['eggs'] > 100).sum()
- B) (df[['apr', 'may', 'jun'],]['eggs'] > 100).sum()**
- C) (df[['apr', 'may', 'jun']][['eggs'] > 100].sum()
- D) (df[['apr', 'may', 'jun'],]['eggs'] > 100).count()

B) Complete the script to produce the output shown (2pts)

Output

datetime.date(2018, 1, 1)

Script

import datetime

datetime.datetime._____('01012018', "%d%m%Y")_____

A) strptime, .date()

B) strptime, .as.date()

C) to_date, [Nothing]

D) to_datetime, [Nothing]

C) Select the correct script to accomplish the task (2pts)

Following is a summary of the iris dataset:

```
> summary(iris)
   Sepal.Length   Sepal.Width   Petal.Length   Petal.Width   Species
Min.   :4.300     Min.   :2.000     Min.   :1.000     Min.   :0.100     setosa   :50
1st Qu.:5.100     1st Qu.:2.800     1st Qu.:1.600     1st Qu.:0.300     versicolor:50
Median :5.800     Median :3.000     Median :4.350     Median :1.300     virginica :50
Mean   :5.843     Mean   :3.057     Mean   :3.758     Mean   :1.199
3rd Qu.:6.400     3rd Qu.:3.300     3rd Qu.:5.100     3rd Qu.:1.800
Max.   :7.900     Max.   :4.400     Max.   :6.900     Max.   :2.500
> |
```

How would you create a new object with:

- only the “setosa” species
- Petal.Width greater than 2
- Sorted by Sepal.Length in descending order

A) `iris[(iris['Species'] == 'setosa') && (iris['Petal.Width'] > 2)].sort_values('Sepal.Length', ascending = False)`

B) `iris.loc[(iris['Species'] == 'setosa') & (iris['Petal.Width'] > 2)].sort_values('Sepal.Length', ascending = False)`

C) `iris.loc[(iris['Species'] == 'setosa') & (iris['Petal.Width'] > 2)].sort_values('Sepal.Length', desc)`

D) `iris[(iris['Species'] == 'setosa') & (iris['Petal.Width'] > 2)].sort_descending('Sepal.Length')`