

ASSIGNMENT – 3

Team ID	PNT2022TMID07696
Project Name	Estimate the Crop Yield Using Data Analytics
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sriniDA_Assignment_3_Python.ipynb

colab.research.google.com/drive/1cg0I51rf0X1Gp0QMNXk4vOUdizn0ih9t

Answer the questions or complete the tasks outlined in bold below, use the specific method described if applicable.

**** What is 7 to the power of 4? ****

```
[ ] 7**4
```

```
2401
```

**** Split this string: ****

```
s = "Hi there Sam!"
```

into a list.

```
[ ] s = 'Hi there sam!'
```

```
[ ] s.split()
```

Show hidden output

10:34 PM 11/12/2022

Colab interface showing a Jupyter Notebook titled "sriniDA_Assignment_3_Python.ipynb". The code includes:

```
** Given the variables:**

planet = "Earth"
diameter = 12742

** Use .format() to print the following string: **

The diameter of Earth is 12742 kilometers.

[ ] planet = "Earth"
    diameter = 12742

[ ] 'The diameter of the Earth is 12742 kilometers. '

    'The diameter of the Earth is 12742 kilometers. '

** Given this nested list, use indexing to grab the word "hello" **

[ ] lst = [1,2,[3,4],[5,[100,200,['hello']],23,11],1,7]
```

Colab interface showing a Jupyter Notebook titled "sriniDA_Assignment_3_Python.ipynb". The code includes:

```
[ ] lst[3][1][2][0]

    'hello'

** Given this nest dictionary grab the word "hello". Be prepared, this will be annoying/tricky **

[ ] d = {'k1':[1,2,3,{'tricky':['oh','man','inception',{'target':[1,2,3,'hello']}]}]}

[ ] d['k1'][3]['tricky'][3]['target'][3]

    'hello'

** What is the main difference between a tuple and a list? **

[ ] #Tuple is immutable, list items can be changed

** Create a function that grabs the email website domain from a string in the form: **

user@domain.com
```

Colab interface showing a Python script for domain extraction and word counting.

So for example, passing "user@domain.com" would return: domain.com

```
[ ] def domainGet(inp):  
    return inp.split('@')[1]  
  
[ ] domainGet('user@domain.com')  
  
'domain.com'
```

** Create a basic function that returns True if the word 'dog' is contained in the input string. Don't worry about edge cases like a punctuation being attached to the word dog, but do account for capitalization. **

```
[ ] def findDog(inp):  
    return 'dog' in inp.lower().split()  
  
[ ] findDog('Is there a dog here?')  
  
True
```

** Create a function that counts the number of times the word "dog" occurs in a string. Again ignore edge cases. **

Colab interface showing a Python script for counting the number of 'dog' occurrences and a problem statement for a ticketing function.

```
[ ] def countDog(inp):  
    dog = 0  
    for x in inp.lower().split():  
        if x == 'dog':  
            dog += 1  
    return dog  
  
[ ] countDog('This dog runs faster than the other dog dude!')  
  
1
```

Problem

You are driving a little too fast, and a police officer stops you. Write a function to return one of 3 possible results: "No ticket", "Small ticket", or "Big Ticket". If your speed is 60 or less, the result is "No Ticket". If speed is between 61 and 80 inclusive, the result is "Small Ticket". If speed is 81 or more, the result is "Big Ticket". Unless it is your birthday (encoded as a boolean value in the parameters of the function) -- on your birthday, your speed can be 5 higher in all cases.

```
[ ] def caught_speeding(speed, is_birthday):  
  
    if is_birthday:  
        speed = speed - 5
```

