# ASSIGNMENT - 3
# PYTHON PROGRAMMING

| Assignment Date | 01 September 2022 |
|---|---|
| Student Name | Suraj Kumar. R |
| Student Roll Number | 1902241 |
| Maximum Marks | 2 Marks |

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?**

In [1]:

7 **4

Out[1]:

2401

**Split this string:** s =

"Hi there Sam!"

**into a list.**

In [4]:

s = 'Hi there Sam!'

In [3]:

s.split()

Out[3]:

['Hi', 'there', 'dad!']

**Given the variables:**

planet = "Earth" diameter = 12742

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▾ Exercises

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?**

```
[ ]  print(7**4)
```

```
2401
```

**Split this string:**

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

**into a list.**

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

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

```
['Hi', 'there', 'Sam!']
```

**Given the variables:**

74°F
Cloudy    🔍 Search        6:20 PM  4/11/2022

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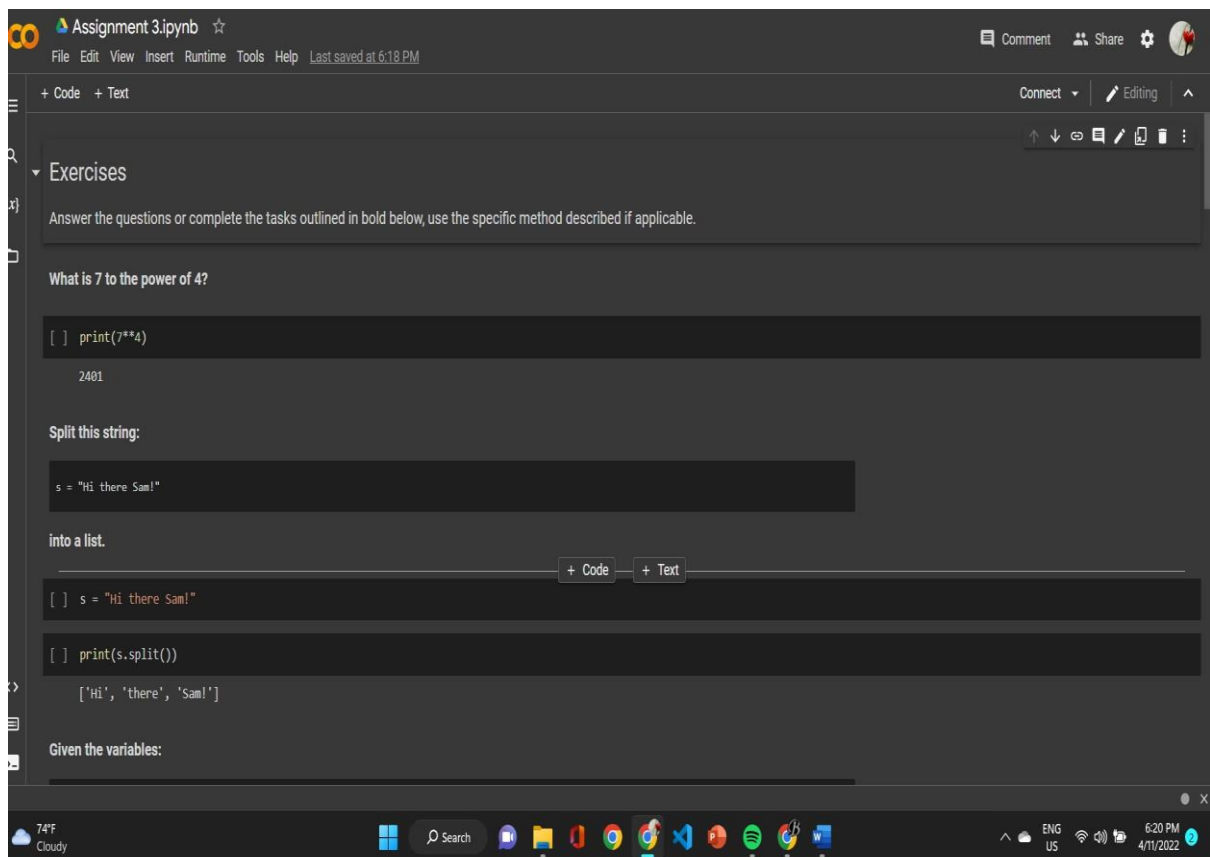
**Use .format() to print the following string:**

The diameter of Earth is 12742 kilometers.

In [5]:

planet = "Earth" diameter

= 12742

In [6]:

print("The diameter of {} is {} kilometers.".format(planet,diameter))

The diameter of Earth is 12742 kilometers.


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

In [7]:

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

In [14]:

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

Out[14]:

'hello'

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

In [16]:

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

In [22]:

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

Out[22]:

'hello'

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

In [23]:

# Tuple is immutable

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

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

In [24]:
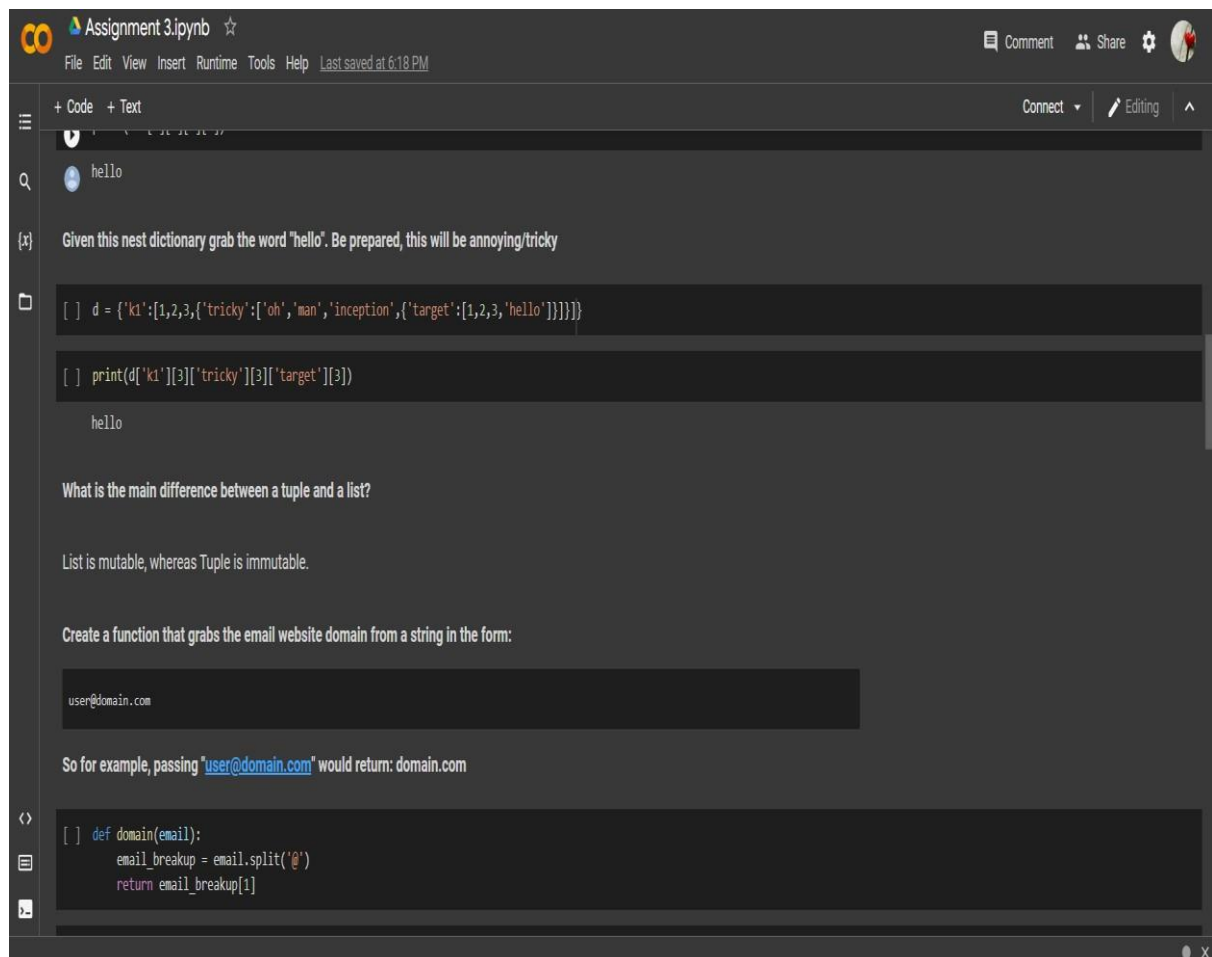
```
def domainGet(email):
    return email.split('@')[-1]
```

In [26]:

```
domainGet('user@domain.com')
```

Out[26]:

'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.**

In [27]:

```python
def findDog(st):
    return 'dog' in st.lower().split()
```

In [28]:

```python
findDog('Is there a dog here?')
```

Out[28]:

True



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

In [30]:

```python
def countDog(st):
```

```
    count = 0       for  word  in
st.lower().split():        if word
== 'dog':
        count += 1
    return count
```

In [31]: countDog('This dog runs faster than the other dog
dude!')

Out[31]:

2



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.

In [4]:

```python
def caught_speeding(speed, is_birthday):

    if is_birthday:
        speeding = speed - 5
    else:
        speeding = speed

    if speeding > 80:
        return 'Big    Ticket'
    elif speeding > 60:
        return 'Small    Ticket'
    else:
        return 'No Ticket'
```

In [5]:

caught_speeding(81,True)

Out[5]: 'Small

Ticket'

In [6]:

caught_speeding(81,False)

Out[6]:

'Big Ticket'

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```
print(dog_count("here goes a dog and another dog"))
```

```
2
```

## ▾ 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.

```python
def caught_speeding(speed, is_birthday):

    if is_birthday:
        speeding = speed - 5
    else:
        speeding = speed

    if speeding > 80:
        return 'Big Ticket'
    elif speeding > 60:
        return 'Small Ticket'
    else:
        return 'No Ticket'
```

```python
print(caught_speeding(90, False))
```
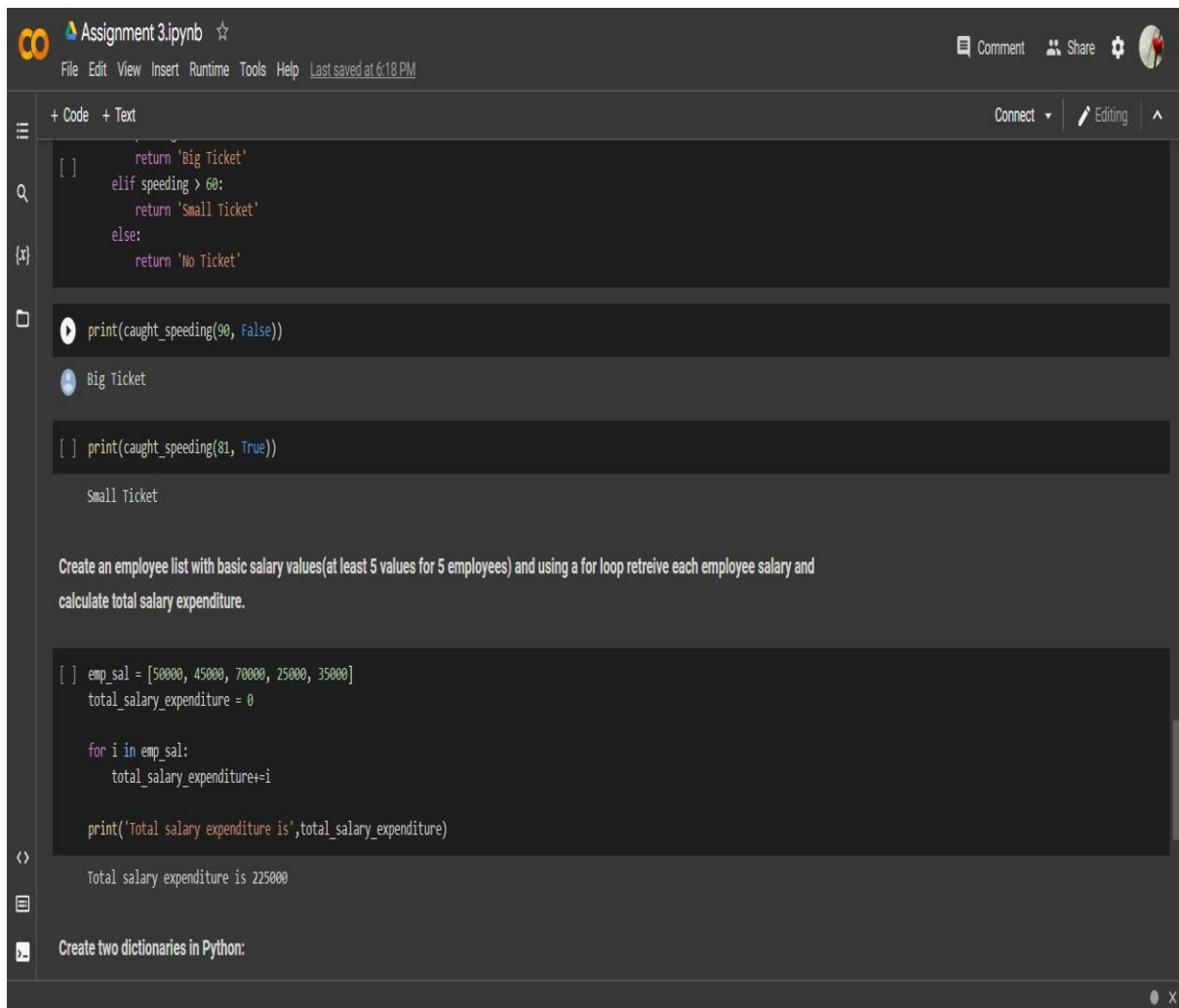
```
Big Ticket
```

**Create an employee list with basic salary values(at least 5 values for 5 employees) and using a for loop retreive each employee salary and calculate total salary expenditure.**

```
emp_sal = [50000, 45000, 70000, 25000, 35000] total_salary_expenditure

= 0


for i in emp_sal:

    total_salary_expenditure+=i


print('Total salary expenditure is',total_salary_expenditure)
```



**Create two dictionaries in Python:**

**First one to contain fields as Empid, Empname, Basicpay Second**

**dictionary to contain fields as DeptName, DeptId.**

**Combine both dictionaries.**

dict1 = {'Empid': 13, 'Empname': 'John Wick', 'Basicpay': 70000} dict2

= {'DeptName': 'Analytics', 'DeptId': 7}

dict3 = dict1 | dict2 print(dict3)

{'Empid': 13, 'Empname': 'John Wick', 'Basicpay': 70000, 'DeptName': 'Analytics', 'DeptId': 7}