Assignment Date	14.10.2022
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Maximum Marks	2 Marks

Solution:

Open in Colab

In [ ]:

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?

In [ ]:

print(7**7**7)

Out[ ]:

2401

Split this string: s =

"Hi there Sam!"

into a list.

In [ ]:

s="Hi there is durga"

In [ ]:

s.split()

Out[ ]:

['Hi', 'there', 'is', 'durga'] **Given the variables:** planet = "Earth"

diameter = 12742

Use .format() to print the following string:

The diameter of Earth is 12742 kilometers.

In [ ]:

planet = "Earth"diameter="The diameter of {} is 12742 kilometers" .format(planet) In [ ]: print(diameter)

The diameter of Earth is 12742 kilometers

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

In [ ]:

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

In [ ]:

lst[3][1][2]

Out[ ]:

['hello']

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

In [ ]:

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

In [ ]:

```
d["k1"][3]["tricky"][3]["target"][3]
```

Out[ ]:

```
'hello'
```

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

In [ ]:

#The primary difference between tuples and lists is that tuples are immutable as opposed to lists which are mutable.

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

user@domain.com

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

In [ ]:

```
def domainGet(email): print("Your domain is: " +
   email.split('@')[-1])
email = input("Please enter your email: >")domainGet(email)
Please enter your email: >sumathi@gmail.com
Your domain is: gmail.com
```

In [ ]:

Out[ ]:

```
'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 [ ]:

```
def findDog(st):
   if 'dog' in st.lower():
      print("True")
   else:
      print("False")
```

In [ ]:

```
st = "I take a walk with my dog"findDog(st)
True
```

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

In [ ]:

```
value = "My moms's dogs won't eat dry dog food";
```

In [ ]:

```
def countdogs(value):
   count = 0 for word in
   value.lower().split(): if word == 'dog'
   or word == 'dogs': count = count + 1
         print(count)countdogs(value)
1
```

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.

In [ ]:

```
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 [ ]:

```
caught_speeding(91,False)
```

Out[ ]:

```
'Big Ticket'
```

In [ ]:

```
speed="Your speed is more than 81"caught_speeding(81,True)
```

Out[ ]:

```
'Small 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.

In [ ]:

```
employee_names = ["Durga", "Chitra", "Mathi", "Nithish", "Janani", "hari"]employee_salaries = {}for employee in employee_names: while True: # Input validation loop try:
            employee_salaries[employee] = int(input(f"Enter {employee}'s salary: "))
            break
        except ValueError:
            print("Invalid input")
    print(employee_salaries)      total      =
    sum(employee_salaries.values())
    print(total)
```

```
Enter Durga's salary: 56,000
Invalid input
Enter Durga's salary: 50000
{'Durga': 50000}
50000
```

```
Enter Chitra's salary: 40000
{'Durga': 50000, 'Chitra': 40000}
90000
Enter Mathi's salary: 30000
{'Durga': 50000, 'Chitra': 40000, 'Mathi': 30000}
120000
Enter Nithish's salary: 4500
{'Durga': 50000, 'Chitra': 40000, 'Mathi': 30000, 'Nithish': 4500}
124500
Enter Janani's salary: 56000
{'Durga': 50000, 'Chitra': 40000, 'Mathi': 30000, 'Nithish': 4500, 'Janani': 56000}
180500
Enter hari's salary: 87000
{'Durga': 50000, 'Chitra': 40000, 'Mathi': 30000, 'Nithish': 4500, 'Janani': 56000, 'hari':
 87000}
267500
```

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.

In [ ]:

```
e1={"Empid":1,
    "Empname":'Durga',
    "Basicpay":8000}e2={"DeptName":'CSE',
    "DeptId":69}
```

In [ ]:

```
print({**e1, **e2})
```

```
{'Empid': 1, 'Empname': 'Nithin', 'Basicpay': 8000, 'DeptName': 'CSE', 'DeptId': 69}
```