# Assignment
# - 3Python

| Assignment Date | 5 October 2022 |
|---|---|
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| Maximum Marks | 2 Marks |

## Exercises

**Answer the questions or complete the tasks outlined in bold below, use the specifific methoddescribed if**
**applicable.**
**\*\* What is 7 to the power of 4?\*\***

7\*\*4
**2401**

**\*\* Split thisstring:\*\***
s = "Hi there Sam!"
*\*into a list. \**

s="Hi
there
Sam"
s.split()
**['Hi', 'there', 'Sam']**

s="Hi
there
dad"
s.split()
**['Hi', 'there', 'dad']**

**\*\* Given the**
**variables:\*\***planet =

"Earth" diameter =
12742

**\*\* Use .format() to print the following string: \*\***
The diameter of Earth is 12742 kilometers.

```
planet="Eart
h"
diameter=12
742
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" \*\***

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

#**Mutability**: One of the main difference between a tuple and a listis
thatList is mutable, whereas a Tuple is immutable.

**\*\* 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

```
def domainGet(email):
```

```
return email.split('@')[-1] domainGet('user@domain.com')
domainGet('user@domain.com')
```

**'domain.com'**

**\*\* Create a basic function that returns True if the word 'dog' is contained in the input string. Don'tworry**
**about edge cases like a punctuation being attached to the word dog, but do accountfor capitalization. \*\***

```
def findDog(st):
  return 'dog' in
  st.lower().split()
  findDog('Is there a dog
  here?')
```

**True**

**\*\* Create a function that counts the number of t imes the word "dog" occurs in a string. Againigno**
**re edge**
**cases. \*\***

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

```
countDog('This dog runs faster than the other dog dude!')
```

**2**

**Problem**

*You are driving a little too fast, and a police oficer stops you. Write afunction to returnone of 3 possible*
*results: "No ticket", "Small ticket", or "Big Ticket". If your speed is 60 orless, the result is"NoTicket". If*
*speed is between 61 and 80 inclusive, the result is "Small Ticket". If speedis 81 or more,the result is "Big*
*Ticket". Unless it is your birthday (encoded as a boolean value in theparameters of thefunction) -- on your*

*birthday, your speed can be 5 higher in all cases. ***

```
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'

caught_speeding(81,False)
```
**'Big Ticket'**

```
caught_speeding(81,True)
```
**'Small Ticket'**

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

```
emp_list=['yuva,100,200,300,400,500','ajay,200,300,400,500,100','akhil,300,400,500,100, 200,
'priya,400,500,100,200,300','deepa,500,100,200,300,400']
```

**#retrieve values using for loop**

```
for index in
    range(len(emp_list)):
    value=emp_list[index]
    print(index,value)
```

**0 yuva,100,200,300,400,500**
**1 ajay,200,300,400,500,100**

**2    akhil,300,400,500,100,200**
**3 priya,400,500,100,200,300**
**4 deepa,500,100,200,300,400**

**#calculate total salary expenditure**

```
a=[]
n=input
()fori in
    emp_list:
    c=i.spli
    t()if
    c[0]==
    n:
        a.append(c[1:6])
        c.sort(key=lambda
        x:x)delc[-1]
        c=list(map(int,c))
        print(n+'total salary expenditure'+str(sum))
```

**total salary expenditure 7500**

**Create two dictionaries in**

**Python:**

**First one to contain fifields as Empid, Empname, Basicpay Second dictionary to contain fifields as Dept Name, DeptId.Combine bothdictionaries**.

emp_1={'empid':1,'empname':'priya','basicpay':500000}
emp_2={'deptname':'HR','deptid':88}

#combine two dictionaries
print({**emp_1,**emp_2})

**{'empid': 1, 'empname': 'priya', 'basicpay': 500000, 'deptname': 'HR', 'deptid': 88}**