Assignment-
3Python

AssignmentDate	22November2022
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MaximumMarks	2Marks

Exercises

Answerthequestionsorcompletethetasksoutlined inboldbelow,usethespecifificmethoddescribed if
applicable.
****Whatis7tothe powerof4?****

7**4
2401

****Splitthisstring:****
s="HithereSam!"
intoalist.

s="Hi
thereSam"s.sp
lit()
['Hi','there','Sam']

s="Hi
theredad"s.spli
t()
['Hi','there','dad']

****Giventhevariables:****
planet="Earth"diameter=
12742
****Use.format()toprint thefollowingstring:****
ThediameterofEarthis12742kilometers.

```
planet="Earth"d
iameter=12742
print("Thediameterof{}is{}kilometers.".format(planet,diameter))
```

The diameterofEarthis12742kilometers.

****Giventhisnestedlist,useindexingtograbtheword "hello" ****

```
lst=[1,2,[3,4],[5,[100,200,['hello']],23,11],1,7]lst[3][1][2][0]
```

'hello'

****Giventhisnestdictionarygrabtheword"hello".Beprepared,thiswillbeannoying/tricky ****

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

'hello'

****Whatisthemain differencebetweena tupleandalist?****

#**Mutability**:Oneofthemaindifferencebetweenatupleandalististhat Listis mutable,whereasaTupleisimmutable.

****Createa functionthatgrabsthe emailwebsite domainfrom astringin theform:****
user@domain.com
Soforexample,passing"user@domain.com"wouldreturn:domain.com

```
defdomainGet(email):
returnemail.split('@')[-
1]domainGet('user@domain.com')domainGet('user@do
main.com')
```

'domain.com'

****CreateabasicfunctionthatreturnsTrueiftheword'dog'iscontainedintheinputstring.D
on'tworry
aboutedgecaseslikea punctuationbeingattachedtotheword
dog,butdoaccountforcapitalization.****

```
deffindDog(st):
  return'dog'inst.lower().split()fi
  ndDog('Isthereadoghere?')
```

True

****Createa functionthatcountsthenumberoftimestheword"dog"occursin astring.
Againignoree
dgecases.****

```
defcountDog(st):
  count=0
  forwordinst.lower().split():ifw
      ord=='dog':
        count+=1returnco
        unt

countDog('Thisdogrunsfasterthantheotherdogdude!')
```

2

Problem

****Youaredrivingalittletoofast, andapoliceoficer
stopsyou.Writeafunctiontoreturnoneof3possible
results:"Noticket","Smallticket",or"BigTicket".Ifyourspeedis60orless,theres
ultis"NoTicket".If
speedisbetween61and 80 inclusive,theresultis"SmallTicket".If
speedis81ormore,theresultis"Big
Ticket".Unlessitisyourbirthday(encodedas
abooleanvalueintheparametersofthefunction)--onyour***

birthday,yourspeedcanbe 5higher inallcases.*

```
def caught_speeding(speed,
   is_birthday):ifis_birthday:
      speeding=speed-5
else:
      speeding=speed

if speeding >
      80:return'BigTick
      et'
elif
      speeding>60:return
      'SmallTicket'
else:
      return'NoTicket'

caught_speeding(81,False)
```
'BigTicket'

```
caught_speeding(81,True)
```
'SmallTicket'

Createanemployeelistwith basicsalary values(atleast5 valuesfor5employees) andusingaforloop
retreiveeach employee salaryand calculatetotalsalaryexpenditure.

```
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']

#retrievevaluesusingforloop

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

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

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

#calculatetotalsalaryexpenditure

```
a=[]
n=input()for
iin
  emp_list:
  c=i.split()if
  c[0]==n:
    a.append(c[1:6])c.sort(ke
    y=lambdax:x)delc[-
    1]c=list(map(int,c))
    print(n+'totalsalaryexpenditure'+str(sum))
```

total salary expenditure

7500Createtwodictionariesin

Python:

FirstonetocontainfifieldsasEmpid,Empname,BasicpaySeconddictionary to contain fifields as Dept Name, DeptId.Combine bothdictionaries.

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

#combine two
dictionariesprint({**emp_1
,**emp_2})
```

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