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Assignment -3

Exercises

Answer the questions or complete the tasks outlined in bold below, use the specific methoddescribed 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.spli
t()
```

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

** Given the variables:**

```
p
l
a
n
e
t
=
"
E
a
r
t
h
"
d
i
a
m
e
t
e
r
=
1
2
7
4
2
```

Saved successfully!

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

```
The diameter of Earth is 12742 kilometers.
```

```
pla
net
=
```

```
"Ea
rth
"
dia
met
er
=
127
42
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']],23,1
1],1,7]lst[3][1][2][0]

'hel
 lo'
```

** 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]['targe

     t'][3]'hello'
```

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

```
#Tuple is immutable where list is mutable
```

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

```
user@
domai
n.com
```

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

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


domainGet('user

     @domain.co

     m')

     'domain.co

     m'
```

** 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
findD
og(st
 ):
    return 'dog' in st.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. Againignore edge cases. **

```
 def
coun
tDog
(st)
  :
coun
 t =
  0

    for word in
        st.lower().spl
        it():if word
        == 'dog':
            c
    ount
    += 1
    retur
    n
    count


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 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:
```

```
        speedin
    g = speed -
    5else:
        speeding = speed

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

Saved successfully!

```
caught_speeding(81,False)
```

```
'Big Ticket'
```

```
caught_spee

    ding(7

    0,True

    )

    'Small

    Ticket

    '
```

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

```
employee = [30000,23000,25000,40000,33000]
tot = 0
```

```
for i
    i
    n
    e
    m
    p
    l
    o
    y
    e
    e
    :
    t
    o
    t
    =
    t
    o
    t
    +
    i
print("Total Salary :",tot)
```

```
 Total Salary : 151000
```

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":[1001,1002,1003,1004,1005],
    "EmpName":["vipush","hari","younush","nivish
    ","kishore"],
    "Basicpay":[42000,41000,40000,43000,39000]
}

dict2 = {
    "DeptName":["EEE","CIVIL","CSE","IT","MBA","MECH"],
```

```
    "DeptId":["19CE","20CE","19CSE","19IT","19BIO","19MECH"]
}

dict1.u
pdate(d
ict2)
dict3 =
dict1.c
opy()
dict3
```

```
{'EmpId': [1001, 1002, 1003, 1004, 1005],
 'EmpName': ['vipush', 'hari', 'younush',
 'nivish', 'kishore'],'Basicpay': [42000, 41000,
 40000, 43000, 39000],
 'DeptName': ['EEE', 'CIVIL', 'CSE', 'IT', 'MBA', 'MECH'],
 'DeptId': ['19CE', '20CE', '19CSE', '19IT', '19BIO', '19MECH']}
```

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