ASSIGNMENT -3[08-10-2022]

RETAIL STORE STOCK INVENTORY ANALYTICS

TEAM ID: PNT2022TMID38670

NAME: R.ATCHAYA   REG NO: 420419205002

Answer the questions or complete the tasks:

1. ** What is 7 to the power of 4?**

```
print(7**4);

2401
```

2. ** Split this string:**

S = "Hi there Sam!"

```
s="Hi there Sam!"
s=s.split()
print(s);

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

S =' "Hi there dad!"

```
s="Hi there dad!"
s=s.split()
print(s);

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

3. ** Given the variables:**

Planet = "Earth"
Diameter = 12742

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

```
The diameter of Earth is 12742 kilometers.


[ ] planet = "Earth"
    diameter = 12742


    planet = "Earth"
    diameter = 12742
    print( 'The diameter of {} is {} kilometers.' .format(planet,diameter));

    The diameter of Earth is 12742 kilometers.
```

4. ** 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 = [1,2,[3,4],[5,[100,200,['hello']],23,11],1,7]
     a=lst[3][1][2];
     print(a)

     ['hello']
```

5. ** 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':[1,2,3,{'tricky':['oh','man','inception',{'target':[1,2,3,'hello']}]}]}
     print(d['k1'][3]["tricky"][3]['target'][3])

     hello
```

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

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

#List is mutable
#Tuple is immutable
#List implication of iterations is time-consuming in the list
#Tuple implications of iterations are much faster in tuples
#List Consumes more memory
#Tuple Consumes less memory
```

7. ** 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')

'domain.com'
```

8. ** 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. **

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

    findDog('Is there a dog here?')

    True
```

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

```python
[7] def countDog(st):
        count = 0
        for word in st.lower().split():
            if word == 'dog':
                count += 1
        return count

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

    2
```

10. **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
[9] 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'
```

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

```python
employeee=[10000,15000,20000,40000,25000]
total=0
for i in employeee:
    total+=i

print("Total salary:",total)
```

```
Total salary: 110000
```

12. 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.

```python
def Merge(dict1, dict2):
    res = dict1 | dict2
    return res

dict1 = {'Empid', 'Empname', 'Basicpay'}
dict2 = { 'DeptName', 'DeptId'}
dict3 = Merge(dict1, dict2)
print(dict3)
```

```
{'Empname', 'Basicpay', 'DeptId', 'Empid', 'DeptName'}
```