Assignment 3
Data Analytics
Project title: Retail Store Stock Inventory Analytics

NAME	SURIYA
REG NUMBER	8104191040111

What is 7 to the power of 4?SSU

In [1]:
7 **4
Output 1
2401

Split this string:

s = "Hi there
Sam!"into a list.

Input
s = 'Hi there
Sam!s.split()

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

Output
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]
In [14]:
lst[3][1][2][0
]

Outpu
t
'hello'

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

```
d =
{'k1':[1,2,3,{'tricky':['oh','man','inception',{'target':[1,2,3,'hello']}]}]}In
[22]:
d['k1'][3]['tricky'][3]['target'][3]
```

```
Outpu
t
'hello'
```

What is the main difference between a tuple and a

list?# 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')
```

```
Output
'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.

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

```
Outpu
tTrue
```

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

```
def
   countDog(st):
   count = 0
   for word in
      st.lower().split():if word
      == 'dog':
         count +=
   1return count
countDog('This dog runs faster than the other dog dude!')
```

```
Outpu
t2
```

You are driving a little too fast, and a police officer stops you. Write a function to return one of 3possible 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 ormore, 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:
      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,True)
```

Output

```
'Small
Ticket'
caught_speeding(81,Fals
e) 'Big 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.

```
def weeklyPaid(hours_worked,
        wage):if hours_worked >
        40:
                return 40 * wage + (hours_worked - 40) * wage * 1.5
        else:
                return hours_worked * wage
hours_worked = 50
wage = 100
pay = weeklyPaid(hours_worked,
wage)print(f"Total gross pay:
Rs.{pay:.2f} ")
```