In [2]:
```
print("My First Data Science Assignment")
```

```
My First Data Science Assignment
```

In [3]:
```
print("Alex")
```

```
Alex
```

In [4]:
```
#Concatinating Strings

var1 = 'I'
var2 = ' love'
var3 = ' Fitness'

print("My Interest :",var1+var2+var3)
```

```
My Interest : I love Fitness
```

In [5]:
```
#Capitalizing String

string1='i love fitness'

print("Capitalized string : ",string1.capitalize())
```

```
Capitalized string :  I love fitness
```

In [6]:
```
#Updating String

string1='Creatine'
print("Updated String :",string1[:20]+'is safe to use')
```

```
Updated String : Creatineis safe to use
```

In [8]:
```
#Pattern in strings

var1 = ' Whey Protein'
print("5 times whey : ",var1*5)
```

```
5 times whey :   Whey Protein Whey Protein Whey Protein Whey Protein Whey Pro
tein
```

In [9]:
```
#Introduction to Lists using examples

exercise =["Deadlift",150,"Squats",150.50,"Pullups",25] #list elements along w
ith weight lifted

print (exercise) #printing list elements
```

```
['Deadlift', 150, 'Squats', 150.5, 'Pullups', 25]
```

In [10]:
```
#Sublisting

exercise1 =[["Deadlift",150],["Squats",150.50],["Pullups",25]] #List elements
 along with weight lifted

print (exercise1)
```

```
[['Deadlift', 150], ['Squats', 150.5], ['Pullups', 25]]
```

In [11]:
```
type(exercise)
```

Out[11]:
```
list
```

In [12]:
```
type(exercise1)
```

Out[12]:
```
list
```

In [13]:
```
exercise[1] #index
```

Out[13]:
```
150
```

In [14]:
```
exercise[2] #index
```

Out[14]:
```
'Squats'
```

In [15]:
```
exercise[-2] #index
```

Out[15]:
```
'Pullups'
```

In [16]:
```
#List Slicing

exercise [2:5]
```

Out[16]:
```
['Squats', 150.5, 'Pullups']
```

In [18]:
```
exercise [:4]
```

Out[18]:
```
['Deadlift', 150, 'Squats', 150.5]
```

In [19]:
```
exercise
```

Out[19]:
```
['Deadlift', 150, 'Squats', 150.5, 'Pullups', 25]
```

In [20]:
```
#Changing Elements in List

exercise[5]=30  #changing list elements
exercise
```

Out[20]:
```
['Deadlift', 150, 'Squats', 150.5, 'Pullups', 30]
```

In [21]:
```
exercise[0:2] = ["legpress", 300]
print (exercise)
```

```
['legpress', 300, 'Squats', 150.5, 'Pullups', 30]
```

In [22]:
```
#inserting elements in a list
exercise2 = exercise + ["Tricep pushdown",120] #inserting into list elements.
exercise2
```

Out[22]: ['legpress', 300, 'Squats', 150.5, 'Pullups', 30, 'Tricep pushdown', 120]

In [23]:
```
#Deleting elements from a list

del(exercise2[3]) #removing from the list elements
print(exercise2)
```

```
['legpress', 300, 'Squats', 'Pullups', 30, 'Tricep pushdown', 120]
```

In [25]:
```
del(exercise2[2])
print(exercise2)
```

```
['legpress', 300, 'Pullups', 30, 'Tricep pushdown', 120]
```

In [26]:
```
#Addition of List

exercise3 = ["Pushups", 40]
exercise3
exercise4 = exercise2 + exercise3 #Adding two list game2 and game3
print(exercise4)
```

```
['legpress', 300, 'Pullups', 30, 'Tricep pushdown', 120, 'Pushups', 40]
```

In [27]:
```
#Introduction to Sorting

carspeed = [110,90,220,65,40]
carspeed
```

Out[27]: [110, 90, 220, 65, 40]

In [28]:
```
#Sorting in Ascending order

sorted(carspeed,reverse= False) #sorted in ascending order
```

Out[28]: [40, 65, 90, 110, 220]

In [29]:
```
#Sorting in Descending order

sorted(carspeed,reverse= True) #sorted in descending order
```

Out[29]: [220, 110, 90, 65, 40]

In [31]:
```
#introduction to Dictionary

customer = {}
customer['age'] = 30
customer['occupation'] = "Marketing Professional"
customer['address'] = "New Jersey"
customer['Gender'] = 'Male'
customer
```

Out[31]:
```
{'Gender': 'Male',
 'address': 'New Jersey',
 'age': 30,
 'occupation': 'Marketing Professional'}
```