**For Loop**

* A for loop is used for iterating over a sequence (that is either a list, a tuple, a dictionary, a set, or a string).

print("loop through a string")  
myString="fruits"  
for i in myString:  
 print(i)

*#Output : apple grapes orange banana*

* The for loop does not require an indexing variable to set beforehand.

print("print each fruit in a fruits list")  
fruits = ["apple","grapes","orange","banana"]  
for i in fruits:  
 print(i)

*#Output : f r u i t s*

* Break Statement – to stop the loop before it has looped through all the items

print("exit the loop when x is banana")  
fruits = ["apple","grapes","orange","banana","papaya","cherry"]  
for i in fruits:  
 print(i)  
 if i=="banana":  
 break

*#Output : apple grapes orange banana*

print("Exit the loop when x is banana, but break comes before the print")  
fruits = ["apple","grapes","orange","banana","papaya","cherry"]  
for i in fruits:  
 if i=="banana":  
 break  
 print(i)

*#Output : apple grapes orange*

* Continue Statement – to stop the current iteration of the loop and continue with next

print("do not print banana")  
fruits = ["apple","grapes","orange","banana","papaya","cherry"]  
for i in fruits:  
 if i=="banana":  
 continue  
 print(i)

*#Output : apple grapes orange papaya cherry*

* Range() function – to loop through a set of code a specified number of times. This returns a sequence of numbers, starting from 0 by default, and increments by 1(by default), and end at a specified number.

print(" print upto 4 using range function")  
for i in range(5):  
 print(i)

*#Output : 0 1 2 3 4*

* Range() function— allows to define start and end value by adding first and second parameters and increments by 1(by default).

print(" print from 1 to 4 using range function")  
for i in range(1,5):  
 print(i)

*#Output : 1 2 3 4*

* Range() function— allows to define start , end and increments value by adding first , second and third parameter.

print(" print from 2 to 8 using range function by incrementing 2")  
for i in range(2,8,2):  
 print(i)

*#Output : 2 4 6*

* Else keyword – specifies a block of code to be executed when the loop is finished. However, else statement will not be executed if the loop is stopped by break.

print("Print all numbers from 0 to 5, and print a message when the loop has ended")  
for i in range(6):  
 print (i)  
else:  
 print("The loop has ended")

*#Output : 0 1 2 3 4 5 The loop has ended*

* Nested Loop is a loop inside a for loop. The inner loop will be executed one time for each iteration of the outer loop.

print("Print each adjective for every fruit")  
adj = ["red", "big", "tasty"]  
fruits = ["apple", "banana", "cherry"]  
for a in adj:  
 for f in fruits:  
 print(a,f)

*# Output  
 #red apple  
 #red banana  
 #red cherry  
 #big apple  
 #big banana  
 #big cherry  
 #tasty apple  
 #tasty banana  
 #tasty cherry*