

for loop

In []:

```
1 *
2 **
3 ***
4 ****
5 *****
6
7
8
9 A
10 AB
11 ABC
12 ABCD
13 ABCDE
14
15 ABCDE
16 ABCD
17 ABC
18 AB
19 A
20
21
```

In []:

```
1
2     For loop works like iterator for data types
3     sequential data types : list , tuple , str , set , frozenset , range etc
4
5
6 Syntax :
7
8 for var in sequence :
9     statement1
10    statement2
11    statement3
12    .
13    .
14    .
15    .
16    statementN
17
```

In [4]:

```
1 print("Python Training")
2 print("Python Training")
3 print("Python Training")
4 print("Python Training")
5 print("Python Training")
6 print("Python Training")
7 print("Python Training")
8 print("Python Training")
9 print("Python Training")
10 print("Python Training")
```

[illegible]

In [5]:

```
1  
2 for i in range(10): # 0 to 9  
3     print("Python Training")
```

[illegible]

In [7]:

```
1 import time
2
3 for i in range(10): # 0 to 9
4     print("Python Training")
5     time.sleep(2)
```

Python Training
Python Training
Python Training
Python Training
Python Training
Python Training
Python Training
Python Training
Python Training
Python Training

In [8]:

```
1 import time
2
3 for i in range(10): # 0 to 9
4     print("Python Training", " value of i is ", i)
5     time.sleep(2)
```

Python Training value of i is 0
Python Training value of i is 1
Python Training value of i is 2
Python Training value of i is 3
Python Training value of i is 4
Python Training value of i is 5
Python Training value of i is 6
Python Training value of i is 7
Python Training value of i is 8
Python Training value of i is 9

In [11]:

```
1 import time
2
3 for i in range(0,5): # 0 to 4
4     print(i)
5     time.sleep(1)
```

0
1
2
3
4

In [14]:

```
1 list1=[10,40,80,60,30]
2 for item in list1:
3     print(item)
```

```
10
40
80
60
30
```

```
1 # Other Language C , CPP , JAVA
2 for (i=0;i<5;i++)
3 {
4     printf(i) # SOP(i) --JAVA
5 }
```

In [16]:

```
1 import time
2
3 for i in range(10): # 0 to 9
4     print("Python Training")
5     print("Machine Learnig")
6     print('-'*75)
7
8     time.sleep(1)
```

Python Training
Machine Learnig

--

Python Training
Machine Learnig

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Python Training
Machine Learnig

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Python Training
Machine Learnig

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Python Training
Machine Learnig

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Python Training
Machine Learnig

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Python Training
Machine Learnig

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Python Training
Machine Learnig

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Python Training
Machine Learnig

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Python Training
Machine Learnig

--

In [21]:

```
1 # Find Even numbers from given List
2 num_list=[3,6,4,5,9,12,87,55,43,22,96,32]
3 for n in num_list :
4     if n%2==0:
5         print(n)
```

6
4
12
22
96
32

In [23]:

```
1 # Find Even numbers from given List
2 num_list=[3,6,4,5,9,12,87,55,43,22,96,32]
3 for n in num_list :
4     if n%2==0:
5         print(f" {n} is Even Number")
6     else:
7         print(f" {n} is Odd Number")
8
```

3 is Odd Number
6 is Even Number
4 is Even Number
5 is Odd Number
9 is Odd Number
12 is Even Number
87 is Odd Number
55 is Odd Number
43 is Odd Number
22 is Even Number
96 is Even Number
32 is Even Number

In [26]:

```
1 # Find Even number list Only from given list
2 num_list=[3,6,4,5,9,12,87,55,43,22,96,32]
3 print("Original List : --- > ",num_list)
4 even_list=[]
5
6 for n in num_list :
7     if n%2==0:
8         even_list.append(n)
9
10
11 print("Even Number List : --- > ",even_list)
```

Original List : --- > [3, 6, 4, 5, 9, 12, 87, 55, 43, 22, 96, 32]
Even Number List : --- > [6, 4, 12, 22, 96, 32]

In [28]:

```
1 # Find Odd number list Only from given list
2 num_list=[3,6,4,5,9,12,87,55,43,22,96,32]
3 print("Original List : --- > ",num_list)
4 odd_list=[]
5
6 for n in num_list :
7     if n%2!=0:
8         odd_list.append(n)
9
10
11 print("Odd Number List : --- > ",odd_list)
```

Original List : --- > [3, 6, 4, 5, 9, 12, 87, 55, 43, 22, 96, 32]

Odd Number List : --- > [3, 5, 9, 87, 55, 43]

In [29]:

```
1 # separate Even number list and Odd Number List from given list
2 num_list=[3,6,4,5,9,12,87,55,43,22,96,32]
3 print("Original List : --- > ",num_list)
4 even_list=[]
5 odd_list=list() # Same as odd_list=[]
6
7 for n in num_list :
8     if n%2==0:
9         even_list.append(n)
10    else:
11        odd_list.append(n)
12
13
14 print("Even Number List : --- > ",even_list)
15 print("Odd Number List : --- > ",odd_list)
```

Original List : --- > [3, 6, 4, 5, 9, 12, 87, 55, 43, 22, 96, 32]

Even Number List : --- > [6, 4, 12, 22, 96, 32]

Odd Number List : --- > [3, 5, 9, 87, 55, 43]

In [31]:

```
1 tuple1=(10,40,60,80)
2 for i in tuple1: # Tuple
3     print(i)
```

10
40
60
80

In [38]:

```
1 string1="Python Training"
2 for i in string1:
3     print(i , end= " ")
```

P y t h o n T r a i n i n g

Loop Control Statements

In []:

```
1
```

In []:

```
1 statements can control the execution of loop
2 1.break
3 2.continue
4 3.pass
```

1. break statement

In []:

```
1 it will stop the execution of loop
2 control will go to the next statement after loop
```

In [39]:

```
1 for i in range(10) :
2     print(i)
```

```
0
1
2
3
4
5
6
7
8
9
```

In [41]:

```
1 for i in range(10) :
2     print(i)
3     if i==5:
4         break
```

```
0
1
2
3
4
5
```


In [43]:

```
1 for i in range(10) :  
2     print(i)  
3     if i==5:  
4         break  
5 print("Hello")
```

```
0  
1  
2  
3  
4  
5  
6  
7  
8  
9  
Hello
```

In [44]:

```
1 for i in range(1,8):  
2     print(i)  
3     if i==4:  
4         print("number is 4")  
5         break  
6     print("Python Training")
```

```
1  
Python Training  
2  
Python Training  
3  
Python Training  
4  
number is 4
```

In [45]:

```
1 for i in range(1,8):  
2     print(i)  
3     if i==4:  
4         print("number is 4")  
5         break  
6     print("Python Training")
```

```
1  
2  
3  
4  
number is 4
```

In [46]:

```
1 for i in range(1,8):
2     print(i)
3     break
4     if i==4:
5         print("number is 4")
6         print("Python Training")
```

1

In [47]:

```
1 for i in range(1,8):
2     print(i)
3     if i==4:
4         print("number is 4")
5         print("Python Training")
6     break
```

1

In [49]:

```
1 import time
2
3 for i in range(1,8):
4     print(i)
5     if i==4:
6         print("number is 4")
7         break
8     print("Python Training")
9     time.sleep(2)
10
11 print("Out of the for loop ")
```

```
1
Python Training
2
Python Training
3
Python Training
4
number is 4
Out of the for loop
```

In []:

```
1
```