

## Repeated task can be performed with help of loops

- While
- For

## While

- variable declaration
- condition
- increment/decrement

In [7]:

```
1 i = 1
2 while i<=5:
3
4     print("Hello")
5     i+=1
```

Hello  
Hello  
Hello  
Hello  
Hello

## Print the table of 2 with the help of while loop

In [8]:

```
1 i = 2
2 while i<=20:
3     print(i)
4     i+=2
```

2  
4  
6  
8  
10  
12  
14  
16  
18  
20

```
In [10]: 1 i = 1
          2 while i<=10:
          3     print(2*i)
          4     i+=1
```

```
2
4
6
8
10
12
14
16
18
20
```

```
In [12]: 1 num = int(input('Which table you want ? '))
          2 i = 1
          3 while i<=10:
          4     print(f"{num}x{i}={num*i}")
          5     i+=1
```

```
Which table you want ? 5
5x1=5
5x2=10
5x3=15
5x4=20
5x5=25
5x6=30
5x7=35
5x8=40
5x9=45
5x10=50
```

```
In [14]: 1 fruits = ['Apple', 'Cherry', 'Mango', 'pineapple', 'Leechi']
          2
          3 print(fruits[0])
          4 print(fruits[1])
          5 print(fruits[2])
          6 print(fruits[3])
          7 print(fruits[4])
```

```
Apple
Cherry
Mango
pineapple
Leechi
```

```
In [20]: 1 # iterate over list elements with the help of while loops
2
3 fruits = ['Apple', 'Cherry', 'Mango', 'pineapple', 'Leechi']
4
5 i = 0
6 while i < len(fruits):
7
8     print(fruits[i])
9     i += 1
```

Apple  
Cherry  
Mango  
pineapple  
Leechi

```
In [22]: 1 # print the elements having length greater than 5
2
3 fruits = ['Apple', 'Cherry', 'Mango', 'pineapple', 'Leechi']
4
5 i = 0
6 while i < len(fruits):
7
8     if len(fruits[i]) > 5:
9         print(fruits[i])
10    i += 1
```

Cherry  
pineapple  
Leechi

## For loop

```
In [25]: 1 # print the elements having length greater than 5
2 # Method 1
3
4 fruits = ['Apple', 'Cherry', 'Mango', 'pineapple', 'Leechi']
5
6 # direct iteration on list elements
7 for i in fruits:
8     if len(i) > 5:
9         print(i)
```

Cherry  
pineapple  
Leechi

```
In [26]: 1 # print the elemnts having length greater than 5
2 # Method 2
3
4 fruits = ['Apple', 'Cherry', 'Mango', 'pineapple', 'Leechi']
5
6 # iteration using index number
7
8 for i in range(0, len(fruits)):
9     if len(fruits[i])>5:
10         print(fruits[i])
```

Cherry  
pineapple  
Leechi

```
In [28]: 1 # print all even numbers from the sequence
2
3 m1 = [23,22,67,8,46,12,13]
4
5 for i in m1:
6     if i%2==0:
7         print(i)
```

22  
8  
46  
12

```
In [30]: 1 # count the number of ocurrence of k in the given word
2
3 mystr = "ngklnskjdfbkj"
4 ch = 'k'
5 count = 0
6 for i in mystr:
7     if i == ch:
8         count+=1
9
10
11 print(count)
```

3

```
In [7]: 1 # print the number from the list whose last digit is divisible by 3
2
3 ml = [234,457,329,453,578,27]
4
5 for i in ml:
6
7     ld = i%10
8     if ld%3 == 0:
9         print(i)
10    if i == 329:
11        break
```

329

```
In [8]: 1 ml = [2,3,10,6,8,11,20,6]
2
3 for i in ml:
4     if i>=10:
5         continue
6     print(i)
```

2  
3  
6  
8  
6

```
In [12]: 1 for i in range(5):
2         pass
3         print('After pass')
4         continue
5         print("I will never come")
```

After pass  
After pass  
After pass  
After pass  
After pass

```
In [ ]: 1
```

```
In [ ]: 1
```