

In [1]:

```
for i in range(11):
    print(i,end=" ")
```

0 1 2 3 4 5 6 7 8 9 10

In []:

```
# to print odd numbers from 1 to 100 by using for loop
```

In [2]:

```
for i in range(1,100,2):
    print(i,end=" ")
```

1 3 5 7 9 11 13 15 17 19 21 23 25 27 29 31 33 35 37 39 41 43 45 47 49 51 53
55 57 59 61 63 65 67 69 71 73 75 77 79 81 83 85 87 89 91 93 95 97 99

In [3]:

```
for i in range(2,100,2):
    print(i,end=" ")
```

2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44 46 48 50 52 54
56 58 60 62 64 66 68 70 72 74 76 78 80 82 84 86 88 90 92 94 96 98

In [4]:

```
# to print the values starting character 0 and ending character 50 to spilt 3 elements
for i in range(0,50,3):
    print(i,end=" ")
```

0 3 6 9 12 15 18 21 24 27 30 33 36 39 42 45 48

In [9]:

```
# to print the 1 to n natural numbers in ascending order
n=int(input("enter a natural numbers size..."))
for i in range(1,n+1):
    print(i,end=" ")
```

enter a natural numbers size...25

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25

In [2]:

```
n=int(input("enter a natural numbers size:"))
for i in range(n,0,-1):
    print(i,end=" ")
```

enter a natural numbers size:10

10 9 8 7 6 5 4 3 2 1

break statement example

In [3]:

```
for i in 'apssdc':  
    if i=='s':  
        break  
    else:  
        print(i,end=" ")
```

a p

In [4]:

```
for i in '12345678910':  
    if i=='6':  
        break  
    else:  
        print(i," ")
```

1
2
3
4
5

To print the even numbers in between 1 to 20 by using continue

In [8]:

```
for i in range(2,21,2):  
    if i=='1':  
        continue  
    else:  
        print(i,end=" ")
```

2 4 6 8 10 12 14 16 18 20

In [10]:

```
for i in range(1,41):  
    if(i%2!=0):  
        continue  
    else:  
        print(i,end=" ")
```

2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40

swap between two numbers

In [11]:

```
a=5
b=15
temp=a
a=b
b=temp
print(a,b)
```

15 5

In [13]:

```
a=10
b=20
temp=a
print("before swaping a",a)
print("before swaping b",b)
a=b
b=temp
print("after swaping a",a)
print("after swaping b",b)
```

before swaping a 10
before swaping b 20
after swaping a 20
after swaping b 10

In [15]:

```
varu=str(input("enter the first character:"))
bharu=str(input("enter the second character:"))
temp=varu
varu=bharu
bharu=temp
print(varu,bharu)
```

enter the first character:varu
enter the second character:bharu
bharu varu

generate a random value

In [31]:

```
import random
random.randint(0,30)
```

Out[31]:

21

In [35]:

```
import random
print(random.randint(1,99))
```

72

To print the english alphabets from lower case to upper case in python

In [38]:

```
import string
print(string.ascii_uppercase)
print(string.ascii_lowercase)
```

```
ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz
```

In [42]:

```
import string
print("\nalphabets from a-z:")
for letter in string.ascii_lowercase:
    print(letter,end=" ")
print("\nalphabets from A-Z:")
for letter in string.ascii_uppercase:
    print(letter,end=" ")
```

```
alphabets from a-z:
a b c d e f g h i j k l m n o p q r s t u v w x y z
alphabets from A-Z:
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
```

Program to display calender of the given month and year

In [45]:

```
import calendar
yy=1997
mm=2
print(calendar.month(yy,mm))
```

```
February 1997
Mo Tu We Th Fr Sa Su
                1  2
 3  4  5  6  7  8  9
10 11 12 13 14 15 16
17 18 19 20 21 22 23
24 25 26 27 28
```

In [46]:

```
import calendar
yy=1999
mm=8
print(calendar.month(yy,mm))
```

```
August 1999
Mo Tu We Th Fr Sa Su
                1
 2  3  4  5  6  7  8
 9 10 11 12 13 14 15
16 17 18 19 20 21 22
23 24 25 26 27 28 29
30 31
```

In []:

```
#### Functions:
```

1. Resuability
2. Easy Debugging

Functions **is** a group of statements, it can perform one specific task.

```
#### function keyword def
```

In python by using **"def"** keyword we can perform the functions:

```
#### Syntax:
```

```
def function_name(argument_list):
```

```
    statements
    return value.
```

```
#### Types of functions:
```

1. with arguments and with return values
2. with arguments and with out return values
3. without argument and with return values
4. without arguments and without return values

```
#### 1. Function defination
```

```
def function_name(arguments)
```

```
2. function calling
```

```
function name(variable_name)
```

In []:

```
#### 1. with arguments and with return values
```

```
##### syntax:
```

```
def function_name(argument_list):
    statements
    return value.
```

```
##### example:-
```

to perform the addition of two numbers?

```
n1=int(input("enter n1 value")) #step1 n1=10 n2=
```

```
n2=int(input("enter n2 value"))#step2
```

```
def addition(a,b):#a=n1,b=n2 #step3
```

```
    c=a+b #c=10+10
```

```
    return c #c=20
```

```
addition(n1,n2) #c=20
```

In [20]:

```
n1=int(input("enter n1 value"))
n2=int(input("enter n2 value"))
def add(a,b):
    c=a+b;
    return c
print(add(n1,n2))
```

```
enter n1 value70
enter n2 value90
160
```

In [49]:

```
def add(a,b):
    c=a+b;
    return c
print(add(2,3))
print(add(11,18))
```

```
5
29
```

In []:

```
#### 2. with arguments and with out return values
def function_name(argument_list):
    statements
print value.
##### example:-
    to perform the subtraction of two numbers?
n1=int(input("enter n1 value")) #step1 n1=10 n2=
n2=int(input("enter n2 value"))#step2
def subtraction(a,b):#a=n1,b=n2 #step3
    c=a-b #c=10+10
    print c #c=20
subtraction(n1,n2) #c=20
```

In [24]:

```
n1=int(input("enter n1 value"))
n2=int(input("enter n2 value"))
def subtraction(a,b):
    c=a-b;
    print (c)
subtraction(n1,n2)
```

```
enter n1 value90
enter n2 value40
50
```

In [26]:

```
#### 3.without argument and with return values
def Multiplication():
    a = 10
    b = 25
    Multi = a * b
    return Multi
print("After Calling the Multiplication : ", Multiplication())
```

After Calling the Multiplication : 250

In [25]:

```
#### 4.With No Arguments, and No Return Value
def Adding():
    a = 20
    b = 30
    Sum = a + b
    print("After Calling :", Sum)
Adding()
```

After Calling : 50

In []:

```
n1=int(input("enter n1 value"))
n2=int(input("enter n2 value"))
multi = a
```