To print the 1 to 10 Natural numbers by using for loop

In [18]:

```
 print("First 10 natural numbers")
for i in range(1,11):
    print(i,end=" ")
```

```
First 10 natural numbers
1 2 3 4 5 6 7 8 9 10
```

In [8]:

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

```
0  1  2  3  4  5  6  7  8  9  10
```

To print the odd numbers from 1 to 100

In [18]:

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

```
Odd numbers from 1 to 100
1  3  5  7  9  11  13  15  17  19  21  23  25  27  29  31  33  35  37  39  4
1  43  45  47  49  51  53  55  57  59  61  63  65  67  69  71  73  75  77  7
9  81  83  85  87  89  91  93  95  97  99
```

To print even numbers from 1 to 100

In [21]:

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

```
Even numbers from 1 to 100
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
```

To print the value from 0 to 50 to split 3 elements

In [7]:

```
print("Numbers from 0 to 50 with a SPLIT OF 3")
for i in range(0,50,3):
    print(i,end="  ")
```

```
Numbers from 0 to 50 with a SPLIT OF 3
0  3  6  9  12  15  18  21  24  27  30  33  36  39  42  45  48
```

To print the 1 to n natural numbers in ascending order

In [30]:

```
n=int(input("Enter a natural number"))
print("Natural numbers from 1 to",n)
for i in range(1,n+1):
    print(i,end="  ")
```

```
Enter a natural number100
Natural numbers from 1 to 100
1  2  3  4  5  6  7  8  9  10  11  12  13  14  15  16  17  18  19  20  21  2
2  23  24  25  26  27  28  29  30  31  32  33  34  35  36  37  38  39  40  4
1  42  43  44  45  46  47  48  49  50  51  52  53  54  55  56  57  58  59  6
0  61  62  63  64  65  66  67  68  69  70  71  72  73  74  75  76  77  78  7
9  80  81  82  83  84  85  86  87  88  89  90  91  92  93  94  95  96  97  9
8  99  100
```

To print numbers in descending order

In [37]:

```
n=int(input("Enter a natural number:  "))
print("Natural numbers from 1 to",n)
for i in range(n,0,-1):
    print(i,end="  ")
```

```
Enter a natural number:  100
Natural numbers from 1 to 100
100  99  98  97  96  95  94  93  92  91  90  89  88  87  86  85  84  83  82
81  80  79  78  77  76  75  74  73  72  71  70  69  68  67  66  65  64  63
62  61  60  59  58  57  56  55  54  53  52  51  50  49  48  47  46  45  44
43  42  41  40  39  38  37  36  35  34  33  32  31  30  29  28  27  26  25
24  23  22  21  20  19  18  17  16  15  14  13  12  11  10  9  8  7  6  5  4
3  2  1
```

Breaking the string using for loop

In [60]:

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

```
a  p  s  s
```

In [62]:

```
for k in 'Koteswararao':
    if k=='w':
        break
    else:
        print(k,end="  ")
```

```
K  o  t  e  s
```

Printing integers using break loop

In [64]:

```
for i in range(1,10):
    if i==5:
        break
    else:
        print(i,end="  ")
```

```
1  2  3  4
```

Printing integers using break loop by giving dynamic input

In [76]:

```
n=int(input("Enter a break:  "))
for i in range(1,101):
    if i==n:
        break
    else:
        print(i,end="  ")
```

```
Enter a break:  54
1  2  3  4  5  6  7  8  9  10  11  12  13  14  15  16  17  18  19  20  21  2
2  23  24  25  26  27  28  29  30  31  32  33  34  35  36  37  38  39  40  4
1  42  43  44  45  46  47  48  49  50  51  52  53
```

To print the range of 1 to 10 with break 5

In [79]:

```
for i in range(1,11):
    if i==5:
        break
    else:
        print(i,end= "  ")
```

```
1  2  3  4
```

To print the evgen numbers in between 1 to 20 using continue keyword. using continue keyword....

In [17]:

```
for i in range(2,21,2):
    if i==0:
        continue
    else:
        print(i,end="  ")
```

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

swap between two numbers

In [8]:

```
x = 5
y = 10
print("The value of x before swapping:",x)
print("The value of y before swapping:",y)
temp = x
x = y
y = temp
print("The value of x after swapping:",x)
print("The value of y after swapping:",y)
```

```
The value of x before swapping: 5
The value of y before swapping: 10
The value of x after swapping: 10
The value of y after swapping: 5
```

generate a rnadom number

In [52]:

```
import random
random.randint(0,9)
```

Out[52]:

```
0
```

In [81]:

```
import random
random.randint(10,100)
```

Out[81]:

```
19
```

To print the alphabets in python

In [90]:

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

```
Alphabet 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
Alphabet 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
```

In [93]:

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

```
ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz
```

program to display calender of the given month and year

In [ ]:

```
import calender
```

In [97]:

```
import calendar
yy = 1999
mm = 12
print(calendar.month(yy, mm))
```

```
   December 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 [98]:

```
import calendar
print(calendar.month(1999,12 ))
```

```
   December 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
```

FUNCTIONS

In [ ]:

```
1. reusability of code
2. easy debugging

    function is a group of ststements, it can perform one specic task

    function keyword def
    in python by using 'def' keyword we can perform the functions.

    syntex:
    def function_name(argument_list):
        statements
    return value.
4 types of functions:
```

In [ ]:

```

```

In [102]:

```
def add(a,b):
    c=a+b;
    return c
print(add(2,3))
print(add(10,7))
```

```
5
17
```

4 types of functions:

1. with argument and with return values
2. with argument and with out return values
3. with out arguments and with return values
4. with out arguments and with out return values

In [ ]:

```
function definition
def function_name
function calling
def function_name(variabile_name)
```

1.with argument and with return values

```
syntax:
def function_name(argument_name)
        statement
         return value
```

In [2]:

```
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 value:10
enter n2 value:37
47
```

2.with argument and with out return values

```
def function_name(argument_list)
        statement
        print output
```

In [11]:

```
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 value:  100
enter n2 value:  50
50
```

3.without arguments and with return values

```
syntax:
def function_name():
statement
return value
```

In [29]:

```
def table(n):
    for i in range(1,11):
        print(n,'*',i,'=',n*i)
        return
a=int(input("enter number"))
table(a)
```

```
enter number3
3 * 1 = 3
```

In [20]:

```
def adding():
    a=20
    b=30
    sum=a+b
    print("after call:",sum)
adding()
```

```
after call: 50
```

In [ ]:

```

```

In [31]:

```
def multiplication():
    a=10
    b=20
    multi=a*b
    return multi
print("after calling the multiplication: ",multiplication())
```

```
after calling the multiplication:  200
```

In [35]:

```
def multiplication():
    a=int(input("enter 1st value"))
    a=int(input("enter 2nd value"))
    c=a*b
    return c
print(multiplication())
```

```
enter 1st value30
enter 2nd value30
900
```

In [ ]:

```

```

In [ ]:

```

```