

TOPIC: - FUNCTION

Function returns a value on the basis of given parameter or argument. It is used multiple times as per need.

There are two types of function -

1. Pre-define function
2. User - define function

Pre -define function:-

That function which is provided by software known as pre - define function. It is also known as library function. It is also known as library function.

User - define function:-

That function which is created by user as per requirement through own logic is known as user - define function.

There are four types of user define function -

- i. Return with Argument
- ii. Not Return with Argument
- iii. Return without Argument
- iv. Not Return without Argument

As per problem requirement user select one of them according to need.

Syntax of user - define function creation:-

```
Return type    function Name (Arg1, Arg2, -----)
{
    Statement;
}
```

In java function available in this path:-

Function -> Class -> Package -> Directory

So user function created under class and through class object it is call in main().

Example of Return with Argument

Q. WAP to give any two no. then displays their sum by using function.

Sol.

```
import java.util.*;

class sk
{
int sum (int a, int b )
{
int c;
c=a+b;
return c;
}

public static void main(String a[])
    {
        int x,y,z;

Scanner sc=new Scanner(System.in);
System.out.println("Give Any Two No.");
x=sc.nextInt();
y=sc.nextInt();
sk s=new sk();
z=s.sum(x,y);
System.out.println("Sum is "+z);
    }
}
----- * -----
```

Example of Not Return with Argument

Q. WAP in java to give any two no. then display their swapping value by using function .

Sol.

```
import java.util.*;

class mk
{
void swap(int a , int b)
{
int c;
c=a;
a=b;
b=c;

System.out.println("After swap"+a+ " "+b);
}

public static void main(String ar[])
{
int x,y;

Scanner sc=new Scanner(System.in);
System.out.println("Give Any Two No.");
x=sc.nextInt();
y=sc.nextInt();

System.out.println("Before swap "+x + " "+y);
mk m=new mk();
m.swap(x,y);
}
}

----- * -----
```

Example of Return without Argument

Q. WAP in java to display sum of 1 to 10 Natural no. through function.

Sol.

```
import java.util.*;

class mk
{
    int sum()
    {
        int i , s=0;
        for(i=1;i<=10;i++)
        {
            s=s + 1;
        }
        return s;
    }
}

public static void main(String ar[])
{
    int k;
    mk m=new mk();
    k=m.sum();
    System.out.println("Sum of 1 to 10 is"+k);
}
}
```

----- \* -----

Example of Not Return without Argument

Q. WAP in java to display Natural No. series from 1 to 10 by using function.

Sol.

```
class mk
{
    void natural()
    {
        int i;
        for(i=1;i<=10;i++)
        {
            System.out.println(i);
        }
    }
}

public static void main(String ar[])
{
    mk m=new mk();
    m.natural();
}
}
```