

## Practical-6: UDF(User Define Functions)

1) Write a program to perform addition of two numbers using user defined function.

**Code:**

```
print("21012021003_AMIT GOSWAMI")
def sum(a,b):
    sum = a+b
    return sum

print("enter the number")
a = int(input())
print("enter the number")
b = int(input())
result = sum(a,b)
print("Sum : ", result)
```

**Output:**

```
21012021003_AMIT GOSWAMI
enter the number
54
enter the number
43
Sum : 97
```

2) Write a program to display all the prime numbers between 1 to n using function.

**Code:**

```
print("21012021003_AMIT GOSWAMI")
def prime(x):
    for i in range (1,x+1):
        flag = 0
        for j in range(2,i):
            if(i%j==0):
                flag = 1
                break
        if(flag==0):
            print(i , end=" , ")

print("Enter the number")
x = int(input())
prime(x)
```

**Output:**

```
21012021003_AMIT GOSWAMI
Enter the number
20
1, 2, 3, 5, 7, 11, 13, 17, 19,
```

3) Write a user defined function to sort a List.

**Code:**

```
print("21012021003_AMIT GOSWAMI")
li=[2,5,6,7,8,9,4,3,2,1]
def sort(li):
    for i in range(0,len(li)):
        for j in range(i+1,len(li)):
            if(li[i]>li[j]):
                temp=li[i]
```

```

        li[i]=li[j]
        li[j]=temp
    print(li)
print("sorted list : ")
sort(li)

```

#### Output:

```

21012021003_AMIT GOSWAMI
sorted list :
[1, 2, 2, 3, 4, 5, 6, 7, 8, 9]

```

**4) Write a function to find the minimum and maximum value from argument list & return both minimum & maximum in tuple form.**

#### Code:

```

print("21012021003_AMIT GOSWAMI")
data = [100,50,3,205,10]
def findmax(data):
    a = data
    ma = a[0]
    mi = a[0]
    for item in data:
        if item > ma:
            ma = item
        if item < mi:
            mi = item
    return (ma,mi)
print(findmax(data))

```

#### Output:

```

21012021003_AMIT GOSWAMI
(205, 3)

```

**5) Write a function to add two lists of the same length term-by-term & return new list Eg.: A=listAdd([1,2,3],[1,2,3] print (A) Will print [2,4,6].**

#### Code:

```

print("21012021003_AMIT GOSWAMI")
l1=[1,6,3,23,4]
l2=[9,54,34,23,3]
l3=[]
def AddList(l1,l2):
    for i,j in zip(l1,l2):
        l3.append(i+j)
    print(l3)
AddList(l1,l2)

```

#### Output:

```

21012021003_AMIT GOSWAMI
[10, 60, 37, 46, 7]

```

**6) WAP a function called powers(n) that prints out the first 5 powers of a given number. Eg. >>> powers(6) The first 5 powers of 6 are: 1 6 36 216 129**

**Code:**

```
print("21012021003_AMIT GOSWAMI")
n=int(input("Enter a Number : "))
def powers(n):
    for x in range(1,6):
        sum = n**x
        print(sum ,end=" ")
powers(n)
```

**Output:**

21012021003\_AMIT GOSWAMI

Enter a Number : 54

54 2916 157464 8503056 459165024