

Practice set1

In [38]:

```
1 #Write a program to accept username and password..Print both values with proper format
2
3 username = input("Enter your username: ")
4 password = input("Enter your password: ")
5
6 print("Username is: ",username)
7 print("Password is: ",password)
```

Enter your username: Trupti89
Enter your password: 12345
Username is: Trupti89
Password is: 12345

In [39]:

```
1 #with function
2
3 def userInfo(username,pwd):
4     print("Username is: ",username,"Password is: ",pwd)
5
6 p1 = userInfo("Aarti",12345)
```

Username is: Aarti Password is: 12345

In [40]:

```
1 #Write a program to add three numbers.:Take input from user
2
3 #without function
4
5 a = int(input("Enter the 1st number: "))
6 b = int(input("Enter the 2nd number: "))
7 c = int(input("Enter the 3rd number: "))
8
9 print("Addition of three numbers: ",a + b + c)
```

Enter the 1st number: 12
Enter the 2nd number: 21
Enter the 3rd number: 22
Addition of three numbers: 55

```
In [41]: 1 #with function
          2
          3 def addition(a,b,c):
          4     print("Addition of three numbers: ",a+b+c)
          5 s = addition(11,23,45)
```

Addition of three numbers: 79

```
In [42]: 1 #Write a program to calculate area of rectangle : Take input from user
          2
          3 length = int(input("Enter the length of rectangle: "))
          4 breadth = int(input("Enter the breadth of rectangle: "))
          5
          6 area = length * breadth
          7 print("Area of recatngle is: ",area)
```

Enter the length of rectangle: 12
Enter the breadth of rectangle: 18
Area of recatngle is: 216

```
In [45]: 1 #Write a program to print whether number is odd or even
          2
          3 a = int(input("Enter the number: "))
          4 if a%2 == 0:
          5     print("Number is even number")
          6 else:
          7     print("Number is odd number")
```

Enter the number: 5
Number is odd number

```
In [47]: 1 #write a program to check number is positive or negative
2
3 a = int(input("Enter the number: "))
4
5 if a > 0:
6     print(a,"is a positive number")
7 else:
8     print(a,"is a negative number")
```

Enter the number: -1
-1 is a negative number

```
In [51]: 1 #Write a program to calculate celsius to fahrenheit
2
3 c = float(input("Enter the temp in celsius: "))
4
5 f = (c * 1.8) + 32
6
7 print(c,"celsius to fahrenheit is",f)
8
```

Enter the temp in celsius: 40
40.0 celsius to fahrenheit is 104.0

Practice set 2

```
In [53]: 1 #Determine whether two numbers are equal or greater.Accept from user.
2
3 a = int(input("Enter the 1st number: "))
4 b = int(input("Enter the 2nd number: "))
5
6 if a > b:
7     print(a,"is greater than",b)
8 elif b > a:
9     print(b,"is greater than",a)
10 else:
11     print("Both are equal")
```

Enter the 1st number: 34

Enter the 2nd number: 78

78 is greater than 34

```
In [55]: 1 #Write a program to calculate teh students score
2
3 """
4 90-100 --A
5 80-89 --B
6 70-79 --C
7 60-69 --D
8 0-59 --E
9
10 sub -->maths,bio,phy,chem,eng
11
12 """
13
14 print("Enter the marks of subjects:")
15
16 maths = float(input("Enter maths marks: "))
17 bio = float(input("Enter bio marks: "))
18 phys = float(input("Enter phy marks: "))
19 chem = float(input("Enter the chem marks: "))
20 eng = float(input("Enter the English marks: "))
21
22 Sum = maths + bio + phys + chem + eng
23
24 per = (Sum/5)*100
25
26 print("Percentage is: ",per)
27
28 if per > 90 or per < 100:
29     print("A grade")
30 elif per > 80 or per < 89:
31     print("B Grade")
32 elif per > 70 or per < 79:
33     print("C Grade")
34 elif per > 60 or per < 69:
35     print("D Grade")
36 elif per > 59:
37     print("E Grade")
38 else:
39     print("You are fail")
```

Enter the marks of subjects:
Enter maths marks: 0
Enter bio marks: 0
Enter phy marks: 0
Enter the chem marks: 0
Enter the English marks: 0
Percentage is: 0.0
A grade

In [57]:

```
1 #Calculate body mass index of person,take weight in kilograms and height in meters
2
3 w = float(input("Enter your weight: "))
4 h = float(input("Enter your height: "))
5
6 BMI = (h*h)/w
7 print("Your BMI is",BMI)
```

Enter your weight: 51
Enter your height: 5
Your BMI is 0.49019607843137253

```
In [59]: 1 #Write a program to take age as input and classifies it into following.
2        """
3        0-12 -- child
4        13-19 --Teenager
5        20-64 --Adult
6        65-above --Senior Citizen
7        """
8
9        age = int(input("Enter your Age: "))
10
11       if age > 0 and age < 12:
12           print("You are child")
13       elif age > 13 and age < 19:
14           print("You are Teenager")
15       elif age > 20 and age < 64:
16           print("You are adult")
17       elif age > 65:
18           print("You are Senor Citizen")
```

Enter your Age: 24
You are adult

```
In [60]: 1 #Calculate the Simple interest.
2        """
3        SI = PTR/100
4        """
5
6        p = float(input("Enter the principal amount: "))
7        t = int(input("Enter the time period: "))
8        r =float(input("Enter the rate of interest: "))
9
10       SI = (p * t * r)/100
11
12       print("Simple Interest is:",SI)
```

Enter the principal amount: 25000
Enter the time period: 2
Enter the rate of interest: 10
Simple Interest is: 5000.0

```
In [61]: 1 #Write a program to calculate discounted price
2
3 price =float(input("Enter the original price: "))
4 discount = float(input("Enter the discount: "))
5
6 s = (price * discount)/100
7
8 finalPrice = price - s
9 print("Final discounted price is : ",finalPrice)
```

Enter the original price: 250

Enter the discount: 12

Final discounted price is : 220.0

```
In [62]: 1 #Write a program to accept three sides from user nd fine whether they form valid triangle or not
2
3 """
4 a < b+c
5 b < a+c
6 c < a+b
7 """
8
9 a =int(input("Enter the first side"))
10 b =int(input("Enter the second side"))
11 c =int(input("Enter the third side"))
12
13 p = a+b
14 q = a+c
15 r = b+c
16
17 if a < p and b < q and c < r:
18     print("These sides forming valid triangle")
19 else:
20     print("Not forming valid triangle")
```

Enter the first side2

Enter the second side4

Enter the third side5

These sides forming valid triangle

Practice set 3

In [63]:

```
1  #Write a program to swap two values
2
3  a = int(input("Enter the 1st number: "))
4  b = int(input("Enter the 2nd number: "))
5
6  print("Values before swapping: ", a , b)
7
8  temp = a
9  a = b
10 b = temp
11
12 print("Values after swapping: ", a , b)
```

Enter the 1st number: 23
Enter the 2nd number: 19
Values before swapping: 23 19
Values after swapping: 19 23

In [65]:

```
1  #Write a program to count the repetition in a list
2
3  L1 = [7,7,8,9,9,6,55,55,4,44,4]
4
5  num = int(input("Enter the number"))
6  count = 0
7
8  for i in L1:
9      if i == num:
10         count = count + 1
11  print(num,"is repeated",count,"times")
```

Enter the number: 55
55 is repeated 2 times

```
In [66]: 1 #By using function
2
3 def listNum(L1,num):
4     count = 0
5
6     for i in L1:
7         if i == num:
8             count = count + 1
9     print(num,"is repeated",count,"times")
10
```

55 is repeated 2 times

```
In [71]: 1 #Write a program to check whether enter number is prime or not
2
3 num = int(input("Enter the number: "))
4
5 for i in range(2, num):
6     if num % i == 0:
7         print("Number is not prime")
8         break
9     else:
10        print("Number is prime")
```

Enter the number: 23

Number is not prime

```
In [ ]: 1
```