

In [1]:

```

1 # A
2 def SetValues(col,row):
3     arr = [ [0] * col] * row
4     for i in range(row):
5         for j in range (col):
6             arr[i][j]=int(input("Enter: "))
7     return arr
8 def PrintValues(col,row,arr):
9     for i in range(row):
10        for j in range (col):
11            print(arr[i][j], end=" ")
12        print("\r")
13 r=int(input("Enter rows: "))
14 c=int(input("Enter columns: "))
15 a=SetValues(c,r)
16 PrintValues(c,r,a)
17 print("In two dimension array we can't change the values of 2 sub lists.")

```

```

Enter rows: 3
Enter columns: 3
Enter: 1
Enter: 2
Enter: 3
Enter: 4
Enter: 5
Enter: 6
Enter: 7
Enter: 8
Enter: 9
7 8 9
7 8 9
7 8 9
In two dimension array we can't change the values of 2 sub lists.

```

In [28]:

```

1 # B
2 def SetValues(col,row):
3     a = [[0 for i in range(col)]for j in range(row)]
4     for i in range(row):
5         for j in range (col):
6             a[i][j]=int(input("Enter: "))
7     return a
8 def PrintValues(col,row,a):
9     for i in range(row):
10        for j in range (col):
11            print(a[i][j], end=" ")
12        print("\r")
13 r=int(input("Enter rows: "))
14 c=int(input("Enter columns: "))
15 a=SetValues(c,r)
16 PrintValues(c,r,a)

```

```

Enter rows: 3
Enter columns: 3
Enter: 1
Enter: 2
Enter: 3
Enter: 4
Enter: 5
Enter: 6
Enter: 7
Enter: 8
Enter: 9
1 2 3
4 5 6
7 8 9

```

```

In [86]: 1 # C
2 class Array:
3     def __init__(self,row,col):
4         self.row=row
5         self.col=col
6         self.a=[[0 for i in range(self.col)]for j in range(self.row)]
7         self.a1 = [[0 for i in range(self.col)]for j in range(self.row)]
8     def SetValues(self):
9         print("Matrix A")
10        for i in range(self.row):
11            for j in range (self.col):
12                self.a[i][j]=int(input("Enter: "))
13        print("Matrix B")
14        for i in range(self.row):
15            for j in range (self.col):
16                self.a1[i][j]=int(input("Enter: "))
17    def GetValues(self):
18        f=int(input("Matrix [1/2]"))
19        if f==1:
20            i=int(input("Enter row number: "))
21            j=int(input("Enter column number: "))
22            print(self.a[i][j])
23        else:
24            i=int(input("Enter row number: "))
25            j=int(input("Enter column number: "))
26            print(self.a1[i][j])
27    def AddValues(self):
28        print("-----Sum of two matrices-----")
29        self.a2 = [[0 for i in range(self.col)]for j in range(self.row)]
30        for i in range(self.row):
31            for j in range (self.col):
32                self.a2[i][j]=self.a[i][j] + self.a1[i][j]
33        for i in range(self.row):
34            for j in range (self.col):
35                print(self.a2[i][j], end=" ")
36            print("\r")
37    def SubValues(self):
38        print("-----Difference of two matrices-----")
39        self.a2 = [[0 for i in range(self.col)]for j in range(self.row)]
40        for i in range(self.row):
41            for j in range (self.col):
42                self.a2[i][j]=self.a[i][j] - self.a1[i][j]
43        for i in range(self.row):
44            for j in range (self.col):
45                print(self.a2[i][j], end=" ")
46            print("\r")
47    def PrintValues(self):
48        print("Matrix A")
49        for i in range(self.row):
50            for j in range (self.col):
51                print(self.a[i][j], end=" ")
52            print("\r")
53        print("Matrix B")
54        for i in range(self.row):
55            for j in range (self.col):
56                print(self.a1[i][j], end=" ")
57            print("\r")
58    def Max(self):
59        f=int(input("Matrix [1/2]"))
60        if f==1:
61            maxx=self.a[0][0]
62            for i in range(self.row):
63                for j in range (self.col):
64                    if maxx < self.a[i][j] :
65                        maxx=self.a[i][j]
66            print(maxx)
67        else:
68            maxx=self.a1[0][0]
69            for i in range(self.row):
70                for j in range (self.col):
71                    if maxx < self.a1[i][j]:
72                        maxx=self.a1[i][j]
73            print(maxx)

```

```
74 i=int(input("Enter row number: "))
75 j=int(input("Enter column number: "))
76 a=Array(i,j)
77 a.SetValues()
78 a.GetValues()
79 a.AddValues()
80 a.SubValues()
81 a.PrintValues()
82 a.Max()
```

```
Enter row number: 2
Enter column number: 2
Matrix A
Enter: 1
Enter: 2
Enter: 3
Enter: 5
Matrix B
Enter: 2
Enter: 5
Enter: 9
Enter: 8
Matrix [1/2]2
Enter row number: 1
Enter column number: 0
9
-----Sum of two matrices-----
3  7
12 13
-----Difference of two matrices-----
-1 -3
-6 -3
Matrix A
1  2
3  5
Matrix B
2  5
9  8
Matrix [1/2]2
9
```