

1. Accept 2 arrays from keyboard. Create a third array that contains the sum of corresponding elements of these two arrays.

NOTE: Do not add the arrays as arr1+arr2.

Read the elements from arr1 and arr2 using for loop, add them and then store them into the third array.

In [4]:

```
### Accepting two arrays from keyboard

array1 = input("Enter the first array, elements separated by space: ").split()
array2 = input("Enter the second array, elements separated by space: ").split()

# # Converting into integers by using map
# arr1 = list(map(int, array1))
# arr2 = list(map(int, array2))

# or we can directly converting inputs into integers by using for loop
arr1 = [int(i) for i in array1]
arr2 = [int(i) for i in array2]
```

```
Enter the first array, elements separated by space: 1 2 3
Enter the second array, elements separated by space: 4 5 6
```

In [5]:

```
# Checking the arrays have same length or not

if len(arr1) != len(arr2):
    print("Its wrong", "Both arrays must be same in number")
else:
    arr3 = []
```

In [6]:

```
for i in range(len(arr1)):
    arr3.append(arr1[i]+arr2[i])
```

In [7]:

```
print("The third array with sum of corresponding elemets is:", arr3)
```

```
The third array with sum of corresponding elemets is: [5, 7, 9]
```

1. Accept a matrix from keyboard and sort its elements into descending order on rows and columns separately.

Display the sorted matrices.

In [13]:

```
def input_matrix():
    rows = int(input("Enter the number of rows: "))
    cols = int(input("Enter the number of columns: "))

    matrix = []
    for i in range(rows):
        row = list(map(int, input().split()))
        matrix.append(row)

    return matrix, rows, cols
```

In [14]:

```
def sort_rows_desc(matrix):
```

```
def sort_rows_desc(matrix):  
    return [sorted(row, reverse=True) for row in matrix]
```

In [15]:

```
def sort_columns_desc(matrix, rows, cols):  
    for col in range(cols):  
        column = sorted([matrix[row][col] for row in range(rows)], reverse=True)  
        for row in range(rows):  
            matrix[row][col] = column[row]  
    return matrix
```

In [16]:

```
def print_matrix(matrix):  
    for row in matrix:  
        print(" ".join(map(str, row)))
```

In [17]:

```
matrix, rows, cols = input_matrix()
```

```
Enter the number of rows: 3  
Enter the number of columns: 3  
1 2 3  
2 3 5  
2 3 5
```

In [18]:

```
sorted_rows_matrix = sort_rows_desc(matrix)  
print("Matrix with rows sorted in descending order:")  
print_matrix(sorted_rows_matrix)
```

```
Matrix with rows sorted in descending order:  
3 2 1  
5 3 2  
5 3 2
```

In [19]:

```
sorted_columns_matrix = sort_columns_desc([row[:] for row in matrix], rows, cols)  
print("Matrix with columns sorted in descending order:")  
print_matrix(sorted_columns_matrix)
```

```
Matrix with columns sorted in descending order:  
2 3 5  
2 3 5  
1 2 3
```