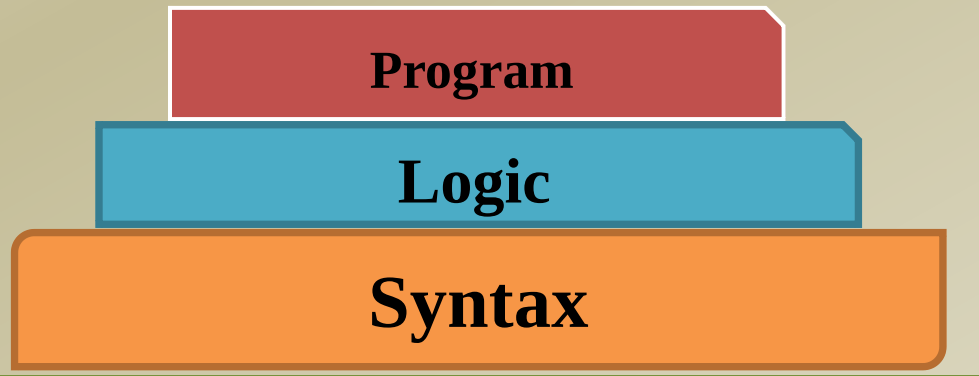
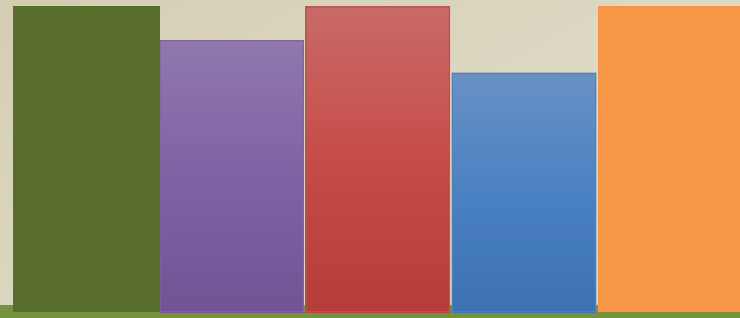
Code at Random (OPC) PVT. LTD.

Merging in Arrays with JAVA





Merging Two Arrays

- Merging two arrays means to combine two separated arrays in a single array.
- We have to merge two arrays such that the array elements maintain their original order in the newly merged array.
- The elements of the first array precede the elements of the second array in the newly merged array.
- For example-

```
int[] arr1={1, 2, 3, 4, 5, 6};  //first array
int[] arr2={7, 8, 9, 0};    //second array
int[] arr3={1, 2, 3, 4, 5, 6, 7, 8, 9, 0}   //resultant array
```

Algorithm to Merge Two Arrays

- First, we initialize two arrays lets say array **a** and array **b**, then we will store values in both the array.
- After that, we will calculate the length of both the arrays and will store it into the variables lets say a1 and b1. We need to calculate the length of the array because by using the length of these arrays we can predict the length of the resultant array in which the elements will be store after merging.
- Then the new array **c** which is the resultant array will be created.
- Now, the first loop is used to store the elements of the first array into the resultant array one by one and the second for loop to store the elements of the second array into the resultant array one by one.
- The final for loop is used to print the elements of the resultant array.

Write a Program to merge two arrays using the third array.

```
import java.util.*;
class MergeTwoArrays{
    public static void main(String[] args) {
        Scanner sc= new Scanner(System.in);
        System.out.println("Enter the size of array1");
        int a1 = sc.nextInt();
        int a[ ] = new int[a1];
        for (int i = 0; i < a1; i++) {
            a[i] = sc.nextInt();
        }
        System.out.println("Enter the size of array2");
        int b1 = sc.nextInt();
        int b[ ] = new int[b1];
         for (int i = 0; i < b1; i++) {
            b[i] = sc.nextInt();
        }
        int c1 = a1 + b1;
        int[ ] c = new int[c1];
        for (int i = 0; i < a1; i++) {
            c[i] = a[i];
        }
    for (int i = 0; i < b1; i++)
      {
           c[a1 + i] = b[i];
       }
     for (int i = 0; i < c1; i++)
      {
           System.out.println(c[i]);
       }
    }
}
```