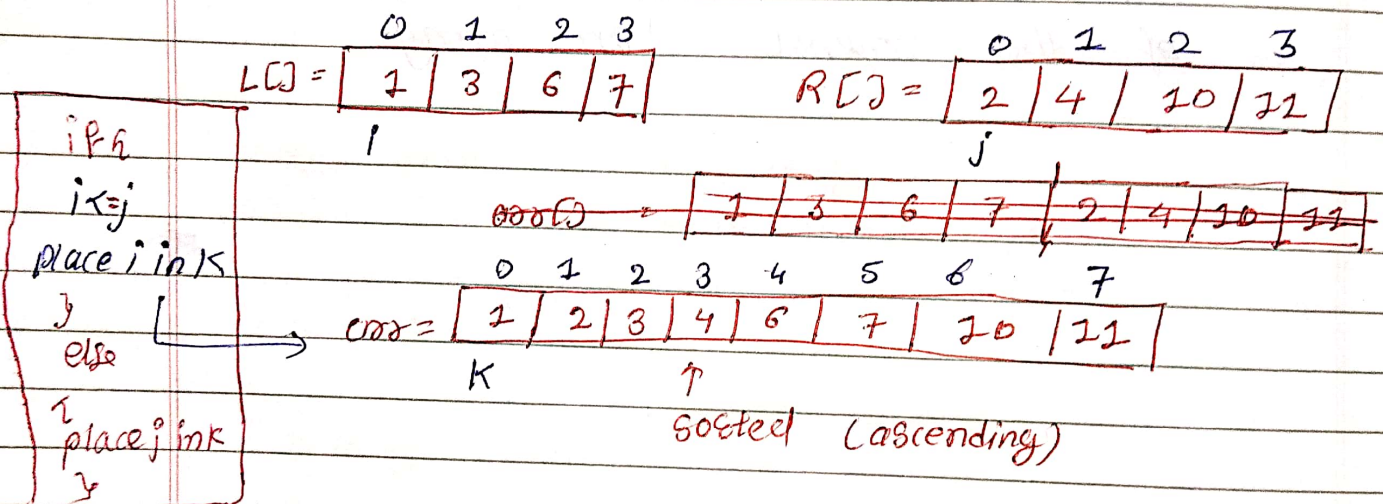


Merging Sorted Arrays

classmate
Date _____
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Problem Statement

Write a program to merge 2 sorted arrays, Left (L) = {1, 3, 6, 7} & Right (R) = {2, 4, 10, 11}, into a third array (arr) such that arr[] array contains all elements from L[] & R[] array in ascending order.



```
int L[] = {1, 3, 6, 7};  
int R[] = {2, 4, 10, 11};
```

```
int n1 = L.length;    # length = 4  
int n2 = R.length;    # length = 4
```

```
// Create len variable to store the numbers array size.  
int len = n1 + n2;
```

```
int arr[] = new int[len];
```

```
// Initial indexes of 1st & 2nd subarrays.  
int i = 0, j = 0;
```

// Initial index of merged subarray.
int k = 0;

```
while (i < n1 && j < n2) {  
    if (L[i] <= R[j]) {  
        arr[k] = L[i];  
        i++;  
    }  
    else {  
        arr[k] = R[j];  
        j++;  
    }  
    k++;  
}
```

// copy remaining elements of L[] if any remains.

```
while (i < n1) {  
    arr[k] = L[i];  
    i++;  
    k++;  
}
```

// copy remaining elements of R[] if any remains.

```
while (j < n2) {  
    arr[k] = R[j];  
    j++;  
    k++;  
}
```

```
for (int m : arr) {
```

```
    System.out.print(m + " ");
```

```
}
```