

Engineering Animuthyam

Java DSA – Course Part -14

Leetcode problems

Bubble Sort, Arrays sort

Course Link:

<https://www.youtube.com/playlist?list=PLjzLBp9HHZWWhVXBSPS1VqxXXDoVk07gd9>

Website Link:

<https://www.vigneshreddyjulakanti.in/>

Hello machas, Bagunnara.

Swapping

Arr = { 2,5};

Converted to

Arr = {5,2};

Int temp= arr[0];

arr[0]=arr[1];

arr[1] =temp;

Bubble Sort

General Bubble Sort

```
class HelloWorld {  
    public static void main(String[] args) {  
        int arr[]={ 7, 1, 5, 3, 6,10};  
        int n=arr.length;  
        for(int i=0;i<n-1;i++){  
            for(int j=0;j<n-i-1;j++){  
                if(arr[j]>arr[j+1]){  
                    int temp = arr[j];  
                    arr[j]=arr[j+1];  
                    arr[j+1]=temp;  
                }  
            }  
        }  
        for(int i=0;i<n;i++){  
            System.out.print(arr[i]+" ");  
        }  
    }  
}
```

Optimised Bubble Sort

```
class HelloWorld {  
    public static void main(String[] args) {  
        int arr[]={ 7, 1, 5, 3, 6,10};  
        int n=arr.length;  
        for(int i=0;i<n-1;i++){  
            boolean swapped = false;  
            for(int j=0;j<n-i-1;j++){  
                if(arr[j]>arr[j+1]){  
                    int temp = arr[j];  
                    arr[j]=arr[j+1];  
                    arr[j+1]=temp;  
                    swapped = true;  
                }  
            }  
            if(swapped == false){  
                break;  
            }  
        }  
        for(int i=0;i<n;i++){  
            System.out.print(arr[i]+" ");  
        }  
    }  
}
```

Arrays.sort() in java

$O(n \log n)$ time complexity.