

Q Write a program in java to input different integer values and arrange them in descending order.

```

import java.util.Scanner;
class SortDsc {
    int arr[], capacity;
    SortDsc (int n) { capacity = n;
                    arr = new int [capacity];
                }
    void getNumbers ()
    {
        for (int i=0; i < capacity; i++)
        {
            Scanner in = new Scanner (System.in);
            System.out.print ("Enter Number "+(i+1)+" : ");
            arr [i] = in.nextInt ();
        }
    }
}

```

Notes

```
void sort() {
```

```
    for (int i = 0; i < capacity; i++)
```

```
        for (int j = (i + 1); j < capacity; j++)
```

```
            if (arr[i] < arr[j])
```

```
                {
```

```
                    int temp = arr[i];
```

```
                    arr[i] = arr[j];
```

```
                    arr[j] = temp;
```

```
                }
```

```
            }
```

```
        }
```

```
void show() {
```

```
    System.out.println("Numbers in Descending Order");
```

```
    for (int i = 0; i < (capacity - 1); i++)
```

```
        System.out.print(arr[i] + ", ");
```

```
    System.out.print(arr[capacity - 1]);
```

Notes

```
public static void main (String a[])
{
```

```

System.out.println("Enter how many numbers");
Scanner in = new Scanner(System.in);
int a = in.nextInt();
SortDsc obj = new SortDsc(a);
obj.getNumbers(); //calling getNumbers()
obj.sort(); //calling sort()
obj.show(); //calling show()
}
}

```

Explanation:— SortDsc class has an array of integers arr[] as instance variable and capacity.

- Its constructor takes an integer as argument.
- Constructor initializes capacity and size of arr[]
- getNumbers() is a user defined function which inputs numbers from user & stores it in array arr[] by using Scanner class method nextInt();
- sort() function is used to sort the elements of array arr[] in descending order, using nested for loop by swapping the position in the array.
- show() function is used to just traverse the array arr[] and print elements.
- main() function takes capacity of array & initializes SortDsc class according to need & calls three functions.