

```
Public class QuickSort {
```

```
    Private int[] data;
```

```
    Public void setData (int[] data) { this.data = data; }
```

```
    Private int partition (int start, int end)
```

```
{
```

```
    int pivot = this.data[end];
```

```
    int i = (start - 1);
```

```
    for (int j = start; j <= end - 1; j++)
```

```
{
```

```
if (this.data[j] < pivot)
```

```
    if (this.data[j] < pivot)
```

```
{
```

```
        j++;
```

```
        int t = this.data[j];
```

```
        this.data[j] = this.data[i];
```

```
        this.data[i] = t;
```

```
}
```

```
}
```

```
    int t = this.data[i+1];
```

```
    this.data[i+1] = this.data[end];
```

```
    this.data[end] = t;
```

```
    return (i + 1);
```

```
}
```

```
Public void QuickSort (int start, int end)
```

```
{
```

```
    if (start < end)
```

```
{
```

```
        int p = partition (start, end);
```

```
        QuickSort (start, p-1);
```

```
        QuickSort (p+1, end);
```

```
}
```

```
}
```

```
Public void printArr (int n)
```

```
{
```

```
    int j;
```

```
    for (j = 0; j < n; j++)
```

```
        System.out.print (this.data[j] + " ");
```

```
}
```

}

```

public static void main (String [] args) {
    int [] dataArray = {90, 72, 65, 100, 63, 72};
    int n = dataArray.length;
    System.out.println("Before sorting array elements are -> ");
    QuickSort myQS = new QuickSort();
    - myQS.setData(dataArray);
    - myQS.printArr(n);
    - myQS.quickSort(0, n-1);
    System.out.println("\nAfter sorting array elements are -> ");
    - myQS.printArr(n);
    System.out.println();
}

```

}

}