

```
1
2  /**
3   * A PROGRAM TO IMPLEMENT INSERTION SORT (ASCENDING ORDER).
4   */
5   //SUCHIT TE XII A
6   import java.util.*;
7   public class insertionSort
8   {
9       public static void main()
10      {
11          Scanner sc = new Scanner(System.in);
12          System.out.println("A PROGRAM TO SORT DIGITS IN ASCENDING ORDE
R.");
13          System.out.println("ENTER NUMBER OF DIGITS TO BE SORTED");
14          int n = sc.nextInt();
15          int arr[]=new int[n];
16          for(int i=1 ; i<=n ; i++)
17          {
18              if(i==1)
19              {
20                  System.out.println("ENTER "+i+"st DIGIT");
21                  arr[i-1]=sc.nextInt();
22              }
23              else if(i==2)
24              {
25                  System.out.println("ENTER "+i+"nd DIGIT");
26                  arr[i-1]=sc.nextInt();
27              }
28              else if(i==3)
29              {
30                  System.out.println("ENTER "+i+"rd DIGIT");
31                  arr[i-1]=sc.nextInt();
32              }
33              else
34              {
35                  System.out.println("ENTER "+i+"th DIGIT");
36                  arr[i-1]=sc.nextInt();
37              }
38          }
39          int temp = 0;
40          int k = 0;
41          for(int j=1 ; j<arr.length ; j++)
42          {
43              temp = arr[j];
44              k=j-1;
45              while(k>=0 && temp<arr[k])
46              {
47                  arr[k+1] = arr[k];
48                  k--;
49              }
50              arr[k+1] = temp;
51          }
52          System.out.println("THE SORTED ARRAY IS : ");
53          for(int j=0 ; j<arr.length ; j++)
```

```
54         {  
55             System.out.print(arr[j]+" ");  
56         }  
57     }  
58 }  
59
```