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:
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ASSIGNMENT NO : 3

CODE :

```
import java.util.Scanner;
```

```
public class buuble_sort {
```

```
    int arr[];
```

```
    int size;
```

```
    buuble_sort1(int a)
```

```
    {
```

```
        size=a;    arr=
```

```
new int[size];
```

```
    }
```

```
    public void swap(int i,int j)
```

```
    {
```

```
        int temp;
```

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

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

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

```
public void input(int size)
```

```
{
```

```
    Scanner s = new Scanner(System.in);
```

```
    System.out.println(" ENTER THE ELEMENTS OF THE ARRAY \n ");
```

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

```
    {
```

```
        arr[i]=s.nextInt();
```

```
    }
```

```
}
```

```
public void sort(int size)
```

```
{
```

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

```
    {
```

```
        for(int j=0;j<size-1;j++)
```

```
        {
```

```
            if(arr[j]>arr[j+1])
```

```
            {
```

```
                swap(j,j+1);
```

```
            }
```

```
        }
```

```
    }
```

```
}
```

```
public void output(int size)
```

```

{
    for(int i=0;i<size;i++)
    {
        System.out.print(arr[i]+" ");
    }
    System.out.println("\n");
}

public static void main(String [] args)
{
    int a;
    Scanner sc = new Scanner(System.in);

    System.out.println(" ENTER THE SIZE OF THE ARRAY \n");
    a=sc.nextInt();
    buuble_sort1 ob1 = new buuble_sort1(a);

    ob1.input(a);
    System.out.println("ARRAY BEFORE SORT : \n");
    ob1.output(a);

    ob1.sort(a);
    System.out.println("ARRAY AFTER SORT : \n");
    ob1.output(a);

}

```

```
}
```

OUTPUT :

```
ENTER THE SIZE OF THE ARRAY
8
7
6
5
4
3
2
1
15
ARRAY BEFORE SORT :
9      8      7      6      5      4      3      2      1      15
ARRAY AFTER SORT :
1      2      3      4      5      6      7      8      9      15
```