

<https://course.acciojob.com/idle?question=33ca5160-a90e-44e0-8773-d7cb6107a309>

● EASY

● Max Score: 30 Points

●

AS Sorting 2

Write a program to sort an array (`arr[]`) of integers using Selection sort algorithm. First take input of size of the array i.e. `N`, followed by `N` numbers which represent the array elements.

Note: Use of inbuilt sort function is not permitted.

Your task is to complete the function `sort` which receives the input array and the size of the array as parameter and sorts the input array.

Input Format

First line contains integer `N` denoting the size of array `arr[]`

Second line contains `N` array integers each separated by a space denoting elements of `arr[]`

Output Format

Output `N` integers of the sorted array separated by a space in a single line

Example 1

Input

```
4
4 12 9 3
```

Output

3 4 9 12

Explanation

First, 3 replaces 4 -> 3, 12, 9, 4

Then 4 replaces 12 -> 3, 4, 9, 12

Then nothing gets changed

Example 2

Input

1
3 2 1

Output

1 2 3

Explanation

First, 1 replaces 3 -> 1, 2, 3

Then nothing gets changed

Constraints

$1 \leq n \leq 1000$

Topic Tags

- **Loops**
- **Sorting**

My code

// in java

```
import java.util.*;
import java.lang.*;
import java.io.*;
```

```
public class Main
{
```

```
    public static void main (String[] args) throws java.lang.Exception
    {
```

```
        //your code here
```

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

```
        int n=s.nextInt();
```

```
        int arr[]=new int[n];
```

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

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

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

```
                {
```

```
                    int max=0;
```

```
                    for(int j=0;j<n-i;j++)
```

```
                        if(arr[j]>arr[max])
```

```
                            max=j;
```

```
                //swap
```

```
                    int t=arr[max];
```

```
                    arr[max]=arr[n-i-1];
```

```
                    arr[n-i-1]=t;
```

```
                }
```

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

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

}

}