

Bubble Sort

```
#include <stdio.h>
#include<iostream>
using namespace std;
int main()
{ int n=5;
  int arr[5];
  cout<<endl<<endl<<endl;
  cout<<"Bubble_Sort\nMade By: Ramit Batra\nCSE-A\nRoll
no:23\nenter array:\n";

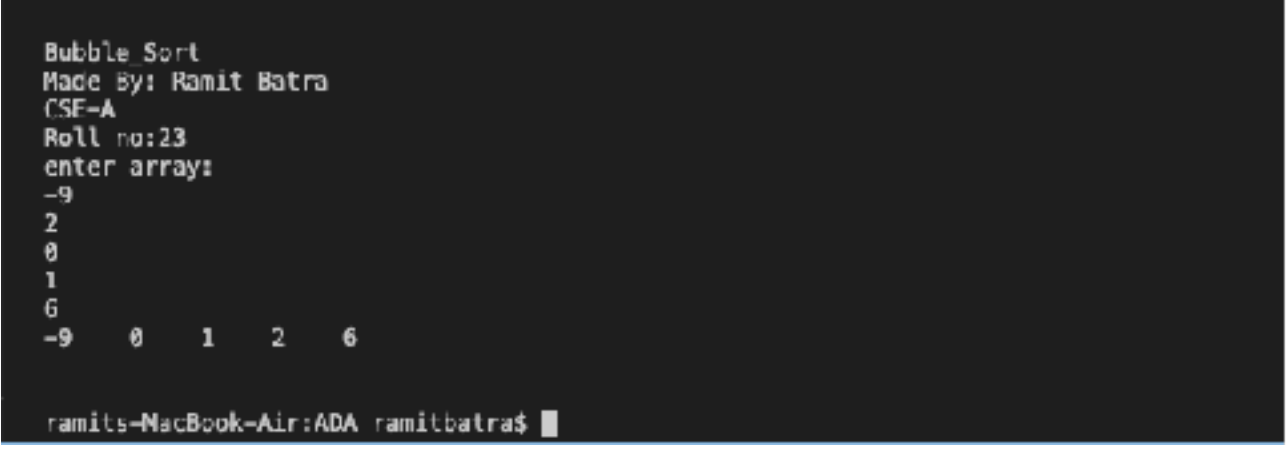
  for(int i=0;i<n;i++)
    cin>>arr[i];

  for(int j=n-1;j>=0;j--){
    for(int k=0;k<j;k++){
      if(arr[k]>arr[k+1]){

        int temp=arr[k];
        arr[k]=arr[k+1];

        arr[k+1]=temp;}}
  }
  for(int i=0;i<n;i++)
    cout<<arr[i]<<" ";
  cout<<endl<<endl<<endl;

  return 0;
}
```

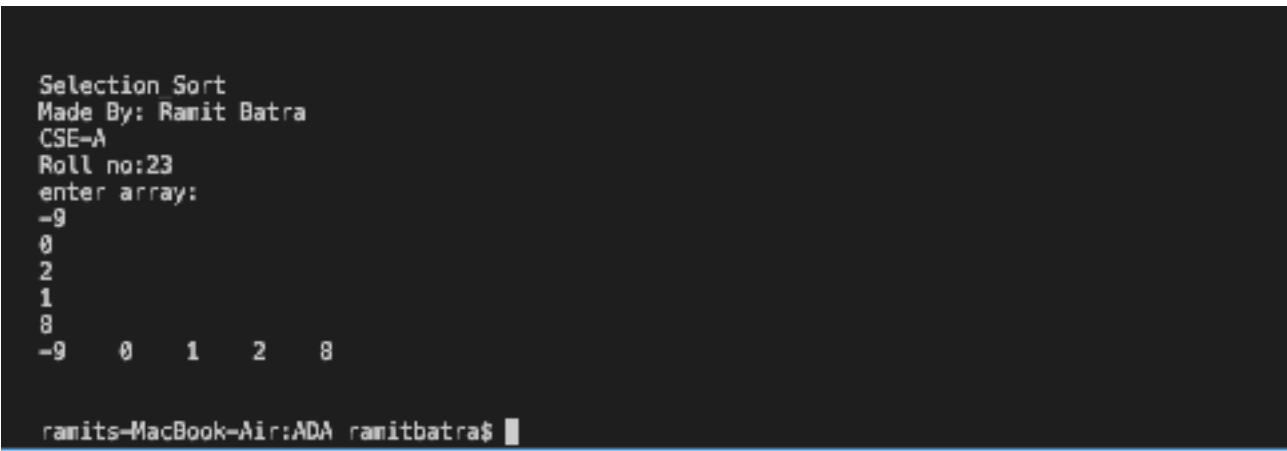


```
Bubble Sort
Made By: Ramit Batra
CSE-A
Roll no:23
enter array:
-9
2
0
1
6
-9  0  1  2  6
```

```
ramits-MacBook-Air:ADA ramitbatra$
```

Selection Sort

```
#include <stdio.h>
#include<iostream>
using namespace std;
int main()
{
    int n=5,arr[5],min=0;
    cout<<endl<<endl<<endl;
    cout<<"Selection_Sort\nMade By: Ramit Batra\nCSE-A\nRoll
no:23\nenter array:\n";
    for(int i=0;i<n;i++)
        cin>>arr[i];
    for(int i=0;i<n;i++){
min=i;
for(int j=i;j<n;j++){
if(arr[j]<arr[min])
min=j;
}
    int temp=arr[min];
    arr[min]=arr[i];
    arr[i]=temp;
}
    for(int i=0;i<n;i++)
        cout<<arr[i]<<" ";
    cout<<endl<<endl<<endl;
    return 0;
}
```



```
Selection Sort
Made By: Ramit Batra
CSE-A
Roll no:23
enter array:
-9
0
2
1
8
-9  0  1  2  8
```

```
ramits-MacBook-Air:ADA ramitbatra$
```

Insertion Sort

```
#include <stdio.h>
#include<iostream>
using namespace std;
void insertionSort(int arr[], int n)
{
    int i, key, j;
    for (i = 1; i < n; i++)
    {
        key = arr[i];
        j = i - 1;

        /* Move elements of arr[0..i-1], that are
        greater than key, to one position ahead
        of their current position */
        while (j >= 0 && arr[j] > key)
        {
            arr[j + 1] = arr[j];
            j = j - 1;
        }
        arr[j + 1] = key;
    }
}

// A utility function to print an array of size n
void printArray(int arr[], int n)
{
    int i;
    for (i = 0; i < n; i++)
        cout << arr[i] << " ";
    cout << endl;
}

/* Driver code */
int main()
{
    int arr[5] ;
    int n = 5;
    cout<<endl<<endl<<endl;
    cout<<"Insertion_Sort\nMade By: Ramit Batra\nCSE-A\nRoll
no:23\nenter array:\n";
    for(int i=0;i<n;i++)
        cin>>arr[i];
```

```
insertionSort(arr, n);  
printArray(arr, n);  
  
return 0;  
}
```

```
Insertion_Sort  
Made By: Ramit Batra  
CSE-A  
Roll no:23  
enter array:  
12  
5  
3  
4  
1  
1 3 4 5 12  
ramits-MacBook-Air:ADA ramitbatra$
```