

```

1  #include<iostream>
2
3  using namespace std;
4
5  int main()
6  {
7      int OneDArray[20],n,x,i,pos=0;
8      cout<<"Enter size of OneDArrayrray:";
9      cin>>n;
10     cout<<"Enter the array in ascending order:\n";
11
12     for(i=0;i<n;++i)
13         cin>>OneDArray[i];
14
15     cout<<"\nEnter element to insert:";
16     cin>>x;
17
18     for(i=0;i<n;++i)
19         if(OneDArray[i]<=x&&OneDArray[i+1]>x)
20         {
21             pos=i+1;
22             break;
23         }
24
25     for(i=n+1;i>pos;--i)
26         OneDArray[i]=OneDArray[i-1];
27
28     OneDArray[pos]=x;
29
30     cout<<"\n\nArray after inserting element:\n";
31
32     for(i=0;i<n+1;i++)
33         cout<<OneDArray[i]<<" ";
34
35     return 0;
36 }

```

OUTPUT:

```

Enter size of OneDArrayrray:5
Enter the array in ascending order:
1
2
3
55
48

Enter element to insert:102

Array after inserting element:
102 1 2 3 55 48
-----
Process exited after 19.3 seconds with return value 0
Press any key to continue . . .

```

```

1  #include <iostream>
2  using namespace std;
3
4  int search(int arr[], int n, int x)
5  {
6      int i;
7      for (i = 0; i < n; i++)
8          if (arr[i] == x)
9              return i;
10     return -1;
11 }
12
13 int main(void)
14 {
15     int x, k;
16     int arr[] = {101 , 102 , 150 , 182 , 200};
17
18     for(int i=0;i<=arr[i];i++)
19         cout<<arr[i]<<" " <<endl;
20
21     cout<<"Enter an element to search :> ";
22     cin>>x;
23     //int x = ;
24     int n = sizeof(arr) / sizeof(arr[0]);
25     int result = search(arr, n, x);
26     (result == -1)? cout<<"Element is not present in array"
27                 : cout<<"Element is present at index " <<result;
28     return 0; |
29 }
30

```

OUTPUT:

```

101
102
150
182
200
Enter an element to search :> 200
Element is present at index 4
-----
Process exited after 3.015 seconds with return value 0
Press any key to continue . . .

```

```

1 #include <bits/stdc++.h>
2 using namespace std;
3
4 void swap(int *xp, int *yp)
5 {
6     int temp = *xp;
7     *xp = *yp;
8     *yp = temp;
9 }
10
11 void selectionSort(int arr[], int n)
12 {
13     int i, j, min_idx;
14
15     for (i = 0; i < n-1; i++)
16     {
17         min_idx = i;
18         for (j = i+1; j < n; j++)
19             if (arr[j] < arr[min_idx])
20                 min_idx = j;
21
22         swap(&arr[min_idx], &arr[i]);
23     }
24 }
25
26 void printArray(int arr[], int size)
27 {
28     int i;
29     for (i=0; i < size; i++)
30         cout << arr[i] << " ";
31     cout << endl;
32 }
33
34 int main()
35 {
36     int arr[] = {30, 50, 20, 10, 20, 35, 40};
37     int n = sizeof(arr)/sizeof(arr[0]);
38     selectionSort(arr, n);
39     cout << "Sorted array: \n";
40     printArray(arr, n);
41     return 0;
42 }

```

OUTPUT:

```

Sorted array:
10 20 20 30 35 40 50
-----
Process exited after 0.01859 seconds with return value 0
Press any key to continue . . .

```

```

1 #include <bits/stdc++.h>
2 using namespace std;
3
4 void swap(int *xp, int *yp)
5 {
6     int temp = *xp;
7     *xp = *yp;
8     *yp = temp;
9 }
10
11 void bubbleSort(int arr[], int n)
12 {
13     int i, j;
14     for (i = 0; i < n-1; i++)
15
16         for (j = 0; j < n-i-1; j++)
17             if (arr[j] > arr[j+1])
18                 swap(&arr[j], &arr[j+1]);
19 }
20
21 void printArray(int arr[], int size)
22 {
23     int i;
24     for (i = 0; i < size; i++)
25         cout << arr[i] << " ";
26     cout << endl;
27 }
28
29
30
31 int main()
32 {
33     int arr[] = {30, 50, 20, 10, 20, 35, 40};
34     int n = sizeof(arr)/sizeof(arr[0]);
35     bubbleSort(arr, n);
36     cout<<"Sorted array: \n";
37     printArray(arr, n);
38     return 0;
39 }
40
41

```

OUTPUT:

```

Sorted array:
10 20 20 30 35 40 50

-----
Process exited after 0.02087 seconds with return value 0
Press any key to continue . . .

```