1. algorithm Bubble\_Sort(list)
2. Pre: list != fi
3. Post: list is sorted in ascending order for all values
4. for i <- 0 to list:Count - 1
5. for j <- 0 to list:Count - 1
6. if list[i] < list[j]
7. Swap(list[i]; list[j])
8. end if
9. end for
10. end for
11. return list
12. end Bubble\_Sort

using namespace std;

int main()

{

    int i,j,n,loc,temp,min,a[30];

    cout<<"Enter the number of elements:";

    cin>>n;

    cout<<"\nEnter the elements\n";

    for(i=0;i<n;i++)

    {

        cin>>a[i];

    }

    for(i=0;i<n-1;i++)

    {

        min=a[i];

        loc=i;

        for(j=i+1;j<n;j++)

        {

            if(min>a[j])

            {

                min=a[j];

                loc=j;

            }

        }

        temp=a[i];

        a[i]=a[loc];

        a[loc]=temp;

    }

    cout<<"\nSorted list is as follows\n";

    for(i=0;i<n;i++)

    {

        cout<<a[i]<<" ";

    }

    return 0;

}

Let ARR is an array having N elements

1. Read ARR

2. Repeat step 3 to 6 for I=0 to N-1

3. Set MIN=ARR[I] and Set LOC=I

4. Repeat step 5 for J=I+1 to N

5. If MIN>ARR[J], then

                (a) Set MIN=ARR[J]

                (b) Set LOC=J

                [End of if]

  [End of step 4 loop]

6. Interchange ARR[I] and ARR[LOC] using temporary variable

 [End of step 2 outer  
loop]

7. Exit

|  |  |
| --- | --- |
| 2  3  4  5  6  7  8  9  10  11  12  13  14  15  16  17  18  19  20  21  22  23  24  25  26  27  28  29  30  31  32  33  34  35  36  37  38  39  40  41  42 | #include<iostream>    using namespace std;    int main()  {      int i,j,n,loc,temp,min,a[30];      cout<<"Enter the number of elements:";      cin>>n;      cout<<"\nEnter the elements\n";        for(i=0;i<n;i++)      {          cin>>a[i];      }        for(i=0;i<n-1;i++)      {          min=a[i];          loc=i;          for(j=i+1;j<n;j++)          {              if(min>a[j])              {                  min=a[j];                  loc=j;              }          }            temp=a[i];          a[i]=a[loc];          a[loc]=temp;      }        cout<<"\nSorted list is as follows\n";      for(i=0;i<n;i++)      {          cout<<a[i]<<" ";      }        return 0;  } |