```
#include<iostream>
#include<stdlib.h>
#include<omp.h>

using namespace std;

void bubble(int *, int);
void swap(int &, int &);

void bubble(int *a, int n)
{
   for( int i = 0; i < n; i++ )
   {
      int first = i % 2;

      #pragma omp parallel for shared(a,first)

      for( int j = first; j < n-1; j+=2 )
      {
         if( a[ j ] > a[ j+1 ] )
         {
            swap( a[ j ], a[ j+1 ] );
         }
      }
   }
}


void swap(int &a, int &b)
{
   int test;
   test=a;
   a=b;
   b=test;
}

int main()
{
   int *a,n;
   cout<<"\n enter total no of elements=>";
   cin>>n;
   a=new int[n];
   cout<<"\n enter elements=>";
   for(int i=0;i<n;i++)
   {
      cin>>a[i];
   }

   bubble(a,n);
```

```
    cout<<"\n sorted array is=>";
    for(int i=0;i<n;i++)
    {
       cout<<a[i]<<endl;
    }
    return 0;
}
```