Bubble sort code:

```
#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;
}
```

Output

```
enter total no of elements=>5

 enter elements=>12
121
43
65
21

 sorted array is=>12
21
43
65
121

--------------------------------
Process exited after 9.53 seconds with return value 0
Press any key to continue . . .
```