```cpp
#include <iostream>
using namespace std;

int quicksort(int array[], int low, int high)
{
        if (low >= high)
              return 0;

        int mid = (low + high)/2;
        int pivot = array[mid];
        int i = low;
        int j = high;
        int temp;

        while (i <= j)
        {
              while (pivot > array[i])
                    i++;

              while (pivot < array[j])
                    j--;

              if (i <= j)
              {
                    temp = array[i];
                    array[i] = array[j];
                    array[j] = temp;
                    i++;
                    j--;
              }
        }

        // Calling QuickSort for the first Sub list
        if (low < j)
              quicksort(array, low, j);

        // Calling QuickSort for the second Sub list
        if (i < high)
              quicksort(array, i, high);
}

// main function
int main()
{
        int array[] = {9,3,7,5,6,4,8,2};
        int n;
        n = sizeof(array)/sizeof(array[0]);

        cout<<"Array element before Sorting : \n";
        for (int i = 0; i < n; i++)
              cout<<array[i]<<"\t";
        if (n == 0)
        {
              cout<<"\nThere is nothing to Sort";
              return 0;
        }
        else if (n == 1)
        {
              cout<<"\nSingle Element is already Sorted ";
        }
        else
        {
              // Call to Quick Sort
              quicksort(array, 0, n);
```

```cpp
        cout<<"\nArray elements after Sorting : \n";
        for (int i = 0; i < n; i++)
            cout<<array[i]<<"\t";
        return 0;
    }
}
```