

```
// Delete an element from given sorted array.cpp : This file
contains the 'main' function. Program execution begins and ends
there.
//
```

```
#include <iostream>
using namespace std;
int binarySearch(int arr[], int low, int high, int key)
{
    if (high < low)
        return -1;
    int mid = (low + high) / 2;
    if (arr[mid] == key)
        return mid;
    if (key < arr[mid])
        return binarySearch(arr, low, mid-1, key);
    return binarySearch(arr, mid+1, high, key);
}
```

```
int deleteElement(int arr[], int key, int size)
{
    int pos = binarySearch(arr, 0, size - 1, key);
    if(pos == -1)
    {
        cout << "element not found";
        return size;
    }

    for (int i = pos; i < size - 1; i++)
        arr[i] = arr[i + 1];
    return size - 1;
}
```

```
int main()
{
    int key;
    int array[5] = { 10,40,50 };
    int size = sizeof(array) / sizeof(array[0]);
    int pos = binarySearch(array, 0, size - 1, 80);
    if (pos == -1)
        cout << "element not found" << endl;
    else
        cout << "element found at " << pos << endl;

    cout << "Before deletion " << endl;
    for (int i = 0; i < size; i++)
        cout << array[i] << " ";
    cout << "enter your element to delete " << endl;
    cin >> key;
    size = deleteElement(array, key, size);
    cout << "After deletion" << endl;
}
```

```
    for (int i = 0; i < size; i++)  
        cout << array[i] << " ";  
    return 0;  
}
```