Binary search in C

Binary search in C language to find an element in a sorted array. If the array isn't sorted, we must sort it using a sorting technique such as merge sort. If the element to search is present in the list, then we print its location. The program assumes that the input numbers are in ***ascending*** order.

Binary search program in C

```
#include <stdio.h>

int main()
{
  int c, first, last, middle, n, search, array[100];

  printf("Enter number of elements\n");
  scanf("%d", &n);

  printf("Enter %d integers\n", n);

  for (c = 0; c < n; c++)
    scanf("%d", &array[c]);

  printf("Enter value to find\n");
  scanf("%d", &search);

  first = 0;
  last = n - 1;
  middle = (first+last)/2;

  while (first <= last) {
    if (array[middle] < search)
      first = middle + 1;
    else if (array[middle] == search) {
      printf("%d found at location
%d.\n", search, middle+1);
      break;
    }
    else
      last = middle - 1;

    middle = (first + last)/2;
  }
  if (first > last)
```

```
    printf("Not found! %d isn't present in the
list.\n", search);

   return 0;
}
```

Output of program: