

```

1: #include <stdio.h>
2: #include <stdlib.h>
3: #include <stdbool.h>
4:
5: /* run this program using the console pauser or add your own getch,
   system("pause") or input loop */
6: void displayArray(int ar[],int numOfElements);
7: void displayArrayStatus(int ar[],int numOfElements);
8: bool isSorted(int ar[],int numOfElements);
9:
10: int ar[] = {3,5,4,7,2,8,1,0,9,6};
11: //int ar[] = {0,1,2,3,4,5,6,7,8,9};
12:
13: int main(int argc, char *argv[]) {
14:     int numOfElements;
15:     printf("Bubble sort\n");
16:
17:     numOfElements = sizeof(ar)/sizeof(int);
18:     displayArray(ar,numOfElements);
19:     displayArrayStatus(ar,numOfElements);
20:
21: // bubbleSort
22:
23:     return 0;
24: }
25:
26: void displayArrayStatus(int ar[],int numOfElements){
27:     printf("Array is %s\n",isSorted(ar,numOfElements)?"sorted":"not
   sorted");
28: }
29:
30: bool isSorted(int ar[],int numOfElements){
31: // bool sorted;
32: // sorted=true;
33: // for(int i=0;i<numOfElements-1 && ar[i]<ar[i+1];i++){
34: for(int i=0;i<numOfElements-1;i++){
35:     if(ar[i]>ar[i+1])
36:         return false;
37: //         sorted=false;
38:     }
39:     return true;
40: // return sorted;
41: }
42:
43: void displayArray(int ar[],int numOfElements){
44:     for(int i=0;i<numOfElements;i++)
45:         printf("%d\t",ar[i]);
46:     printf("\n");
47: }

```