```
#include <stdio.h>

// Function to swap two elements
void swap(int *xp, int *yp) {
    int temp = *xp;
    *xp = *yp;
    *yp = temp;
}

// Function to perform bubble sort in ascending order
void bubbleSortAscending(int arr[], int n) {
    int i, j;
    for (i = 0; i < n-1; i++)
        // Last i elements are already in place
        for (j = 0; j < n-i-1; j++)
            if (arr[j] > arr[j+1])
                swap(&arr[j], &arr[j+1]);
}

// Function to perform bubble sort in descending order
void bubbleSortDescending(int arr[], int n) {
    int i, j;
    for (i = 0; i < n-1; i++)
        // Last i elements are already in place
        for (j = 0; j < n-i-1; j++)
            if (arr[j] < arr[j+1])
                swap(&arr[j], &arr[j+1]);
}

// Function to print an array
void printArray(int arr[], int size) {
```

```
    int i;
    for (i = 0; i < size; i++)
        printf("%d ", arr[i]);
    printf("\n");
}

int main() {
    int arr[] = {64, 34, 25, 12, 22, 11, 90};
    int n = sizeof(arr)/sizeof(arr[0]);

    printf("Original array: \n");
    printArray(arr, n);

    // Sorting in ascending order
    bubbleSortAscending(arr, n);
    printf("Array sorted in ascending order: \n");
    printArray(arr, n);

    // Sorting in descending order
    bubbleSortDescending(arr, n);
    printf("Array sorted in descending order: \n");
    printArray(arr, n);

    return 0;
}
```