1.Write a c program for bubble sort.

```c
#include <stdio.h>
void bubbleSort(int arr[], int n) {
    for (int i = 0; i < n-1; i++) {
        for (int j = 0; j < n-i-1; j++) {
            if (arr[j] > arr[j+1]) {
                // Swap arr[j] and arr[j+1]
                int temp = arr[j];
                arr[j] = arr[j+1];
                arr[j+1] = temp;
            }
        }
    }
}
void printArray(int arr[], int size) {
    for (int 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("Unsorted array: \n");
    printArray(arr, n);
    bubbleSort(arr, n);
    printf("Sorted array: \n");
    printArray(arr, n);
    return 0;
}
```

```
/tmp/Pp5QEf27y5.o
Unsorted array:
64 34 25 12 22 11 90
Sorted array:
11 12 22 25 34 64 90


=== Code Execution Successful ===
```

2.Write a c program for selection sort.

main.c Share Run Output

```c
#include <stdio.h>
void selectionSort(int arr[], int n) {
    for (int i = 0; i < n-1; i++) {
        int minIndex = i;
        for (int j = i+1; j < n; j++) {
            if (arr[j] < arr[minIndex]) {
                minIndex = j;
            }
        }
        int temp = arr[minIndex];
        arr[minIndex] = arr[i];
        arr[i] = temp;
    }
}
void printArray(int arr[], int size) {
    for (int i = 0; i < size; i++) {
        printf("%d ", arr[i]);
    }
    printf("\n");
}
int main() {
    int arr[] = {64, 25, 12, 22, 11};
    int n = sizeof(arr)/sizeof(arr[0]);
    printf("Unsorted array: \n");
    printArray(arr, n);
    selectionSort(arr, n);
    printf("Sorted array: \n");
    printArray(arr, n);
    return 0;
}
```

```
/tmp/dzUAU4ytTn.o
Unsorted array:
64 25 12 22 11
Sorted array:
11 12 22 25 64


=== Code Execution Successful ===
```