#include <iostream>

#include <string>

using namespace std;

void sort(int arr[][3], int n) {

int temp[3];

for (int i = 0; i < n; i++) {

for (int j = i; j < n; j++) {

if (arr[i][0] > arr[j][0]) {

temp[0] = arr[i][0];

temp[1] = arr[i][1];

temp[2] = arr[i][2];

arr[i][0] = arr[j][0];

arr[i][1] = arr[j][1];

arr[i][2] = arr[j][2];

arr[j][0] = temp[0];

arr[j][1] = temp[1];

arr[j][2] = temp[2];

}

else if (arr[i][0] == arr[j][0]) {

if (arr[i][1] > arr[j][1]) {

temp[0] = arr[i][0];

temp[1] = arr[i][1];

temp[2] = arr[i][2];

arr[i][0] = arr[j][0];

arr[i][1] = arr[j][1];

arr[i][2] = arr[j][2];

arr[j][0] = temp[0];

arr[j][1] = temp[1];

arr[j][2] = temp[2];

}

else if (arr[i][1] == arr[j][1]) {

if (arr[i][2] > arr[j][2]) {

temp[0] = arr[i][0];

temp[1] = arr[i][1];

temp[2] = arr[i][2];

arr[i][0] = arr[j][0];

arr[i][1] = arr[j][1];

arr[i][2] = arr[j][2];

arr[j][0] = temp[0];

arr[j][1] = temp[1];

arr[j][2] = temp[2];

}

}

}

}

}

}

int main() {

int arr[9][3] = {{1,2,3},{1,2,2},{1,1,1},{2,2,2},{2,1,1},{2,1,2},{3,3,3},{3,2,2},{3,1,1}};

cout << "Before sorting" << endl;

for (int i = 0; i < 9; i++) {

for (int j = 0; j < 3; j++) {

cout << arr[i][j] << " ";

}

cout << endl;

}

cout << "After sorting" << endl;

sort(arr, 9);

for (int i = 0; i < 9; i++) {

for (int j = 0; j < 3; j++) {

cout << arr[i][j] << " ";

}

cout << endl;

}

}

Output :

Before sorting

1 2 3

1 2 2

1 1 1

2 2 2

2 1 1

2 1 2

3 3 3

3 2 2

3 1 1

After sorting

1 1 1

1 2 2

1 2 3

2 1 1

2 1 2

2 2 2

3 1 1

3 2 2

3 3 3