Frequency in C++

```
#include <iostream>
#include <unordered_map> // for unordered_map

using namespace std;

void countFreq(int arr[], int n) {
    unordered_map<int, int> hmp; // Declaration of
unordered_map to store element frequencies

    // Count frequencies of each element in the array
    for (int i = 0; i < n; i++) {
        int key = arr[i];
        if (hmp.find(arr[i]) != hmp.end()) {
            hmp[arr[i]]++;
        } else {
            hmp[arr[i]] = 1;
        }
    }

    // Print the frequencies
    for (auto itr = hmp.begin(); itr != hmp.end(); itr++) {
        cout << itr->first << " " << itr->second << endl;
    }
}

int main() {
    int arr[] = {4,4,5,2,3,1,6,7,6};

    int n = sizeof(arr) / sizeof(arr[0]);

    countFreq(arr, n);

    return 0;
}
```

Dry Run of `countFreq(arr, n)`

Input:

```
arr = {4, 4, 5, 2, 3, 1, 6, 7, 6};
n = 9;
```

Step 1: Initialize `unordered_map<int, int> hmp`

- `hmp` is empty at the beginning.

Step 2: Count Frequencies of Elements

Iteration	`arr[i]`	`hmp` (after processing `arr[i]`)
i = 0	4	{4: 1}
i = 1	4	{4: 2}
i = 2	5	{4: 2, 5: 1}
i = 3	2	{4: 2, 5: 1, 2: 1}
i = 4	3	{4: 2, 5: 1, 2: 1, 3: 1}
i = 5	1	{4: 2, 5: 1, 2: 1, 3: 1, 1: 1}
i = 6	6	{4: 2, 5: 1, 2: 1, 3: 1, 1: 1, 6: 1}
i = 7	7	{4: 2, 5: 1, 2: 1, 3: 1, 1: 1, 6: 1, 7: 1}
i = 8	6	{4: 2, 5: 1, 2: 1, 3: 1, 1: 1, 6: 2, 7: 1}

Step 3: Print Frequencies

```
4 2
5 1
2 1
3 1
1 1
6 2
7 1
```

Output:

```
4 2
5 1
2 1
3 1
1 1
6 2
7 1
```