

C++ Programming

STL Map

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Teaching, Training and Coaching since more than a decade!

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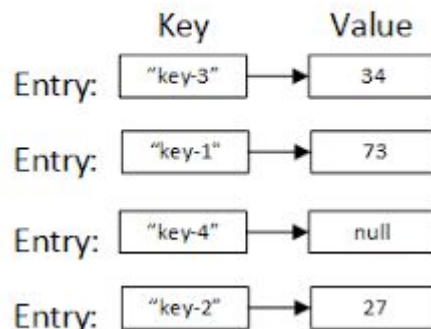
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Map

```
3 #include<vector>
4 using namespace std;
5
6 void print(const map<string, int> &mp) {
7     // You could iterate on map and set normally like vector.
8     for (const pair<string, int> &item : mp) // const with &
9         cout << item.first << "-" << item.second << " | ";
10    cout << "\n";
11 }
12
13 int main() {
14     map<string, int> mp; // Array with index not integer
15     mp["mostafa"] = 10;
16     mp["Saad"] = 20;
17     mp["mostafa"] = 30;
18     mp["Mostafa"] = 40;
19
20     print(mp); // Mostafa-40 | Saad-20 | mostafa-30 |
21
22     auto it = mp.find("Saad");
23
24     if (it != mp.end())
25         mp.erase(it);
26
27     print(mp); // Mostafa-40 | mostafa-30 |
28
29     cout << mp.count("Mostafa") << "\n"; // 1
```



More

```
map<char, vector<int> > my_data;

vector<int> x;
x.push_back(1);
x.push_back(2);
x.push_back(3);

my_data['A'] = x;
x.push_back(4);

cout << my_data['A'].size() << "\n";    // 3
cout << x.size() << "\n";              // 4 (2 copies)

vector<int> x2 = my_data['A'];           // 3rd copy!
vector<int> &x3 = my_data['A'];          // SAME memory
```

“Acquire knowledge and impart it to the people.”

“Seek knowledge from the Cradle to the Grave.”