

C++中map查找元素是否存在的3种方式_c++ map查找_Z+924102832的博客-CSDN博客

成就一亿技术人!

原创

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1. map[key]

通过键直接查找，如果存在就返回对应的值，如果不存在则返回0

```
map<char, int>map1;
map1['a'] = 1;
map1['b'] = 2;

cout << map1['a'] << endl; // 返回1
cout << map1['c'] << endl; // 返回0
```

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2. map.find(key)

返回key对应的迭代器，如果不存在则返回map.end()，时间复杂度为O(logN)

```
if (map1.find('d') == map1.end())
    cout << "NOT FOUND" << endl;
cout << map1.find('a')->second << endl; // 输出1
```

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3. map.count(key)

如果key存在就返回1，如果不存在则返回0。

```
cout << "map.count():" << endl;
cout << map1.count('b') << endl; // 返回1
cout << map1.count('d') << endl; // 返回0
```

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完整测试代码：

```
#include<bits/stdc++.h>
using namespace std;

int main() {
    map<char, int>map1;
    map1['a'] = 1;
    map1['b'] = 2;

    cout << map1['a'] << endl; // 返回1
    cout << map1['c'] << endl; // 返回0

    cout << "map.find():" << endl;
    if (map1.find('d') == map1.end())
        cout << "NOT FOUND" << endl;
    cout << map1.find('a')->second << endl; // 输出1

    cout << "map.count():" << endl;
    cout << map1.count('b') << endl; // 返回1
    cout << map1.count('d') << endl; // 返回0

    return 1;
}
```



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```
int main() {
    map<char, int>map1;
    map1['a'] = 1;
    map1['b'] = 2;

    cout << map1['a'] << endl; // 返回1
    cout << map1['c'] << endl; // 返回0

    cout << "map.find():" << endl;
    if (map1.find('d') == map1.end())
        cout << "NOT FONUND" << endl;
    cout << map1.find('a')->second << endl; // 输出1

    cout << "map.count():" << endl;
    cout << map1.count('b') << endl; // 返回1
    cout << map1.count('d') << endl; // 返回0
}
```

Microsoft Vis

```
1
0
map.find():
NOT FONUND
1
map.count():
1
0
CSDN@Z+924102832
```

发现一个有趣的问题:

输出一个不存在的key的map映射值时, 会把这个值存到map1里面, 0为对应的value。

cout<<map[不存在的key];

```
#include<bits/stdc++.h>
using namespace std;

int main() {
    map<char, int>map1;
    map1['a'] = 1;
    map1['b'] = 2;

    cout << map1['a'] << endl; // 返回1
    cout << map1['c'] << endl; // 这里相当于存入了['c',0]到map1中

    cout << "map.find():" << endl;
    if (map1.find('c') == map1.end())
        cout << "NOT FONUND" << endl;
    cout << map1.find('c')->second << endl; // 返回0

    cout << "map.count():" << endl;
    cout << map1.count('b') << endl; // 返回1
    cout << map1.count('c') << endl; // 'c'存在所以返回1

    return 1;
}
```

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```
int main() {
    map<char, int>map1;
    map1['a'] = 1;
    map1['b'] = 2;

    cout << map1['a'] << endl; // 返回1
    cout << map1['c'] << endl; // 这里相当于存入了['c', 0]到map1中

    cout << "map.find():" << endl;
    if (map1.find('c') == map1.end())
        cout << "NOT FOUND" << endl;
    cout << map1.find('c')->second << endl; // 返回0

    cout << "map.count():" << endl;
    cout << map1.count('b') << endl; // 返回1
    cout << map1.count('c') << endl; // 'c' 存在所以返回1
}
```

Microsoft Vis

```
1
0
map.find():
0
map.count():
1
1
CSDN @Z+924102832
```