# Maps-STL

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Maps are a part of the C++ STL.Maps are associative containers that store elements formed by a combination of a key value and a mapped value, following a specific order.The mainly used member functions of maps are:

- Map Template:

```
std::map <key_type, data_type>
```

- Declaration:

```
map<string,int>m; //Creates a map m where key_type is of type string and data_type is of type int.
```

- Size:

```
int length=m.size(); //Gives the size of the map.
```

- Insert:

```
m.insert(make_pair("hello",9)); //Here the pair is inserted into the map where the key is "hello"
```

- Erasing an element:

```
m.erase(val); //Erases the pair from the map where the key_type is val.
```

- Finding an element:

```
map<string,int>::iterator itr=m.find(val); //Gives the iterator to the element val if it is found
Ex: map<string,int>::iterator itr=m.find("Maps"); //If Maps is not present as the key value then
```

- Accessing the value stored in the key:

```
To get the value stored of the key "MAPS" we can do m["MAPS"] or we can get the iterator using the
```

To know more about maps click Here.

You are appointed as the assistant to a teacher in a school and she is correcting the answer sheets of the students.Each student can have multiple answer sheets.So the teacher has $Q$ queries:

$1$ $X$ $Y$ :Add the marks $Y$ to the student whose name is $X$.

$2$ $X$: Erase the marks of the students whose name is $X$.

$3$ $X$: Print the marks of the students whose name is $X$. (If $X$ didn't get any marks print $0$.)

**Input Format**

The first line of the input contains $Q$ where $Q$ is the number of queries. The next $Q$ lines contain $1$ query each.The first integer, $type$ of each query is the type of the query.If query is of type $1$, it consists of one string and an integer $X$ and $Y$ where $X$ is the name of the student and $Y$ is the marks of the student.If query is of type $2$ or $3$,it consists of a single string $X$ where $X$ is the name of the student.

**Constraints**

$1 \leq Q \leq 10^5$

$1 \leq type \leq 3$

$1 \leq |X| \leq 6$

$1 \leq Y \leq 10^3$

**Output Format**

For queries of type $3$ print the marks of the given student.

**Sample Input**

```
7
1 Jesse 20
1 Jess 12
1 Jess 18
3 Jess
3 Jesse
2 Jess
3 Jess
```

**Sample Output**

```
30
20
0
```

Author saikiran9194
Difficulty Easy
Max Score 15
Submitted By 57438

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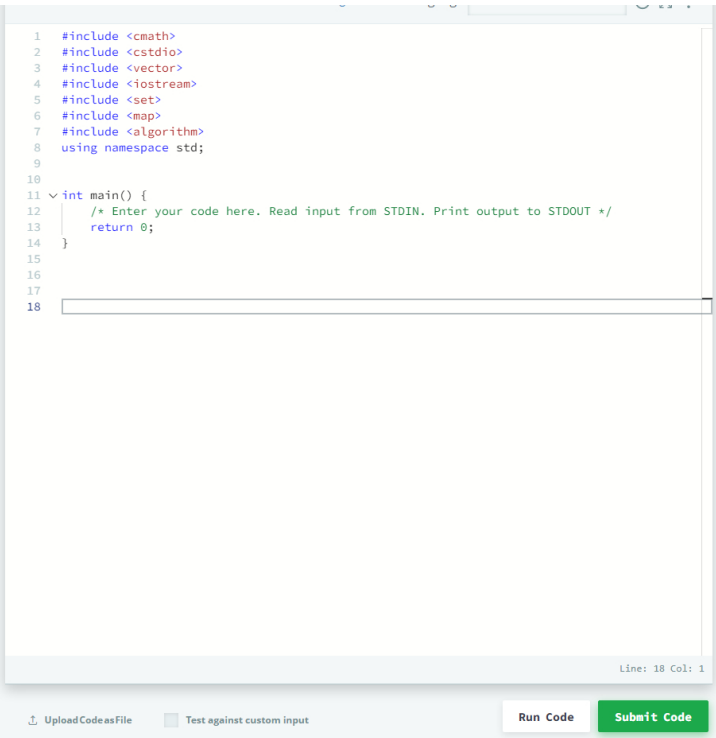

```cpp
#include <cmath>
#include <cstdio>
#include <vector>
#include <iostream>
#include <set>
#include <map>
#include <algorithm>
using namespace std;

int main() {
    /* Enter your code here. Read input from STDIN. Print output to STDOUT */
    return 0;
}
```

Line: 18 Col: 1

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