[Map in STL](https://www.geeksforgeeks.org/map-associative-containers-the-c-standard-template-library-stl/) is used to hash key and value. We generally see map being used for standard data types. We can also use map for pairs.

For example consider a simple problem, given a matrix and positions visited, print which positions are not visited.

// C++ program to demonstrate use of map for pairs

#include <bits/stdc++.h>

using namespace std;

**map<** **pair<** **int, int** **>**, **int** **>** **vis** ;

// Print positions that are not visited

void printPositions( int a[3][3] )

{

for (int i = 0; i < 3; i++)

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

if ( **vis**[ { i, j } ] == 0 )

cout << "(" << i << ", " << j << ")"

<< "\n";

}

int main()

{

int mat[3][3] = { { 0, 1, 2 }, { 3, 4, 5 }, { 6, 7, 8 } };

// Marking some positions as visited

vis[ { 0, 0 } ] = 1; // visit (0, 0)

vis[ { 1, 0 } ] = 1; // visit (1, 0)

vis[ { 1, 1 } ] = 1; // visit (1, 1)

vis[ { 2, 2 } ] = 1; // visit (2, 2)

// print which positions in matrix are not visited

printPositions(mat);

return 0;

}

Output:

(0, 1)

(0, 2)

(1, 2)

(2, 0)

(2, 1)