C++ Map ,MultiMap Cheatsheet and UnorderedMap

# Map

## Declaration

map<int, string>map1;

## Initialization

map<int, string>map2 = { {101,"Ioan Ilie"},{201,"Teodora Roman"},{301,"Rustiq Nicolas"} };

## Iteration && Check

for (map<int, string>::iterator i = map2.begin(); i != map2.end(); i++)

{

cout << i->first << " "; //Printing the keys;

cout << i->second << endl; //Print the value;

}

cout << endl;

## Check some value

* + - 1. At: cout << "Value at : " << map2.at(201)<<endl;
      2. []: cout << "Value [] : " << map2[201]<<endl;

## Change Value

map2[201] = "Teodora Ilie Roman";

## Insert

* + - * 1. map2.insert(pair<int, string>(55, "Hubbs"));
        2. map2.insert(make\_pair(69, "Five"));

## Erase

map<int, string>::iterator i = map2.begin();

map2.erase(i);

# MultiMap

## Declaration

multimap<int, string>multimap1;

## Initialization

multimap<int, string>multimap2{ {101,"Ioan Ilie"},{201,"Teodora Roman"},{201,"Rustiq Nicolas"} };

## Iteration && Check

multimap<int, string>::iterator ii = multimap2.begin();

for (ii; ii != multimap2.end(); ii++)

{

cout << ii->first << " "; //Printing the keys;

cout << ii->second << endl; //Print the value;

}

cout << endl;

## Change Value U cant

## Insert

multimap2.insert(pair<int, string>(55, "Hubbs"));

multimap2.insert(make\_pair(55, "Five"));

## Erase

multimap<int, string>::iterator del = multimap2.begin();

multimap2.erase(del);

## Count

cout << " The Count for Key 201 is " << multimap2.count(201) << endl;

## Size

cout << "The number of Elements : " << multimap2.size() << endl

# Unordered map

## Declaration

unordered\_map<int, string>u1;

## Initialization

unordered\_map<int, string>u2 = { {101,"Ioan Ilie"},{57,"Teodora Roman"},{201,"Rustiq Nicolas"},{201,"Nicolas"} };

## Iteration && Check

for (unordered\_map<int, string>::iterator i = u2.begin(); i != u2.end(); i++)

{

cout << i->first<<" ";

cout << i->second << endl;

}

cout << endl;

## Change Value

u2[201] = "Kevin";

## Insert

u2.insert(pair<int, string>(55, "Hubbs"));

u2.insert(make\_pair(69, "Five"));

## Erase

multimap<int, string>::iterator del = u2.begin();

u2.erase(del);

## Count

1. cout << " The Count for Key 201 is " << u2.count(201) << endl;

## Size

1. cout << "The number of Elements : " << u2.size() << endl