- **Source Code**

```
/*
Practical - 7
Write a program in C++ to use map associative container. The keys will
be the names of states, and the
values will be the populations of the states. When the program runs,
the user is prompted to type the
name of a state. The program then looks in the map, using the state
name as an index, and returns the
population of the state.
*/

#include<iostream>
#include<map>
#include<string>
using namespace std;
int main(){
    string state;
    float population;
    char ans = 'y';
    int choice;
    map<string,float> m;
    map<string,float> :: iterator i;


    do{
        cout << "\nMain Menu";
        cout << "\n\t1. Insert an element";
        cout << "\n\t2. Display";
        cout << "\n\t3. Search\n";

        cout << "\nEnter your choice : ";
        cin >> choice;
        cin.ignore();
        switch (choice)
        {
        case 1:
            cout << "\nEnter the name of state : ";
            getline(cin,state);
            cout << "\nEnter the population (in Cr) : ";
            cin >> population;
```

```
            m.insert(pair<string,float>(state,population));
            break;

        case 2:
            cout << "\nState and Populations are : \n";
            for(i = m.begin(); i != m.end(); i++){
                cout << "[" << (*i).first << ", " << (*i).second <<
                "]" << endl;
            }
            break;

        case 3:
            cout << "\nEnter the name of state for searching its
            population : ";
            getline(cin,state);
            if(m.count(state) != 0)
                cout << "Population is " << m.find(state) -> second <<
                "Cr" << endl;
            else
                cout << "State is not present in the list !" << endl;
            break;

        default:
            cout << "Invalid choice !" << endl;
            break;
        }
        cout << "\nDo you want to continue? (y/n): ";
        cin >> ans;
    }while(ans == 'y' || ans == 'Y');
    return 0;
}
```

- **Output**

```
Main Menu
        1. Insert an element
        2. Display
        3. Search

Enter your choice : 1

Enter the name of state : Uttar Pradesh

Enter the population (in Cr) : 20.42

Do you want to continue? (y/n): y

Main Menu
        1. Insert an element
        2. Display
        3. Search

Enter your choice : 1

Enter the name of state : Maharashtra

Enter the population (in Cr) : 12.85

Do you want to continue? (y/n): y

Main Menu
        1. Insert an element
        2. Display
        3. Search

Enter your choice : 1

Enter the name of state : Bihar

Enter the population (in Cr) : 10.40

Do you want to continue? (y/n): y
```

```
Main Menu
        1. Insert an element
        2. Display
        3. Search

Enter your choice : 1

Enter the name of state : West Bengal

Enter the population (in Cr) : 9.13

Do you want to continue? (y/n): y

Main Menu
        1. Insert an element
        2. Display
        3. Search

Enter your choice : 2

State and Populations are :
[Bihar, 10.4]
[Maharashtra, 12.85]
[Uttar Pradesh, 20.42]
[West Bengal, 9.13]

Do you want to continue? (y/n): y

Main Menu
        1. Insert an element
        2. Display
        3. Search

Enter your choice : 3

Enter the name of state for searching its population : Maharashtra
Population is 12.85Cr

Do you want to continue? (y/n): n
```