/\*

Name : Amit Bandu Swami

Roll No.: 2221018

Batch : A Experiment no.: 08

Title : C++ program to use map associative container

\*/

# Program:

#include<iostream> #include<iterator> #include<map>

using namespace std; void insert(int count); void display();

void search(); void update(); void remove();

map<string,float>pairs; void insert(int count)

{

string state; float population;

cout<<"Enter no. of pairs you want to insert: "; cin>>count;

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

{

cout<<"Enter name of the state ("<<i+1<<") :";

cin>>state;

cout<<"Enter the population in crores("<<i+1<<"): "; cin>>population; pairs.insert(pair<string,float>(state,population));

}

}

void display()

{

map<string,float>::iterator itr; cout<<endl; cout<<"\t"<<"State"<<"\t"<<"Population"; cout<<endl; for(itr=pairs.begin();itr!=pairs.end();++itr)

{

}

}

void search()

{

cout<<"\t"<<itr->first<<" \t "<<itr->second<<'\n'; cout<<endl;

map<string,float>::iterator itr; string state;

cout<<"\n Enter the State Name to search in Map Container: "; cin>>state;

int flag=1; if(pairs.find(state)!=pairs.end())

{

cout<<"\n State "<<state<<"found and its population is: "<<pairs[state]<<"Crores";

}

else

{

of state";

cout<<"\n State "<<state<<" is not found.Please enter correct spelling

}

}

void update()

{

map<string,float>::iterator ptr; string state;

int flag=1;

cout<<"Enter the state of which population you want to update: "; cin>>state;

for(ptr=pairs.begin();ptr!=pairs.end();ptr++)

{

if(ptr->first==state)

{

cout<<"\n State Details Found "<<endl;

cout<<"\n Enter the updated population count in crores: "; cin>>ptr->second;

flag= 0; break;

}

}

if(flag!=0)

cout<<"Not Found";

}

void remove()

{

string state;

int flag=1; map<string,float>::iterator ptr;

cout<<"Enter the state you want to remove: "; cin>>state; for(ptr=pairs.begin();ptr!=pairs.end();ptr++)

{

if(ptr->first==state)

{

container";

}

}

cout<<"\n State found and it is deleted along with value from

pairs.erase(state); flag=0;

break;

if(flag!=0)

cout<<"\n State not found"<<endl;

}

int main()

{

int count; int choice; char ans;

do

{

cout<<"1.ADD ENTRY IN MAP : "<<endl; cout<<"2.DISPLAY MAP CONTAINER: "<<endl; cout<<"3.FIND IN MAP CONTAINER: "<<endl; cout<<"4.UPDATE MAP CONTAINER : "<<endl; cout<<"5.ERASE VALUES IN MAP CONTAINER: "<<endl;

cout<<"Enter Your Choice: "<<endl;

cin>>choice; switch(choice)

{

case 1:insert(count); break;

case 2:display(); break;

case 3:search(); break;

case 4:update(); break;

case 5:remove(); break;

case 6:default:cout<<"\n You have entered wrong choice X=X";

}

cout<<"\n Do you want to continue "; cin>>ans;

}

while(ans=='Y'||ans=='y'); return 0;

}

/\*

# OUTPUT:

1. ADD ENTRY IN MAP :
2. DISPLAY MAP CONTAINER:
3. FIND IN MAP CONTAINER:
4. UPDATE MAP CONTAINER :
5. ERASE VALUES IN MAP CONTAINER:

Enter Your Choice:

1

Enter no. of pairs you want to insert: 5 Enter name of the state (1) :Maharashtra Enter the population in crores(1): 10

Enter name of the state (2) :Gujarat Enter the population in crores(2): 5 Enter name of the state (3) :Punjab Enter the population in crores(3): 7

Enter name of the state (4) :Rajasthan Enter the population in crores(4): 3

Enter name of the state (5) :Karnataka Enter the population in crores(5): 4

Do you want to continue y 1.ADD ENTRY IN MAP :

1. DISPLAY MAP CONTAINER:
2. FIND IN MAP CONTAINER:
3. UPDATE MAP CONTAINER :
4. ERASE VALUES IN MAP CONTAINER:

Enter Your Choice:

2

State Population

|  |  |  |
| --- | --- | --- |
| Gujarat | 5 |  |
| Karnataka |  | 4 |
| Maharashtra |  | 10 |
| Punjab 7 |  |  |
| Rajasthan |  | 3 |

Do you want to continue y 1.ADD ENTRY IN MAP :

1. DISPLAY MAP CONTAINER:
2. FIND IN MAP CONTAINER:
3. UPDATE MAP CONTAINER :
4. ERASE VALUES IN MAP CONTAINER:

Enter Your Choice:

3

Enter the State Name to search in Map Container: Punjab

State Punjabfound and its population is: 7Crores Do you want to continue y

1. ADD ENTRY IN MAP :
2. DISPLAY MAP CONTAINER:
3. FIND IN MAP CONTAINER:
4. UPDATE MAP CONTAINER :
5. ERASE VALUES IN MAP CONTAINER:

Enter Your Choice:

4

Enter the state of which population you want to update: Goa Not Found

Do you want to continue y 1.ADD ENTRY IN MAP :

1. DISPLAY MAP CONTAINER:
2. FIND IN MAP CONTAINER:
3. UPDATE MAP CONTAINER :
4. ERASE VALUES IN MAP CONTAINER:

Enter Your Choice:

5

Enter the state you want to remove: Punjab

State found and it is deleted along with value from container Do you want to continue

\*/