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Sub: OOP

```
#include <iostream>
```

```
#include <map>
```

```
#include <string>
```

```
#include <utility>
```

```
using namespace std;
```

```
int main()
```

```
{
```

```
    typedef map<string,int> mapType;
```

```
    mapType populationMap;
```

```
    populationMap.insert(pair<string, float>("Maharashtra", 125));
```

```
    populationMap.insert(pair<string, float>("Uttar Pradesh", 225));
```

```
    populationMap.insert(mapType::value_type("Bihar", 120));
```

```
    populationMap.insert(mapType::value_type("West Bengal", 100));
```

```
    populationMap.insert(make_pair("Madhya Pradesh", 90));
```

```
    populationMap.insert(make_pair("Tamil Nadu", 80));
```

```
    populationMap.insert(make_pair("Rajasthan", 78));
```

```
    populationMap.insert(make_pair("Andhra Pradesh", 53));
```

```
    populationMap.insert(make_pair("Odisha", 47));
```

```
populationMap.insert(make_pair("Kerala", 38));
populationMap.insert(make_pair("Telangana", 37));
populationMap.insert(make_pair("Assam", 35));
populationMap.insert(make_pair("Jharkhand", 38));
populationMap.insert(make_pair("Karnataka", 68));
populationMap.insert(make_pair("Gujarat", 70));
populationMap.insert(make_pair("Punjab", 31));
populationMap.insert(make_pair("Chhattisgarh", 30));
populationMap.insert(make_pair("Haryana", 29));
populationMap.insert(make_pair("UT Delhi", 19));
populationMap.insert(make_pair("UT Jammu and Kashmir", 14));
populationMap.insert(make_pair("Uttarakhand", 12));
populationMap.insert(make_pair("Himachal Pradesh", 8));
populationMap.insert(make_pair("Tripura", 04));
populationMap.insert(make_pair("Meghalaya", 4));
populationMap.insert(make_pair("Manipur", 3));
populationMap.insert(make_pair("Nagaland", 2));
populationMap.insert(make_pair("Goa", 2));
populationMap.insert(make_pair("Arunachal Pradesh", 2));
populationMap.insert(make_pair("UT Puducherry", 2));
populationMap.insert(make_pair("Mizoram", 1));
populationMap.insert(make_pair("UT Chandigarh", 1));
populationMap.insert(make_pair("Sikkim", 1));
populationMap.insert(make_pair("UT Dadra and Nagar Haveli and Daman and Diu", 1));
populationMap.insert(make_pair("UT Andaman and Nicobar Islands", 1));
```

```

populationMap.insert(make_pair("UT Lakshadweep", 0.0003));

populationMap.insert(make_pair("UT Ladakh", 0.00006));


mapType::iterator iter = --populationMap.end();

populationMap.erase(iter);


cout << "Total state and UT of India with Size of populationMap: " << populationMap.size() <<
'\n';


for (iter = populationMap.begin(); iter != populationMap.end(); ++iter)
{
    cout << iter->first << ":" << iter->second << " million\n";
}


char c;

do
{
    string state;

    cout<<"\nEnter that state you want to know the population of: ";

    cin>>state;

    iter = populationMap.find(state);

    if( iter != populationMap.end() )

        cout << state <<"'s populations is "

            << iter->second << " million\n";

    else

        cout << "State is not in populationMap" << '\n';
}

```

```
        cout<<"Do you wish to continue?(y/n):";  
  
        cin>>c;  
  
    }while(c=='y' || c=='Y');  
  
    populationMap.clear();  
  
    return 0;  
}
```

Output:

```
Maharashtra:125 million
Manipur[:3 million
Meghalaya:4 million
Mizoram:1 million
Nagaland:2 million
Odisha:47 million
Punjab:31 million
Rajasthan:78 million
Sikkim:1 million
Tamil Nadu:80 million
Telangana:37 million
Tripura:4 million
UT Andaman and Nicobar Islands:1 million
UT Chandigarh:1 million
UT Dadra and Nagar Haveli and Daman and Diu:1 million
UT Delhi:19 million
UT Jammu and Kashmir:14 million
UT Ladakh:0 million
UT Lakshadweep:0 million
UT Puducherry:2 million
Uttar Pradesh:225 million
Uttarakhand:12 million

Enter that state you want to know the population of: Maharashtra
Maharashtra's populations is 125 million
Do you wish to continue?(y/n):y

Enter that state you want to know the population of: Ladakh
State is not in populationMap
Do you wish to continue?(y/n):n

-----
Process exited after 162.1 seconds with return value 0
Press any key to continue . . .
```