```cpp
/*
Crete User defined exception to check the following conditions and throw the
exception if
the criterion does not met.
a. User has age between 18 and 55
b. User stays has income between Rs. 50,000 – Rs. 1,00,000 per month
c. User stays in Pune/ Mumbai/ Bangalore / Chennai
d. User has 4-wheeler Accept age, Income, City, Vehicle from the user and check
for the
conditions mentioned above. If any of the condition not met then throw the
exception.
*/
#include<iostream>       //include header file
#include<string.h>       //include header file of string
using namespace std;
class try_throw          //class with name try_throw
{
 private:int age,in;     //declaration of variables
        char city[8],car;
        public:
        void get_age()  //function to accept age of person
        {
                cout<<"\nEnter age: ";
                cin>>age;
                if(age<18 || age>55)
                throw("Invalid age..!!");       //throw if age is invalid
        }

        void get_income()       //function to accept the income
        {
                cout<<"\nEnter income: ";
                cin>>in;
                if(in<50000 || in>100000)
                throw("Invalid Income..!!");    //throw if income is invalid
        }

        void get_city()         //accept city name
        {

                cout<<"\nEnter city [in small letters only]: ";
                cin>>city;
                if(strcmp(city, "pune")&& strcmp(city, "banglore")&& strcmp
(city,"chennai")&& strcmp(city, "mumbai"))

                throw("Person is not staying in Pune/Mumbai/Banglore/
Chennai..!!");  //throw if city is not matching with given cities
        }

        void get_vehicle()      //accept is the user having 4 wheeler or not
        {
                cout<<"\nEnter y if you have car else enter n: ";
                cin>>car;
                if(car=='n')
                throw(" Person should hold car..!!");
        }

        void display()          //display details of user
        {
                cout<<"\nYour age: "<<age;
                cout<<"\nYour income: "<<in;
                cout<<"\nYour city: "<<city;
                cout<<"\nCar status: "<<car;
        }
};              //end of class

int main()
```

```cpp
{
        try_throw d;            //obj. of class
        try
        {
                d.get_age();            //accept details
                d.get_income();
                d.get_city();
                d.get_vehicle();
                d.display();
        }
        catch(const char *ptr)          //catch the string in throw function if
conditions are not satisfied
        {
                cout<<endl<<ptr<<endl;
        }
        return 0;
} //end of program
/*
OUTPUT
dell@ghe1de-saurabh16-12-99:~/Desktop/oops_assignment$ g++ ass7oops.cpp
dell@ghe1de-saurabh16-12-99:~/Desktop/oops_assignment$ ./a.out

Enter age: 12

Invalid age..!!
dell@ghe1de-saurabh16-12-99:~/Desktop/oops_assignment$ ./a.out

Enter age: 18

Enter income: 49000

Invalid Income..!!
dell@ghe1de-saurabh16-12-99:~/Desktop/oops_assignment$ ./a.out

Enter age: 18

Enter income: 51000

Enter city [in small letters only]: kolkata

Person is not staying in Pune/Mumbai/Banglore/Chennai..!!
dell@ghe1de-saurabh16-12-99:~/Desktop/oops_assignment$ ./a.out

Enter age: 18

Enter income: 51000

Enter city [in small letters only]: pune

Enter y if you have car else enter n: n

 Person should hold car..!!
dell@ghe1de-saurabh16-12-99:~/Desktop/oops_assignment$ ./a.out

Enter age: 18

Enter income: 51000

Enter city [in small letters only]: pune

Enter y if you have car else enter n: y

Your age: 18
Your income: 51000
Your city: pune
Car status: y
```

```
*/
```