ASSIGNMENT NO:5

Problem statement

Create user defined exception to check the following condition and throw the exception if the criteria does not meet.

1. Users stays in Pune/Mumbai/Bangalore/Chennai
2. User has 4-wheeler

City , vehicle from the user and check for the conditions mentioned above. If any of the condition not met then throw the exception. If user does not enter proper input throw the exception.

Aim of Assignment :

C++ program to implement and understand the concept of exception handling. To understand the concept like throw , catch , try , etc. of the exception handling. Using this, check the conditions given in above problem.

Description:

The one advantage of C++ over C is the Exception handling . This program explains how EXCEPTION are handled in C++. The code that is likely to throw exceptions is enclosed in the “try” block. The try block can also contain a “throw” statement that is used to explicitly throw exceptions. The “throw” statement consists of a keyword “throw” followed by a parameter which is the exception name. This parameter is then passed to the catch block. The exception thrown in the “try” block is passed on to the “catch” block. The catch block contains the code to process the thrown exception. It can contain merely a message or an entire code block to process the exception such that the normal flow of the program is not hindered.

It is not necessary that each try block should be followed by only one catch block. If our try block code contains the statements that can throw more than one exceptions, then we can have multiple catch blocks wherein each catch block provides processing for each of the exceptions.

Source Code:

#include<iostream>

using namespace std;

class excep{};

int main()

{ excep e1,e2;

string city;

string wheeler;

cout<<"Enter the name of city where you stay: ";

cin>>city;

try

{

if(city=="mumbai"||city=="pune"||city=="bangalore"||city=="chennai")

cout<<city<<" is an Amazing city"<<endl;

else

throw e1;

}

catch(excep e1)

{

cout<<"!!!You have entered wrong city, Please enter any city from these cities mumbai ,pune, banglore and chennai"<<endl;

}

cout<<"\nEnter the type of wheeler: ";

cin>>wheeler;

try

{

if(wheeler=="4")

cout<<wheeler<<" wheelers are comfortable"<<endl;

else

throw e2;

}

catch(excep e2)

{

cout<<"!!!Please enter 4 wheeler"<<endl;

}

return 0;

}

OOP Concept Used:

1. Exception handling
2. Menu driven program
3. Use of while loop

Conclusion –

So in this program we learn the concept of Exception handling and its working . Also get to know when and how to use it .