C++ User-Defined Exceptions

The new exception can be defined by overriding and inheriting **exception** class functionality.

C++ user-defined exception example

Let's see the simple example of user-defined exception in which **std::exception** class is used to define the exception.

```cpp
#include <iostream>
#include <exception>
using namespace std;
class MyException : public exception{
    public:
        const char * what() const throw()
        {
            return "Attempted to divide by zero!\n";
        }
};
int main()
{
    try
    {
        int x, y;
        cout << "Enter the two numbers : \n";
        cin >> x >> y;
        if (y == 0)
        {
            MyException z;
            throw z;
        }
        else
        {
            cout << "x / y = " << x/y << endl;
```

```cpp
        }
    }
    catch(exception& e)
    {
        cout << e.what();
    }
}
```

Note: In above example what() is a public method provided by the exception class. It is used to return the cause of an exception.