How to override the exception in runtime in C?

[prerequisite]

class inheritance and function override in class.

[intro]

If you know the concept of class inheritance,

you may think it is very simple to implement.

Just

1. Include the library <exception>
2. Create a struct or class and inherit the class – exception
3. Override the what() function.

[namespace]

std

[library]

<exception>

[code]

#include <iostream>

#include <exception>

using namespace std;

struct ooops : std::exception

{

const char\* what() const noexcept {return "Ooops!";}

};

int main ()

{

ooops e;

std::exception\* p = &e;

try

{

throw e; // throwing copy-constructs: ooops(e)

} catch (std::exception& ex)

{

cout << ex.what()<<endl;

}

cout<<"---"<<endl;

try

{

throw \*p; // throwing copy-constructs: std::exception(\*p)

} catch (std::exception& ex)

{

cout << ex.what()<<endl;

}

return 0;

}

[result]

Your output may be:

Ooops!

---

std::exception

[ref]

<https://cplusplus.com/reference/exception/exception/exception/>