Try and Catch Blocks Exercises

Catch Blocks

- When is it useful to have more than one catch block after a try block?
- If more than one of the catch blocks is able to handle a certain exception, how does the program decide which one to invoke?

Multiple Catch Statement Example

- Consider the code sample on the following page
- If an exception is thrown, which catch block will handle it?
- Explain your answer

Multiple Catch Statement Example

```
try {
    vector<int> v;
    cout << v.at(2) << endl;          // May throw an exception of type std::out_of_range
}
catch (const exception& e) {
    cout << "std::exception\n";
}
catch (const out_of_range& e) {
    cout << "std::out_of_range\n";
}
```

Writing an exception handler

- When writing an exception handler, how should the exception object be passed to it? Give a reason for your answer

Writing an exception handler

- What guidelines should we follow when writing an exception handler?

Nested try/catch blocks

- Write a simple program which has a nested try/catch block
- Throw an exception which can only be handled by an outer catch block

Catching exceptions in a different function

- Write a simple program which calls a function
- The function throws an exception inside a try block
- The exception can only be handled by a catch block which is in the function's caller