

Error Codes and Exceptions Solutions

Error Codes

- What is meant by an error code in C or C++?
 - An error code is a number that is returned from a function when an error condition occurs
 - The value of the number is a code that represents the error

Disadvantages of Error Codes

- Give some of the disadvantages of error codes
 - Extra code required to generate and process the error code
 - The correct error code must be returned from every return path
 - The need to synchronize error codes between different parts of the code creates maintenance problems
 - May conflict with third-party code that uses a different convention for error code values

Advantages of Exceptions

- Briefly explain why exceptions are preferable to error codes
 - The compiler automatically generates the code to manage the control flow
 - Exceptions cannot be ignored
 - Exceptions are typed; it is not possible to call the wrong handler
 - Constructors cannot return error codes, but they can throw exceptions

Disadvantages of Exceptions

- Give one disadvantage of exceptions
 - Exceptions require extra code to be executed at run-time
 - In some environments, this is regarded as undesirable