*1 HOMEWORK*

C# Programming Homework 06

Chapter 06, C# Step by Step

# 1 Homework Readings

Read chapter 6 in the *C# Step by Step* book.

# Discussion Questions

Answer the discussion questions for chapter 6 in writing.

1. What is an *exception*?
   * Error Handling.
2. What happens in a *try* block if the program executes without errors?
   * The code attempts to handle to execute all the statements.
3. How does the *catch* mechanism work for unhandled exceptions?
   * The try block will attempt to locate the handler, if none then the calling method will immediately exit, then return to the caller.
4. What happens in a program if an *exception block* fails to handle a particular error?
   * The program will terminate with an unhandled exception.
5. What is the parent class for all exceptions? How does this work?
   * Exception, it is broken down into inheritance hierarchies p.137
6. How do you determine the type of an error?
   * It can be determined in the catch (parentheses).
7. What is the purpose of integer checking?
   * It is to ensure program integrity, to have better performance
8. What is the range of values than a signed Int32 type can contain? State the lowest value and the highest value.
   * -2,147,483,648 to 2,147,483,647
9. What is the range of values than an *unsigned* Int32 type can contain? State the lowest value and the highest value. What is the difference between a signed integer and an unsigned integer? Can signed integers and unsigned integers represent the same amount of numbers?
   * 0 to 4,294,967,295, the represent the same amount of numbers and occupy the same byte space.
10. What does the *finally* block do?
    * It is to ensure every line of code is run.
11. (Thought question) When would you not use a finally block in a try/catch construction?
    * It is for resource management. When running an exception, the line that threw the exception is skip and that could a local resource needed for a particular function or method. The final block would ensure that it is ran so the rest of the program could run effectively