CS 150 Topics List

Chapter 12

1. Exception Handling (12.2)
   1. Can be done with an if-else.
   2. Can be done with a try-catch
   3. Throwing exceptions
   4. Catching exceptions
2. Exception types (12.3)
   1. All exceptions extend class Throwable
   2. There are many exception classes defined in Java
   3. Tables 12.2 and 12.3 show a few common ones
      1. ClassNotFoundException – attempting to use a non-existant class
      2. IOException
      3. Runtime exceptions
         1. Arithmetic
         2. NullPointer
         3. IndexOutOfBounds
         4. IllegalArgument
   4. Unchecked vs. Checked
      1. RuntimeException and Error are unchecked.
      2. Checked MUST be handled in a try-catch
3. Methods can throw exceptions (12.4)
   1. They can throw 0 to many.
   2. Throws E1, E2, …
   3. You can declare, instantiate, and then throw an exception.
      1. Shortcut: throw IllegalArgumentException(“Wrong Argument”);
4. Catching exceptions (12.4.3)
   1. You can have a catch block for any number of possible exceptions.
      1. Also catch (Ex1 | Ex2 | Ex3 | … | Exn) for exceptions with the same code result.
5. You can get info out of an exception object.
   1. getMessage
   2. toString
   3. printStackTrace
6. The Finally clause (12.5)
7. When to use exceptions? (12.6)
   1. If you want the exception to be handled by a method’s caller.
   2. To handle common exceptions that may occur in multiple classes in a project.
   3. Simple errors in individual methods don’t need exceptions; if-else’s will do.
8. Rethrowing Exceptions (12.7)
9. Chained Exceptions (12.8)
10. Custom Exception Classes (12.9)