SE 320 – Exam 2 Review

**Data Encapsulation**

* Don’t use public fields
* Changes don’t affect rest of program

**Contracts**

* Precondition (or requires) – state what is needed to be inserted into method
* Postcondition (or effect) – state what the outcome will be
* Deterministic
  + Does the spec define only a specific output for a given input
  + Or allow the implementor to choose from a set of legal outputs
* Declarative
  + Does the spec just characterize what the output should be
  + Or does it explicitly say how to compute the output
* Strong
  + Does the spec have a small set of legal implementations
  + Or a large set
* Operational
  + Does the spec give a series of steps the method performs
* You can always weaken the precondition, placing fewer demands on a client
* You can always strengthen the postcondition, making more promises
* Strengthening the postcondition when compared to another makes that one the stronger spec
  + S2 post is stronger than S1, than S2 is the stronger spec
* Weakening the precondition when compared to another makes that spec stronger
  + S2 has a weaker precondition than S1, than S2 is the stronger spec