CS 150 Topics List

Chapter 11

1. Inheritance
   1. Superclasses (Base Classes) & Subclasses (Derived Classes) (11.2)
   2. Extends (11.2)
   3. Subclasses inherit from superclasses and add their own, specialized stuff. (11.2)
   4. Public vs private
   5. Super keyword (11.3)
      1. Used to call superclass methods.
   6. Constructors
      1. Calling using the super() method
      2. Chaining: constructor calls go all the way up the chain.
   7. Method overriding (11.4)
      1. Same signature and return type as superclass’s method.
      2. Can only be done if the method is visible. Private methods cannot be overridden. They would be unrelated, and not dynamically bound.
      3. Static methods can be inherited, but not overridden. If one is, it becomes hidden.
      4. Vs. overloading. (11.5)
2. The Object class and toString() method (11.6)
3. Polymorphism (11.7)
   1. Dynamic binding vs static binding and method matching (11.8)
4. Casting objects and the instanceOf operator (11.9)
   1. Implicit casting
      1. Object o = new Student();
   2. Explicit casting
      1. Student b = (Student) o;
   3. instanceof
5. Equals() method (11.10)
6. Public, protected, default, and private visibility (11.14)
7. The keyword “final” (11.15)