Final Exam Practice
CS 2530, Fall 2018

1. Define the following terms:
   - Object-oriented programming
   - Polymorphism
   - Encapsulation
   - Generalization
   - Design pattern

2. Consider the code snippet below. Every un-commented line is a legal statement, and every commented line will cause a compile error. Draw a UML class diagram showing the relationships between the classes.

3. Identify an example of each of the following terms in the Java class given below.
   - Accessor
   - Mutator
   - Primitive data type
   - Referential data type
   - Abstract method
   - Subclass
   - Polymorphism

4. Create a Java class for the following UML diagram.

5. Create a UML class diagram that best represents the scenario described below.

6. What is a(n) {inner class, interface, abstract class, protected method} and when would it be appropriate to use one?

7. Write a snippet of (pseudo-)Java that creates a window like shown below.

8. Identify three “code smells” in the classes given below.

9. Give two reasons why Design A is a “better” design than Design B for the given scenario.