John Rollinson

CS151 Spring 2020

Module 12 Review Questions:

2) A member function of a class that is not implemented is called a(n) **pure virtual** function.

8) A base class pointer needs a(n) **dynamic binding** to be assigned to a derived class pointer.

11) If every C1 class object can be used as a C2 class object, the relationship between the two classes should be implemented using **Composition**.

13) The keyword **final** prevents a virtual member function from being overridden.

14) To have the compiler check that a virtual member function in a subclass overrides a virtual member function in the superclass, you should use the keyword **virtual** after the function declaration.

Suppose that the classes Dog and Cat derive from Animal, which in turn derives from Creature. Suppose further that pDog, pCat, pAnimal, and pCreature are pointers to the respective classes. Suppose that Animal and Creature are both Abstract classes.

15) The statement Animal a; will not compile. Because Animal is an abstract class and an abstract class cannot be instantiated.

16) The statement will compile correctly and will result in calling the constructor of the class Creature, followed by the constructor of the class Animal and then the constructor of the class Cat.

17) The statement pCreature = new Dog; will compile. The base class pointers can point to derived class objects.

18) The statement pCat = new Animal; will not compile. Here Animal is an abstract class and therefore will not be instantiated.