CS 249: Assignment 9

JavaFX Basics and Event-Driven Programming

Theory Questions (20%)

1. (2%) In property binding, if I bind a target A to a source B (A.bind(B)):
   (a) If B changes, A will change value.
   (b) If A changes, B will change value.
   (c) If either one changes, the other will change.

   (a) if B changes, A will change value

2. (2%) What is TRUE about an **event handler/listener**?
   (a) It is where an event originates (e.g., a button).
   (b) It processes the event fired from a source object.
   (c) It contains information about the event that was fired.

   (a)

3. (2%) An **event handler / listener** must be registered with the source object in order to handle events from it.
   (a) True
   (b) False

   (b) False

4. (2%) An **inner class** CANNOT access the private data/methods of its outer class.
   (a) True
   (b) False

   (b) False

5. (2%) An **inner class** can be protected or private.
   (a) True
   (b) False

   (a) True

6. (2%) For a ***non-static*** **inner class** B defined within a class A, I MUST have an instance of class A in order to create an instance of class B OUTSIDE of class A.
   (a) True
   (b) False

   (a) True

7. (2%) In Java, a **lambda expression** can be used to define an interface with *multiple* abstract methods.

   (a) True (b) False

   (b) False

8. (2%) Given a Button muffinButton, call setOnAction() and pass in a **lambda expression** that prints "MUFFIN" to STDOUT.

```
muffinButton.setOnAction(new EventHandler<ActionEvent>() {
public void handle(ActionEvent e) {
System.out.println("MUFFIN");
}
});
```

The next two questions assume that I am writing a class A to implement an interface Edible. Each question is a SEPARATE situation.

9. (2%) Let's say I do NOT need more than one instance of A, but I do need more than one method in A. Which of the following is the **BEST** choice?

   (a) Inner class (b) Anonymous inner class

   (b) Anonymous inner class

   (c) Lambda expression

10. (2%) Let's say Edible only contains ONE abstract method. I do NOT need any fields or additional methods. What is the **BEST** choice?

    (a) Inner class (c) Lambda expression

    (b) Anonymous inner class

    (c) Lambda expression