**CS 4322 - Spring 2018 – Test 3 Expectations**

**Singleton**

1. Write code for the classic singleton.
2. Code an example similar to the homework in the notes

**Command**

1. Given a description of the diner example considered in the notes and text, draw a class diagram for a solution that uses the command pattern. Explain how it works with snippets of code (like the notes). Identify the classes with the names used by the command pattern (Command, ConcreteCommand, Invoker, *etc.* )the waitress example considered in the notes.
2. Explain with words and a class diagram how the command pattern can be used to support an undo feature.
3. Explain with words and a class diagram how the command pattern can be used to support macros.

**MVC**

1. Explain with words and a class diagram how the MVC passive model works. You should combine the ideas of the class diagram on p.2 with the sequence diagram on the top of p.3.
2. Explain with words and a class diagram how the MVC active model works. You should combine the ideas of the class diagram on p.4 with the sequence diagram on bottom of p.3.