Final Exam Review

Exam Date: Tuesday, December 11, 2018
12:45 pm

The final exam will occur in the normal classroom on Tuesday, December 11 at 12:45 pm and will last 2 hours. You may bring a single sheet of notes, written or typed on Letter paper ($8\frac{1}{2}'' \times 11''$) or smaller. No other resources will be allowed during the exam.

There are four main areas. They will **not** be equally weighted.

1. High-Level Design
2. Testing
3. Security
4. Ethics

For each of these areas you may be asked to do any of the following:

- Define terminology
- Compare and contrast related ideas
- Draw diagrams
- Describe a model
- Identify the advantages and disadvantages of a particular method.

There **will not** be True/False or multiple-choice questions. The final exam is **not** cumulative.
Sample Problems

These problems come from last year’s exam.

1. (High-Level Design) Draw and explain the pipeline architecture.

2. (Testing) Sparta Games is reusing the game engine that they wrote for their *Jumple: Jumping People* game for *Jumple II: The Sequel*. Give three advantages to doing this.

3. (Security) You are working for the Department of Justice on a project to make it easier for its various agencies (FBI, CIA, etc.) to share needed data. What are three specific threats that you should be concerned with?

4. (Ethics) You are working for Hidden Treasures LLC on encryption software to allow people to lock their data to prevent other people from reading them. One week before your next release, you find that in certain cases the files can be unlocked without the proper credentials.

   (a) List three actions that you can take.

   (b) Which of the above is your preferred course of action?

   (c) Give two reasons in support of your selected action over the others.

   (d) Give a reason against your selected action.