SPIKE EXERCISE ONE:
ITEC Heroes vs. Zombies Arcade Game

GAME OBJECTIVES:
Your job is to create an arcade-style shooting game, where you try to defend the RU Software Engineering lab from zombies trying to steal the computers.

The zombies should appear from different directions and try to attack you and steal your computers. The graphics should be very simple 16-bit game style using sprites for animation.

GAME SPECIFICATIONS:
There game should have the following features:

1. **Points system** (points gained for killing a zombie; points lost for the zombie stealing a computer or attacking the player)
2. **Graphics and updated display** (every time the player is hit a computer is stolen the player has to look “more dead like”)
3. **Game Over/Next level** (establish a points algorithm, the player should be able to “level up” or should lose enough points to “die”)
4. **More Computers/More Zombies** (after a set amount of time more computers and more zombies are added)
5. **Killing Zombies** (zombies are killed when they are hit with a laser beam or a ITEC Textbook hits them)
6. **Arrow and shortcut keys** (the use of arrow and short cut keys should be incorporated into the system)
7. **On-screen introduction/directions** (at start up, the player should see a quick how-to guide)
8. **Sound** (sound/music should be appropriate to the game and current screen activity)

SPIKE EXERCISE REQUIREMENTS:
1. The game can be developed in any object-oriented programming language (e.g. Java, C++, Objective C, etc).
2. The code must be documented with comments, dates, and citations if using existing code.
3. A development journal must be kept that lists all the tutorials and daily development activities.
4. If you do not complete a particular portion of the assignment, please keep notes of how you searched for development information and what decisions you made on the implementation process.
5. Additional system features can be added for extra credit.
SPIKE EXERCISE TWO:
RU Hiring?! -ITEC RESUME CENTER

SYSTEM OBJECTIVES:
Create Radford University’s version of the online resume website – RU Hiring?! . You are tasked to develop a website that will enable students to network with professors and employers.

SYSTEM SPECIFICATIONS:
1. S/he should log in using their RU username and password.

2. After s/he login, they should be able to edit any demographics information.

3. Once they login it should say, “Hello <NAME>, Welcome!”

4. They should provide the following information:
   • Name {First and Last Name}
   • Gender {Male or Female}
   • Year in school: {Freshman, Sophomore, Junior, Senior, Super Senior}
   • ITEC courses taken {dropdown list – check all that apply}
   • Additional skills {open text field}
   • Work history {input information into a form template}
   • Enter a quote about your: {Any value}
   • Upload/attach a picture

5. Employers/Professors should be able to search for students with the specific skills in the database that they need on their team

6. The student user, employers, and professors should be able to “search” for people based on a set of search criteria. Any user should be able to click on the retrieved search names and go to his/her page.

7. Upon login, the user should be able to update his/her profile at anytime.

8. EXTRA CREDIT: Add a chat feature to your site.

SPIKE EXERCISE REQUIREMENTS:
1. The system can be developed in using any scripting programming language (e.g. PHP, Python, Javascript, etc) plus HTML5.

2. The code must be documented with comments, dates, and citations if using existing code.

3. A development journal must be kept that lists all the tutorials and daily development activities.

4. If you do not complete a particular portion of the assignment, please keep notes of how you searched for development information and what decisions you made on the implementation process.

Focus on the layout of the interface layout of the system.
It should be a simple design that is straightforward for novices to understand.