SG210 Fundamental of Game Engine Development
KGA #3 - 2D Game Project

This assignment supports the following outcomes:

- Identify various components of a game and discuss the roles they play in the development of a game.
- Develop basic 2D game code incorporating user input, collision detection, sound, Direct X, Win 32 API, sprite animation, and game message loop.
- Apply software engineering principles such as Object Oriented Analysis and Design in creating a 2D game.

Assignment Overview:

In this assignment, you will create a simple 2D game for the PC. You will examine software and hardware issues associated with creating 2D games, and use DirectX to incorporate sound, graphics, and animation into your game. Your game must have at least one level of play, with scoring, if appropriate.

Deliverables:

1. Write a simple 2D Game Concept Document, using the Sub Hunter Game Design Template Handout, which briefly discusses the components and how they are used in your game. Fill in the template with guidance from your instructor.
2. Update the UML Document created in a previous KGA with completed UML class diagrams depicting the object-oriented design of your game.
3. Develop a Visual C++ Code Project that contains your Win32 / DirectX program and source code with comments. The project should run without defects. Make sure you include with your project all the game assets, such as:
    - Bitmap files
    - Sound files
    - Maps, etc.

Grading Criteria

The 2D Game Project Grading Rubric provided by your instructor will be used to evaluate your assignment.

Resources

- Beginning Game Programming, 2nd edition, Jonathan Harbour, Thompson, 2007 (course text book)
- Game Development Essentials, 2nd edition, Jeannie Novak, Thomson, 2007