Exploring Computer Science
Scratch Project – Make a Game

Objective: Use all that you have learned in Scratch to create your own game.

This is a project as opposed to classwork. It is worth a total of 75 points. On Arcade Day, your game will be available for the other students in the class to play. Each student who plays your game will give you a grade. 20% of your grade is based on how your peers grade you. Because this is the last assignment of the semester, you may **not** turn it in late.

1. In your *Exploring Computer Science* folder, create a folder titled *First_Last_Scratch_Game*

2. Start Scratch. Save this project in your *First_Last_Scratch_Game* folder as *game.sb2*.

3. You are to create a game that you would enjoy playing. Make sure the game doesn't start out so difficult that it isn't fun to play. Your game should have the following:

    a. When the green flag is clicked a screen should be displayed with **directions** on how to play the game. It must be clear to the player how to start the game. To start the game, the player will either

        i. Click a Sprite to start the game *or*

        ii. Press a key to start the game

    b. Your game must have a minimum of 2 levels. Each level must be more difficult to complete than the previous level. This can be accomplished by having Sprites move faster, by having more "enemies" or anything you can think of to make playing more difficult.

    c. In your game you must either keep score or have a timer depending on the game you choose to create. If it makes sense for your game to have both a timer and a score, then include both.

    d. If you have a timer, the user should lose when they run out of time.

    e. There must be a way to win the game and a way to lose the game. The player must be notified when the game ends whether they won or lost.

    f. The game **must** play music continuously.

4. You may finish the **Pong** game we started in class however you must

    a. **add 2 additional levels for a total of 3 levels.** Level 2 must have 2 balls. Level 3 must be a something similar to Breakout where you need to remove bricks to win.

    b. change the introduction backdrop.

    c. change the loser backdrop.

    d. change the winner backdrop.

5. As always, the work must be your own.

6. Extra Credit Possibilities

    a. Extra credit will be given to the games that are voted the best by the class. 5 pts for 1st place, 3 pts for 2nd place and 1 pt for 3rd place.

    b. Extra credit will be given if you create an original game and do not do a version of Pong.

    c. Extra credit will be given if you have more than the required number of levels.