Project - Phase 1

User Stories

Title: Splash Screen
Description: There should be a splash screen that introduces the user to the game.
Time Estimate: 1 day. This is a very simple task.

Title: Sound Effects
Description: There should be sound effects present in the game.
Time Estimate: 3 days. Need to research how to do sound. Need to decide what kinds of events in the game should make sounds and what they should sound like.

Title: Basic Levels
Description: There should be levels with a basic environment including walls and platforms which cannot be gone through. In other words they block player character movement.
Time Estimate: 2 days. I already have a basic idea of how to do this. I need to figure out how to separate these into their own files and how to refer to these files. I will also have to design the actual levels, but they don't need to be perfect at first.

Title: Screen Scrolling
Description: The screen should scroll to show more of the level when the player comes near the edge of the screen (because levels will be larger than the screen.)
Time Estimate: 2 days. This shouldn't be too difficult.

Title: Player Character
Description: There should be a player character that can be controlled with the keyboard.
Time Estimate: 1 day. Simple task.

Title: Winning
Description: Each level should have an exit, which when touched will progress the player to the next level or win the game if there are no more levels.
Time Estimate: 1 day. Figure out logic for loading the next level.

Title: Timer Display
Description: There should be a display showing how much time has elapsed.
Time Estimate: 1 day. Have to make sure that the timer is regular.

Title: High Scores
Description: When the player wins or loses, a list of the shortest completion times should be shown. If the player has won, and their completion time is low enough, they should be able to add it to the list and enter three letters to be associated with that score.
Time Estimate: 1 day. Need to keep track of lowest times. Need to implement a way to enter in letters.

Title: Enemies
Description: There should be enemies that when touched by the player character, make the player lose.
Time Estimate: 1 day. Same logic as player character. They are both just entities within the game.

Title: Enemy Movement
Description: Enemies should be able to move around in different ways and have set patterns that they follow.
Time Estimate: 3 days. Should be simple enough, but I worry about keeping the game running smoothly. I may need to research ways of doing this efficiently if things become too slow.

Title: Character Animations
Description: The player character should have animations for walking or jumping.
Time Estimate: 1 day. I have not done this, but there are plenty of examples on the Internet that I can look at for some ideas.

Title: Collision Detection
Description: The game should detect when objects are touching each other.
Time Estimate: 2 days. Simple enough, the game is already keeping track of the coordinates of entities to draw them on the screen.

Title: Physics
Description: The player character should experience semi-realistic physics, such as momentum and acceleration.
Time Estimate: 2 days. This can be accomplished in a simple manner by keeping track of velocities in the x and y direction.

Overall Project Estimate:
Because I have a lot of homework, a lot of studying for exams, and a lot of hours to work at my internship, I predict that my velocity for this project will be very low. I am assuming that what would normally take me a day, will for this project take me about four days. However, many of the one day estimates above are one day because that is the lowest you can go. Some of these things would really take a few hours at most. Because of this, I may have some iterations that look like they should take more than the twenty one days allotted to it. Another thing to keep in mind is that in actuality when school is over, my velocity will go up quite a bit. The overall project time estimate though, will assume that I work at the constant school time velocity. Going by these rules, I predict that the project overall will take about 60 days. That being said, there should be a rough but playable demo by the end of the first iteration.

Iteration 1: Splash Screen, Basic Levels, Screen Scrolling, Player Character, Winning
Iteration 2: Timer Display, High Scores, Enemies, Enemy Movement
Iteration 3: Character Animations, Collision Detection, Physics, Sound Effects

Big Stories: No real big stories were encountered. I broke things down far enough that it just wasn't an issue.

Assumptions: I can't think of any assumptions being made, since I am seeing myself as both the customer and the developer for this project, and so I know what I am thinking. There are however, many ambiguities, such as how the levels should look, how the enemies should move, how the physics should feel. These can definitely be seen as risks because it could be hard to get them just right, and you really have to experiment with them until you are happy with what you got. This means there is no real estimate for the end product. I included an estimate above for getting a particular implementation done, but there is nothing to say that that implementation will be the correct one.