Developer Diary

October:

Started working on the game I was assigned to. I have talked with the customer and clarified some of the information that was presented in the design document. With this, I have now started on basic mechanics of the game with the information I have.

October 15th-19th:

This week I finished up on most of the mechanics of the game, including running and jumping, along with an enemy that chases the player when they enter close proximity. I am planning on now implementing some graphics such as better player models, backgrounds and obstacles. I will be in contact with the customer for any preferences on models and more mechanics regarding the score and win conditions.

October 21st-25rd:

This week I contacted the customer to clarify a few questions I had about the Design Document. I proposed a new idea on the way that the scores are obtained as I felt the initial way proposed made it too easy for the user and added more difficulty to the game. I also inquired about the "waste" pick-ups she had mentioned in the document just to clarify how it would work in game. I got a quick response and we agreed on how I should develop things going forward. This week I also added a menu with a basic navigation between the Scenes I currently have.

RYAN CONWAY - Student
Tue 16/10, 13:55
CRISTINA NITA - Student ⌄

↺ ☚ ↩ Reply all | ⌄

Hi Cristina,

I've started working on your game and I have just a few questions to clear some things up;
Regarding the time to complete each level and the star ratings, I feel the times specified might be too easy for the user. I was thinking that for every level the time would increase along with the difficulty of the levels. So, level one would have the following:

    1. 1: star – 1:30   2: star – 2:30 3: star – 3:00
With this, every level from this point would increase by 30 seconds or more, along with the difficulty of the level.
With the "waste" pickups I gather that this grants the ghost a temporary attack to remove the enemies? If so I recommend the power up lasting 5 seconds.
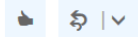Here is a link to the github repo so you can follow progress and let me know if there are any other things you would like me to implement; https://github.com/RCElucidator7/MobileAppProject

Kind regards,
Ryan

Hi Ryan,

The scoring system you have thought of is very interesting and I do agree that the times specified might be too easy. I believe your approach is more suitable than what I had in mind.

In relation to the "waste" pickups, they do indeed grant a host a temporary attack to remove the enemies.
The time might or might not be too short depending how often the "waste" pickups are spawned in the game. If you believe they are spawned often enough, then 5 seconds is enough, if it's very rare, then maybe consider 10 seconds.

I will be sure to check your GitHub and notify you about any suggestions I might have.

Thank you for contacting me for more information and for letting me know your suggestions on the game!

Regards,
Cristina

October 29th-November 2nd:

This week I added in some menu navigation containing a main menu and a level selection. Currently on the main menu is four options, two of which are working. The buttons are "Play", "Options", "High Score" and "Quit". I also added more obstacles to the first and second levels.

November 2nd – November 14th:

During these two weeks, progress was slightly delayed as I had other projects that took priority. Within these two weeks I completed a Pause Menu that could be triggered by pressing the esc key on the keyboard. With this I also designed it so that when the user presses esc again that it would un-pause the game. On the Pause Menu I currently have two options, Un-pause and Quit. Un-pause would also resume the game whereas Quit would bring you to the main menu. With this I was ready for my demo.

November 14th – November 26th:

Again, progress had stalled for a number of days as I had other projects and assessments to tend to. I have done some of the main mechanics, such as having the Player take damage when coming into contact with an enemy. The Player has 3 heart containers which will decrement whenever it comes into contact with an enemy. Waste pick-up is also functional, where when they come into contact with it the Player will turn green for 5 seconds, during this time if the Player comes into contact with the enemy it will destroy the enemy. Now that I have some of the more core mechanics complete, I can work on game design. I will also message the Designer on some questions brought up during the demo.

November 26th – December 2nd:

I sent another email to Cristina just to clarify a few more issues that were brought up during the demo. I also enquired about some game mechanic changes that may benefit the product. She replied quickly and agreed with what I had proposed and cleared up some current blocking issues.

Hi Cristina,

Just Regarding the design doc and the controls of the game, I see there may have been a typo where you had the user press S to go right instead of D, just confirming whether that was a typo or not?

Also regarding the controls the proposed idea was that W would bring the user up and S would bring them down? I was thinking of maybe just having it so that the space bar could let the character jump rather than float as if they were able to float it would be much easier for the player to avoid all the obstacles thus making the levels too easy. Please let me know your thoughts.

There is also a control where if the user uses the left click while boosted it damages the enemy. With the way boosts normally work in the likes of Mario with the star, I feel it might be more beneficial to have the ghost temporarily invincible and have any enemy that comes into contact with this ghost would be destroyed on impact. Again, please let me know your thoughts.

Kind regards,
Ryan

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Hi Ryan,

In relation to the type, I did indeed mean D instead of S to go right. So you can use D instead.
Space used for the player to Jump instead of W and S to float up and down does indeed make the game slightly more difficult. I think Jumping instead of Floating is a great idea.
In regards to the boost, having the player be temporarily invincible does sound more beneficial to the game and less easier than I had made it out.

Thank you for letting me know your proposed ideas and I do approve them as I believe they are brilliant in improving the game play.

Kind Regards,
Cristina

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With this response I implemented the double jump feature and the temporary invincibility. During this time, I also added more design to the first level to make it less linear, adding more enemies and "waste" power ups and added a game over screen for when the player loses all their health.

December 2ⁿᵈ – December 7ᵗʰ:

During the last week before the due date I implemented the high score menu, options menu and designed the rest of the game's levels. On the high score menu, it displays the score the user has on each level. On the options menu there are two options. The first is an option to toggle Fullscreen of the game. When pressed, it changes the game from windowed to Fullscreen. If the game is already in Fullscreen when the toggle is pushed, then it makes it windowed again. The other option is a toggle sound option, which switches on and off the game's music. And with this, development for the game has been completed.

Test Plan:

Below is a test plan for the above project. For this test plan I carried out some basic movement, mechanics and menu transition tests. The goal of the below test plan is to make sure that the game passes the essential requirements for it to be playable, as such I have chosen not to include some specific situations where the result would vary each time it was attempted.

List of the areas tested:

1. Movement (Left and Right)
2. Jumping
3. Falling off the level
4. Enemy collisions
5. Death scenarios
6. Pausing the game
7. Natural death scenarios
8. Level transition

As this project was developed in unity, I was unable to write test scripts to execute these tests automatically. So the below test plan was carried out manually.

No.	TEST CASE DEFINITION	EXPECTED RESULT	ACTUAL RESULT	PASS/FAIL
1.1	The player was able to move right when pressing "D"	The player moves right	The player moved right	PASS
1.2	The player was able to move left when pressing "A"	The player moves left	The player moved left	PASS
1.3	The player was able to move right and left using the arrow keys	The player moves left and right	The player moved left and right	PASS
2.1	The player was able to jump when the spacebar was pressed	The player jumps	The player jumped	PASS
2.2	The player was able to jump continuously	The player can jump continuously	The player jumped twice and couldn't jump again until they landed	FAIL
2.3	The player was able to double jump	The player jumps upward twice	The player jumped upward twice	PASS
3.1	The player was able to fall down a hole	The player falls through the hole	The player fell through to a certain point then the level reset	FAIL
3.2	The player dies of they fell down a hole	The player falls and dies	The player fell and died	PASS
4.1	The player lost health when colliding with an enemy	The player loses health	The player lost health	PASS

4.2	The player dies when colliding with the enemy	The player dies	The player loses health	FAIL
4.3	The player dies when on one health and collides with an enemy	The player dies	The player died	PASS
5.1	The level restarts when the player dies	The level restarts	The game over menu pops up	FAIL
5.2	The game over screen displays and the user can choose to restart the level	The game over screen displays and an option to restart appears	The game over screen displays and an option to restart appears	PASS
6.1	The game pauses when "ESC" is pressed	The game pauses	The game pauses	PASS
6.2	The game resumes when "ESC" is pressed while the game is paused	The game resumes play	The game resumes play	PASS
7.1	The player dies when colliding with spikes	The player dies	The player lost health	FAIL
7.2	The player loses health when colliding with spikes	The player loses health	The player lost health	PASS
7.3	The player dies when on one health and collides with a spike	The player dies	The player died	PASS
8.1	The player moves onto the next level once reaching the end	The player moves onto the next level	An overlay appears giving the user the option to go to the next level	FAIL
8.2	An overlay appears giving the user the option to move to the next level once reaching the end of the level	An overlay appears giving the user an option to move to the next level	An overlay appears giving the user an option to move to the next level	PASS

Customer Review:

Cristina was a great customer to work with. We talked frequently in private messages at the beginning of the project where we looked over her design document together and she guided me through her game. Whenever I had any questions about gameplay or any issue regarding the design document, she was quick to reply to my emails (as seen above) and extremely helpful. There were no conflicts or disagreements throughout development and she was great to work for.

Developer Review:

Nuz was a good developer to work with on my project. He kept in contact quite often and private messaged me whenever any issues arose.

Link to my github: https://github.com/RCElucidator7/MobileAppProject