Coding Diary

Game Summary

The game I have developed is a classic android platform game with a ninja that needs to pass levels of increased difficulty. The player will use the android tap functionality to jump on the walls and over the spikes and to avoid the the fire balls to win the game.
Each level will have extra obstacles added onto it, making the game more difficult. The player will have to pass all those obstacles and complete all the levels in order to win. If the player dies, it's game over.
The player's way is blocked by an enemy that can give it the ability of an extra jump. This way the player might find it easier to avoid the spikes that are in the way.

Week 1 - 2

First and foremost, I proceeded to ask my customer a few questions about the game which include the concept of the level's system. In the game document it specifies that the environment involves rooms designed with different overall shapes in which the player completes the same room multiple times before they can move to the next one. I also asked my customer if the obstacles are randomly generated in the game in which he added that the obstacles increase in number each time the player moves on to the next room, in other words they do not need to be generated randomly.
I had to create the player's movement and I made it automatic as it adds a bit of difficulty to the game. In other words, the inability of the player to control the movement causes the player to have no choice but to decide when is the best time to jump and not be killed. I then added the floor and a grounded function to make sure the player is not going to sink into the bottom of the screen and is able to move on the platform.

Week 3 - 4

First and foremost, I had to set up an android SDK and JDK to build the Android game with instructions from this video https://www.youtube.com/watch?v=GEQSaF4LPgk, as I have found from my customer that the game he has thought of was supposed to be built for Android. Then I had to switch platform for my unity game from PC to Android to test if my game is running on the phone before I continue the development.
I then started developing the player's ability to change direction when colliding with the walls. I added two walls on the left and right side of the screen to test that the user does indeed change direction.
My next task was to work on the jump ability when the player is on the ground and the screen is tapped, which meant that I had to control the gravity of the player so that the jump is not infinite.

Week 5 - 6

This week I had to implement the player's ability to jump on the walls every time the screen is touched. This means that the character in the game would have to stop moving when not on the ground and the wall is touched and the gravity will have to be stopped so that the user does not slide down the wall. If the player has already touched the wall, then it should be able to jump again to a wall on the opposite side.

Difficulties

In this case, the difficulty was to implement the wall jump with the user being able to jump up and to the side with a specified force. At the beginning the character was only jumping upwards whenever the wall was touched, and the screen was tapped, the difficulty was implementing it in such a way that the player jumps sideways as supposed to upwards.

Week 7 – 8

This week I have added the Main Menu scene for the player with four buttons, Play, Levels, Controls and Quit, in which the player is sent to the scene specific to the button pressed. I had also created two empty scenes, one for the Levels and another for the Controls in order to test that the buttons work.

Then I have designed and added the spikes the player is supposed to jump on as well as the fireballs that need to be avoided. A script was developed for each obstacle so that the player dies if it collides with them. I asked my customer if the player will be losing health when hitting the obstacles or if there is a health system and I have been told that the character dies instantly. Following up the information, my decision was to modify the player script in such a way that a Death function in the script is called if it collides with the fireball or the spikes.

For the fireball I had to add a motion script since it must move from its original position to the right side of the screen, where the player is coming from.

Week 9 – 10

I have asked my customer about the pause menu implementation and how to go about to doing that, and it has been decided to use a button that shows the menu and pauses the game when pressed. The decision also involved the menu including the controls button which redirects the player to the controls of the game if the player wishes to check the controls again, as well as a classic resume button and main menu button to allow the user to go back to the main menu and the quit button for exiting the game.

Another level was added to the game in order to implement the transfer of the player from one level to the next via doors. I wrote a script for the door to allow the player to move to the next level until there are no more levels to go to, or in other words, he wins.

For the winning side I added another scene, the Winning scene. This will have a menu in which the player is able to play again from the start, choose the level he wishes to play again or quit the game as well as the best time the game was finished in.

Week 11 - 12

This week I decided to add an extra character, the blocker, which stops the player when it encounters it. The Blocker also allows the player to jump on top of it, and by doing so getting an extra jump to help avoid the spikes that are in the way. I have also asked my customer in relation to the design of the Blocker and we have decided that it is best to draw the blocker as a coloured block.

In relation to the Charger, which was mentioned in the design but is not in the final game, my customer has agreed that it is best to remove it as it makes the game much more difficult than intended.

As well as that I have also worked on the levels scene that allows the user to choose a level to play out of the 5 if that level has already been beaten. This means that the levels – bar the first – are locked until they are passed, then once passed the player can choose whichever he wishes to replay.

My customer has advised me that it is best to leave out the fastest time per level as I have already implemented the fastest completion time for the game.

Difficulties

The implementation of locked games as well as unlocking them has been a challenge as I had to figure out a way of identifying when the user passed the current level. I had tried using the collision between the player and the door as a way to unlock the levels but that didn't seem to work, so my choice was to identify what the next level is and if the next level turned out to be the same as the first level then that means the player has passed it and the level is unlocked.

Week 13 – 14

I have started designing the controls menu for the game which gives an insight about how the game is supposed to be played and what the controls are. Because there was no other way to go from the Controls and Levels menus, my customer has advised me to add a back button so that when clicked, the player is able to go back to the initial scene.
As well as that I have designed the rest of the levels and added all the extra obstacles in order to increase the difficulty. I decided to test each game as well as the menus to make sure that they work the way they are supposed to and that no errors will have encountered.
Finally, a jumping sound was added for every time the player jumps on the platforms to give life to the game.

Problems I encountered

I had a few issues with the game since I had not started off with the game development on the Android platform. The colliders I have added to the player and all the other game objects have decreased in size, which means I had to resize them to accordingly to the player. As well as that, I had to relocate the Ground Check game object in the appropriate position that allows unity to identify when the player has touched the ground and is able to jump.

GitHub Link: https://github.com/cristina1997/Ninja-Jump-Game

Reviews

Developer – Ryan Conway

My developer has been very active and has contacted me to ask me a few questions about my game and ask permission for some game suggestions he had to improve the quality of the game as well as increase its difficulty. He also contacted me to clarify any queries he had about my game. I have also had the chance to test the game he has developed for me and I am quite impressed with the result.

Customer – Brian Doyle

My first discussion with my customer was when I had first received his document design. He has clarified all my queries and has answered my questions regarding the document.
I had made sure to contact my customer to any changes made from his original document and clarify if those changes meet the outcomes he was aiming for and have changed my game according to his expectations. I have also decided to send the game to mu customer so that he will be able to test it and check if all his requirements have been met.