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CPSC 441 - Major Project #1 - *The “I’ll Show YOU Crayons!!!” Game*

The objective of this game is to traverse through both of the levels, while collecting coins, and keeping your lives counter above zero. There are two levels, a open area with mountains and a house at the end, as well as a underground level beneath the house of the previous level. The objective of the first level is to get to the door and enter it, which will take you to the next level. When you reach the door, the game lets you know that you can press the ‘E’ key to enter. The second level’s goal is to reach the flag at the end, which will take you to the scoreboard. Each level has coins strewn throughout, and when you pick them up, it will increase your score. In addition there are pickups for when you kill eraser enemies. Each one you kill will drop a heart token, which you can pick up to increase your lives. If you make it through both levels without losing all of your lives, then your score will be compared to the ones already on the board. If it is high enough to be on the board then you will have the opportunity to enter your initials, and your score will be added to the list. If your score wasn’t high enough, or you didn’t make it to the end, then the scoreboard will be shown as normal, and your score will be thrown out.

The game utilizes the arrow keys for most of the controls. Left moves your character left, right moves them right, and up makes them jump. The only other control for your character is for when you reach the door. Many of the obstacles present in the game involve you climbing up walls, and jumping off the sides. For example to get past the first obstacle in level 1, you must run towards the lower crayon, and jump when you get close. When you impact the wall you must hold down an arrow key in the direction of the wall from your character. This process will allow you to stick to the wall. To climb up the wall further simply continue to hold down the previous key, and also tap the jump button. This will move your character slightly up the side of an obstacle. The next part is slightly trickier. The second part of the first obstacle involves jumping from the first lower crayon, to the second which is higher up. In order to accomplish this you must continue holding the previous key, and again tap the jump button. Immediately after pressing the jump button release the arrow key you have been holding, and hold the arrow going the opposite direction. If timed correctly this should send you flying across the space between the crayons and attach you to the next crayon. This process can be repeated for numerous obstacles in the game,, so it should be remembered.

There are several dangerous objects in the game to the player, all of which should be avoided. Every time a player comes in contact with one of these objects they are killed on the spot. The first of these is the water on the bottom of nearly every game screen. This is normally found in between platforms, and a mistimed jump can often send you flying into it. The second of the dangers are the saw blade rotating at high speed throughout the gameworld. These like the water should also be avoided. The last of these dangers are the erasers. These objects walk back and forth guarding various areas. These are different from the other dangers in that they can be destroyed. If you come in contact with one from the side, then you will be killed as normal. But when you jump on top of one, the eraser is destroyed, and it drops a heart token.

All of the assets in the game with the exception of the crayons, eraser, bob ross, and the sounds, were made by myself using pixlr’s browser photo editor. The crayons[1] were found using google images, and then cropped using pixlr. The eraser[2] and bob ross[3], were found using google images and then cropped and edited using pixlr. All of the sounds[4] were obtained through freesound.org.

I learned a lot about unity during this project. I in previous demo’s had opted not to implement rigidbodies, raycasting, prefabs, or colliders, and instead made my own basic version of collision detection. Learning how to use these streamlined the process of adding new objects, and made debugging a much less daunting task. I also did a ton of photo editing to increase the detail level of my project, so I learned how to more effectively make those images. Creating the collectables for the project was also a hard task that I needed to overcome in order to complete this project. Figuring out how to implement those taught me a about many different parts of unity.

[1]<https://images.google.com/imgres?imgurl=http%3A%2F%2Fi3.kym-cdn.com%2Fphotos%2Fimages%2Fnewsfeed%2F000%2F027%2F096%2FBob_Ross_paints_his_toes.jpg&imgrefurl=http%3A%2F%2Fknowyourmeme.com%2Fphotos%2F27096-photoshop-bob-ross&docid=LbqdqccLDU97VM&tbnid=ZB7axN57RbkkGM%3A&vet=1&w=400&h=279&source=sh%2Fx%2Fim>

[2]<https://images.google.com/imgres?imgurl=http%3A%2F%2F66.media.tumblr.com%2F81b6e4f27ac47cf4c1cdf47f04954c03%2Ftumblr_inline_mwwy58Nkc61qisx6p.jpg&imgrefurl=http%3A%2F%2Foh-snap-pro-choice.tumblr.com%2Fpost%2F68394779178%2Factual-babysitter-finas-rabbleprochoice&docid=1VqEHzHy61aK4M&tbnid=lxMZGLuZusiOWM%3A&vet=1&w=432&h=528&source=sh%2Fx%2Fim>

[3]<https://images.google.com/imgres?imgurl=https%3A%2F%2Fdavinciartistsupply.com%2Fshop%2Fimages%2Fcategories%2Fdrawing%2F100891_x.jpg&imgrefurl=https%3A%2F%2Fdavinciartistsupply.com%2Fshop%2Findex.php%3FcPath%3D100009_100089&docid=93gTEW6U2EpTtM&tbnid=H1zeYMup_rX1IM%3A&vet=1&w=560&h=400&source=sh%2Fx%2Fim>

[4]<https://www.freesound.org/>