COSC 360 Assignment One Report

My game, Asteroid Assault, places the user in a world which is to be destroyed by an "unstoppable" asteroid storm. So I introduced an Earth which can be hit by asteroids, and a ship which shoots the asteroids and is the sole defender of the Earth, the ship rotates around the earth in orbit and I thought it would be more challenging and fun to have the ship only move in the one direction with only the ability to stop. If the ship is hit, game over, if the asteroids kill the population of the earth, game over. Years since the start of defense is the score.

I wanted a realistic yet artistic feel to the game, so changed all images of sprites to fit. Also the sounds I added (to asteroid hit, earth hit, player hit and thrusters) were as realistic as I could come across. Population increases with time, as would in real life however is only for looks at this stage, and also if the player hits the earth, people will scream but it doesn't affect population. The music while playing is sort of ominous, which hopefully gels with the mood, that you're killing all these asteroids but the Earth will eventually perish. Which leads to the win screen music, which hopefully engulfs the user in a sense of unexpected triumph. Also, sound tracks were added to the Main Menu and instruction scenes. I changed the font to be much more pretty and less 90s. I think a game with cool art and good music is key to a playful environment

I decided to make the game more challenging and add a different spin on Space Invaders by making the enemies (asteroids) move horizontally, the asteroids don't shoot but are projectiles themselves, meaning they can destroy both the earth and the ship. The asteroids are randomly generated and will hit each other and move with varying speeds. As the game time gets larger, the speed of the asteroids gets greater, which is unrealistic but makes the game more challenging. Since asteroids in real life would often pass by Earth, I made sure some would pass by in the game, this meant that an edge collider, after the Earth, was needed to trigger an enemy hit. If the user wins the game, he/she is prompted to start over in level 2, which increases the speed of the asteroids.

High Scores are kept in memory and will start over at zero if the user enters level 2. I think a game is pointless if there isn't a goal, and since the user doesn't know they can save the earth, the maximum amount of years they can reach is the goal.

The game only runs properly in widescreen resolutions as the sprites don't adjust when screen resolution does, which is a problem I could have sorted with more time.