15-112 Term Project Proposal

My project is going to be a game that uses 2.5D (fake 3D) with an arcade-style shooter. I am going to use pygame in order to implement my game, with different classes for the different parts of the game. There are going to be multiple parts of the game, all accessible through a mouse-driven menu.

On the menu, I’ll have 3 options- Play, Help, and High Scores. I may implement the option to have different color schemes as well. When you click Play, the two parts of the game will pop up and you can select either the star field game or a shooting game. The star field is just going to be a fun simulation the user can play with stars coming at you in a 2.5D style. You can click to change the center of the field, press the arrows to adjust the perspective (whether you’re going straight into the field, or turning in some direction), or speed up/slow down. I’m going to be using keyboard and mouse presses to do the movement, and random. The shooting game is going to be a ship flying into a star field for the 2.5D effect. The user would be able to move directionally with the arrow keys and shoot with space. The bullets will all go towards the center of the field (like the user is actually going into the star field) and the bullets will all go to the center. Then enemies will spawn from the sides, fly into the center of the field, and then come out towards the ship. In order to “level up”, the user would need to kill a certain number of enemies, and as the user levels up, the enemies become “more intelligent”. More intelligent means it takes more shots to kill with a different path taken when they are going into the field from the edge.

For the other two selections on the main menu, help will show a screen with the instructions on how to use the star field and how to play the shooting game, and the high scores will use file IO to write and remember the high scores.

All this is going to be programmed in pygame.