

ECE30862 Group Project Summary

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This project deepened our understanding in java class implementation and encapsulation. In order to run the game, we learned about java thread creating and running. There is a collision detection function that will keep running all the time once the game starts. We created a base sprite class and all the other moving object class is inherited from it. We learned about setting full screen mode in java and make the screen adjust to different screen size and resolution. We also learned about the drawing function in java and figured out a way to refresh frames at a constant rate. One of our game features is we load photos instead of drawing polygons. It is easy and quick to change the appearance of game objects by replacing the pictures in res directory.

The game logic is the hardest part. It took us weeks to set up a protocol of the game and finally start programming it. It is challenging to check user inputs and map it to commands to make the spaceship move. The algorithm of adding bullets onto the screen is also very tricky. It is hard to make a dialog window pop up when the game is running in full screen mode. We searched a lot on the web and tried various different methods

but still can't figure it out. Adding sound to the game is also a big problem. Right now we still have problems loading the sound file into the game correctly. Another trouble we have is the scoreboard. We haven't come up a good way to sort and update the scoreboard when user achieves a new high score.

In order to make the game better, we should add dialog window to allow user choose between options. The score screen should also be improved to store the scores correctly. The sound effect should be added to make the game more immersive. It is also better to add a welcome screen and game over screen. Rogue ships should be added. The AI of alien ship should be improved so that they won't just move in a straight line.