CS 108 Lab 5

Space Invaders Game

Background

Simple phone games are created using a Canvas and ImageSprite components. In App Inventor, an image sprite is an object with a picture that can interact with other objects within a canvas. Think about the classic video game Space Invaders: the enemy ships *collide* with yours to destroy you, or your ship's lasers *collide* with the enemy ships to destroy them.

For this lab, we will use some of the features of the App Inventor Canvas component and create a mini-version of Space Invaders.

Objective

Create an app with a simple background on a canvas, two image sprites (one for the player and one for the enemy), and one Ball component (used for the player's "laser"). Use any additional components you think will be necessary. Remember to comment your larger code blocks!

The initial setup for this app will be presented in the lab video, including initializing the app, creating and using the required components, and creating the game's initial functionality. Additional functionality is up to the student. Functionally, the app should have the following:

- Objects that move over time (e.g. the saucer can move over time)
- Objects that move or are transformed in reaction to end-user activities (e.g. moving the player's spaceship)
- Objects that appear or disappear in reaction to end-user activities (e.g. shooting down the saucer)
- Use the ScreenOrientationChanged event (optional)
- Use conditional (if) blocks

Beyond this, add some functionality of your own! What other features would you add to a game like this to make it more complex and more interesting or entertaining? Here are some ideas:

- Can you increase the difficulty of the game?
- Create multiple enemies
- Change the enemy's behavior (instead of just going back and forth)
- Add sound effects
- Add a Restart option

Optional

Can you find a way to make the app save your high score? Research online and see!

Deliverables

Submit the project's .aia file on Canvas.