**IN2026 Coursework**

**Part 1: Start Screen**

Objectives:

* Create screen with title and key prompt using GUILabels.

An alternative would be to create a “texture”/image that is on the display at first.

Outline of changes:

* Two new labels in Asteroids.h/.cpp
* One new Key press implementation
* Set initial visibility of lives and scores labels to false.

Implementation:

Created two new GUILabels alongside the already existing ones in Asteroids.h.

shared\_ptr<GUILabel> mStartScreenTitle;

shared\_ptr<GUILabel> mStartScreenLabel;

Next, I created the GUI.

First, I set the visibility for the score and lives labels to false, this is to make sure they are not present on the start screen.

mScoreLabel->SetVisible(false);

mLivesLabel->SetVisible(false);

Then I made the GUI components for the start screen: the Title and Key prompt in Asteroids::CreateGUI.

Text

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The visibility of these is automatically true and don’t need to be set to false as they should be present on the initial display.

Finally, I made it so to actually start the game, the player needs to press the enter key. I did this my expanding the Asteroids::OnKeyPressed method.

switch (key)

{

case ' ':

mSpaceship->Shoot();

break;

**case 13: // Enter**

**mStartScreenTitle->SetVisible(false);**

**mStartScreenLabel->SetVisible(false);**

**mLivesLabel->SetVisible(true);**

**mScoreLabel->SetVisible(true);**

**mGameWorld->AddObject(CreateSpaceship());**

**CreateAsteroids(10);**

default:

break;

}

The tricky part here for me was seeing what could/should be in Asteroids::OnKeyPressed and what should remain in Asteroids::Start.

In the end, the code for creating the spaceship and asteroids on screen were moved to the key pressed method – this is so that nothing besides the title and key prompt are on screen for the start.

The result looks like this:

Graphical user interface

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**GENERIC CHANGES**

* Added implementation for GLUT\_KEY\_DOWN for special key presses and release.

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