Comp165 Major Programming Assignment 3

Brick Breaker GUI

Introduction:

This assignment requires you to implement the GUI based classes in the Brick Breaker game using the JavaFX graphics library. You will implement the Player Profile GUI to create new players for tracking high scores and the game board that allows the user to play the game. Next, you will implement the game board and other classes to implement the actual Brick Breaker animated graphics.

ProfilePane Class:

ProfilePane	
-profiles:GameProfiles -profileFilename : String -configFilename : String -controls : Node	Profiles of all registered players File containing profiles data File containing Level data. Passed to GameBoard. //placeholder for the controls used in your GUI
+ProfilePane(profileFileName:String, configFileName:String)	

Level 1: ProfilePane Design & Implementation (25pts)

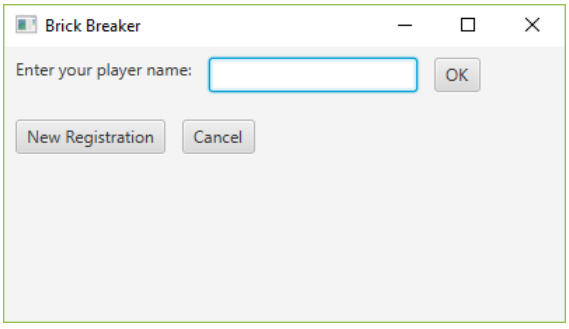

Figure 1- Example Profile GUI

a. Design a GUI for the player profile function of the Brick Breaker game. Your design should include the following:
   - A control to select an existing player profile. The GUI you used for MP1 allowed the user to enter the player name in a textbox. Better solutions would use a ComboBox or a ListBox.
   - A control to enter a new player's name.
   - A control (e.g. Button) to initiate a search for an existing player (or to indicate that the desired player has been selected in the ComboBox or ListBox).
   - A control (e.g. Button) to initiate the creation of a new player profile.
   - A control to display status messages to the user.

   Note: You do not have to submit your design.

b. Implement your GUI using JavaFX. Start by creating a JavaFX application in Netbeans. Name the project StudentDriverMP3 and copy code contained in the StudentDriver.java file from MP1 into the newly created StudentDriver.java file. Add a new class to your project and name it ProfilePane. ProfilePane should extend one of the subclasses of Pane (StackPane, HBox, VBox,

GridPane or BorderPane). The particular Pane you use depends on your GUI design. My design used a HBox with a VBox on the inside for the TextBox and Button at the top of the GUI.

Create properties in ProfilePane for each needed control and add them to Pane or other inner Panes that you create. The constructor for ProfilePane should read in the profile data from the profile text file and save it in the GamesProfiles object (profiles). Reading the player profile text file will require you to link in the jar file developed from MP1. If you did not complete MP1, you can use the code solution posted on Github. You will need to create a jar file and add it to your StudentDriver library.

Instantiate an instance of ProfilePane in your start method and add it to a Scene so that it can be displayed in the Stage. **Your GUI should be displayed but the controls do not have to have event handling implemented at this point.** Grading will be based off of whether your GUI meets all the given requirements.

Level 2: (35pts) Add event handling for your ProfilePane GUI. The particular events you have to handle will depend on your GUI design. Use anonymous listeners for your controls for this GUI. In general, you will have to respond to controls that initiate:

- Searching to see if a new player name is already used for another player profile.
- Adding a new player profile to the player profile text file.
- Launching a new Stage. For this version, you should display a new Stage containing the selected gamer profile followed by a complete list of the other gamer profiles in a TextArea (or some other control).

More details will be given for the remaining levels below

Level 3: Read configuration file and display bricks.

Level 4: Animated ball with moving paddle. Ball will collide with paddle and walls but not the bricks.

Level 5: Brick collision detection with ball.

Level 6: Remainder of the game features.