Delta College

CST 183
Programming Assignment 8

Fall 2023
Instructor: T. Klingler

Objective

To build a complete working Java program that includes a variety of user interface components.

Overview & Instruction

Write a Java application that acts as a "front-end" GUI to set preferences for a computer game. Be sure to use JavaFX components for the interface.

Include the following components for user data entry:

- **Text field** to enter a username for the player. Include appropriate labels.
- **Check box** indicating whether or not the user wants emails or text messages from the game company.
- **Radio button group** for choice for game complexity level (Beginner, Experienced, Advanced, Expert) .
- **Slider bar** to provide the means to select the game speed. Create a slider bar range from 0 ... 100.
- **Drop-down list** for identifying the user's choice for color of their game piece. Include at least five colors of your choice
- **Text area** that will display the current values for the complexity level (via radio buttons), game speed (via slider), and color (via drop-down list). This implies listeners to update the text in the text any time these components are updated.
- **Button** to "submit" or "send the information"

You may choose any layout management scheme you would like for this program but work to define a clean, intuitive, and organized interface. There is much room for creativity within these specifications, so feel free to embellish as you wish. Additional features are required for behavior of the form:

- Add use of JavaFX `.css` for at least one formatting component of your form
- Add a feature that will capture and store the current (actual) date and time when the "submit" button is pressed to update preferences.
- Add at least one usage of JavaFX drawing. This could include a (simple) game logo or just a shape or two to embellish the form.
- Be sure your interface/class is set up to handle an immediate user button click. Have default values or settings included to avoid any runtime exceptions from this action.

Build a **`GamePrefs`** class behind this application to manage the data and processing related to the user choices. Be sure your class includes at least one constructor, set/get methods, and a **`toString()`** method (that returns all collected info as one **`String`** object).

When the "submit" button is pressed, collect the input from the interface and "set" the data into one object of your **`GamePrefs`** class. Then, pull the data from the object and display a summary of the entire submission. This object admittedly does not have a large roll in the solution, but it does continue to emphasize the object-oriented nature of the solution as well as the front/back end focus typically of many software solutions. Use the **`GamePrefs`** class `toString()` method to return this summary of the data. Utilize a JavaFX Alert action (no `JOptionPane`, please) for the output using the information returned from the `toString()` method call.

Deliverables

Deliver the following to the online course management system **dropbox** as your final product:

- **Upload** your **source code** (.java) file

Notice

This is an individual assignment. You must complete this assignment on your own. You may not discuss your work in detail with anyone except the instructor. You may not acquire, from any source (e.g., another student or an internet site), a partial or complete solution to a problem or project that has been assigned. You may not show another student your solution to an assignment. You may not have another person (current student, former student, tutor, friend, anyone) "walk you through" how to solve the assignment.
