Homework 4 Summary

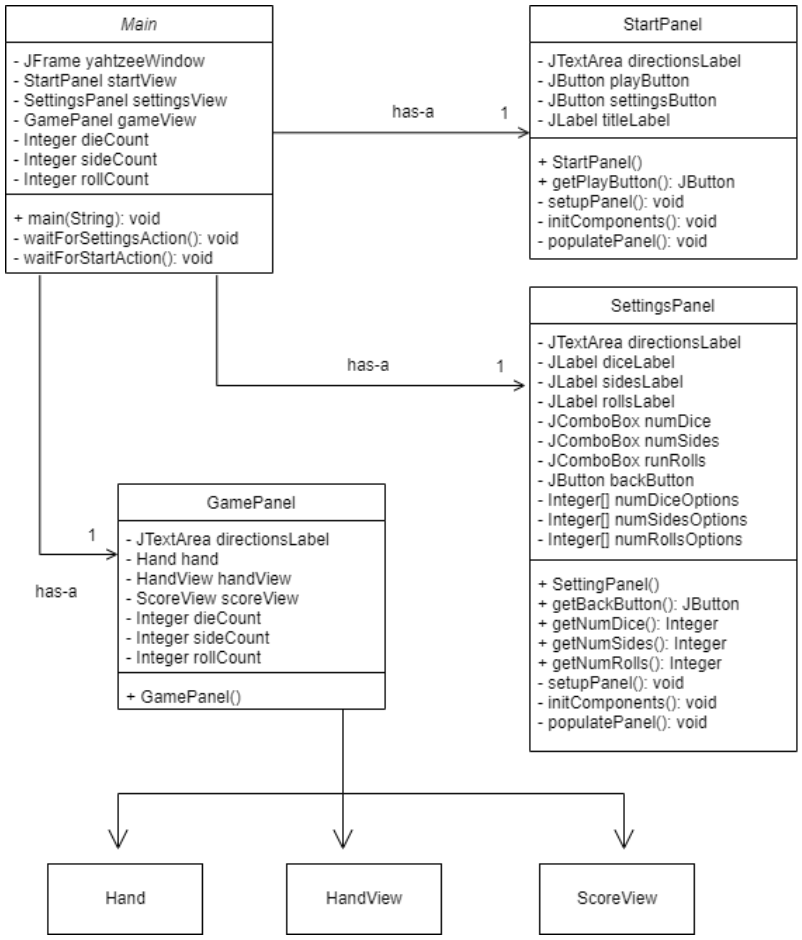
Summary:

This program should be a complete game of Yahtzee with a GUI for use by a player. It should use the Java swing library for the GUI elements, but the backend computations should remain relatively like the Homework 3 console version of Yahtzee that was built prior to this assignment.

Overview:

The general design for this implementation of a GUI-based Yahtzee game involves most actions being rooted in the Main.java class. However, the later gameplay segment with the hand and scorecard is controlled mostly in the GamePanel.java class. But even this object is instantiated from within the main class. That said, all the panel creation is done within specific classes dedicated to start, settings, and game panels (eventually the leaderboard panel as well). All other components like buttons, text, and menus are initialized from within the panel they are used. When it comes to the hand and scorecard, those remain as separate objects that act as the Model from an MVC program pattern.

UML Class Diagram:



UML Sequence Diagram:

(did not reach this point in development yet)

Issues:

I had significant issues in determining how to construct the game panel. More specifically, my troubles came with creating a view of the hand and scorecard. With the hand, I originally was trying to visualize just the digits that signified a rolled die. When I had spent an inordinate amount of time attempting to change these die digits into a string that could be attached to a JLabel component, I referenced a JavaGUI repository directory provided in a link on the course webpage. After doing so, I used dice images attached to JButton components to visualize the hand. This seems to have worked, I only need to extract the side "facing up" after each roll. As for the scorecard, the time spent trying to implement the hand visual disrupted any real effortful attempts at implementing this component. Therefore, I must label this project as incomplete for the time being.

Retrospective:

In thinking back on how I progressed through the design and programming of this project, I believe an even earlier start date would have allowed the careful and lengthy considerations and research needed to finish the hand and scorecard elements that are missing from my current implementation. I also believe that the onset of other projects and assignments caused this project to fall out of priority status, further decreasing its chances of completion. Therefore, another thing I would do differently is allot designated time periods for working on a project of this size.