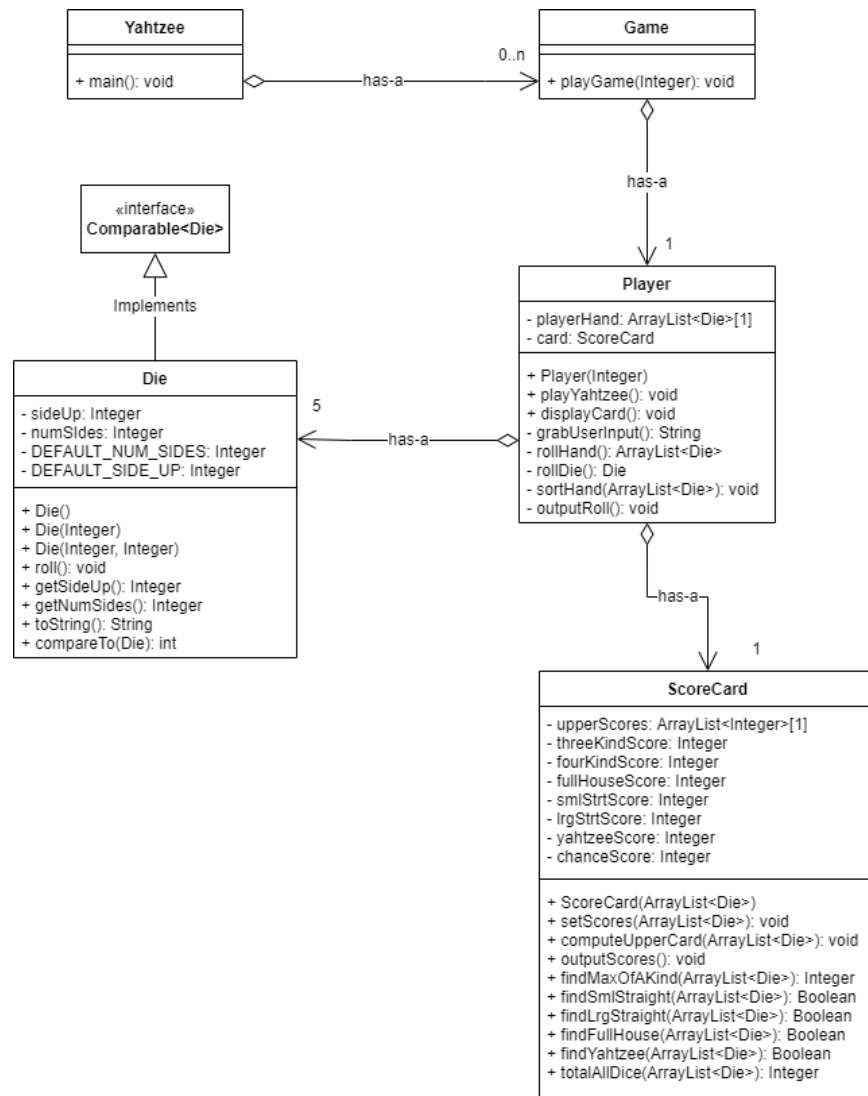


Homework 1 Summary

For the first homework installment of the Spring 2022 Software Development the goal was to implement a set of class objects. Utilizing the provided Die class, among other custom classes, some of the basic Yahtzee game mechanics would be formed. That is, create a program to run a player's turn and then output the possible scorecard lines that can be filled with the roll of dice. This assignment is meant to be an initial steppingstone to the full implementation of the game Yahtzee in Java, including the primary step in the software development process.

In this implementation, the main method was limited to an upper bound of ten lines. Therefore, I utilized an extra go-between object, Game, to hold one method that creates a player and runs a round of Yahtzee using that player's hand and scorecard. Said player is another object that hold an ArrayList of Die objects that act as that player's 5 die. Furthermore, the player class can roll the dice, sort the resulting hand, and output the corresponding possible scores. These scores are drawn from the Scorecard class which stores the 13 lines on a Yahtzee scorecard as well as methods to detect when these scores are possible to fill in on a player's scorecard.



The most pressing issue faced when completing this assignment was determining the relationships between the player object and the scorecard object composed within it. For the purposes of this assignment, the scorecard object does not act how a true scorecard object would act as there was no requirement to store a score in each round. Other than that, the only issue faced was testing to see how large the scope of a given Game object must be to perform tasks associated with the player and scorecard classes.

After further consideration, a hand of dice may not be specific to a single player. It may appear more naturally as a member of the game class given that the standard 5 dice belong to Yahtzee as part of its functionality. Also, to tie back into problems with the scorecard, a general scorecard with the possibility of having more players scores held likely would loosen the coupling between the Player and scorecard classes.