**Classes**

List

Queue

Stack

Card

Meld

Player

ComputerPlayer

Output

Rummy

Client

**UML Diagrams**

View in class-diagram.png

**Summary**

The Card class is simply used to represent a playing card and make it easier to seect a playing card as a string from the terminal. It uses the Rank and Suit enums to store the rank and suit of the card. The Meld class is used to keep track of the cards in a meld and make sure that valid melds are created. The Player class keeps track of the cards in their hand and has many methods to make sure they are taking valid actions. The ComputerPlayer class is similar, but has methods that calculate an action to take instead of validating the user's actions. Output is a utility class that I made so I can add indentation and color to the output in the terminal.

Rummy is the main class that controls the flow of the game. The constructor handles creating all the objects needed for the game, shuffling a deck of cards, and dealing it to the Player and ComputerPlayer. It then has a play() method which starts the game, and a turn() method which sequentially calls methods for the various things that happen within a turn of the game. The Client class is a simple runner class that creates a Rummy object and plays it.