

Uno - Specifications:

- Develop a turn based game of Uno controlled by a multi-threaded server.
 - Server program to control turns and allowing only valid card plays.
- Computer players (optional)
- Card colors (optional) (not really though)
- Max or min numbers of players

Cards:

- There are 108 cards in a deck of Uno.
 - 4 Wild cards
 - Change the color of the discard pile to any color
 - 4 Wild Draw 4 cards
 - Same as Wild but also forces the next player draw 4 (unless another draw 4 wild is played, then the following player draws 8)
 - 8 Skip cards (2 of each color)
 - Skips the player that the dealer chooses
 - 8 Draw 2 cards (2 of each color)
 - Forces the next player to draw 2 cards (unless another draw 2 is played, then the following players draws 4 unless he also has a draw 2, etc)
 - 8 Reverse Cards (2 of each color)
 - Reverse the turn sequence of the game
 - 4 '0' cards (1 of each color)
 - 18 normal red cards (1-9 twice)
 - 18 normal yellow cards (1-9 twice)
 - 18 normal green cards (1-9 twice)
 - 18 normal blue cards (1-9 twice)

How to play:

- 2 - 10 players, every player is given 7 cards to start.
- The rest of the cards are placed in the 'draw' pile.
- There is a designated 'discard' pile.
- The first player is whoever is left to the dealer, gameplay starts in a clockwise direction.
- You have to match, either by number, color or the action.
 - Wildcards can be played regardless.
- If the player has no matches or they choose not to play any cards, they must draw.
 - If the drawn card can be played, play it.
 - If it can't, it is the next person's turn.
- On the first turn, the top card on the draw pile is turned over to the discard pile and must be played.
 - If it is an action card, the action must be carried out.
 - If it is a wildcard, put it into the deck and reshuffle it.

- 2 Player rules are slightly different.
 - Reverse acts like a skip.
 - If a draw 2 or wild draw 4 is played, opponent must draw and then play immediately resumes back on your turn.

How the game ends:

- The first player to get rid of all their cards wins!

Additional Features (Optional):

- Allow players to choose names
- Allow for 'round' play to play multiple games with same group
- Play again or quit option
- Allow for player stats by showing overall wins and losses, win ratio, game length ratio etc.
 - Leaderboards, stat resetting, etc.
- A timer to show how long each game has been played
 - Additional game mode of timed play where both each turn is timed and the overall game is timed to make a much more quick game
- In game chatting system to brag and boast of Uno skills over other players.
- Big UNO button for clicking when one player has only 'un' card

Human-Computer Interface

- Main interface is a round tabletop with an area in the center for the draw pile and discard pile, each with a number to the side showing number of cards in each stack.
- Only show the player's card face up on the table, bottom of the screen.
- Only show the other player's name with the number of cards in their hand, next to their name
- There will be a timer next to the big UNO button with the current game time.
- The player will choose which card to play, then select a confirmation box to lock in the choice.