YaLikeJazz
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Final Project Proposal
JUNO

Our vision is to implement the card game UNO in java.
UNO is a turn-based card game played with colored cards in a 108 card deck.

Card Types:

- Each card is one of 4 suites (Red, Green, Yellow, Blue)
- 0 - 9 Numbered Cards (76; 1 zero for each suite, and 2 for the rest)
- Skip Turn (8; 2 for each suite)--skips the next player's turn
- Reverse (8; 2 for each suite) -- reverses the turn sequence
- Draw Two (8; 2 for each suite) -- the following player draws 2 cards
- Wild Card (4) -- player selects a suite to change the gameplay
- Wild Card Draw Four (4) - player selects a suite to change to and the next player draws four cards

Setup:

- 2-4 players (user selected) are dealt 7 cards each from a shuffled deck
- One card is revealed to begin the "center pile", the remaining cards are placed in another "draw pile" where players draw their cards from

Gameplay:

- Each player takes turns playing one of their cards into the "center pile"
- In order to be placed in the center, a card must be either...
    a) The same suite (color) as the center card
    b) The same card-type as the center card
    c) Any type of wildcard
- If a player has no playable cards, they must draw cards from the "draw pile" until they have a playable one
- A player wins when they have zero cards

Misc:

- If the "draw pile" becomes empty, the top card of the "center pile" is saved and the rest are shuffled back into the "draw pile"
- Players may not see other players' hands

User's Guide:

- As a player at the table, the user will be able to see their hand and the amount of cards in the other players' hands through the terminal. A card will be displayed at the center along with the number of cards remaining in the deck.
- In order to play, the player waits for their turn and selects a card to play according to the card displayed at the center. The card is checked for playability before it is played (see above for conditions). If a card cannot be played, the user will be asked to select another card. If no cards can be played the user will draw a card and their turn will end.
- User's will also be directed to the README file if they do not know the rules of the game

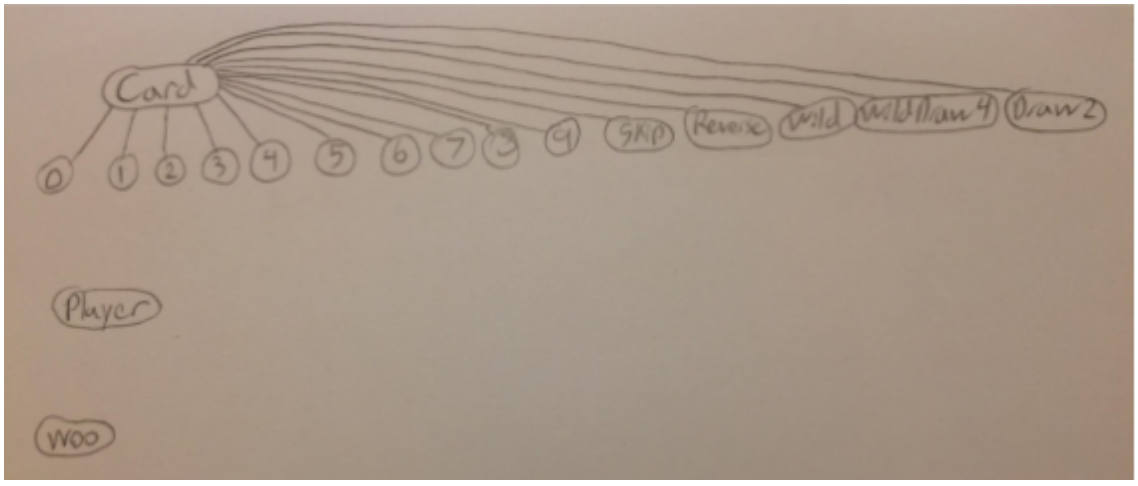
Priorities:

- Create all classes with empty instance variables + methods (run woo)
- Add the accessor methods
- Create a main method in Woo and instantiate a player/setup a game
- Implement all other methods
- Create a one player uno game, seeing if all card mechanics work
- Add turn-based gameplay with multiple players (and a user input to determine how many at the start of the game)

Timeline:

1/6 - finish instantiating all basic methods and create classes
1/10 - finish instantiating all methods/inst vars and begin testing a 1 player game
1/15 - have 4 player turn-based mechanism implemented
1/17 - project due

Outline of class organization:



In this project we are making use of…

- Array manipulation using class ArrayList
- Abstract classes and inheritance