Uno Java Game

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Project Overview

Developed a Java-based UNO game using Objec-Oriented Programming principles.

The game supports 1 human player and multi AI players.

Includes Number cards (0-9) and Speciality cards (Skip, Draw 2, Draw 4, WildCard).

```
Top Card:
Type: Number Color: Blue Number: 2
------------------------------------------------
amyah's Deck:
1: Type: Special Color: Any Effect: WildCard
------------------------------------------------
2: Type: Number Color: Blue Number: 3
------------------------------------------------
3: Type: Number Color: Yellow Number: 0
------------------------------------------------
4: Type: Special Color: Blue Effect: Skip
------------------------------------------------
5: Type: Number Color: Yellow Number: 2
------------------------------------------------
```

Objectives

Implement playable UNO mechanics.

Design AI players with basic decision-making.

Handle special effects (Skip, Draw 2, Draw 4, WildCard)

```
--------------------------------------------
amyah's turn
Pick a card to play (1 to 4)
1
amyah played
Type: Special Color: Any Effect: WildCard
--------------------------------------------
WildCard Chosen! Choose a color:
Red, Green, Blue, or Yellow
Yellow
Color has been changed to: Yellow
Hit enter to end turn

Bob's turn
Bob played:
Type: Number Color: Yellow Number: 3
--------------------------------------------
Hit enter to end turn

Steve's turn
Steve played:
Type: Number Color: Yellow Number: 2
--------------------------------------------
Hit enter to end turn
```

Classes & Structure

Crad: Base class for all cards (types, and color)

Numbers: Number cards

Specialty: Effect cards

Player & AI Player: Handles human/AI turns, hand playable logic

Gameplay Logic

Each Player's turn: select or draw card

AI choose playable card automatically

Specialty cards trigger effects on next player

Checks for UNO or winning condition

```
Top Card:
Type: Special Color: Red Effect: Skip
-----------------------------------------------
amyah's Deck:
1: Type: Special Color: Blue Effect: Skip
-----------------------------------------------
amyah's turn
Pick a card to play (1 to 1)
1
amyah played
Type: Special Color: Blue Effect: Skip
-----------------------------------------------
amyah has won!
BUILD SUCCESSFUL (total time: 2 minutes 11 seconds)
```

AI Behavior

Randomly selects a playable card from hand

Chooses a random color when WildCard is played

Handles skipping, drawing for the next player.

```
Bob's turn
Bob played:
Type: Special Color: Red Effect: Skip
------------------------------------------
Steve is skipped
Hit enter to end turn

Steve's turn
Steve has been skipped!
Hit enter to end turn
```

Video Demo

https://youtu.be/C1ahXVmBOC4