

BUno User Manual

General goal / Motivation:

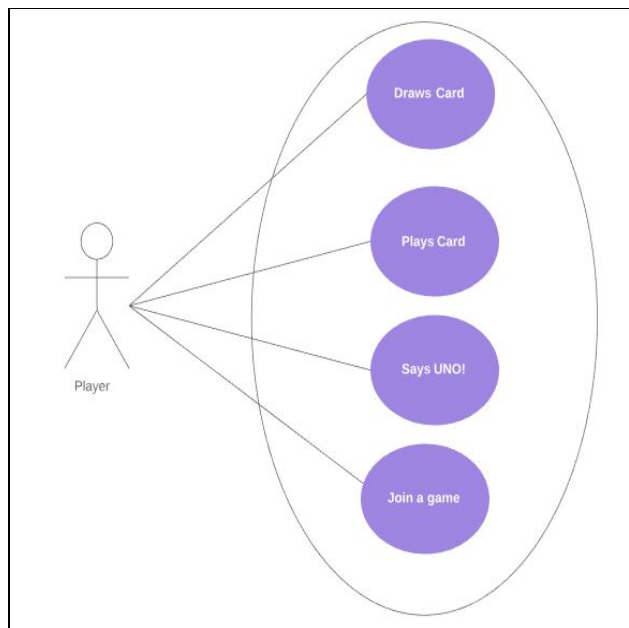
Advertised as the world's number one card game, Uno is widely played, and has granted many of us hours of fun over our lives. The goal of our project was to take the classic UNO card game and use them to create a Bucknell themed UNO game (BUno) that is playable on a computer, against computer AI. As there are many different versions and rule sets for the game, we decided to create the original game with the original rules stated by the Mattel company. Our motivation for creating this game was that the original Uno game requires at least two players, but generally more, to be able to play. With BUno, the player can rep their Bucknell school spirit and play their favorite card game even when they don't have friends around, as the game is played against 3 computer AIs. This way when you do face off against your friends, you will have all the practice you need to take sweet victory and bragging rights.

Introduction/Background:

As a user, there are certain things you would like to be able to do in the game that we needed to make sure were possible. First, as a user, there needs to be a board where you can see the game. On this board, the user should be able to hold and display cards in the user's hand, the hands of the AI players, and the two card piles. The draw pile is represented by a face-down card, while the discard pile is the last card that has been played. The user also needs a way to interact with the hand, such as the ability to draw cards when necessary, and play cards that fit within the rules of the game. Finally, the score panel has to show the total points of each player, and it must automatically update after each round, awarding the victory to the first player to reach 500 points.

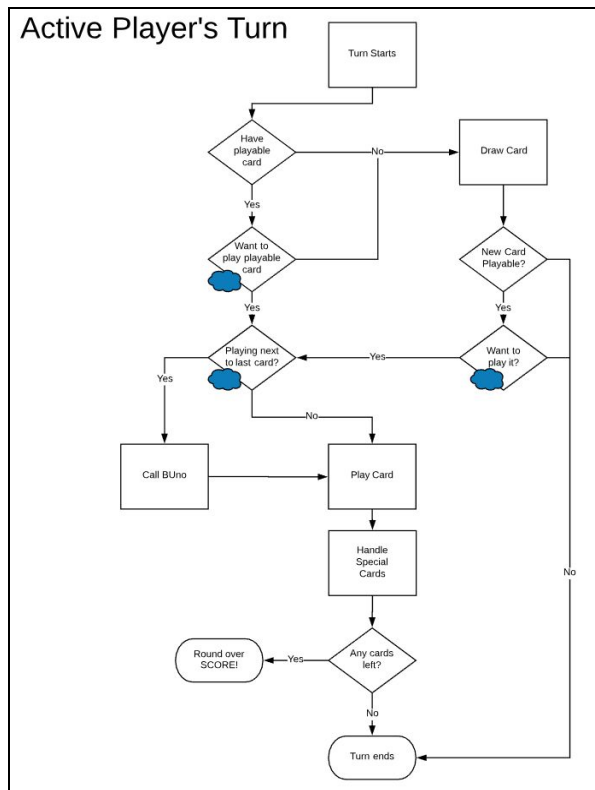
Extra effort needed to be added into making sure the special cards were functional, as they change the flow of the game in ways other than just being added to the top of the play pile.

Use Case Diagram



Flowchart for a player's turn

Thought bubbles represent where the AI is able to make decisions



Instructions for using the program

- BUno can be played via running the jar file found in the build folder or by running the file UNOGameMain.java in the unogamemvc folder under src.
- Rules for BUno: The game starts with each player holding seven cards. The game board features a draw deck and a face-up card upon which cards will be played (discard deck).
 - Cards: There are 10 number cards (0-9) in four Bucknell colors: Blue, Orange, Yellow, and Grey. The number on each number card is its point value.
 - Rules:
 - The human player starts the game. The first discarded card is randomly chosen by the program. The game always begins running in the clockwise direction.
 - If the player has a card that either matches the color or symbol of the card on top of the discard pile, the player can play that card. If the player does not have a playable card, the player must draw a card from the draw deck.
 - After the user's turn is complete, the AI players will have their turns.
 - The first player to get rid of all cards is the winner of the round. They are then awarded points to their total score equal to the sum of the point values of the cards in the other players' hands. The first player to reach 500 total points is awarded the victory.

How to interact with the user interface of the game board:

