

# Manual Test Plan

## Test Version

Branch: assignment-1.2

## Environment Setup & Configuration

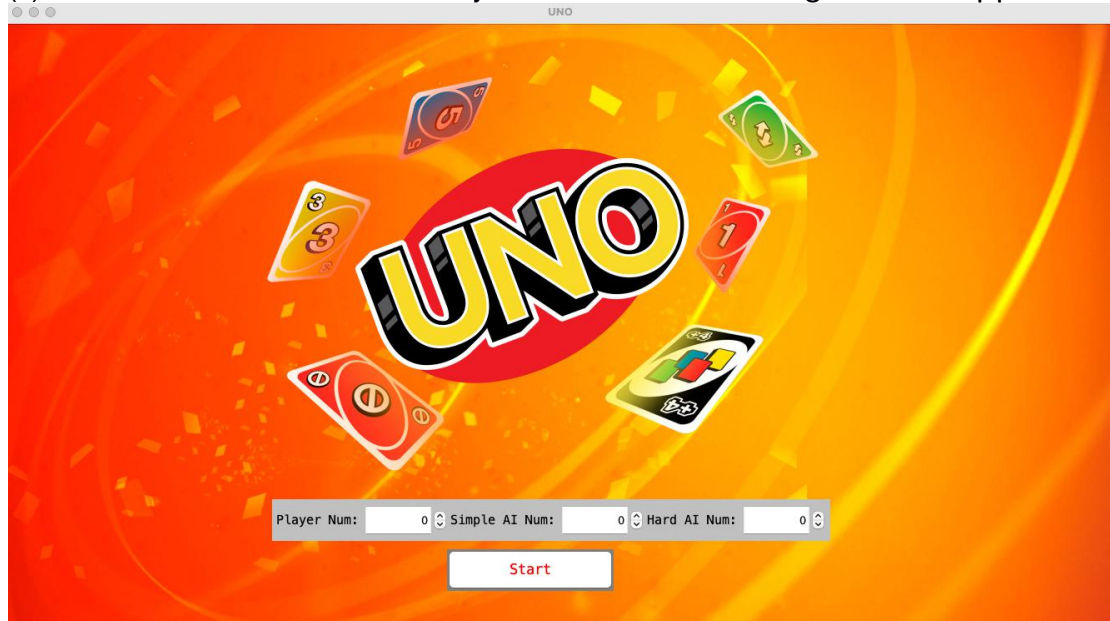
- OS support: Mac OS X
- Java virtual machine JavaSE-1.8 should be installed
- JUnit Test version: 5.7.0
- IDE: Eclipse or IntelliJ
- GuiResource folder should exist in src/Uno/Gui folder.
- Change game setting if needed in src/Uno/UnoSetting folder.

## Provided JUnit test

See Test folder in src folder to make sure all unit test classes passes.

## Test Process

(1) Press “run” in IDE in Game.java. Start window of game will appear.

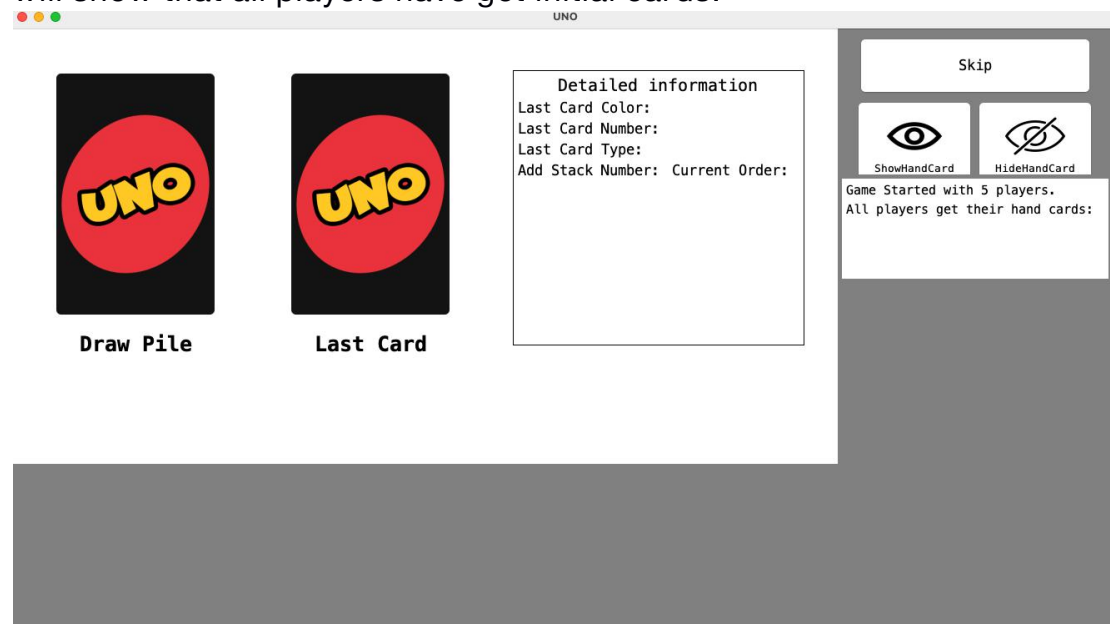


User can use three spinners in this frame to set number of three types of players during this game. The range of three spinners should be between 0 and 9. If the total number of three types of player is set to be more than 9, the if user click the start button, a hint should appear. It remind user the correct range of total player in UNO (Like screen shot below).

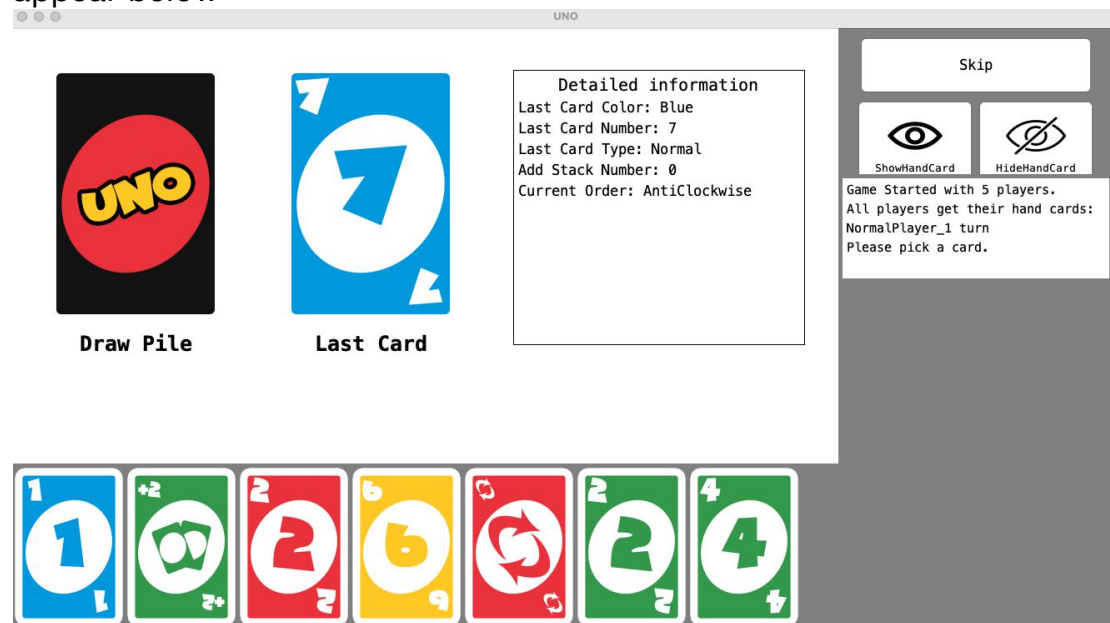


If number of players satisfy the rule, game will start after he clicks the start button. Start frame should disappear and player frame will appear.

(2) After start button is clicked, game state will be initialized, hint panel will show that all players have get initial cards.



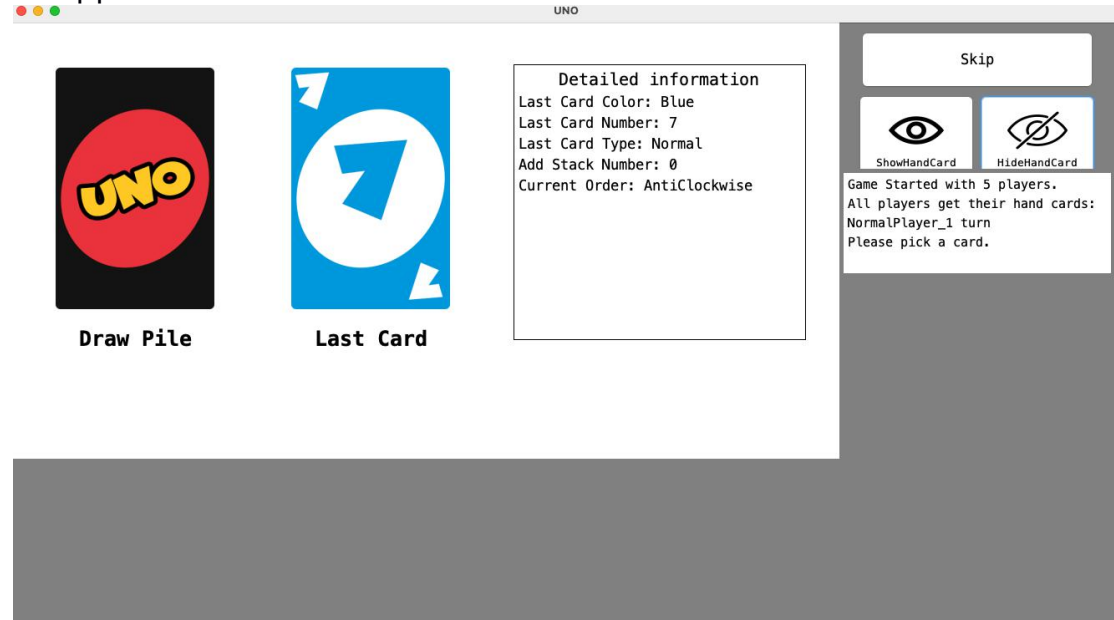
Then the first discard card should be showed as Last Card and other game state information is set correctly in detailed information panel. The turn of the first player will start. If player is human, hand card should appear below



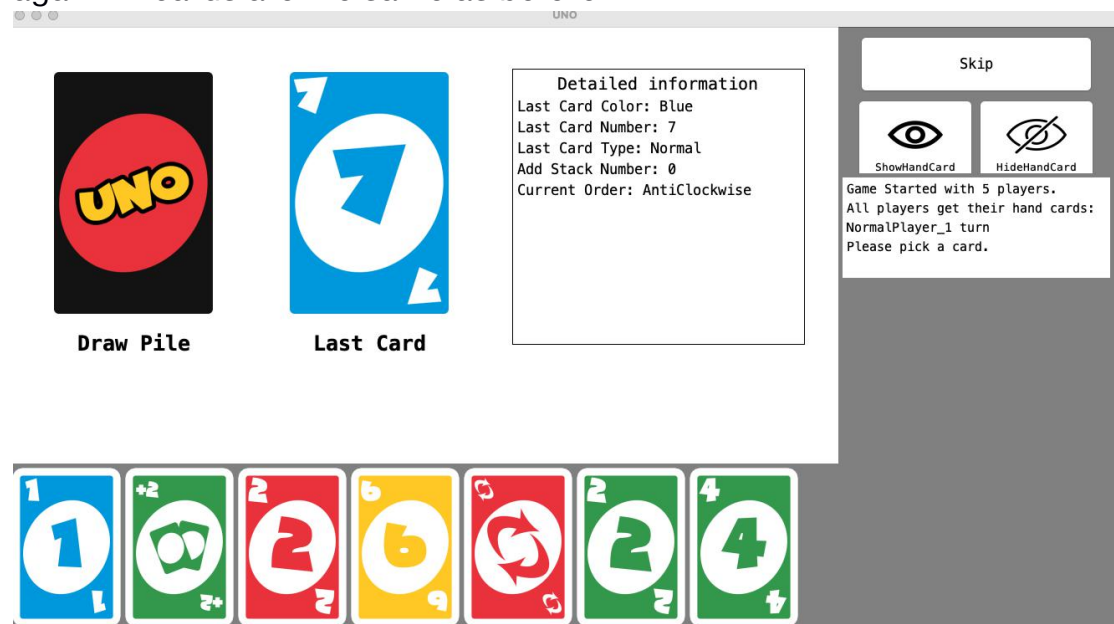
Hint panel should correctly give hint about each process, including draw card, pick card, pick color, pick order etc.

(3) Human players are able to click show & hide hand card button whenever they want.

After hide hand card button is clicked, all card image below should disappear

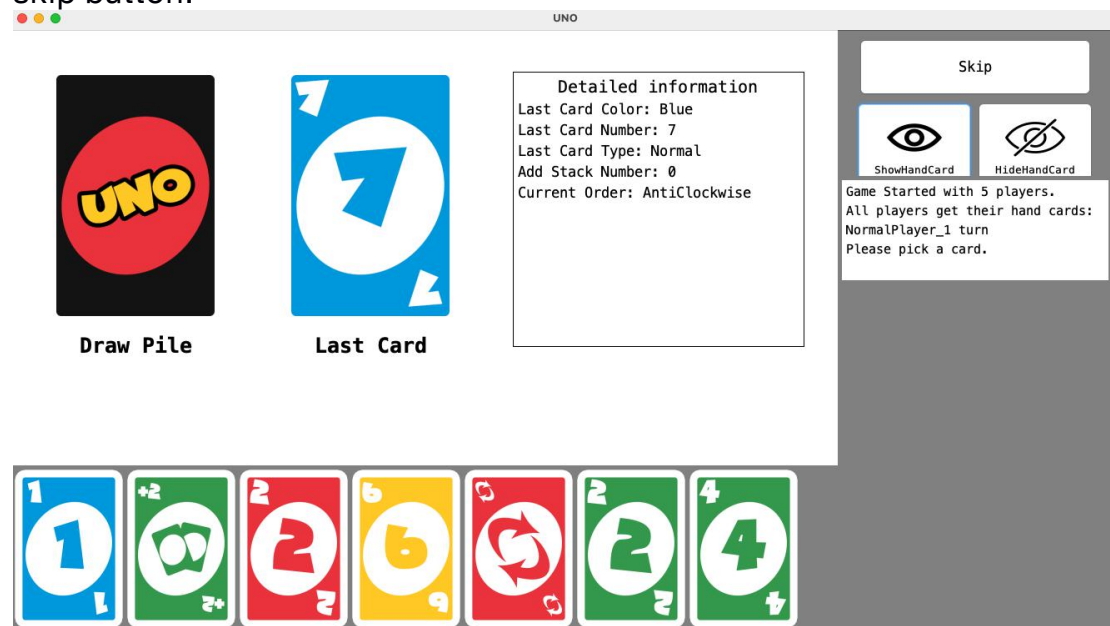


If player click show hand card button, all hand card should appear again. All cards are the same as before.



When it is AI's turn, nothing should happen after these two buttons are clicked.

(4) When “Please pick a color” shows in the hint panel, pick card process for player start. User should either click a hand card button or skip button.



If other buttons (except the show & hide button which always work) is clicked, hint panel should give pick card hint again.



Above image is an example after clicking the draw pile button during the pick card process.

(5) If player picks an invalid card, hint panel should give corresponding hint and let player pick card again. Below is an example after clicking red reverse card which is invalid after blue 7.



If player pick a valid card, and it is not a black card, the card should disappear and game window will stop for some seconds to give time for user to switch player.



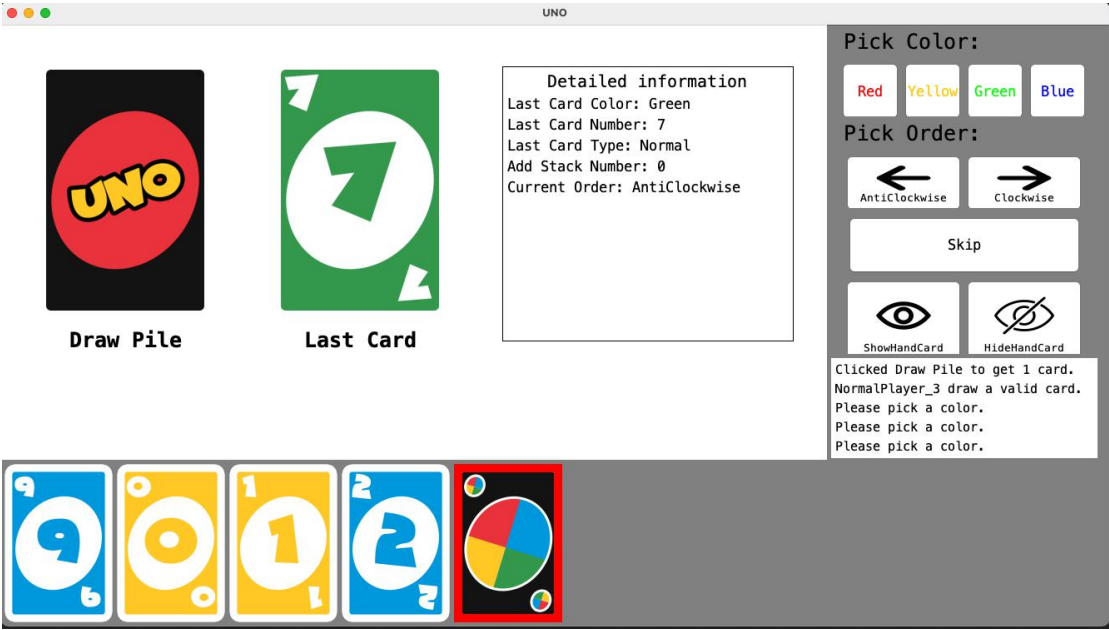
Above is an example after clicking blue 1 card button and hint panel shows that this player has played a normal card.



(6)If player pick a black card, the card will be highlighted and pick color & order panel should appear like below.

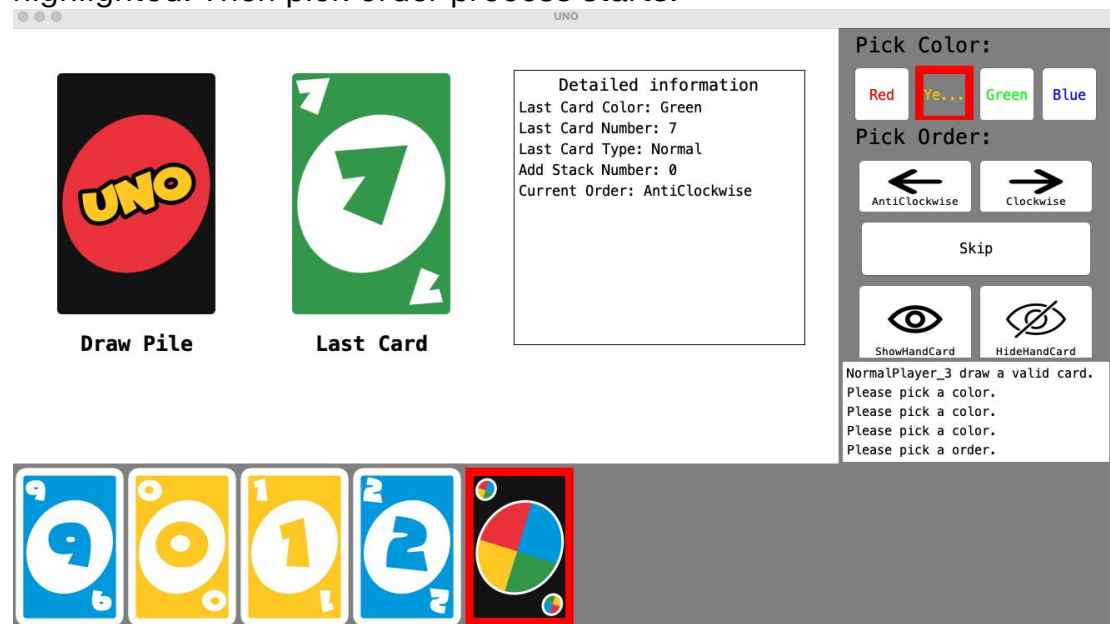


Player should follow the hint to pick color first and then pick order. Any other invalid button click will trigger the hint panel to give hint again.

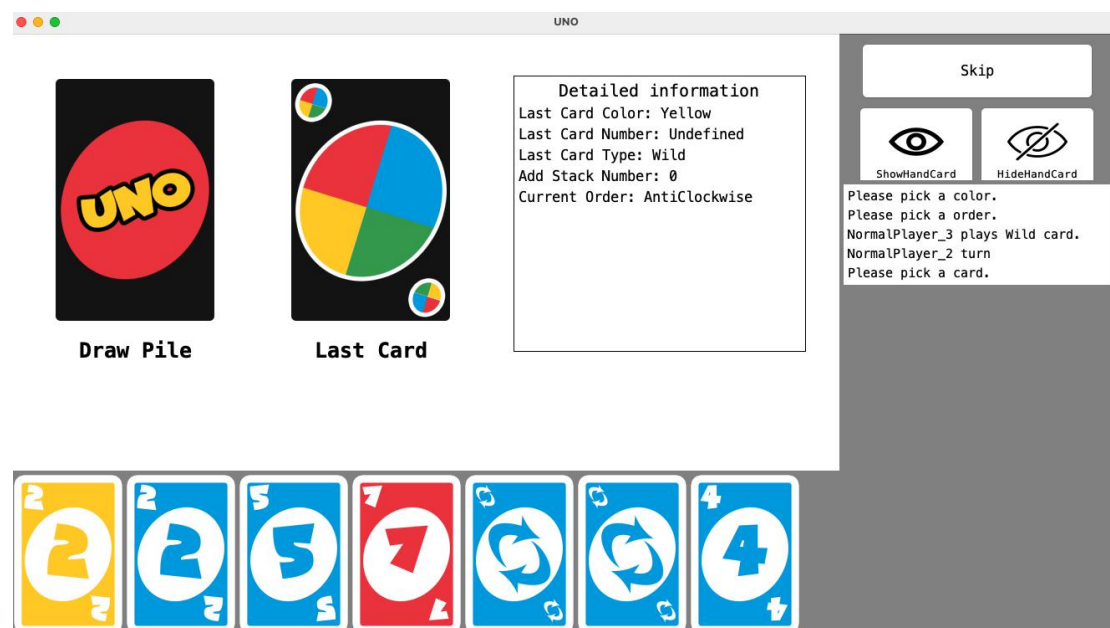


Above is an example after clicking draw pile button and blue 9 button when current color pick process has started.

(7)After player clicks a color button, selected button should be highlighted. Then pick order process starts.



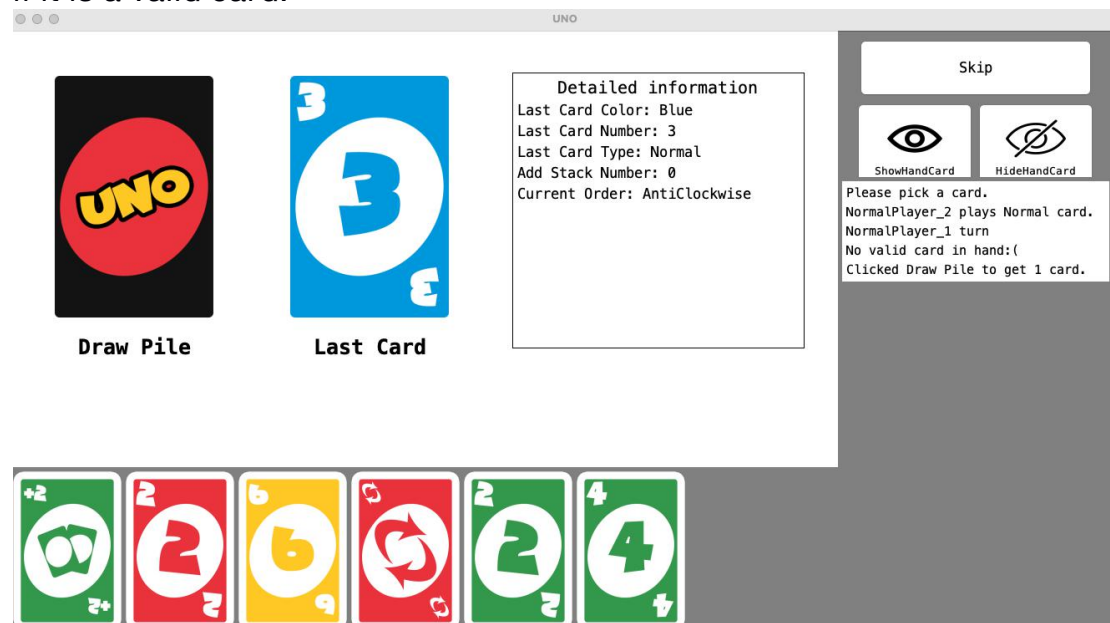
All other invalid button will trigger the pick order hint again. After player pick a order, the black card will be played and game continues. Pick color and order panel should disappear once player finishing picking process.



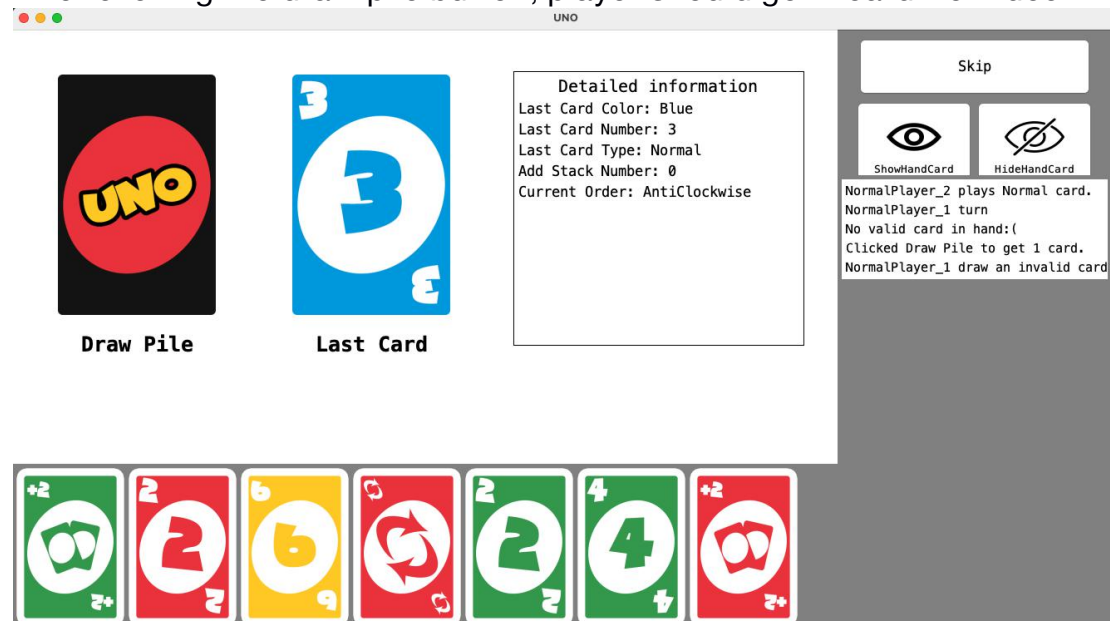
Above is the frame after black card is played and it comes to next player's turn.



(8) If player has no valid card during this turn, hint panel should tell player to click draw pile button to draw a card if there is no stacked punishment. It represents the game process that player should draw 1 card and play it if it is a valid card.

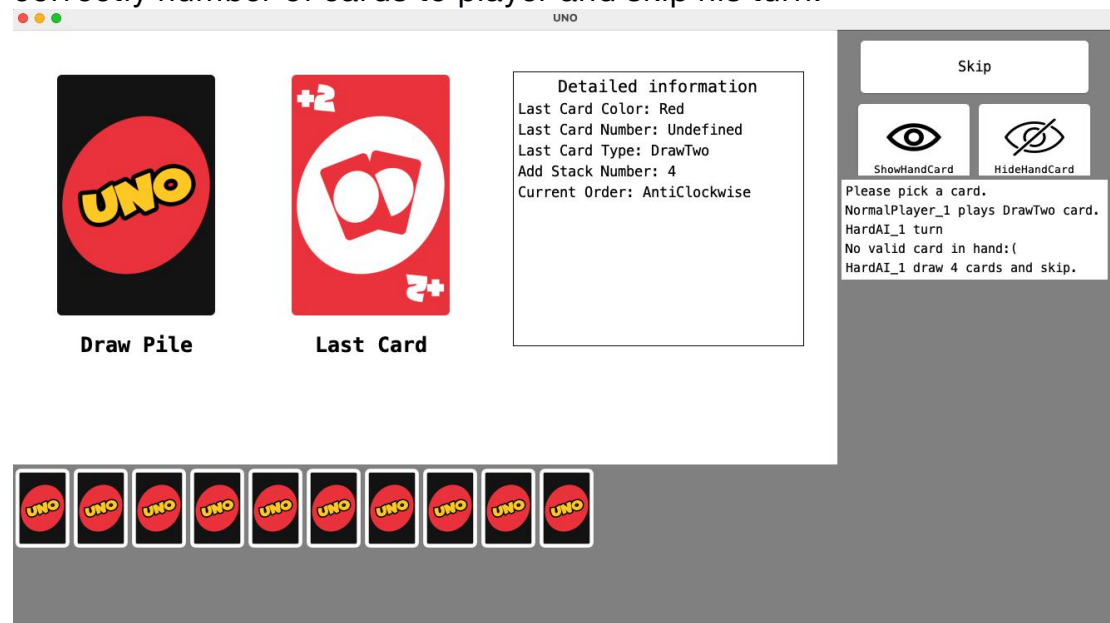


After clicking the draw pile button, player should get 1 card from deck.

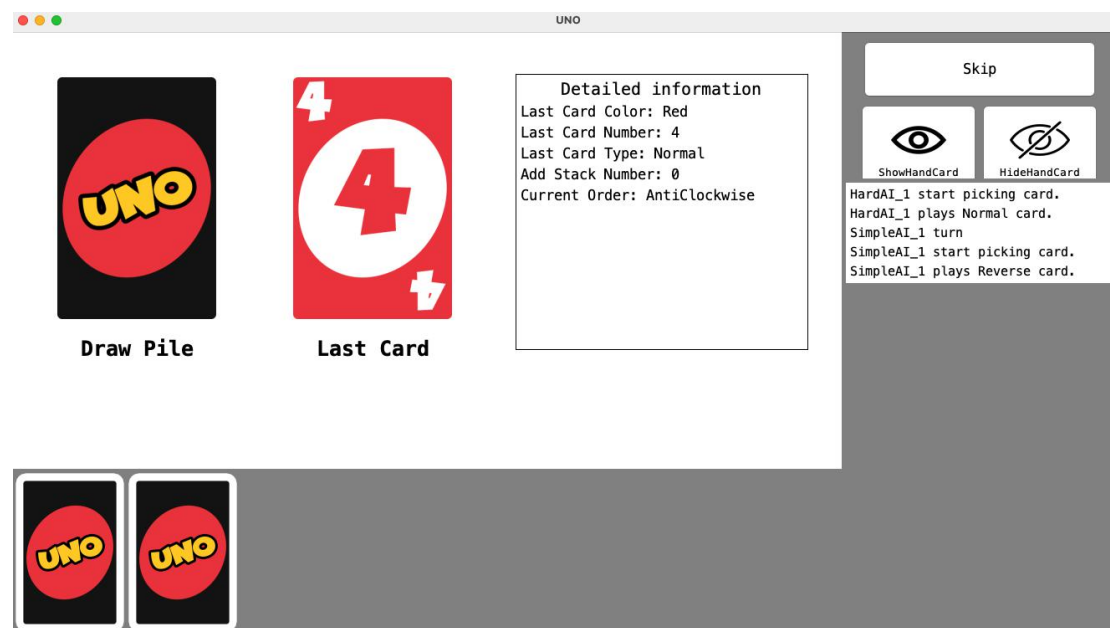


If this card is valid and black, pick color and order process will start. After user picks color and order, system will play this card automatically. If this valid card is not black, card will be played directly. If this card is not valid, then player will keep this card and game continues.

(9) If player has no valid card and there is stack punishment, meaning that player need to draw more than 1 card. Then system will give correctly number of cards to player and skip his turn.

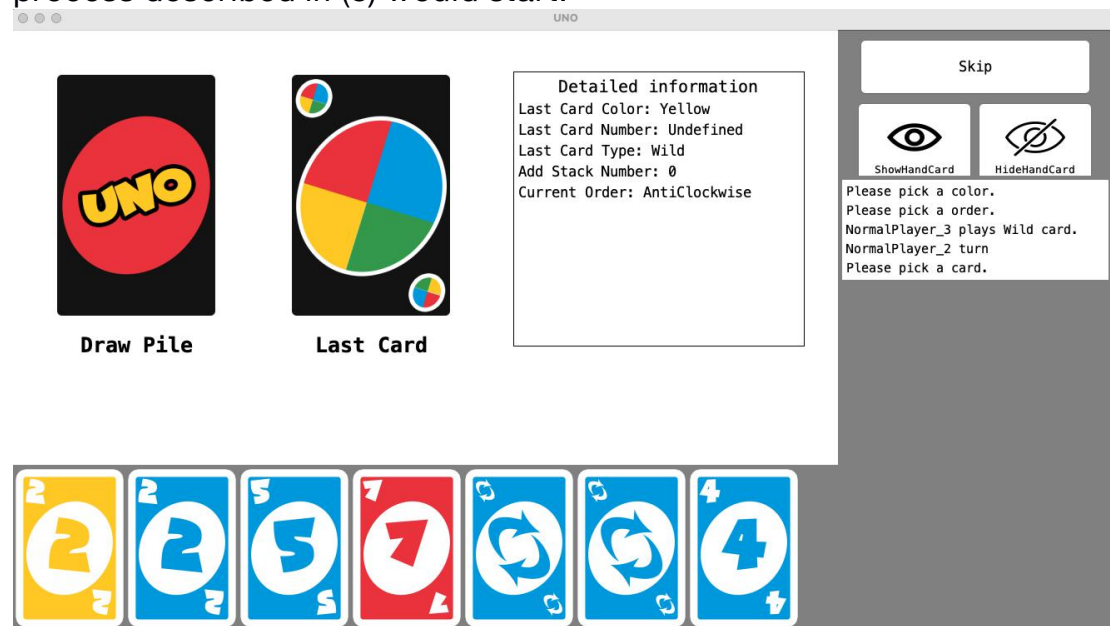


Above image is example when hard AI receive 4 cards from system and automatically skip its turn.

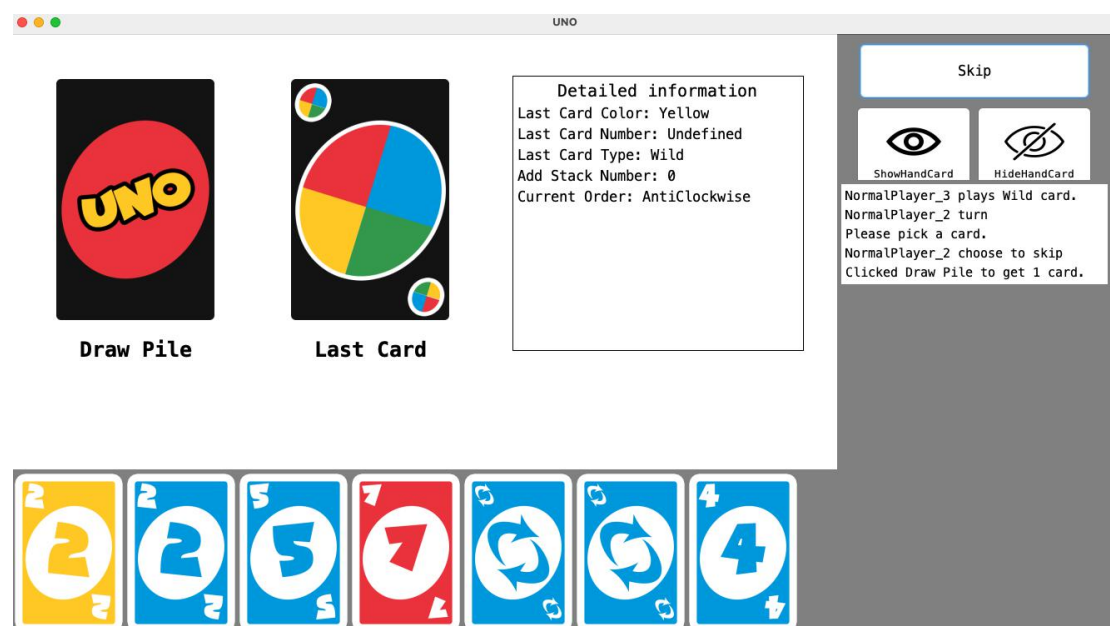


All AI should play the game automatically and all the buttons during a AI turn should not work. Moreover, AI's hand card is hide to user.

(10) If player has valid card but choose to click the skip button, then process described in (8) would start.

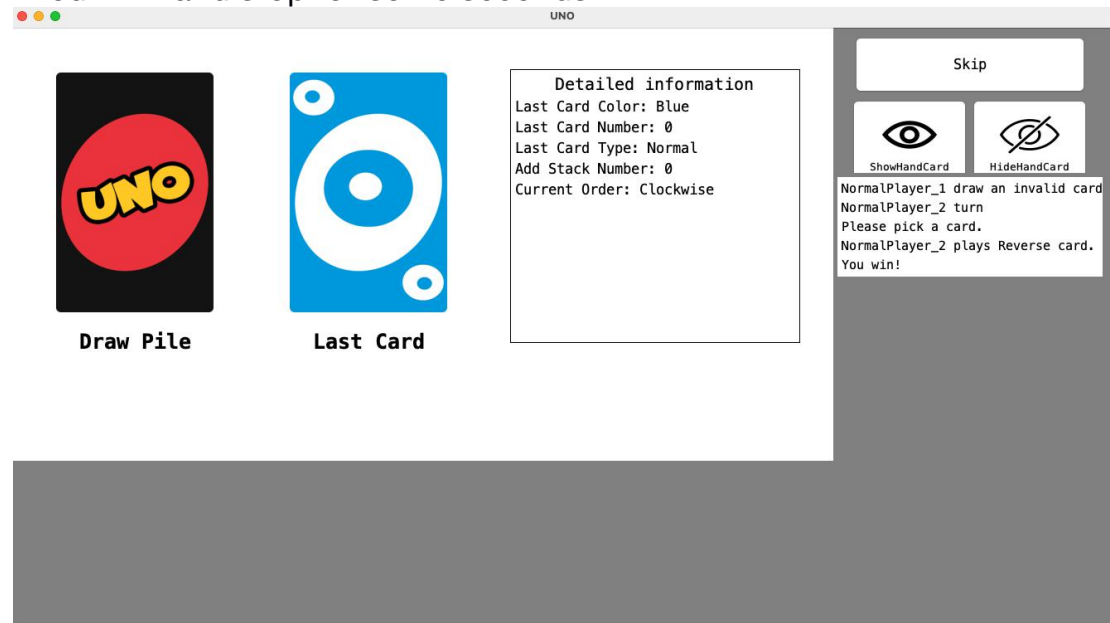


Above is an example when player has valid yellow two card during pick card process. Then after clicking skip button, process like below would begin.



If player has valid stack button to avoid punishment, but still choose to skip, then process like (9) will happen. Player will receive the punishment card and skip his turn.

(11) Once a player plays all his card, then he win and hint panel will show “You win” and stop for some seconds.



Then player frame will disappear, winner frame should appear and congratulate the winner like below.

