FA20 CS242 Assignment 1

Assignment 1 of CS 242 Class Fall 2020. The assignment implements game of Uno. The current version is implemented in Java 14.

Tool

- [Maven](#) >=3.2

Play

Build

The build process requires [Maven](#) because it involves spring boot to run the server. Maven will take care of the dependencies.

```
#Maven packages main class and takes care of the libraries which are specified in pom.xml.
mvn package
```

Run

By Default, Uno game allows two players. When two instances of client are running, the game automatically starts.

- `mvn exec:java –Dexec.mainClass="MVC.Controllers.WebApp"`
  - The command runs a single instance of server locally served at [:8080].
- `mvn exec:java –Dexec.mainClass="MVC.Views.Client"`
  - The command runs a single instance of client locally.
  - If multiple instances should run, simple use another terminal.

Please refer to the README for instructions on version requirements and how to build and run.

Here are some extra instructions for running the WebApp if you need them.
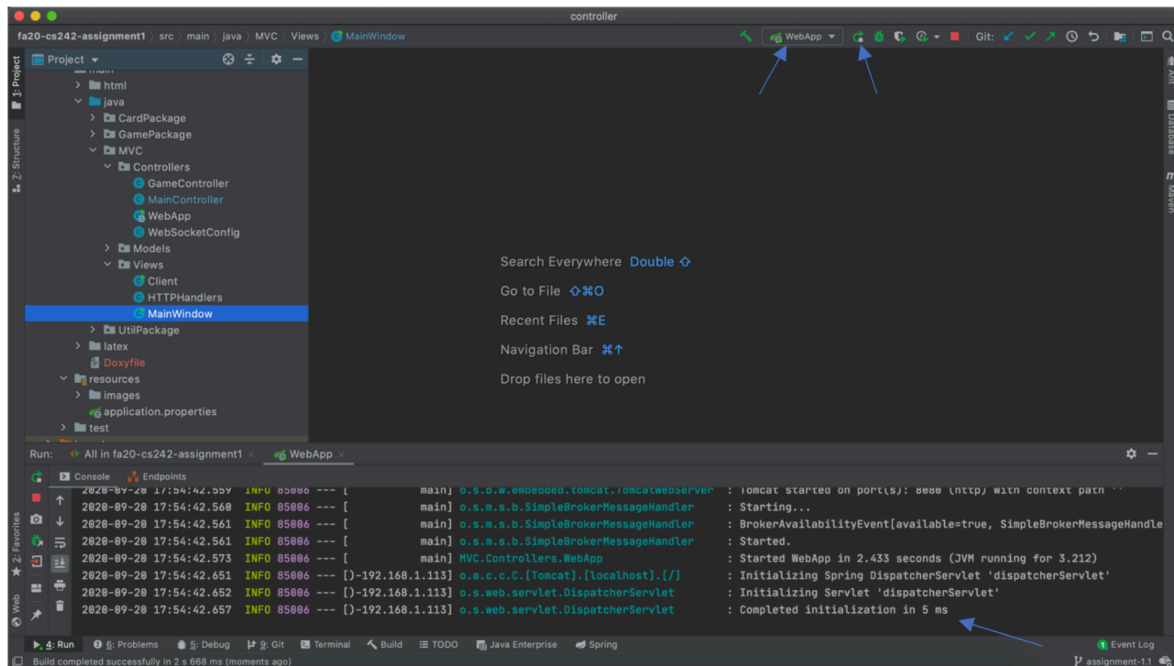
Direct to the working folder. Open IntelliJ and Select "WebApp" on the top right corner. Then click "Run 'Web App'". You should see in the Console "Completed initialization in [n] ms".

```
[ERROR]
[ERROR] For more information about the errors and possible solutions, please rea
d the following articles:
[ERROR] [Help 1] http://cwiki.apache.org/confluence/display/MAVEN/MojoExecutionE
xception
[Mirandas-MBP:fa20-cs242-assignment1 mirandaliu$ mvn exec:java -Dexec.mainClass="]
MVC.Views.Client"
[INFO] Scanning for projects...
[INFO]
[INFO] -------------------------< com.uno:controller >-------------------------
[INFO] Building controller 0.0.1-SNAPSHOT
[INFO] --------------------------------[ jar ]---------------------------------
[INFO]
[INFO] --- exec-maven-plugin:1.6.0:java (default-cli) @ controller ---
17:50:50.677 [AWT-EventQueue-0] DEBUG org.springframework.web.socket.client.stan
dard.StandardWebSocketClient - Connecting to ws://localhost:8080/uno-ws
17:50:50.868 [SimpleAsyncTaskExecutor-1] DEBUG org.springframework.web.socket.ha
ndler.LoggingWebSocketHandlerDecorator - New StandardWebSocketSession[id=c7afed3
b-b9d3-b2b0-b89d-b4e849aa6f7e, uri=null]
17:50:50.868 [SimpleAsyncTaskExecutor-1] DEBUG org.springframework.messaging.sim
p.stomp.DefaultStompSession - Connection established in session id=1b898a9a-55a3
-b27b-e699-af3074008ac8
```
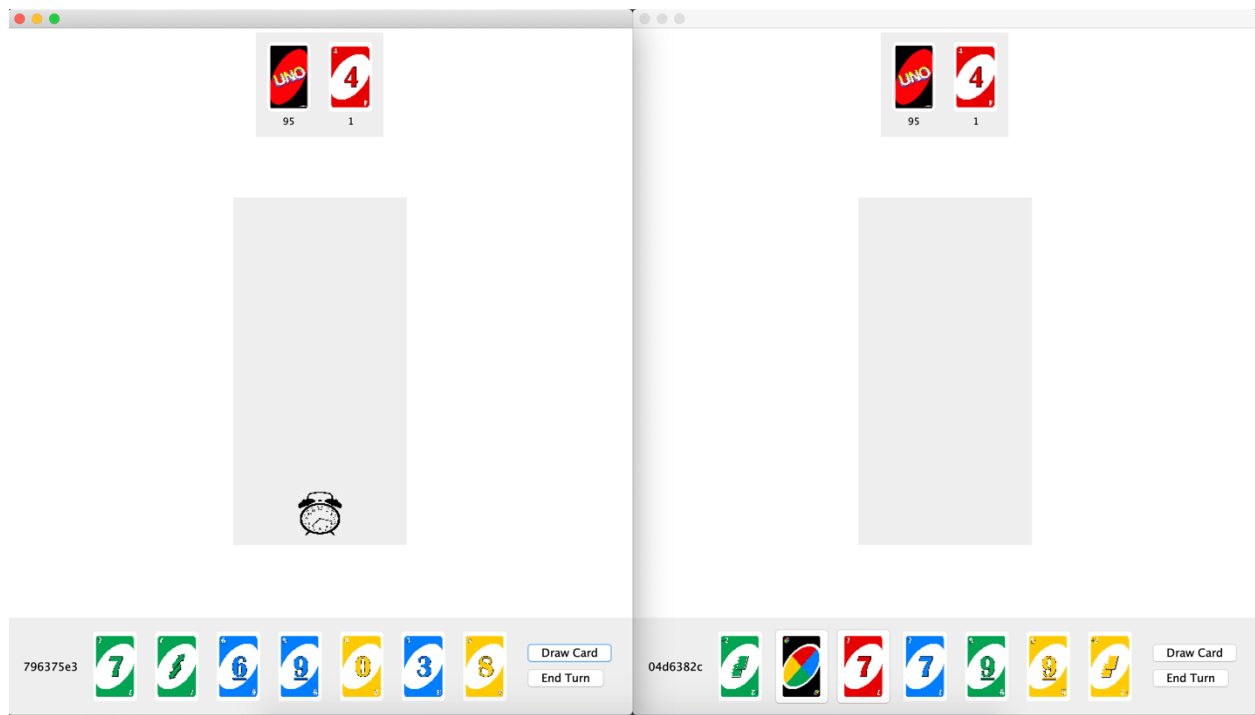
Open up the terminal and direct to the working repository. Run

mvn exec:java -Dexec.mainClass="MVC.Views.Client"

After you do this, the following panel should appear.

Please have all players do this in their terminals.

Once you have the WebApp running, the above picture shows the game interface for 2 players (default). Please check the following:

1. Each player should have 7 cards displayed within their own panel. They should also have their player ids on the left. There should be two buttons on the right of their hands: Draw Card and End Turn.

2. There should be both a draw pile and a discard pile on the top of the screen. The numbers below them should show how many cards are left in each of them. The discard pile should have one card with both color and number as the start state of the game.

3. There should be an icon of an alarm clock in the center of the panel of the current player. This does not actually time the player but rather only reminds them of their turn.
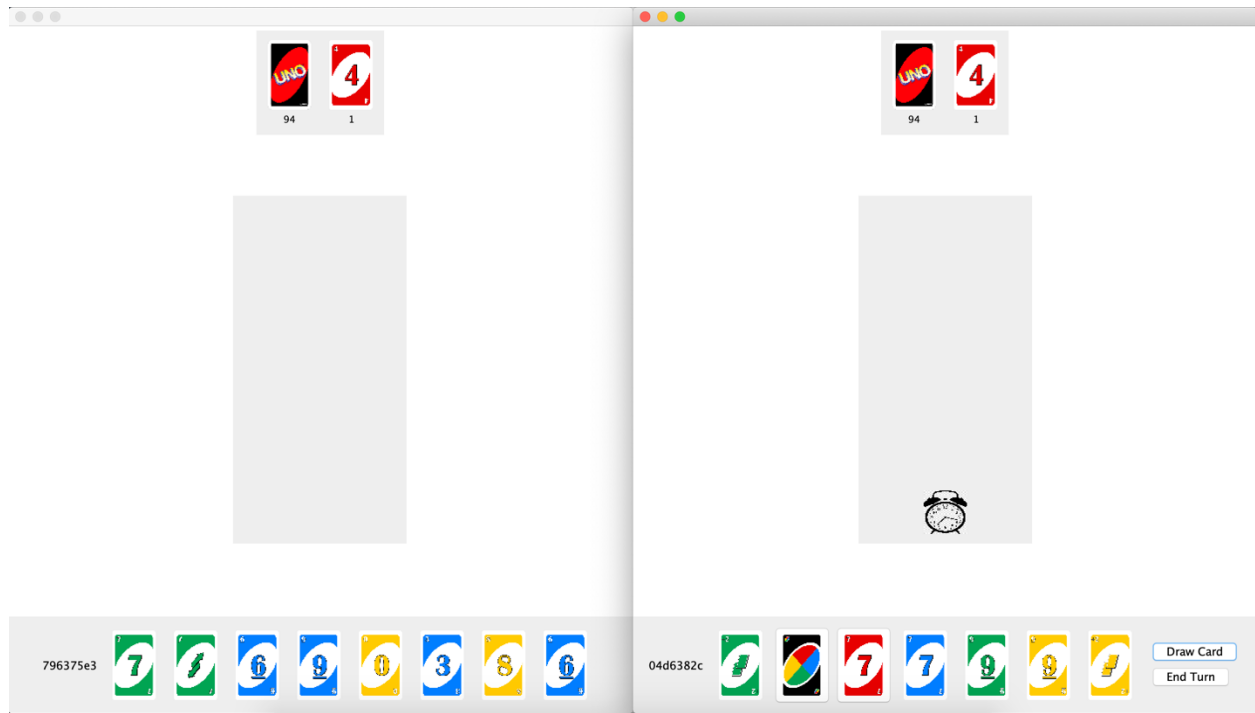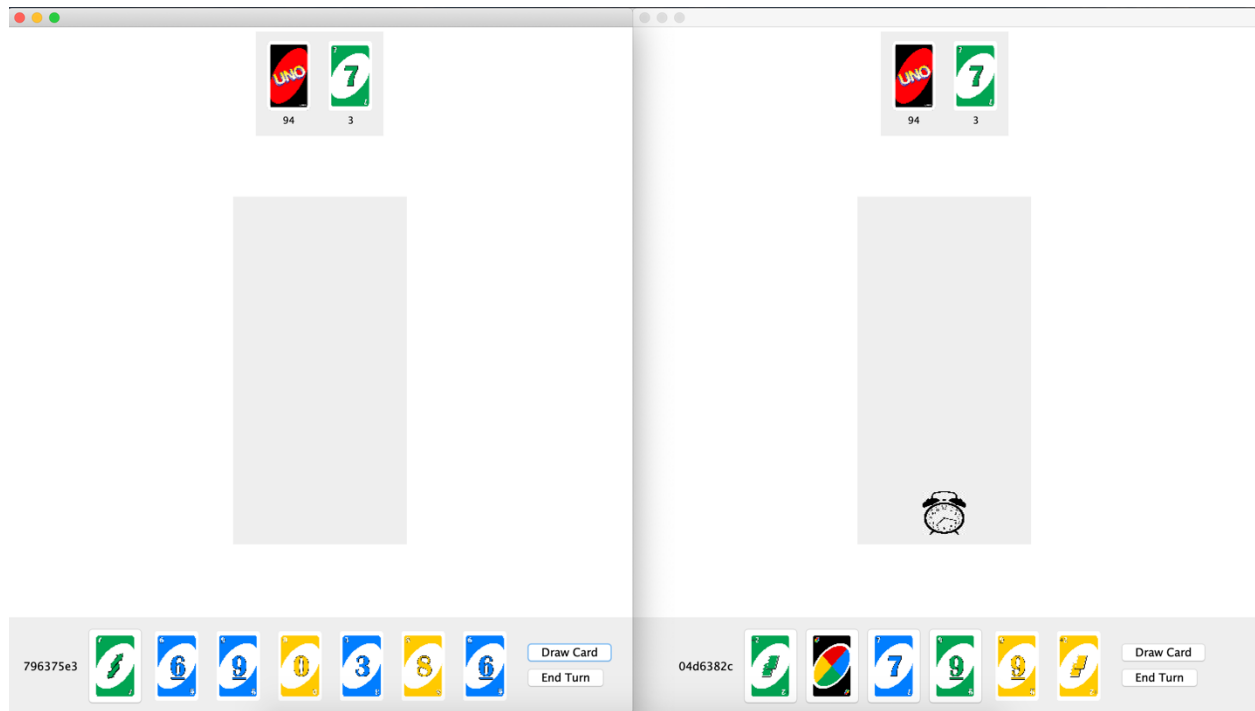
Here the player on the left draws a card and ends their turn. Please check:

1. The alarm clock icon has disappeared from the left player's panel and moved to the right player's panel.

2. The player on the left should now have 8 cards.

3. The discard pile should not have changed. The draw pile should have one less card.
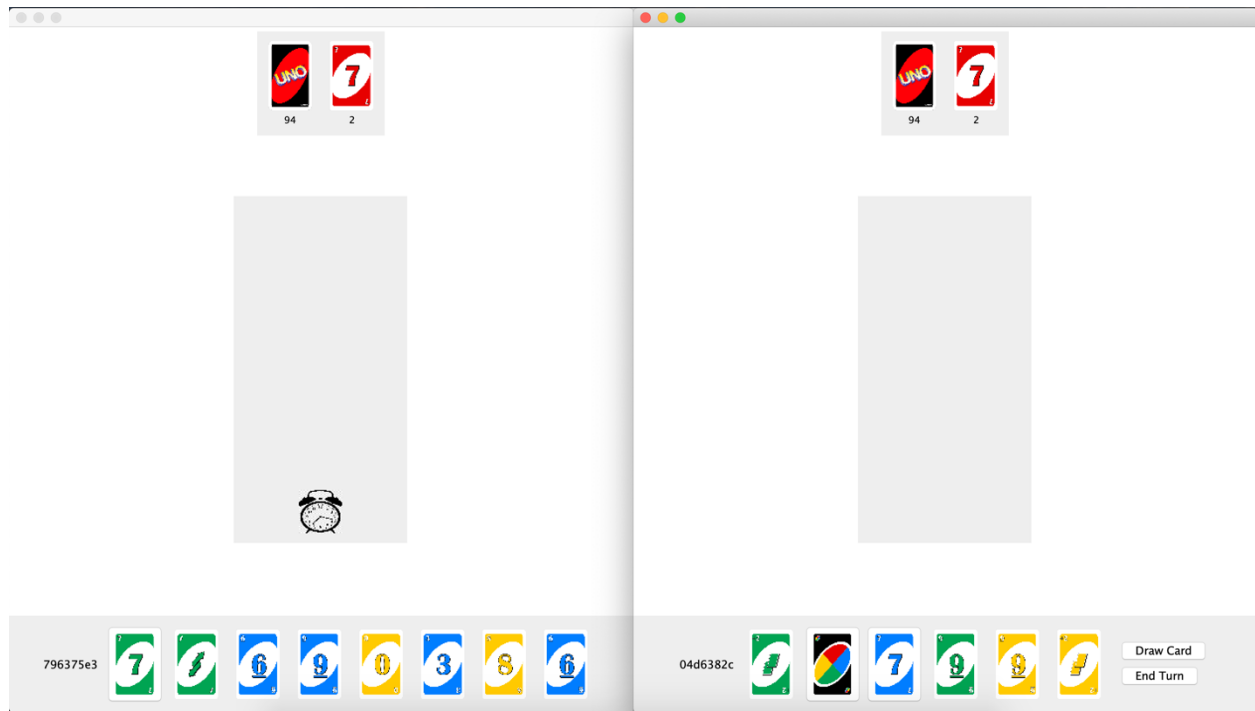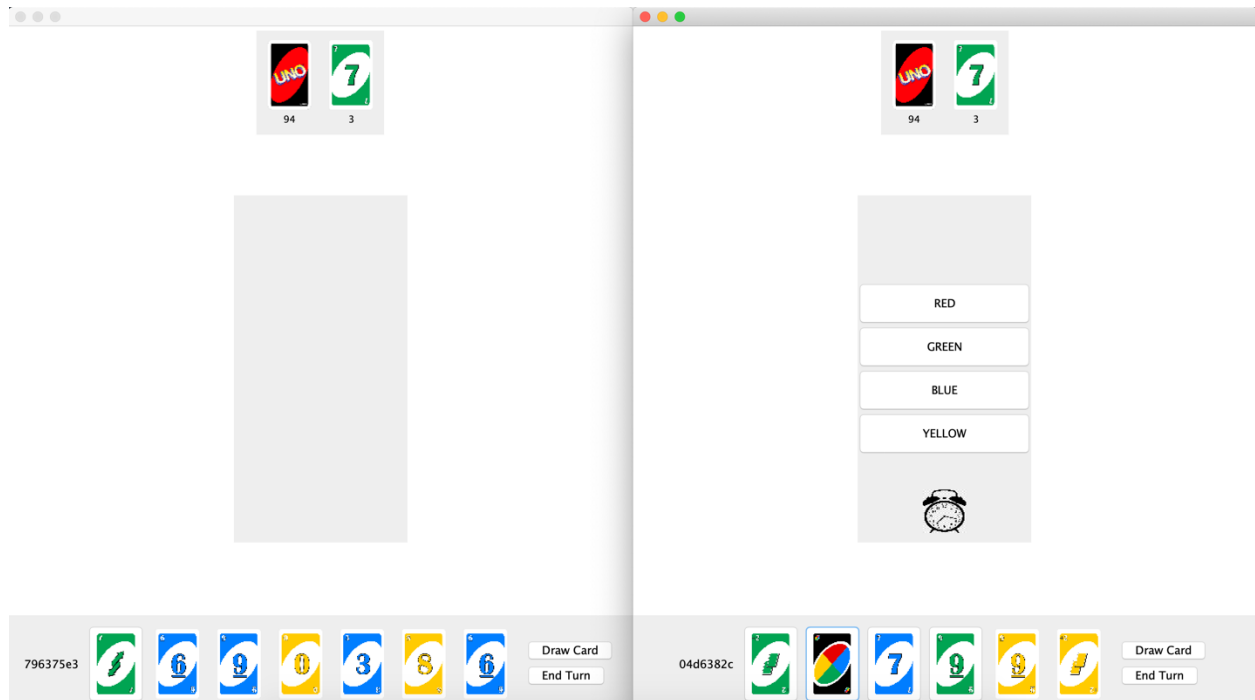
Here the player on the right plays the card red 7 from their hands. Please check:

1. The right player only has 6 cards left.

2. The alarm clock icon has disappeared from the right player's panel and moved to the left player's panel.

3. The draw pile should not have changed. The discard pile should have one more card in it and it should show red 7 as the current status.
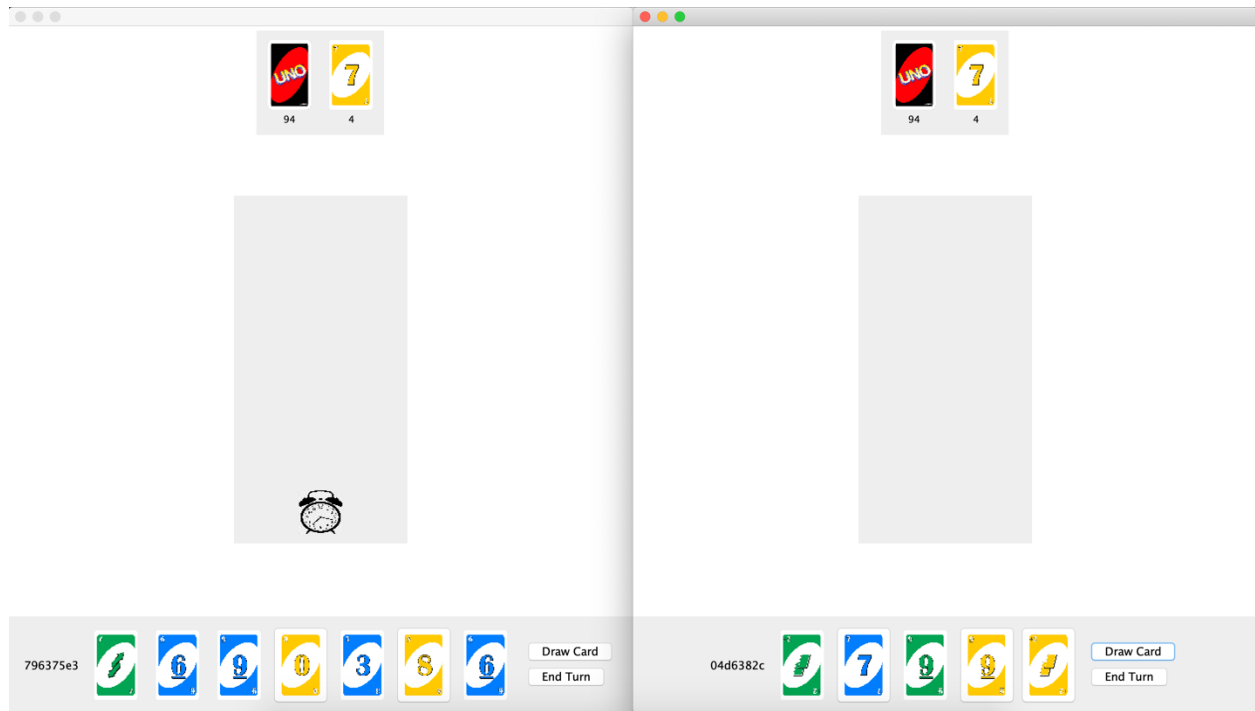
Here the player on the left plays the card green 7 from their hands. Please check:

1. The left player only has 7 cards left.

2. The alarm clock icon has disappeared from the left player's panel and moved to the right player's panel.

3. The draw pile should not have changed. The discard pile should have one more card in it and it should show green 7 as the current status.
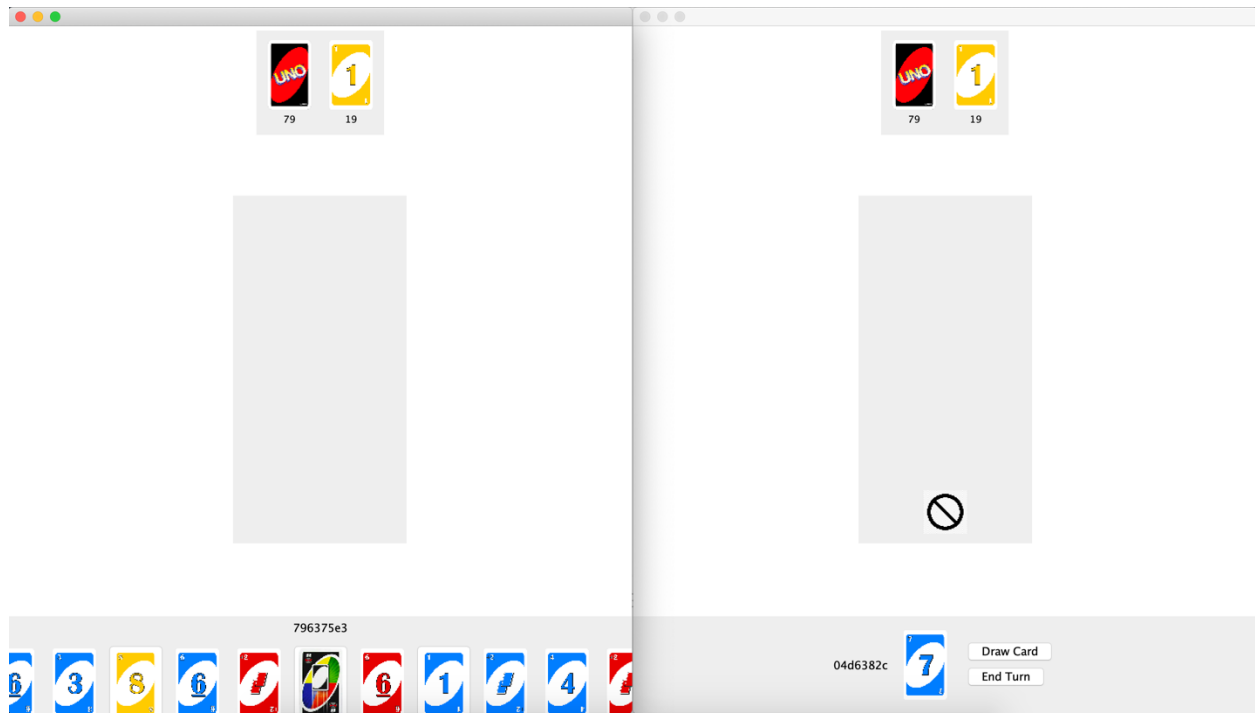
Here the player on the right intends to play the wild card from their hands. Please check:

1. There should be a color selector appearing on the center of the right player's panel. The player should be able to choose which color to play next.

Here the player on the right selects the color yellow. Please check:

1. There should be a color selector appearing on the center of the panel. The player should be able to choose which color to play next.

2. The right player only has 7 cards left.

3. The alarm clock icon has disappeared from the right player's panel and moved to the left player's panel.

4. The draw pile should not have changed. The discard pile should have one more card in it and it should show yellow 7 as the current status.
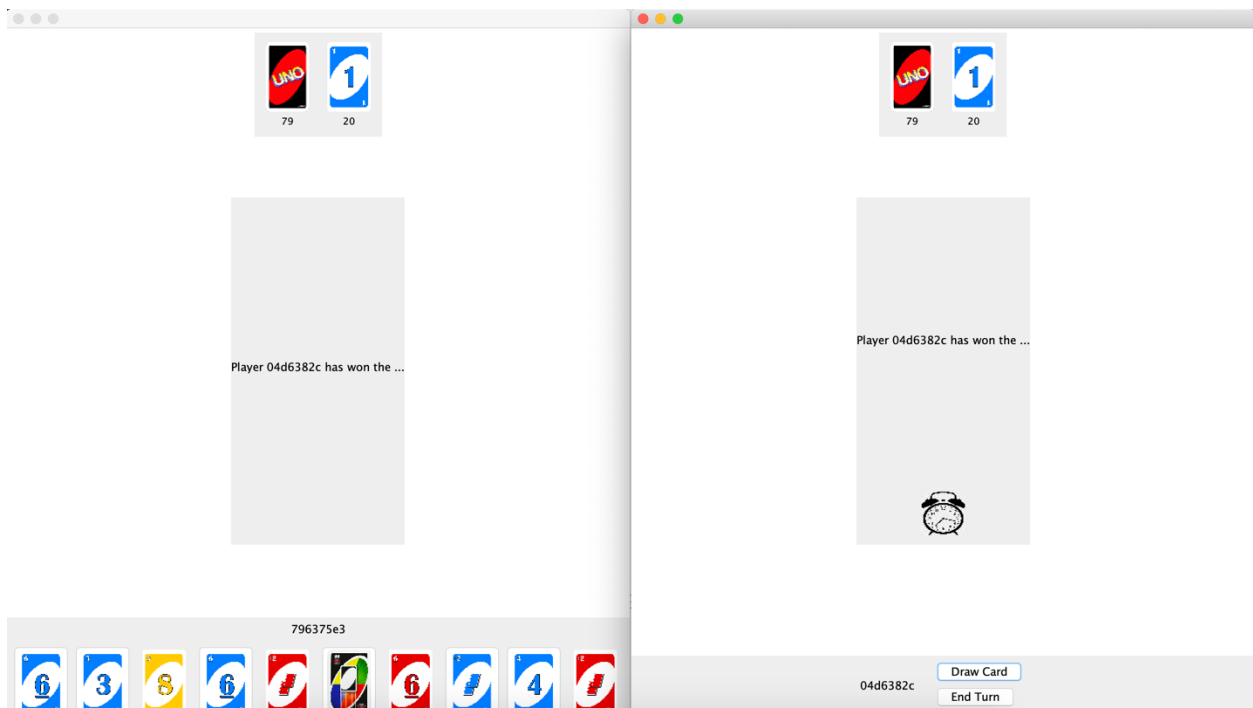
Here the player on the left plays the skip card. Please check:

1. The player on the right should have a skip sign on their panel. They should not be able to play any cards. The only available move is to click End Turn.
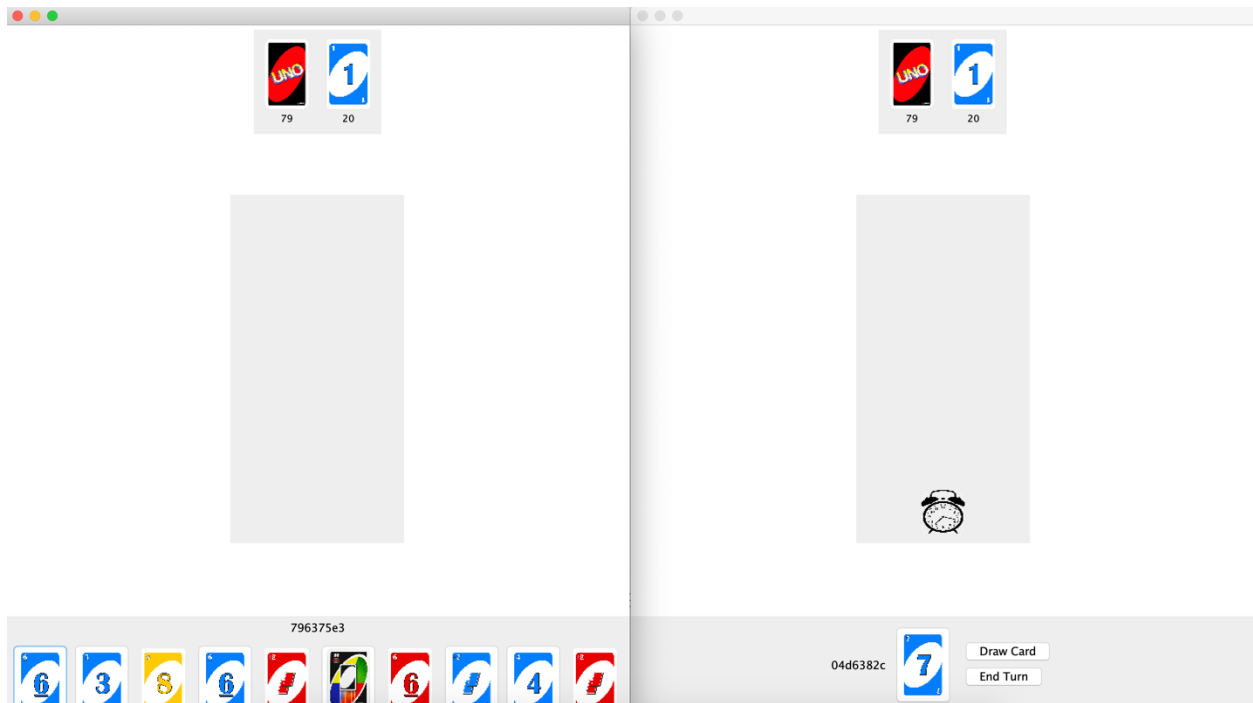
Here the right player only has one card left and it's their turn.

After the right player plays their card, a message should appear on the screen indicating that the right player has won the game.