CRC MODEL

Group 036

UNO

UI

- Start the game
- Enter players' names
- Play cards, draw cards
- End the game

Controller

Controller

- Construct a game
- Deal the cards
- Run the game

UI

PlayerUseCase
DeckUseCase

PlayerUseCase

- Store the players.
- Let player draw a card
- Let player play a card
- Determine whether the player wins
- Determine whether the player can play a card
- Shows what cards the player can play
- Renew the last card played
- Get the players

Controller

Card

Player

DeckUseCase

- Store and get the information of the used and unused decks
- Shuffle the decks by put the used cards to the unused
- Initialize and set an unused deck
- Put a card to the used deck
- Draw a card from the unused deck
- Determine the card is in the given cards list
- Determine whether the card is a null card.

Controller

Card

Deck

Player

• Store and get the player's id, handcards, position. • Draw a card • Play a card • Get the number of handcards • Get the handcards • Print the information of the player	PlayerUseCase Card

Deck

- Store and get the used and unused decks
- Determine whether the unused deck is empty
- Show the number of cards of a given deck
- Replace the used or unused deck with a given deck
- Draw a card from the unused deck
- Shuffle the decks

DeckUseCase

Card

Card

- Store and get the color, id of the card
- Construct a null to represent the situation of "no card"
- print the card

DeckUseCase

Deck

NumberCard

- Store and get the number of the card

- Store and get the color, id of the card

- Construct a null to represent the situation of "no card"

- print the card

DeckUseCase

Deck

FunctionCard

• Store and get the function of the card • Store and get the color, id of the card • Construct a null to represent the situation of "no card" • print the card	DeckUseCase Deck