

COMP 2522 Term Project - Card Game Logic

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- Round-based combat (Each player picks a card)
- You are battling the AI or another player
 - Each player has a deck of cards
 - Each player has a certain number of wins for each element
- Win condition: A player has 3 wins with an element
- Deck
 - There are 5 cards in hand (part of deck class)
 - The max amount of cards played in a game is 11 + 5 in hand
 - Each deck will contain 20 cards (can make your deck biased toward a certain element)
 - Total attack value of deck = 100 (You can determine which cards are stronger)
 - Cards have an element and an attack value
 - There are 3 elements (Fire, water, grass)
 - The attack value will be from 1 to 10
 - Shuffle deck on game start
 - Add discarded decks back to deck on game end
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- Animation on round win
- Round win/loss condition
- Deck edit: (Default Deck)
 - Can only save a deck if the attack value sums to 100
 - Must have 20 cards to save
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- Serialization
 - The player can have one decks that they edit
 - The cards in each deck need to be saved
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Objects to create:

- Player
 - Contains Array of wins for each specific element (Three of a kind)
 - Number of games played
 - Name
 - Point to a deck
- Deck
 - Contains array of 5 cards for cards in hand

- Contains array for discarded cards
 - Contains cards that have won
 - In hand method
 - Deal hand method
 - Contains cards
- Card → Fire card, water card, grass card
 - Attack value
- Game
 - Uses mutator to change player array of wins
 - Increment players number of games played
 - Determines who wins in each round
 - Each game contains 2 Player
 - Check for win condition → check winning cards in deck
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 - Deal cards -> Call methods from Deck to handle the player's cards

GUI

- GameScene
- SceneManager
- MainApplication
- GameController
- CardView
- Scoreboard
- CardEventHandler

Enter name OR load player -> Edit deck OR Start game (Home screen, also show W/L ratio)

Stretch goals:

- Deck selection
- AI selection
- Round timer (play card by x time)