Euchre

Week 6 Status Report

Logan Hallowell
Alex Memering
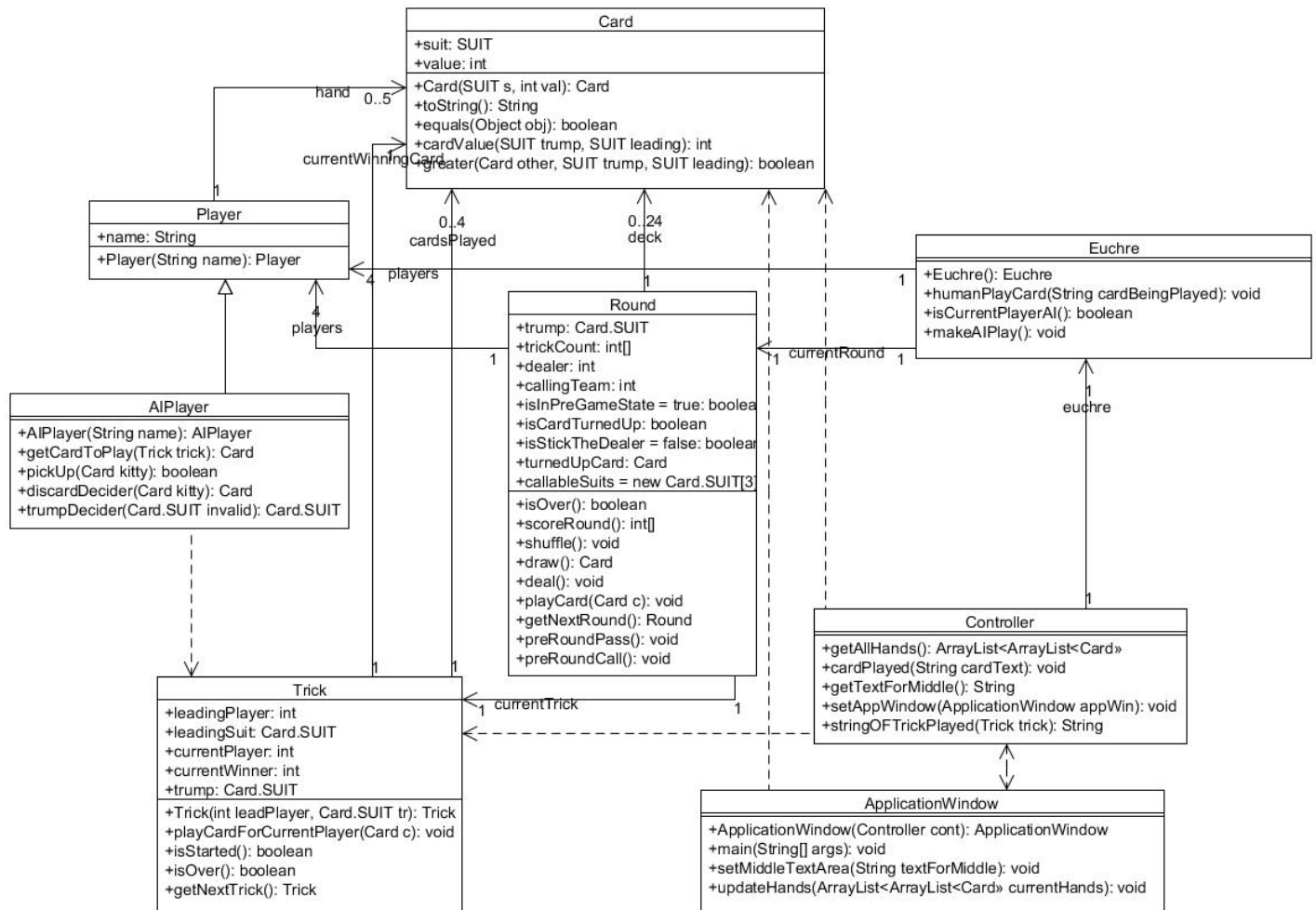Erik Sanders

Table of Contents

1 User Scenario for Week 7

- The pre-round phase will be fully completed. This entails:
  - When a card is called, the dealer must pick it up and discard one of the 6 cards in his hand
  - If all 4 people turn down the card turned up, there needs to be a second pre round phase where people can call one of the three suits as trump that wasn't the suit of the turned up card
  - If again, it gets back to the dealer, the dealer must be forced to pick one of the three suits for trump
- We are going to refactor some code from the controller into the Game Engine so that the controller behaves more like a human would if he were playing the game. Specifically, the controller shouldn't have to tell the AI to play when it is their turn.

2 Draft Tests for Week 7 Scenario

- Test calling trump for all 4 players in both iterations of the pre round. Then repeat these 8 tests for an AI dealer
- For each of those calls, make sure trump was set correctly
- Verify the dealer was waited on to discard if they were human, or they discarded if they were AI
- Verify that the only callable suits are the ones that weren't the suit of the turned up Card

3 Class Diagram

Card
+suit: SUIT
+value: int
+Card(SUIT s, int val): Card
+toString(): String
+equals(Object obj): boolean
+cardValue(SUIT trump, SUIT leading): int
+greater(Card other, SUIT trump, SUIT leading): boolean

Player
+name: String
+Player(String name): Player

AIPlayer
+AIPlayer(String name): AIPlayer
+getCardToPlay(Trick trick): Card
+pickUp(Card kitty): boolean
+discardDecider(Card kitty): Card
+trumpDecider(Card.SUIT invalid): Card.SUIT

Round
+trump: Card.SUIT
+trickCount: int[]
+dealer: int
+callingTeam: int
+isInPreGameState = true: boolea
+isCardTurnedUp: boolean
+isStickTheDealer = false: boolea
+turnedUpCard: Card
+callableSuits = new Card.SUIT[3]
+isOver(): boolean
+scoreRound(): int[]
+shuffle(): void
+draw(): Card
+deal(): void
+playCard(Card c): void
+getNextRound(): Round
+preRoundPass(): void
+preRoundCall(): void

Euchre
+Euchre(): Euchre
+humanPlayCard(String cardBeingPlayed): void
+isCurrentPlayerAI(): boolean
+makeAIPlay(): void

Trick
+leadingPlayer: int
+leadingSuit: Card.SUIT
+currentPlayer: int
+currentWinner: int
+trump: Card.SUIT
+Trick(int leadPlayer, Card.SUIT tr): Trick
+playCardForCurrentPlayer(Card c): void
+isStarted(): boolean
+isOver(): boolean
+getNextTrick(): Trick

Controller
+getAllHands(): ArrayList<ArrayList<Card>>
+cardPlayed(String cardText): void
+getTextForMiddle(): String
+setAppWindow(ApplicationWindow appWin): void
+stringOFTrickPlayed(Trick trick): String

ApplicationWindow
+ApplicationWindow(Controller cont): ApplicationWindow
+main(String[] args): void
+setMiddleTextArea(String textForMiddle): void
+updateHands(ArrayList<ArrayList<Card>> currentHands): void

4 Code Coverage

Current coverage at 80.4% for 6,642 instructions. If you disregard the Window, Controller and testing code then we have 1,727 total instructions, of which 1,367 are covered making the adjusted percentage 79.2%. This loss is mostly due to the fact of some major design changes that happened when implementing the preround code. Before we had been testing by just initializing the game and play, however that no longer works because now steps have to be taken at the beginning of each round. Therefore many tests needed altering and some just would no longer function and were deleted.