SDD -Hearts Low Level Design

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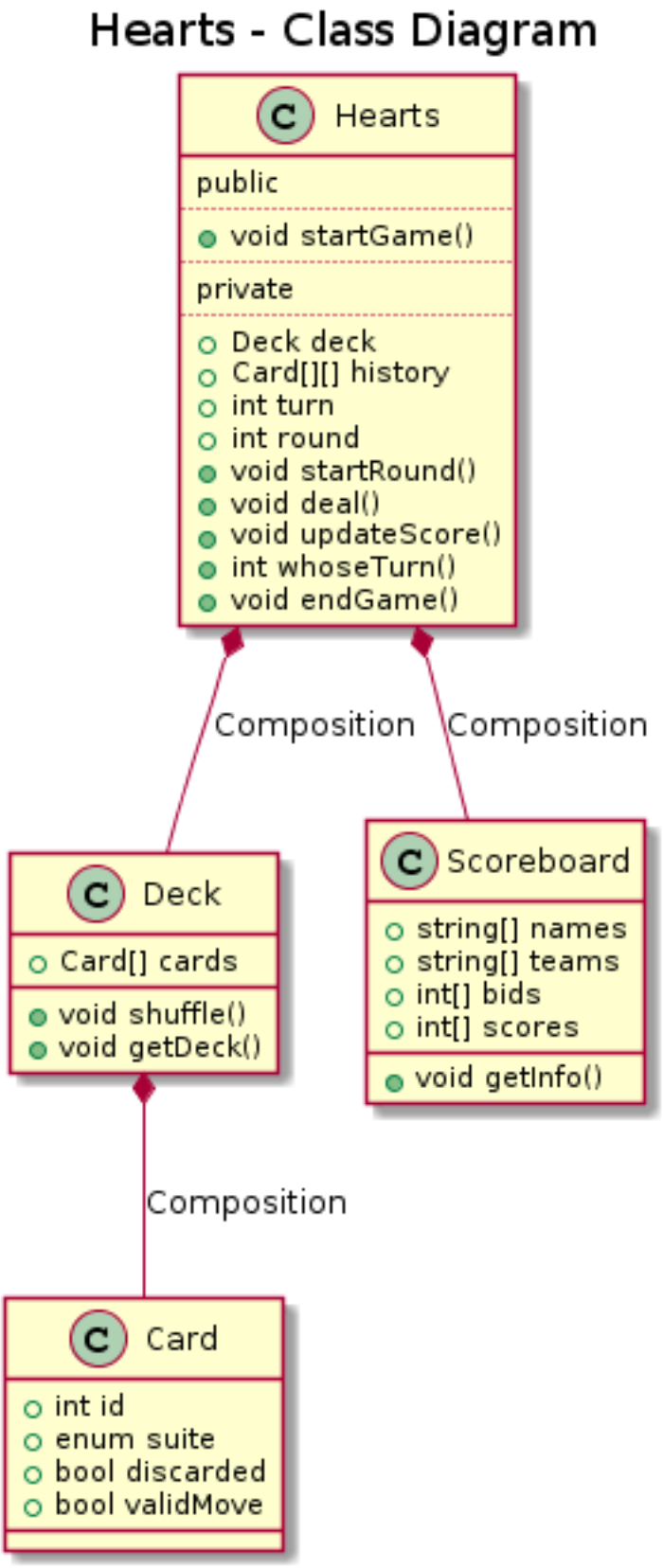

Hearts Low Level Design Diagram

1 Hearts Class

1.1 Deck deck

Object deck which holds an array of 52 cards.

1.2 Card[][] history

Array holds previous cards in play, allows client to view history.

1.3 int turn

Variable to hold turn number for use in game logic.

1.4 int round

Variable to hold round number for use in game logic.

1.5 void startRound()

Start round will first update each client with their hands and then ask which cards need to be passed, it then will call a private function take turn.

1.6 void deal()

This function gives each player the appropriate cards at the beginning of each game or round.

1.7 void updateScore()

This function updates the score after each player goes (or after each round depending on specific game)

1.8 void whoseTurn()

This function keeps track of which player is next to play.

1.9 void endGame()

This funcion allows the client to exit or play an additional game.

2 Scoreboard Class

2.1 string[] names

String of player name.

2.2 string[] teams

String of team player is on.

2.3 int bids

Int of player bid.

2.4 int scores

Int of player score.

2.5 void getInfo()

This function calculates and updates information needed for displaying score for player.

3 DeckClass

3.1 Card[] cards

This is an array (of size 52) of card objects to be used in a game.

3.2 void shuffle()

This function changes the id values to different array elements to randomize a deck to be played in a game.

3.3 void getDeck()

This allows the game logic to pull the information of the Deck class and use it for a game.

4 Card Class

4.1 int id

This variable represents and corresponds to a specific card in a standard playing deck.

4.2 enum suite

The card object will be one of four suites, enumerated to represent hearts, diamonds, spades, and clubs.

4.3 bool discarded

This indicates whether a card has been discarded or played in a game.

4.4 bool validMove

This indicates whether a card is playable in the current hand of play.