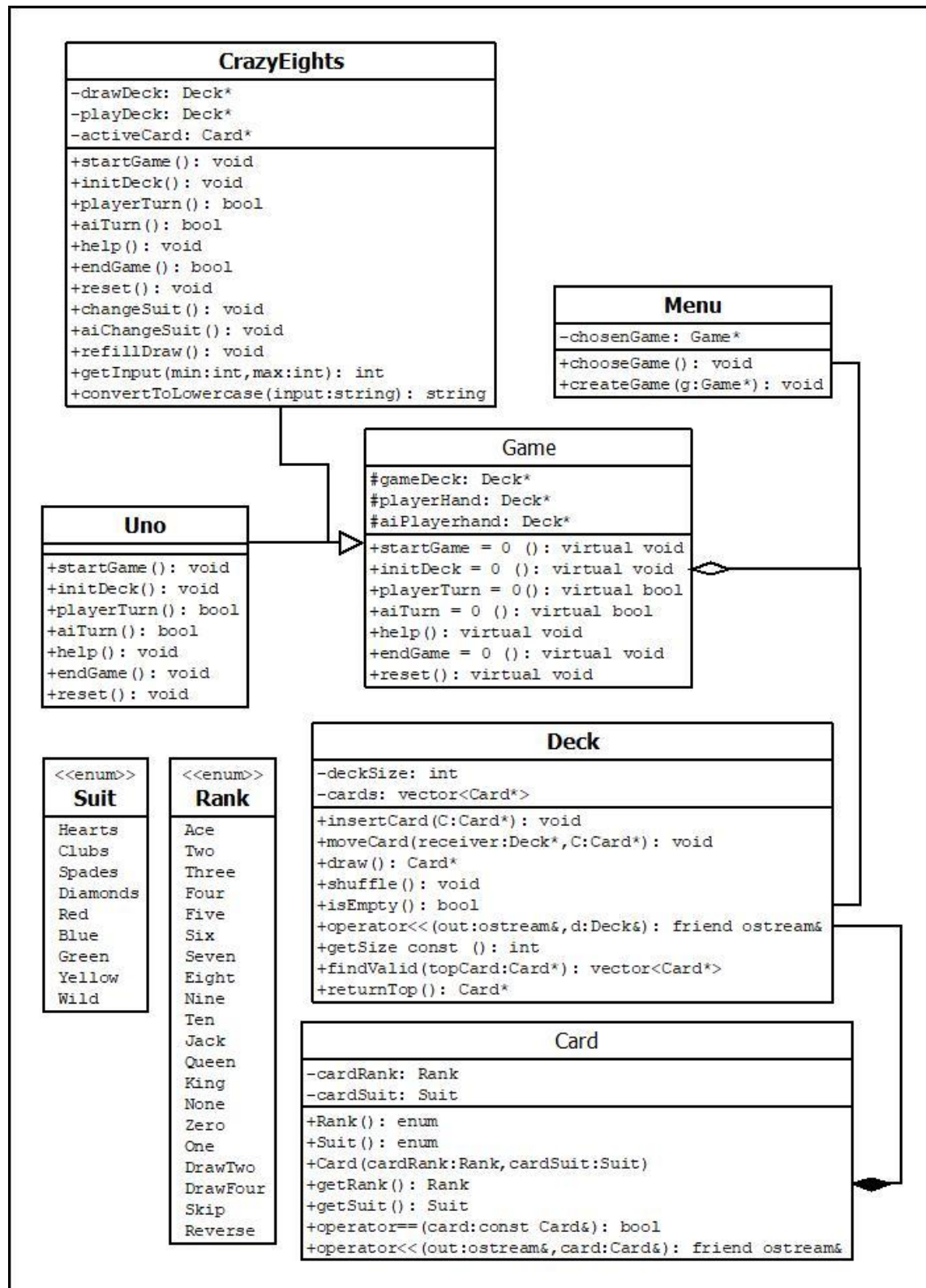


UML DIAGRAM:



CLASSES:

Card: Represents a card in the game, makes up a deck of cards

- Rank - the number or value of the card
- Suit - the suit or colour of the card
- getRank - returns the number or value on the card
- getSuit - returns the suit or colour of the card
- operator== - overrides the comparison operator to compare cards
- operator<< - overrides the << operator in order to output the contents of the card to the screen

Deck: Represents a collection of cards, can be used as a hand, a discard pile, or a draw pile

- insertCard - inserts a card into the deck, mostly used during initialization
- moveCard - takes in the pointer for the deck that the card is moving to, as well as a pointer for the card that is being moved. Removes the card from the deck and adds it to the other deck
- draw - returns the pointer for the first card on the deck, but doesn't remove the card
- shuffle - rearranges the card vector randomly
- isEmpty - checks to see if there are any cards in the cards vector, returns true if there are none
- operator<< - overrides the output operator in order to output the contents of the deck to the screen
- getSize - returns the size of the cards vector
- findValid - returns a vector of cards that the player can play on their turn
- returnTop - returns the last

Game: Represents a game, abstract with pure virtual functions

Uno:

- startGame - Runs the logic for the game Uno, calling the necessary functions to run player turns, etc. (actual code is delegated to the called methods)
- initDeck - sets up the decks to play the game
- playerTurn - Runs the human player's turn, getting input for what action to take, and calling the necessary logic to complete that task.
- aiTurn - Runs the AI Player's turn, outputs the events that happened on that turn
- help - displays the help function for the game, explaining the rules, how to play, etc.
- endGame - Ends the game and declares the winner to the player.
- reset - Resets the game to its initial state

CrazyEights:

- startGame - Runs the logic for the game crazy eights, calling the necessary functions to run player turns, etc. (actual code is delegated to the called methods)
- initDeck - sets up the decks to play the game
- playerTurn - Runs the human player's turn, getting input for what action to take, and calling the necessary logic to complete that task.
- aiTurn - Runs the AI Player's turn, outputs the events that happened on that turn
- help - displays the help function for the game, explaining the rules, how to play, etc.
- endGame - Ends the game and declares the winner to the player.
- reset - Resets the game to its initial state
- changeSuit - changes the suit of the discard pile to the specified one (used for wild cards)
- aiChangeSuit - changes the suit of the discard pile to the specified one (but used for the ai)
- refillDraw - refills the draw pile when it is depleted
- getInput - gets the player's input
- convertToLowercase - converts a string to lowercase

Menu: Provides an interface for the player to choose a game

- chooseGame - gets the player's input for which game they want to play
- createGame - takes in a Game pointer and starts the game