

# ENTITIES

Card	
<ul style="list-style-type: none"><li>• rank: string</li><li>• suit: char</li><li>• isFace(): bool [whether this Card is a face card]</li><li>• getRank()</li><li>• getSuit()</li></ul>	

Deck	
<ul style="list-style-type: none"><li>• cards: List</li><li>• drawCard(): Card</li><li>• shuffle()</li><li>• peek(): Card [first/top card of deck]</li><li>• isEmpty(): bool</li><li>• addCard(Card) [adds to bottom of deck]</li></ul>	Card

Hand	
<ul style="list-style-type: none"><li>• cards: List</li><li>• getCards(): Card[]</li><li>• addCard(Card) [to end of hand]</li><li>• removeCard(): Card [remove first/top card]</li><li>• removeCard(rank, suit): Card [remove specific card]</li><li>• getSize(): int</li></ul>	Card

# USE CASES

Player	
<ul style="list-style-type: none"><li>• hand: Hand</li><li>• name: String</li><li>• addToHand(Card)</li><li>• removeFromHand(Card)</li><li>• getHand(): Hand</li></ul>	Hand Card

Game (abstract)	
<ul style="list-style-type: none"><li>• players: Player[]</li><li>• deck: Deck</li><li>• currPlayer: Player</li><li>• currPlayerIndex: int</li><li>• calculateValidMoves()</li><li>• makeMove(Card)</li><li>• checkWin(): bool</li><li>• startGame() [main game loop]</li></ul>	Player Deck Card

crazyEights extends Game	
<ul style="list-style-type: none"><li>• playingField: Stack</li><li>• controller: InOut</li><li>• hasValidMove()</li></ul>	Card Hand InOut

# CONTROLLERS/UI

## InOut (interface)

- getCard() [return user selected card]
- drawCard() [return whether user wishes to draw a card from the deck]
- sendOutput() [send output to the user]

## ConsoleInOut implements InOut

- Command line interface
- Uses inputs from console to implement InOut