

# CardGames API

Version 1.0.0

## Card class

### Member variables

- *cardBack* – list of strings to print the back of the card
- *image* – list of strings to print the front of the card
- *shortImage* – list of strings to print a partial view of the front of the card
- *suit* – string denoting the card's suit ("Spades", "Clubs", "Hearts", "Diamonds")
- *value* – integer denoting the cards value (Ace = 1, Jack = 10, Queen = 11, King = 12]

### Functions

- `__init__(suit, value, image, cardBack)`

Creates a card with a specific suit, value, and card back image

Input:

- *suit* – string for the card's suit ("Spades", "Clubs", "Hearts", "Diamonds"]
- *value* – integer for the card's value (Ace = 1, Jack = 10, Queen = 11, King = 12)
- *image* = list of string to print the front of the card
- *cardBack* = list of strings to print the back of the card

## Deck class

### Member variables

- *cards* – list of **Card** objects that can still be dealt
- *size* – the number of unused **Cards** in *cards*

- *cardBack* – list of strings representing the image on the back of the **Cards** in *cards*
- *discarded* – list of **Card** objects that have already been dealt

## Functions

- `__init__()`  
Builds a deck of cards
- `shuffle()`  
Randomizes *self.cards*
- `getCard()`  
Removes first card from *self.cards* and puts it at the end of *self.discarded*

Returns:

- First card in *self.cards*

## Player class

### Member variables

- *name* – string representing the player's name
- *hand* – list of **Card** objects representing the player's cards
- *money* – integer for amount of money the player currently has

### Functions

- `__init__(name, money=0)`  
Sets the player's name, gives them 0 money, and no cards for their hand

Input:

- *name* – string for the player's name
- *money* – integer for amount of initial money the player has
- `addMoney(amount)`

Adds more money to the player.

Input:

- amount – integer number of money to add to the player

Returns:

- amount – integer number of money to add to the

- makeBet(amount)

Removes money from the player only if the player has at least the bet *amount* currently.

Input:

- amount – integer number of money to remove from the player

Returns:

- integer - new amount of money the player has

- addCard(card, isKnown = True)

Adds one card to the player's hand.

Input:

- card – **Card** object to add to self.*hand*
- isKnown – boolean whether the card is known to everyone

- clearHand()

Removes all cards from the player's hand.

## Dealer class

Member variables

- *None*

Functions

- \_\_init\_\_()

Does nothing

- printCards(cards, showFront, printShort = True)

Displays a list of cards, either face up or face down.

Input:

- cards – list of **Card** objects to display
  - showFront – boolean for whether to show the front of the card (value)
  - printShort – boolean for whether to show only part of the card. Defaults is True to show partial card images
- `printPlayerCards(player, printShort = False)`

Displays a player's cards, based on which cards are known.

Input:

- player – **Player** object
  - printShort – boolean for whether to show only part of the card. Defaults is True to show partial card images
- `dealCards(numCards, players)`

Deals a certain number of cards to each player.

Input:

- numCards – integer number of cards to deal to each player
- players – a list of **Player** objects to deal cards to

Returns:

- True – cards are dealt successfully
- False – not enough cards in the deck to deal to all players