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blackjack

## Class Blackjack

* java.lang.Object
  + blackjack.Blackjack
* All Implemented Interfaces: [BlackjackEngine](http://docs.google.com/blackjack/BlackjackEngine.html)  
    
  public class Blackjack  
    
  extends java.lang.Object  
    
  implements [BlackjackEngine](http://docs.google.com/blackjack/BlackjackEngine.html)

### Field Summary

### Fields inherited from interface blackjack.[**BlackjackEngine**](http://docs.google.com/blackjack/BlackjackEngine.html)[BLACKJACK](http://docs.google.com/blackjack/BlackjackEngine.html#BLACKJACK), [BUST](http://docs.google.com/blackjack/BlackjackEngine.html#BUST), [DEALER\_WON](http://docs.google.com/blackjack/BlackjackEngine.html#DEALER_WON), [DRAW](http://docs.google.com/blackjack/BlackjackEngine.html#DRAW), [GAME\_IN\_PROGRESS](http://docs.google.com/blackjack/BlackjackEngine.html#GAME_IN_PROGRESS), [HAS\_21](http://docs.google.com/blackjack/BlackjackEngine.html#HAS_21), [LESS\_THAN\_21](http://docs.google.com/blackjack/BlackjackEngine.html#LESS_THAN_21), [PLAYER\_WON](http://docs.google.com/blackjack/BlackjackEngine.html#PLAYER_WON)

### Constructor SummaryConstructors

|  |
| --- |
| * + Constructor and Description |
| * + [Blackjack](http://docs.google.com/blackjack/Blackjack.html#Blackjack-java.util.Random-int-)(java.util.Random randomGenerator, int numberOfDecks) Constructor you must provide. |

### Method SummaryAll Methods Instance Methods Concrete Methods

|  |  |
| --- | --- |
| * + Modifier and Type | * + Method and Description |
| * + void | * + [createAndShuffleGameDeck](http://docs.google.com/blackjack/Blackjack.html#createAndShuffleGameDeck--)() Creates and shuffles the card deck(s) using a random number generator. |
| * + void | * + [deal](http://docs.google.com/blackjack/Blackjack.html#deal--)() Creates a new deck of cards, and assigns cards to the dealer and player. |
| * + int | * + [getAccountAmount](http://docs.google.com/blackjack/Blackjack.html#getAccountAmount--)() Returns the player's account amount |
| * + int | * + [getBetAmount](http://docs.google.com/blackjack/Blackjack.html#getBetAmount--)() Returns an integer representing the bet amount. |
| * + [Card](http://docs.google.com/blackjack/Card.html)[] | * + [getDealerCards](http://docs.google.com/blackjack/Blackjack.html#getDealerCards--)() Returns dealer's cards. |
| * + int | * + [getDealerCardsEvaluation](http://docs.google.com/blackjack/Blackjack.html#getDealerCardsEvaluation--)() Returns an integer value that can assume the values LESS\_THAN\_21 if the dealer's cards have a value less than 21, BUST if the dealer's cards have a value greater than 21, and BLACKJACK if the dealer has an Ace along with a "10", Jack, Queen, or King. |
| * + int[] | * + [getDealerCardsTotal](http://docs.google.com/blackjack/Blackjack.html#getDealerCardsTotal--)() Returns an array representing the possible value(s) associated with the dealer's cards if the cards represent a value less than or equal to 21. |
| * + [Card](http://docs.google.com/blackjack/Card.html)[] | * + [getGameDeck](http://docs.google.com/blackjack/Blackjack.html#getGameDeck--)() Returns the current deck of cards. |
| * + int | * + [getGameStatus](http://docs.google.com/blackjack/Blackjack.html#getGameStatus--)() Returns an integer representing the game status. |
| * + int | * + [getNumberOfDecks](http://docs.google.com/blackjack/Blackjack.html#getNumberOfDecks--)() Returns the number of decks being used. |
| * + [Card](http://docs.google.com/blackjack/Card.html)[] | * + [getPlayerCards](http://docs.google.com/blackjack/Blackjack.html#getPlayerCards--)() Returns player's cards. |
| * + int | * + [getPlayerCardsEvaluation](http://docs.google.com/blackjack/Blackjack.html#getPlayerCardsEvaluation--)() Returns an integer value that can assume the values LESS\_THAN\_21 if the player's cards have a value less than 21, BUST if the players's cards have a value greater than 21, and BLACKJACK if the player has an Ace along with a "10", Jack, Queen, or King. |
| * + int[] | * + [getPlayerCardsTotal](http://docs.google.com/blackjack/Blackjack.html#getPlayerCardsTotal--)() Returns an array representing the possible value(s) associated with the player's cards if the cards represent a value less than or equal to 21. |
| * + void | * + [playerHit](http://docs.google.com/blackjack/Blackjack.html#playerHit--)() Retrieves a card from the deck and assigns the card to the player. |
| * + void | * + [playerStand](http://docs.google.com/blackjack/Blackjack.html#playerStand--)() Flips the dealer's card that is currently face down and assigns cards to the dealer as long as the dealer doesn't bust and the cards have a value less than 16. |
| * + void | * + [setAccountAmount](http://docs.google.com/blackjack/Blackjack.html#setAccountAmount-int-)(int amount) Updates the player's account with the parameter value. |
| * + void | * + [setBetAmount](http://docs.google.com/blackjack/Blackjack.html#setBetAmount-int-)(int amount) Updates the bet amount to the provided value |

### Methods inherited from class java.lang.Objectequals, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

### Constructor Detail

#### Blackjack public Blackjack(java.util.Random randomGenerator, int numberOfDecks) Constructor you must provide. Initializes the player's account to 200 and the initial bet to 5. Feel free to initialize any other fields. Keep in mind that the constructor does not define the deck(s) of cards.Parameters: randomGenerator - numberOfDecks -

### Method Detail

#### getNumberOfDecks public int getNumberOfDecks() Description copied from interface: [BlackjackEngine](http://docs.google.com/blackjack/BlackjackEngine.html#getNumberOfDecks--) Returns the number of decks being used.Specified by: [getNumberOfDecks](http://docs.google.com/blackjack/BlackjackEngine.html#getNumberOfDecks--) in interface [BlackjackEngine](http://docs.google.com/blackjack/BlackjackEngine.html) Returns: number of decks

#### createAndShuffleGameDeck public void createAndShuffleGameDeck() Description copied from interface: [BlackjackEngine](http://docs.google.com/blackjack/BlackjackEngine.html#createAndShuffleGameDeck--) Creates and shuffles the card deck(s) using a random number generator.Specified by: [createAndShuffleGameDeck](http://docs.google.com/blackjack/BlackjackEngine.html#createAndShuffleGameDeck--) in interface [BlackjackEngine](http://docs.google.com/blackjack/BlackjackEngine.html)

#### getGameDeck public [Card](http://docs.google.com/blackjack/Card.html)[] getGameDeck() Description copied from interface: [BlackjackEngine](http://docs.google.com/blackjack/BlackjackEngine.html#getGameDeck--) Returns the current deck of cards.Specified by: [getGameDeck](http://docs.google.com/blackjack/BlackjackEngine.html#getGameDeck--) in interface [BlackjackEngine](http://docs.google.com/blackjack/BlackjackEngine.html) Returns: Card array representing deck of cards.

#### deal public void deal() Description copied from interface: [BlackjackEngine](http://docs.google.com/blackjack/BlackjackEngine.html#deal--) Creates a new deck of cards, and assigns cards to the dealer and player. A total of four cards are dealt in the following order: Player (face up), Dealer (face down), Player (face up), Dealer (face up). Once the cards have been dealt, the game's status will be GAME\_IN\_PROGRESS. Delete the bet amount from the account.Specified by: [deal](http://docs.google.com/blackjack/BlackjackEngine.html#deal--) in interface [BlackjackEngine](http://docs.google.com/blackjack/BlackjackEngine.html)

#### getDealerCards public [Card](http://docs.google.com/blackjack/Card.html)[] getDealerCards() Description copied from interface: [BlackjackEngine](http://docs.google.com/blackjack/BlackjackEngine.html#getDealerCards--) Returns dealer's cards.Specified by: [getDealerCards](http://docs.google.com/blackjack/BlackjackEngine.html#getDealerCards--) in interface [BlackjackEngine](http://docs.google.com/blackjack/BlackjackEngine.html) Returns: Card array representing the dealer's cards.

#### getDealerCardsTotal public int[] getDealerCardsTotal() Description copied from interface: [BlackjackEngine](http://docs.google.com/blackjack/BlackjackEngine.html#getDealerCardsTotal--) Returns an array representing the possible value(s) associated with the dealer's cards if the cards represent a value less than or equal to 21.Specified by: [getDealerCardsTotal](http://docs.google.com/blackjack/BlackjackEngine.html#getDealerCardsTotal--) in interface [BlackjackEngine](http://docs.google.com/blackjack/BlackjackEngine.html) Returns: Integer array representing the possible value(s) or null if cards represent a value higher than 21. The array will have a size of 1 if only one value is associated with the set of cards, and a size of two if two values are possible. For the case of an array of size two, the smaller value must appear in the first array entry.

#### getDealerCardsEvaluation public int getDealerCardsEvaluation() Description copied from interface: [BlackjackEngine](http://docs.google.com/blackjack/BlackjackEngine.html#getDealerCardsEvaluation--) Returns an integer value that can assume the values LESS\_THAN\_21 if the dealer's cards have a value less than 21, BUST if the dealer's cards have a value greater than 21, and BLACKJACK if the dealer has an Ace along with a "10", Jack, Queen, or King. If the dealer's cards have a value equivalent to 21 and the hand does not correspond to a blackjack, HAS\_21 will be returned.Specified by: [getDealerCardsEvaluation](http://docs.google.com/blackjack/BlackjackEngine.html#getDealerCardsEvaluation--) in interface [BlackjackEngine](http://docs.google.com/blackjack/BlackjackEngine.html) Returns: Integer value that corresponds to one of the following: LESS\_THAN\_21, BUST, BLACKJACK, HAS\_21

#### getPlayerCards public [Card](http://docs.google.com/blackjack/Card.html)[] getPlayerCards() Description copied from interface: [BlackjackEngine](http://docs.google.com/blackjack/BlackjackEngine.html#getPlayerCards--) Returns player's cards.Specified by: [getPlayerCards](http://docs.google.com/blackjack/BlackjackEngine.html#getPlayerCards--) in interface [BlackjackEngine](http://docs.google.com/blackjack/BlackjackEngine.html) Returns: Card array representing the player's cards.

#### getPlayerCardsTotal public int[] getPlayerCardsTotal() Description copied from interface: [BlackjackEngine](http://docs.google.com/blackjack/BlackjackEngine.html#getPlayerCardsTotal--) Returns an array representing the possible value(s) associated with the player's cards if the cards represent a value less than or equal to 21.Specified by: [getPlayerCardsTotal](http://docs.google.com/blackjack/BlackjackEngine.html#getPlayerCardsTotal--) in interface [BlackjackEngine](http://docs.google.com/blackjack/BlackjackEngine.html) Returns: integer array representing the possible value(s) or null if cards represent a value higher than 21. The array will have a size of 1 if only one value is associated with the set of cards, and a size of two if two values are possible. For the case of an array of size two, the smaller value must appear in the first array entry.

#### getPlayerCardsEvaluation public int getPlayerCardsEvaluation() Description copied from interface: [BlackjackEngine](http://docs.google.com/blackjack/BlackjackEngine.html#getPlayerCardsEvaluation--) Returns an integer value that can assume the values LESS\_THAN\_21 if the player's cards have a value less than 21, BUST if the players's cards have a value greater than 21, and BLACKJACK if the player has an Ace along with a "10", Jack, Queen, or King. If the players' cards have a value equivalent to 21 and the hand does not correspond to a blackjack, HAS\_21 will be returned.Specified by: [getPlayerCardsEvaluation](http://docs.google.com/blackjack/BlackjackEngine.html#getPlayerCardsEvaluation--) in interface [BlackjackEngine](http://docs.google.com/blackjack/BlackjackEngine.html) Returns: Integer value that corresponds to one of the following: LESS\_THAN\_21, BUST, BLACKJACK, HAS\_21

#### playerHit public void playerHit() Description copied from interface: [BlackjackEngine](http://docs.google.com/blackjack/BlackjackEngine.html#playerHit--) Retrieves a card from the deck and assigns the card to the player. The new sets of cards will be evaluated. If the player busts, the game is over and the games's status will be updated to DEALER\_WON. Otherwise the game's status is GAME\_IN\_PROGRESS.Specified by: [playerHit](http://docs.google.com/blackjack/BlackjackEngine.html#playerHit--) in interface [BlackjackEngine](http://docs.google.com/blackjack/BlackjackEngine.html)

#### playerStand public void playerStand() Description copied from interface: [BlackjackEngine](http://docs.google.com/blackjack/BlackjackEngine.html#playerStand--) Flips the dealer's card that is currently face down and assigns cards to the dealer as long as the dealer doesn't bust and the cards have a value less than 16. Once the dealer has a hand with a value greater than or equal to 16, and less than or equal to 21, the hand will be compared against the player's hand and whoever has the hand with a highest value will win the game. If both have the same value we have a draw. The game's status will be updated to one of the following values: DEALER\_WON, PLAYER\_WON, or DRAW. The player's account will be updated with a value corresponding to twice the bet amount if the player wins. If there is a draw the player's account will be updated with the only the bet amount.Specified by: [playerStand](http://docs.google.com/blackjack/BlackjackEngine.html#playerStand--) in interface [BlackjackEngine](http://docs.google.com/blackjack/BlackjackEngine.html)

#### getGameStatus public int getGameStatus() Description copied from interface: [BlackjackEngine](http://docs.google.com/blackjack/BlackjackEngine.html#getGameStatus--) Returns an integer representing the game status.Specified by: [getGameStatus](http://docs.google.com/blackjack/BlackjackEngine.html#getGameStatus--) in interface [BlackjackEngine](http://docs.google.com/blackjack/BlackjackEngine.html) Returns: DRAW, PLAYER\_WON, DEALER\_WON OR GAME\_IN\_PROGRESS

#### setBetAmount public void setBetAmount(int amount) Description copied from interface: [BlackjackEngine](http://docs.google.com/blackjack/BlackjackEngine.html#setBetAmount-int-) Updates the bet amount to the provided valueSpecified by: [setBetAmount](http://docs.google.com/blackjack/BlackjackEngine.html#setBetAmount-int-) in interface [BlackjackEngine](http://docs.google.com/blackjack/BlackjackEngine.html)

#### getBetAmount public int getBetAmount() Description copied from interface: [BlackjackEngine](http://docs.google.com/blackjack/BlackjackEngine.html#getBetAmount--) Returns an integer representing the bet amount.Specified by: [getBetAmount](http://docs.google.com/blackjack/BlackjackEngine.html#getBetAmount--) in interface [BlackjackEngine](http://docs.google.com/blackjack/BlackjackEngine.html) Returns: bet amount.

#### setAccountAmount public void setAccountAmount(int amount) Description copied from interface: [BlackjackEngine](http://docs.google.com/blackjack/BlackjackEngine.html#setAccountAmount-int-) Updates the player's account with the parameter value.Specified by: [setAccountAmount](http://docs.google.com/blackjack/BlackjackEngine.html#setAccountAmount-int-) in interface [BlackjackEngine](http://docs.google.com/blackjack/BlackjackEngine.html)

#### getAccountAmount public int getAccountAmount() Description copied from interface: [BlackjackEngine](http://docs.google.com/blackjack/BlackjackEngine.html#getAccountAmount--) Returns the player's account amountSpecified by: [getAccountAmount](http://docs.google.com/blackjack/BlackjackEngine.html#getAccountAmount--) in interface [BlackjackEngine](http://docs.google.com/blackjack/BlackjackEngine.html) Returns: account amount

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