|  |
| --- |
| Player |
| Attributes  -wallet: double  -pair: vector<Card> pair  -score: int  -bet: double  -hitStatus: bool |
| Methods  +getWallet(): double  +setWallet(): void  +setCards(): void  +getCards(): vector<Card>  +getScore(): int  +setScore(): void  +getBet(): double  +setBet(): void  +getHit(): bool  +setHit(): void |

|  |
| --- |
| Card |
| Attributes  -face: char  -suit: char  -color: string  -value: int |
| Methods  +getSuit: char  +setSuit: void  +getFace(): char  +setFace(): void  +getVal(): int  +setVal(): void  +getColor(): string  +setColor(): string  +setUp(): void  +setDown(): void |

Blackjack System

|  |
| --- |
| Deck |
| Attributes  -cards: stack<Card>  -deckSize: int |
| Methods  -initDeck(): void  +shuffle(): void  +create(): void  +addCard(): Card  +removeCard(): void  +giveCard(): Card  +seeSize(): int |

|  |
| --- |
| Dealer |
| Attributes  -numDecks: queue<Deck>  -dealerHand: stack<Card> |
| Methods  +distribute():  +setHand(): void  +getHand(): Card  +calcScore: double  +housePlay(): void  +payWager(): double |

|  |
| --- |
| AI Player |
| Attributes |
| Methods  +playHardTotal(): void |

Blackjack Algorithm

* Receive How Many Players
* Take Bets of Each Player
* Initialize deck
* Shuffle deck
* Repeat until 6 decks are created
* Dealer passes two cards to each player
* Dealer gives itself 1 card faceup and 1 card facedown
* Each player hits or stands
* Dealer gives cards to players who request hit
* Once all players participate, dealer flips facedown card
* Player scores calculated
* Players busted or not higher than dealer lose money
* If dealer busts, all players not busted receive money.
* Ask players if they want to go another round.