BlackJack Game Logic

Rules:

1. It will have just a single player, and the dealer.
2. Player and dealer receive 2 cards from a shuffled deck. One Face up and One face down.
3. Player is asked if they’d like another card (hit), or if they are happy with the cards they have (stay).
4. Object is for the player to reach 21 or get closer to 21 than the dealer.
5. When player gets 21, they win (blackjack).
6. When the player goes over 21, they lose (bust).
7. Player goes first and when they stop hitting, dealer goes next. Dealer must keep hitting until bust or total is greater than Player’s hand.
8. Number cards (2 – 10) are worth the number displayed. Face cards are worth 10. Ace can be worth 1 or 11.

4 Suits: Heart, Diamond, Spade, Club

13 Num/Face cards:

Num: 2 - 10

Face: Ace, Jack, Queen, King

Scoring:

1. If player has blackjack they win unless Dealer also has blackjack, then it’s a tie.
2. If player does not bust and the dealer busts then the player wins.
3. If the player busts then the dealer wins.
4. If neither player nor dealer busts or gets blackjack then whoever is closest to 21 wins.

Suggested Functionality needed:

* cardlist – build list for num/face cards
  + Something like:
    - cardlist = [range(2, 10)] + [Ace, Jack, Queen, King]
* suitlist – build list for suit
  + Something like:
    - suitlist = [Heart, Diamond, Spade, Club]
* get\_deck () – to be executed once when BlackJack game is initiated (opened)
* shuffle\_deck () – to shuffle deck at the beginning of each new game
* deal () – kick off shuffle, deal cards to player, then deal cards to dealer.
* deal\_card1 () – deal card face down
* deal\_card2 () – deal card face up
* show\_card () – show face down card in player’s or dealer’s hand. Should be manually initiated by player with click and auto initiated on dealer hand. Kicks off score\_hand (), enable Hit/Stay functionality.
* hit () – add a new card to either player or dealer, kick off score\_hand ().
* stay () – this function allows player to pass game play to dealer, kick off score\_hand ().
* score\_hand () – calculates hand for bust () or blackjack ().
* bust () – this function is called when score\_hand is over 21. If dealer score is not yet known, then show\_card() for dealer & game\_score()
* blackjack () – kicks off when player or dealer score\_hand () equals 21 with only 2 cards.
* score\_game () – compare player and dealer hands to identify player win, loss, or tie with dealer.
* score\_save () – save game results for player game history.