

### ### Program Specification ###

The program is supposed to partly replicate the game of blackjack, which is played in a casino

Each component of the game has broken down into the functions below

Functions required:

- Find value of a card
- Finding the value of the hand
- Pre-round routine
  - Clear the dealer hand
  - Clear the player hand
  - Clear the player bets
  - Set player hand state to be playing
- Input validation for the bet
- Input validation for the playing decision
- Input validation for choosing whether to keep playing
- Displaying hands (with option for hidden card)
- Checking for sufficient money
- Generate a random card and hit card to hand
  - Generate card
  - Appending it to the hand
- Check for blackjack in hand
- Check for busted hand
- Check if player is allowed to double down

Concerned moving parts/variable:

- Constants
  - MINIMUM\_BET 10
  - MAX\_INPUT 255

- MAX\_CARD 5
- MAX\_HAND 25
- TRUE 1
- FALSE 0

- Dealer

- House payout
  - Blackjack rate
  - Winning rate
  - Push rate
- Hand (which holds cards)
  - Value
  - State
    - Playing
    - Busted
    - Over

- Player

- Money
- Current bet
- Hand (which hold cards)
  - Value
  - State
    - Playing
    - Busted
    - Over

- Cards

- Name

- Suit