BLACKJACK TERMINAL APP

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RULES

- Application is one player only, your player against the dealer
- Aces will be counted as 11
- Face cards will be counted as 10 ie. King, Queen, Jack
- The value of the hand is the sum of the point values of the individual cards
- After the player has placed initial bet, the dealer will shuffle the deck and give 2 cards to the player and 2 cards to himself.
- Player has 2 options:
- "Hit" - Player draws another card (and more if he wishes). If this card causes the player's total points to exceed 21 then he loses.
- "Stay" - Player is happy with his cards, and move to dealer's turn.
1. If the dealer goes over 21 points, then player will win
2. If the dealer doesn't bust, then the higher point total between the player and dealer
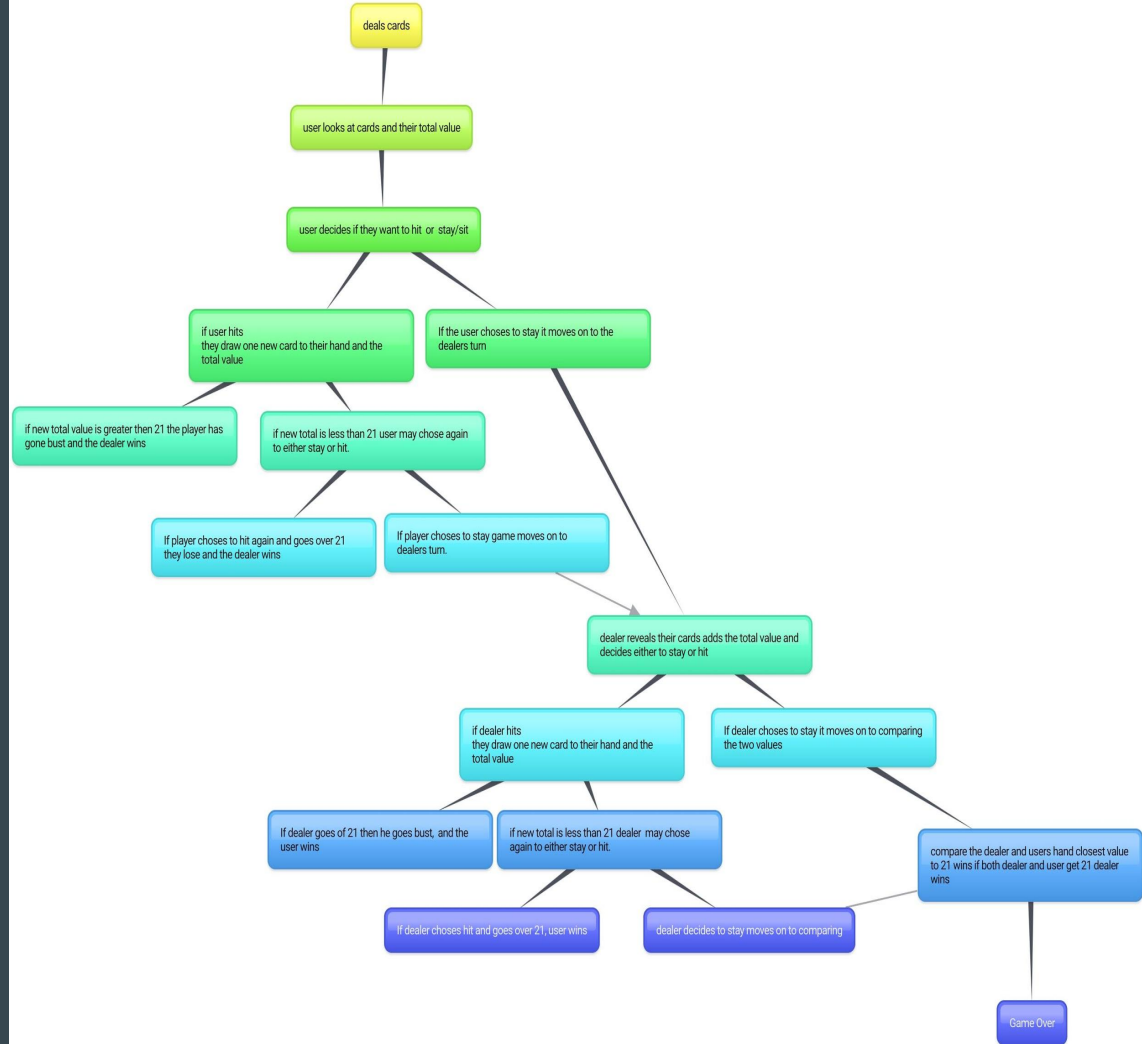
APP DEMO

PLANNING PHASE

User Flow:
- Welcome the user
- Output the user's current balance
- If the user balance is less than $25, we ask user to add funds or quit the application
- If/when user balance is equal or greater than $25, we deal them their first two cards
- Ask them if they want to 'hit' or 'stay'

created with www.bubbl.us
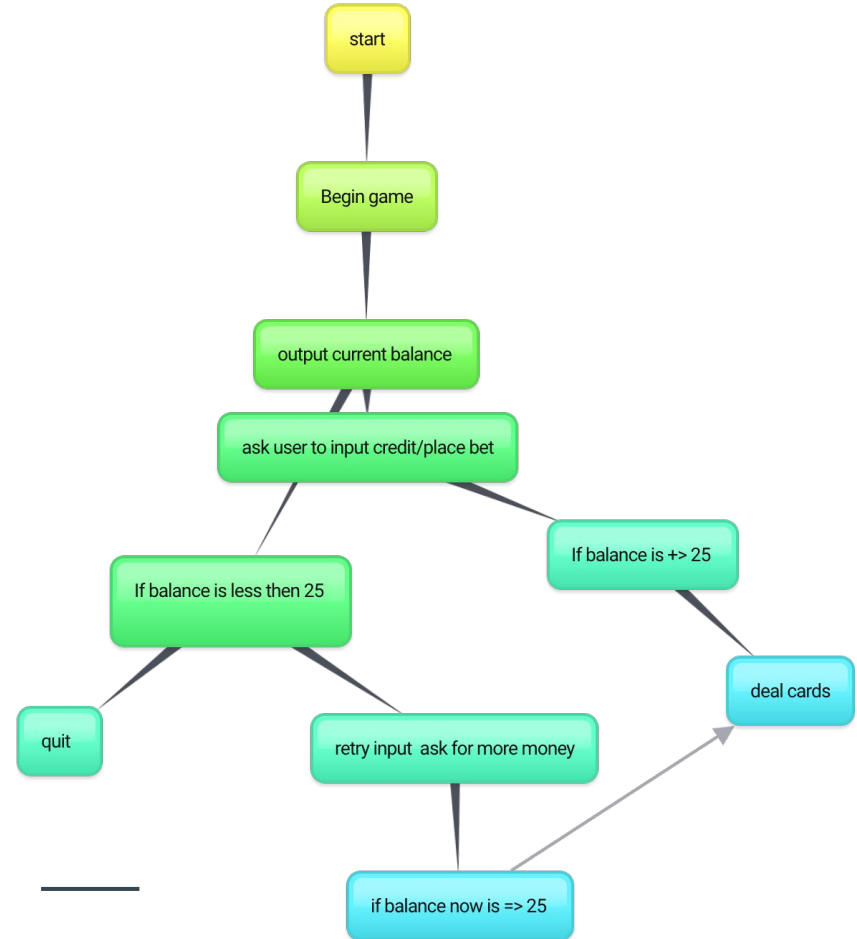
User Flow pt 2

- Deal the cards to the user
- Ask the user if they want to hit or stay
- If hit and card value goes over 21 dealer wins
- If hit and card value stays under 21 repeat hit or stay question
- If stay move on to dealers turn
- Dealer gets asked hit or stay and the same rules as previously stated apply
- If both dealer and player dont bust and chose to sit compare the cards
- Whoever has the closest value to 21 wins however if both player and dealer both had 21 dealer wins

deals cards

user looks at cards and their total value

user decides if they want to hit or stay/sit

if user hits
they draw one new card to their hand and the total value

If the user choses to stay it moves on to the dealers turn

if new total value is greater then 21 the player has gone bust and the dealer wins

if new total is less than 21 user may chose again to either stay or hit.

If player choses to hit again and goes over 21 they lose and the dealer wins

If player choses to stay game moves on to dealers turn.

dealer reveals their cards adds the total value and decides either to stay or hit

if dealer hits
they draw one new card to their hand and the total value

If dealer choses to stay it moves on to comparing the two values

If dealer goes of 21 then he goes bust, and the user wins

if new total is less than 21 dealer may chose again to either stay or hit.

compare the dealer and users hand closest value to 21 wins if both dealer and user get 21 dealer wins

If dealer choses hit and goes over 21, user wins

dealer decides to stay moves on to comparing

Game Over

Ethical Issues Regarding Our App

- The man ethical Issues in relation to our app is the encouragement of gambling and Underage kids being influenced by gambling games such a this one.
- However our app is pretty simple and the chances of it influencing a gambling addiction later on in the user life is slim to none

CHALLENGES

- We had some issues implementing RubyCards gem into our application, in particular giving each card a value, and then summing these cards together to give a total value.
- We addressed the issue of RubyCards gem having no value by creating a function that assigned values to the cards.

```ruby
def card_value(hand, deck, card_array)#this function is assigning values to the cards produced by ruby cards
    i = 0

  while i < hand.count
    card = hand.to_a[i].rank
    if card == "Jack"
    card = 10
    elsif card == "Ace"
    card = 11
    elsif card == "King"
    card = 10
    elsif card == "Queen"
    card = 10
    else
    card = hand.to_a[i].rank.to_i
  end
    card_array[i] = card
    i += 1
  end
end
```

dealer has chosen to hit
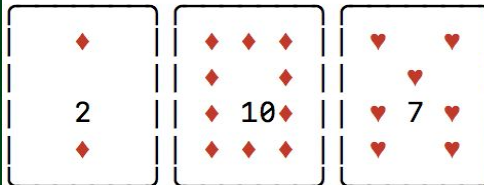
the total value of the dealers hand is 19
 the total value of your hand is 21
congratulations take your winnings
mitchells-MBP:src mitchell$

IMPROVEMENTS

- Implement the ability to have multiple players, even possibly make dealer playable character to make the game more challenging.
- Store user balances and winning so that they can continue where they left off when they play again
- Maybe even an age verifier to address the ethical issues we spoke about earlier

Favourite part

- The best part of this project was definitely when found out that we could still use the RubyCards gem, this is because without the gem the output in the terminal was very bland.
- And of course the fact that the app actually works is pretty good too

RESOURCES

- Project management tools e.g. Slack, Trello
- Colorize Gem
- RubyCards Gem
- Official Ruby Docs

QUESTIONS