blackjack

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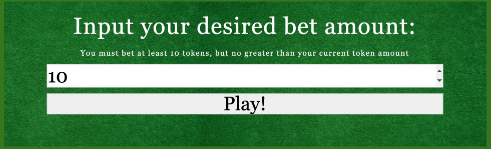
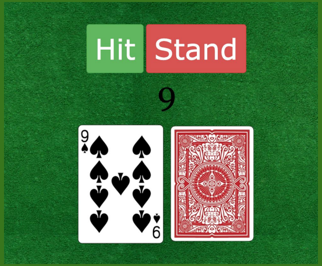

Input your desired bet amount:

You must bet at least 10 tokens, but no greater than your current token amount

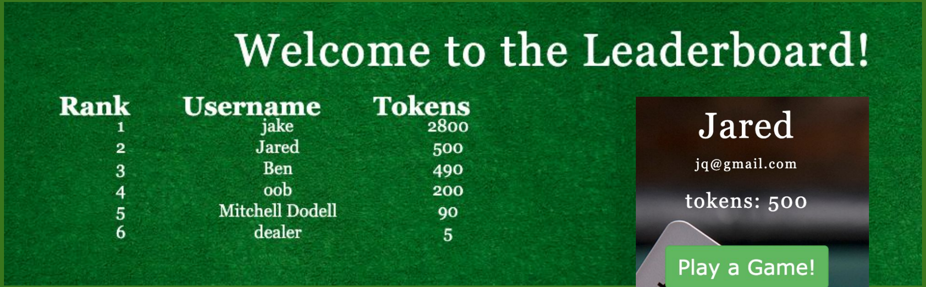
10



Functionality

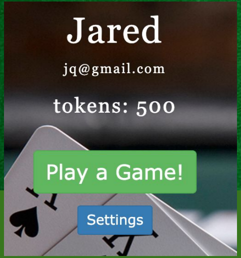
- Playing:
  - users play games against the computerized dealer
  - users either 'hit' or 'stand'
- Betting:
  - Users must bet a token amount to play (min: 10, max: token total)
- Tokens:
  - Users given 500 at sign up
  - Users earn and lose after each game
  - When users run out, they can visit our **store** to restock
  - In store, we gift 100 tokens to any user with less than that amount
  - When a player attempts to play with no tokens, the store link appears

Functionality (cont.)



Welcome to the Leaderboard!

Rank	Username	Tokens
1	jake	2800
2	Jared	500
3	Ben	490
4	oob	200
5	Mitchell Dodell	90
6	dealer	5

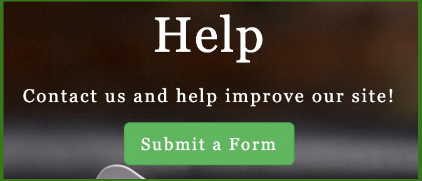


Jared

jq@gmail.com

tokens: 500

- <u>Leaderboard:</u>
  - Displays all users, and their rank by total amount of tokens.
- <u>About & Help:</u>
  - Displays the rules and potential strategies in our about page
  - Option to use our mail form to easily email us in our help page
- <u>Profile:</u>
  - Displays their email, the number of tokens they have accumulated, and an option to update their sign-up information.

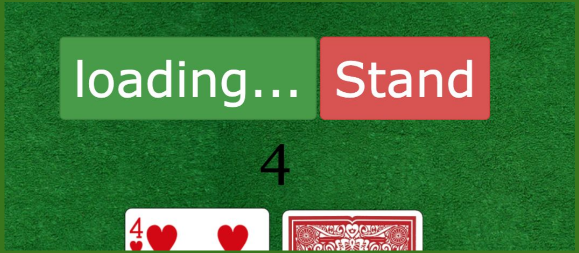


Help

Contact us and help improve our site!

Easy-to-miss functionality

- buttons ensure that a user can only submit an action once
  - prevents users from having too many cards by the time the page reloads



- Our game logic ensures that reloading the page after a win (or loss) will not continuously reward users for the same victory.

Schema

User

name: string
email: string
password: string
admin: boolean (default false)
tokens: int
bet_amount: int (default 0)
has_stood: boolean
wins: int (default 0)

$$\begin{tikzcd}\text{User} \arrow[r, shift left] & \text{Game} \arrow[l, shift left, "\text{(Many-to-Many)}"]\end{tikzcd}$$

Game

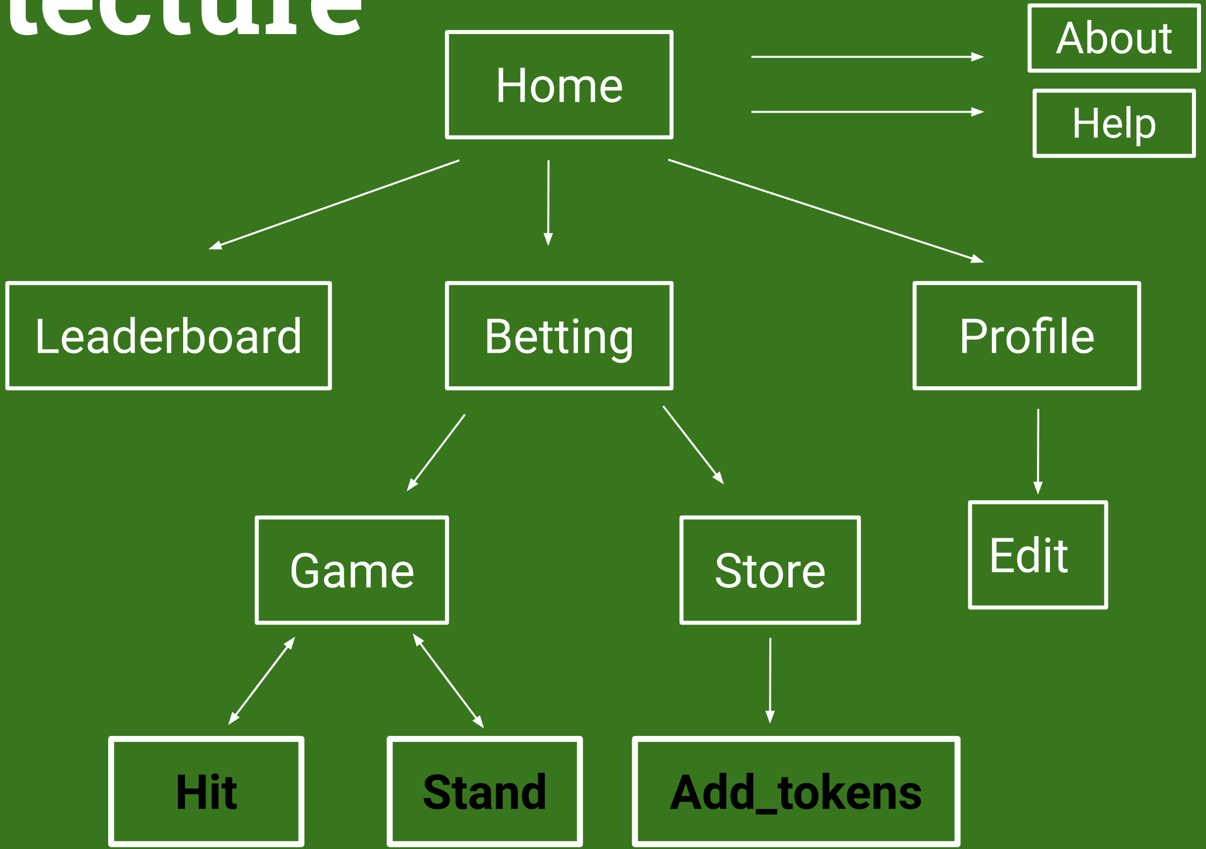
deck_id: string
is_game_done: boolean

(Join Table)

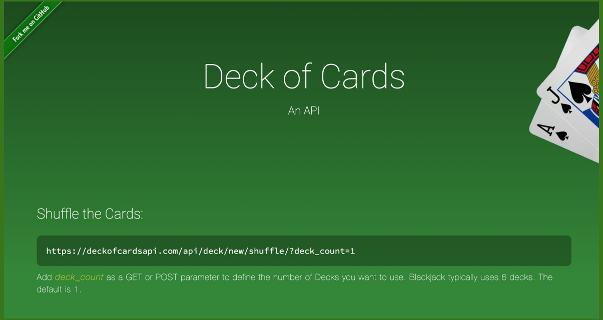
Game Sessions

user_id: integer
game_id: integer

Architecture



Deck of Cards API



Deck of Cards

An API

Shuffle the Cards:

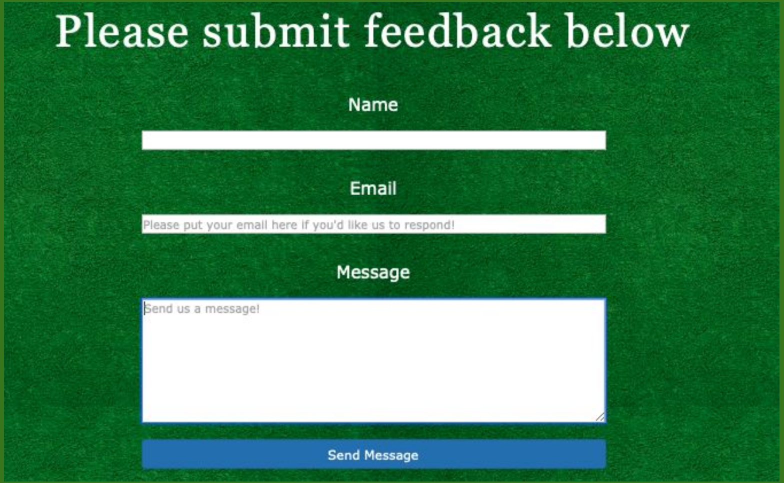
```
https://deckofcardsapi.com/api/deck/new/shuffle/?deck_count=1
```

Add *deck_count* as a GET or POST parameter to define the number of Decks you want to use. Blackjack typically uses 6 decks. The default is 1.

- Allows for the creation of decks, each of which can be split into piles.
  - Saves the state of each deck (and pile).
- We have a new deck assigned to each game, from which all the cards are drawn.
- This has its upsides and downsides:
  - On the upside, we didn’t have to create cards and save their state.
  - On the downside, our website takes longer to respond due to the API requests, and the requests can fail.
- One of our primary goals in doing this project was learning how to use an API.

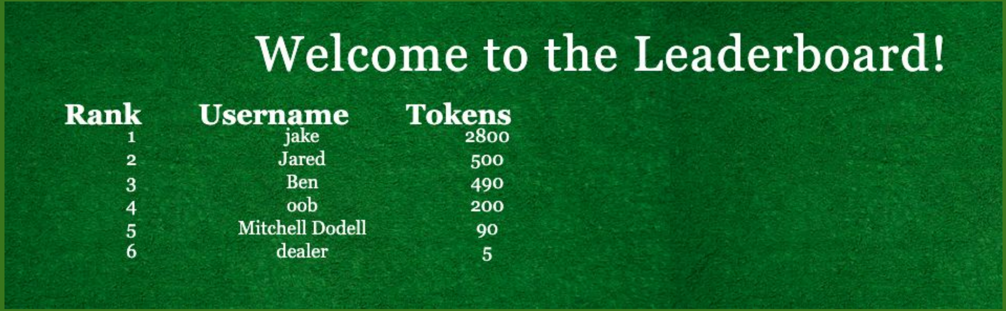
Mail_form gem

creates a simple form which our users can use to give us feedback, without having to actually email us themselves.


Please submit feedback below

- utilizes the gem by installing it and writing “require ‘mail_form’” in the controller
- The contact controller included mail_form’s main feature (deliver) which would be called in the create method
- Lastly, set up SMTP in development and production, for the gmail we created, using the email’s domain, port, username and password

Leaderboard



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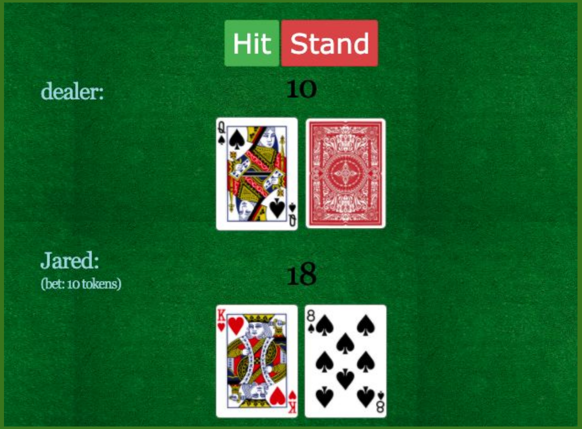
- Purpose: creates competition amongst our users
- We created a leaderboard controller and a private method inside of it called rank_users()
    - This method iterates through all users with tokens and adds them to a list variable @ranks.
- Once done iterating, the list of users are then sorted by token amount, just as they are displayed in a traditional leaderboard.
- return a call to this private method in the controller index method, so our views index page can use it.

Team Review

- Extremely **positive** team **environment** and **chemistry** despite some differences in...
  - Coding acumen
  - Learning interests
  - Academic backgrounds
- **Division of work**
  - Separate branches
  - Reviewed commits before merging

Conclusions



What we are proud of:

- A fully functioning game
- Easy-to-use and beautiful U/I
- Fulfilled desire to work w/ APIs

Expansion:

- Multiplayer
- AI bot