

Team Hydroflasksksk

SoftDev1 Pd1

P02 -- Design Document

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Project Name - The Black Diamond Casino

Ideation Engine ID 61 / 25b: *Casino Game*

Frontend Framework of Choice: [Bootstrap](#)

We decided to use bootstrap mainly because we all have more experience in bootstrap and also we vibe with the aesthetics and grid system of bootstrap more than foundation. Moreover, bootstrap has more readily available features.



Basic Description

Our project will recreate a casino. We will have lottery tickets, Wheel of Fortune, Blackjack, a dice game, roulette and the slot machine (and more in our extra features if we have time). When a player makes an account, they will get a chance to spin the Wheel of Fortune so each player will get a starting amount of money from the Wheel. They can spin the Wheel once a day which will act as a way for players to continue using our website even if they lose all their money. The player plays these games by paying a small price and winning prizes. For lottery, the user can buy a ticket and scratch it to see their results.

Project Timeline

***Bold Indicates Complete**

Minimum Viable Product

- User login and signup
- User profile
- Wheel of Fortune
- Dice Game
- Seven Slot Machine

➤ **Roulette**

Ideal Product

- **Blackjack**
- Texas Hold'em, turn based with refreshing
- **Store (with lottery tickets)**

Extra Features

- Store (with boosts)
- Chinese Poker
- Live updating of poker games
- **Animation (Wheel of Fortune, Roulette, Dice...etc)**
- Deal with players deserting multiplayer games
- Adding friends and creating private games (invite-only)
- Chatting within multiplayer games

Component Description

Front End

- Login
 - Enter username + password (stored in DB)
 - Wrong password redirects back to start with printed error message
- Sign up
 - Enter password and username
 - Check DB for existing username. If the username already exists, prompt the user for a new, different username
- User Profile
 - Users can change their username and password
 - Users can view their money and purchased lottery tickets
- Player Store
 - Players can buy lottery tickets
 - Differently priced, with different ways of "winning"
 - Tickets covered by gray block
 - Draggable coin used to erase gray block and show results (Javascript)
- Wheel of Fortune
 - User can spin the wheel of fortune every 24 hours
 - Clicking on icon will show wheel and spin button (Javascript)
 - Spins and lands on a prize that the player can get
- Games
 - Dice Game
 - Player bets either small or big and then clicks to roll two dice
 - If player gets it correct, player wins
 - If player gets it wrong, player loses
 - Blackjack
 - Player plays with Computer as Dealer and gets cards per turn

- Rules follows as normal blackjack and winnings and losing update accordingly
- Slot Machine
 - You can click the machine to spin the slots and see whether they all match and you win or if they don't and you lose
 - Might use Javascript to add special effects
- Roulette
 - Player bets on which slot on a wheel the ball will land on, pays a betting fee
 - The more risky the bet, the higher the multiplier on the reward

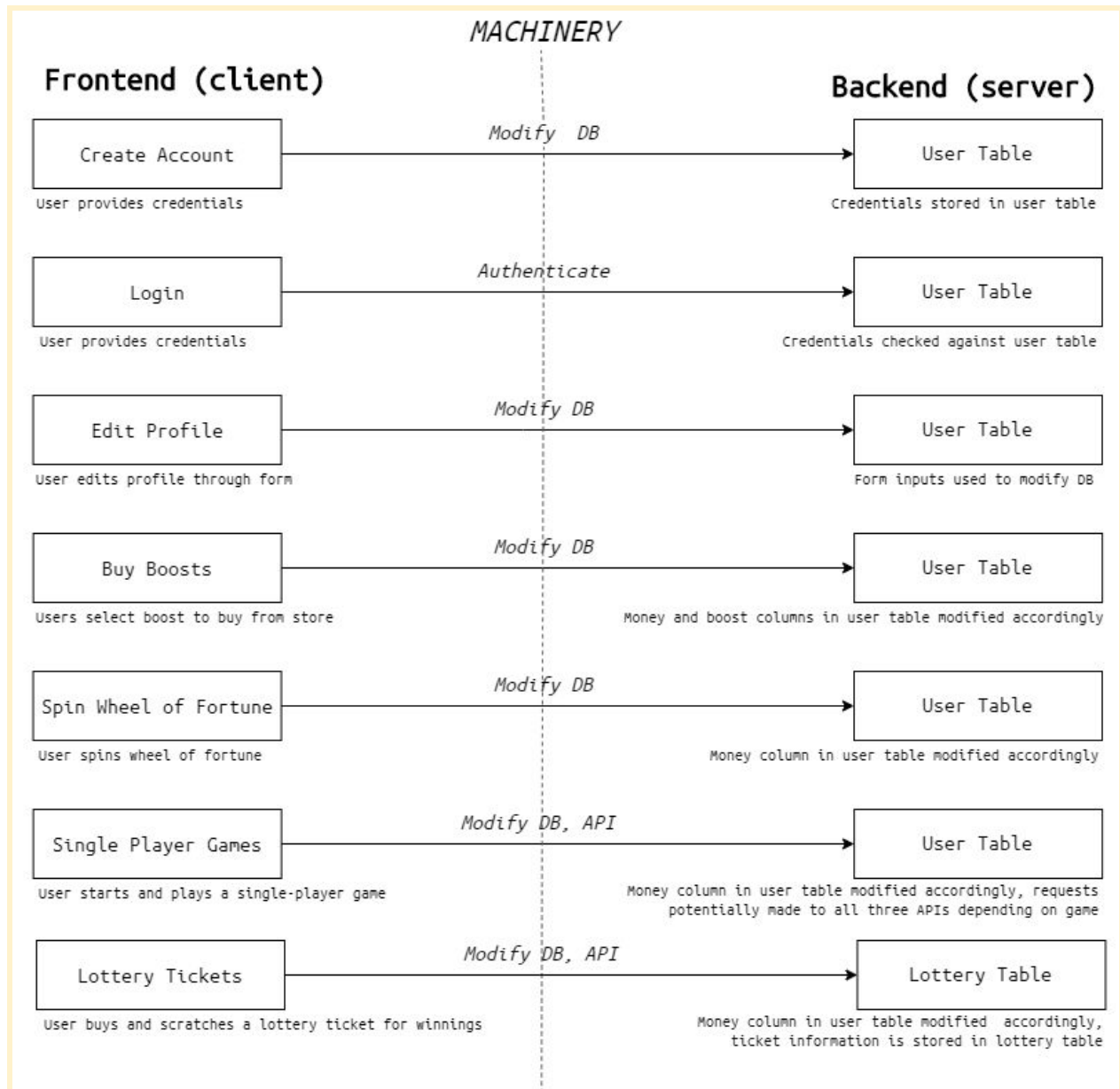
Back End

- User table is used for login; it also keeps track of the player's money, profile picture, boosts and time left the wheel of fortune
 - Username, password, money, Wheel of Fortune timer, profile picture

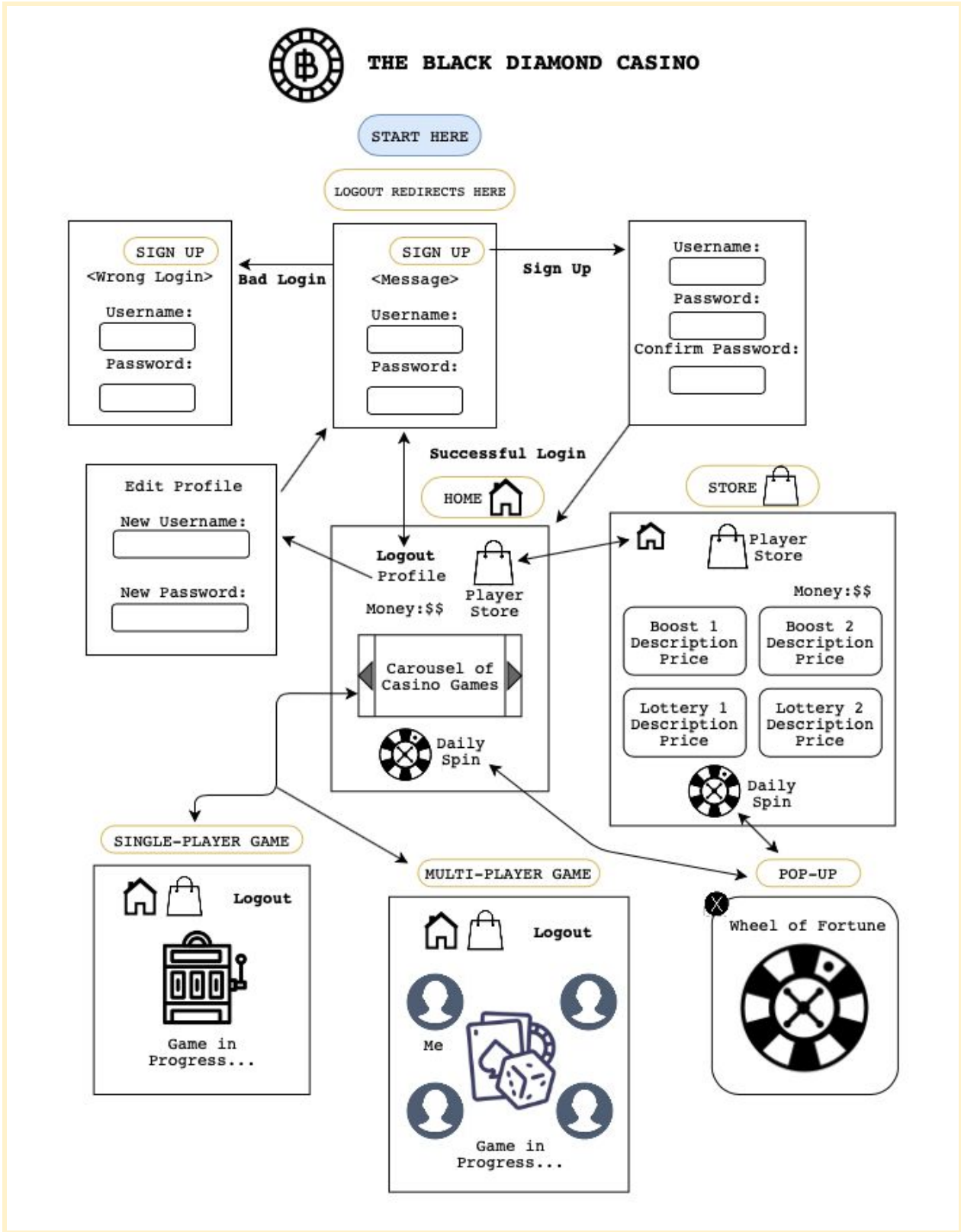
API and Libraries

- Deck of Cards API
 - Images of cards for display on the screen
 - Shuffles cards and keeps track of what cards should not reappear for any given game
- Diceful API
 - Used for Dice Game, simulates throwing of dice
 - Images of dice for display on the screen
- Wikipedia Library (installed through pip)
 - Used for explaining game rules, selecting text from sections labeled 'Rules'

Component Map



Site Map



Database Design

USER TABLE

username	password	money	time
TEXT	TEXT	INTEGER	INTEGER

*pfp contains link to user's profile picture

LOTTERY TABLE

id	owner	numbers	winnings	claimed
TEXT	TEXT	TEXT*	INTEGER	INTEGER

*each ticket has a comma-separated list of nine numbers (lotto numbers)

Card Formatting

C-club, S-spade, D-diamond, H-heart

11-jack, 12-queen, 13-king, 1-ace

Card examples: S1 - ace of spades; C8 - 8 of clubs; D12 - queen of diamonds

Role Assignment

KV	Royal Flush (PM) Project Manager (stretch goal) AJAX updating
TCao	Ace of Spades Bootstrap Front End Styling - Maintain consistency across website
JL	Jack-of-All-Trades Database Management / Interaction
Mandy	Queen Fortunata API Call Management JavaScript Browser-side code