## **BACK END Functions and Requirements**

Rest API

Back-End Server that

Serve UserName and PassWord

- returns a User id in this format: xxxx-xxxx to client server
- returns a User Pass in this format: xxxxxxxx to client server

Creates a table of User ID, Password, Account Address from Web3.js , Balance field, Bets proceeds

Deposit address: supply a new deposit address from web3.js

**Dice roll** algorithm that rolls pre deterministically with a seed phrase xxxxxx - Server generated seed xxxx- last four of users id, xxxxxx - the time of the bet hh,mm,ss format ex. xxxxxx-xxxxx to generate a number in between 0 and 65535

Bet Function needs to take user id and password to authenticate balance, less than number, and bet amount (need to check if the userid.balance is less than then bet amount)

**Bet function** - calls dice roll and provide the last four of user id and time of bet, dice roll returns a value between 0 and 65535, if less than condition is satisfied, update balance function is called and if the less than condition is not satisfied, the loss balance function is callled

**Update balance method**- updates balance of a user based on bet multiplier and the 5 percent house fees

**Remove balance method** - subtract balance based on bet function and updates balance amount

Deposit Watch method- functions updates balance after deposit made to WEB3.js address

**Withdraw method**. Needs user id and password, checks available balance, takes a web3.js address, amount to be transferred. Web3.js transaction submission.