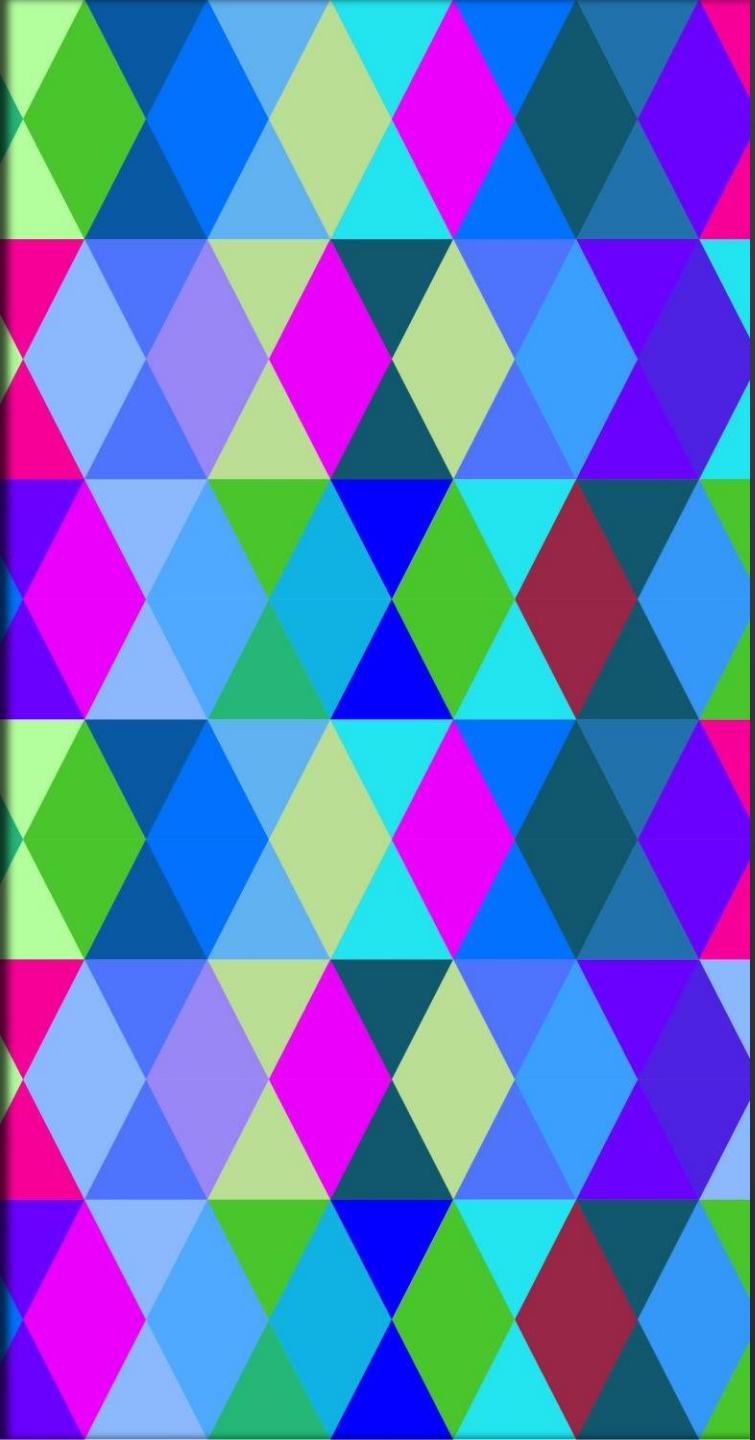




# HUESLE

PROGETTO PER IL CORSO DI SISTEMI DISTRIBUITI

A.A. 2023/2024

ALBERTO SPADONI

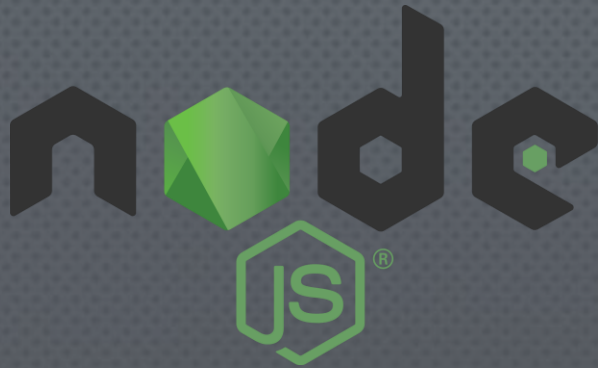


## CONTESTO E OBIETTIVO

- GIOCO DI STRATEGIA MASTERMIND
- (RE)IMPLEMENTAZIONE DEL BACKEND DI HUESLE
- REGOLE DI GIOCO LEGGERMENTE VARIATE
- SPERIMENTARE LE TECNICHE DELLA PROGRAMMAZIONE DISTRIBUITA SU DIVERSE PIATTAFORME

# TECNOLOGIE

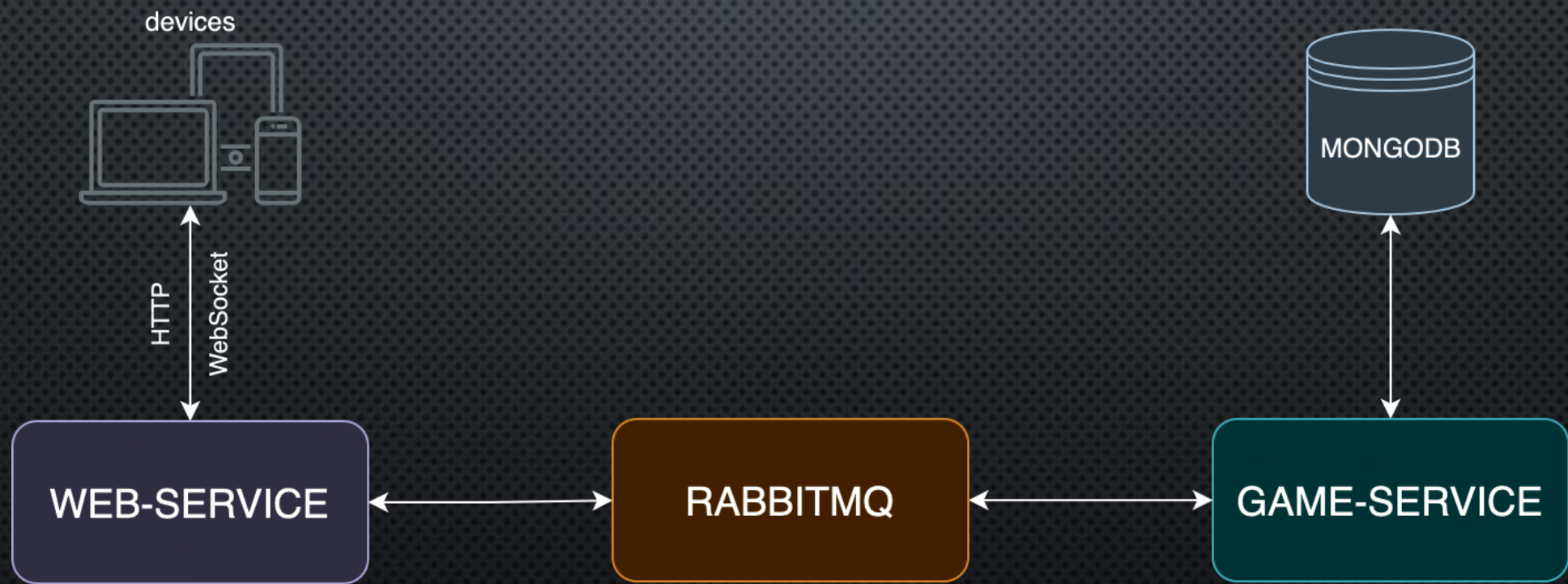
Client



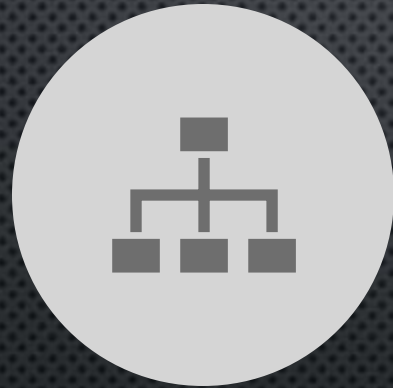
Server



# ARCHITETTURA DEL SISTEMA



# DESIGN

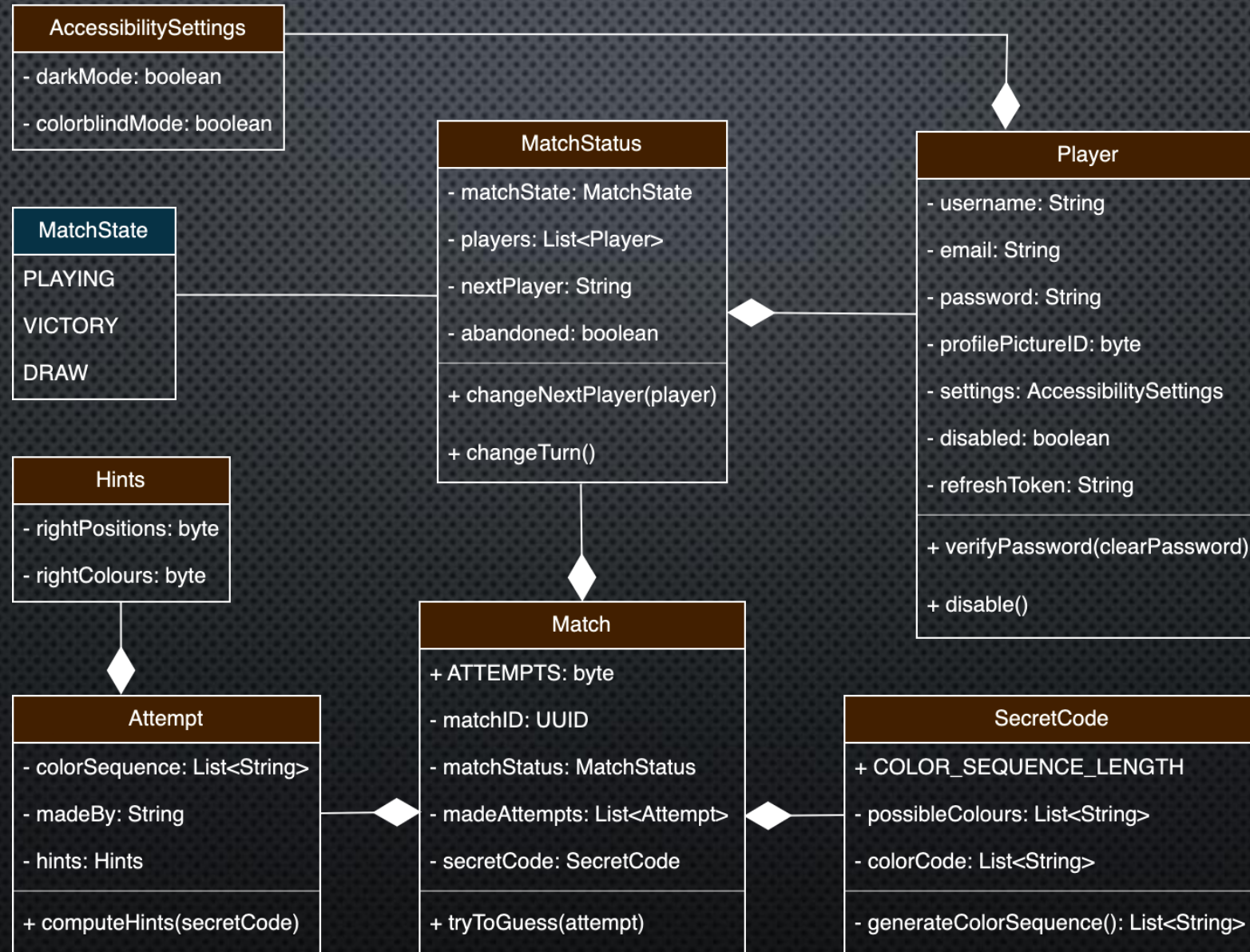


STRUTTURA DEL  
BACKEND

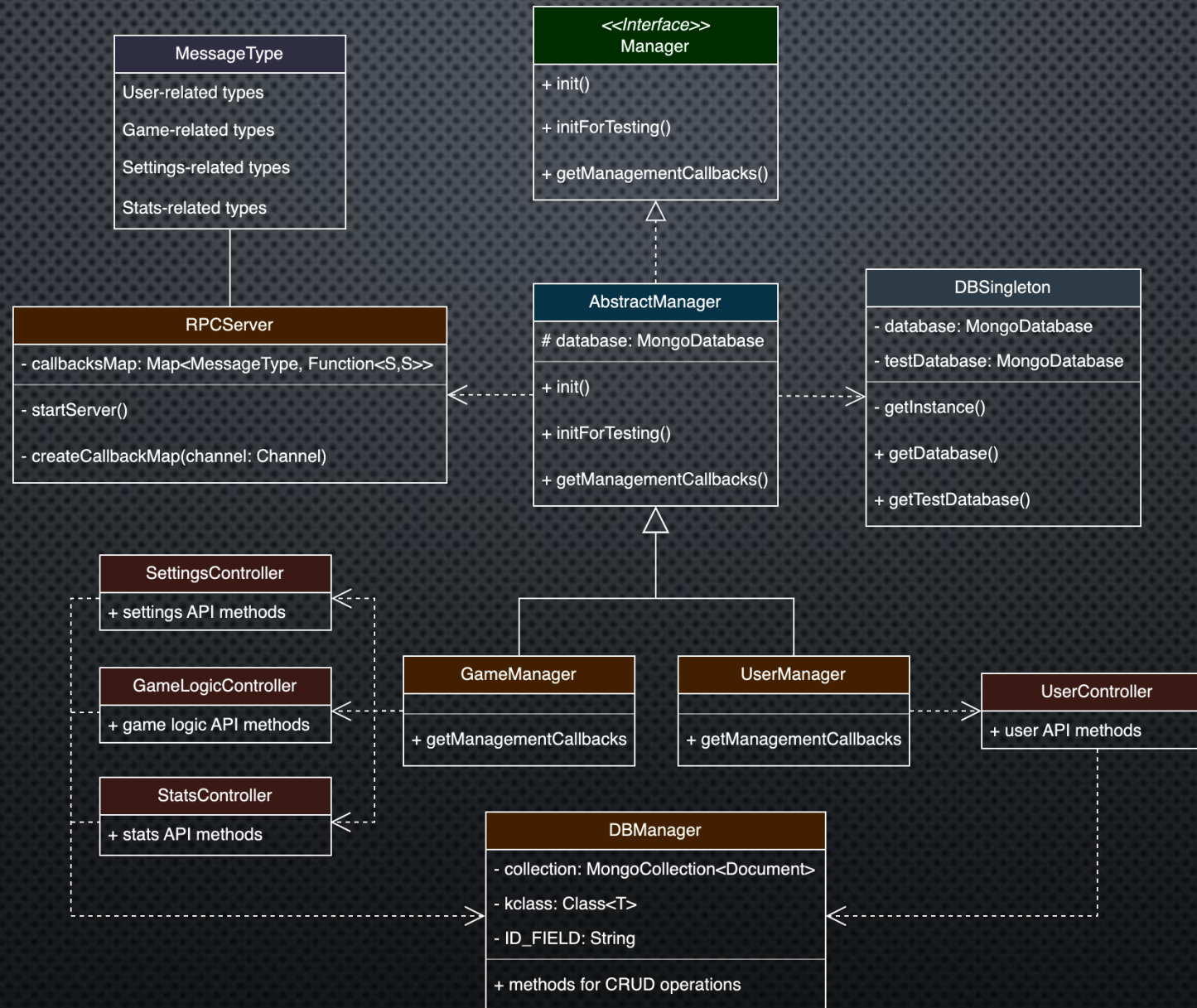


INTERAZIONE DEL  
SISTEMA

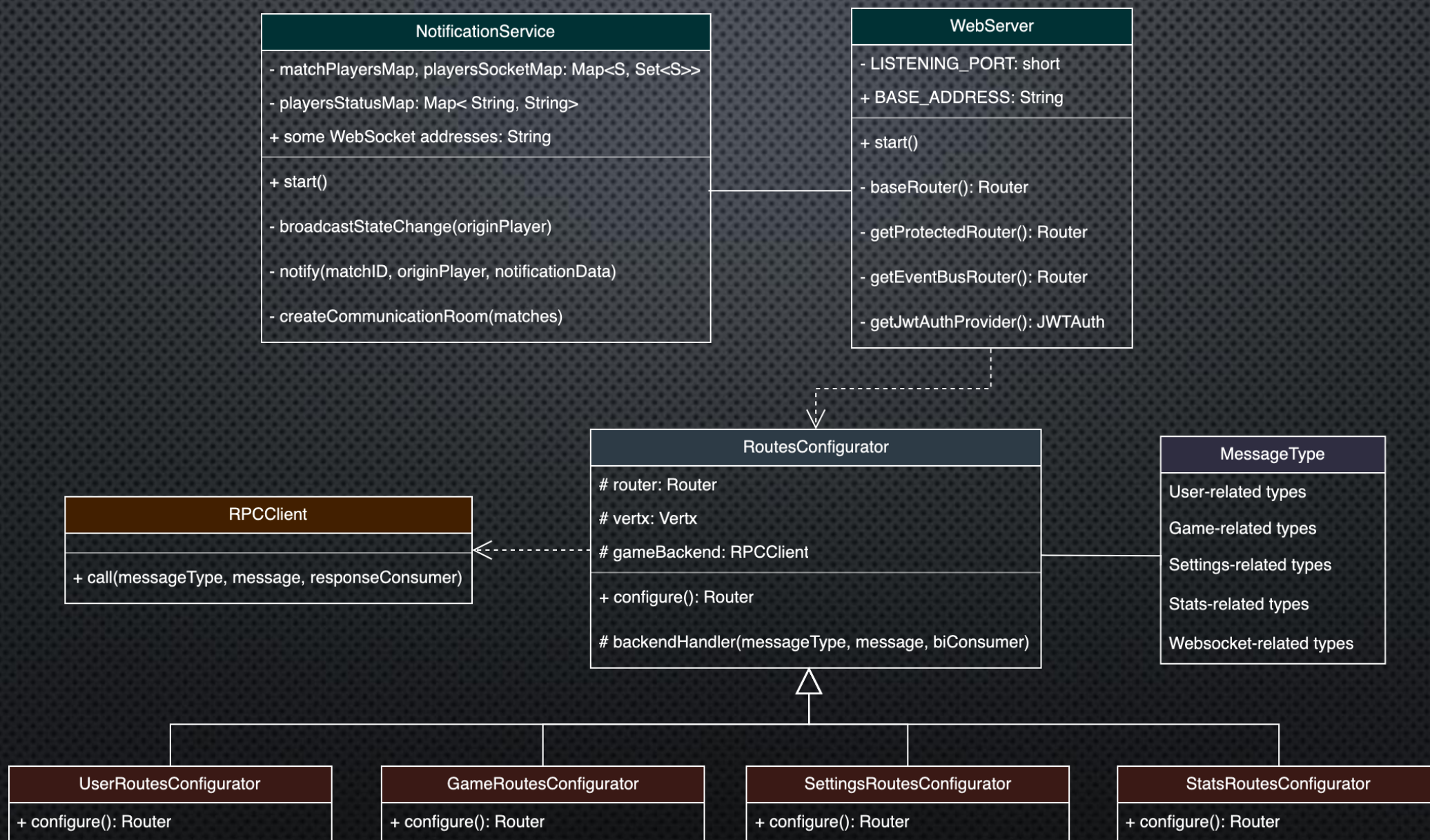
# DESIGN DI GAME – MODELLO DEI DATI



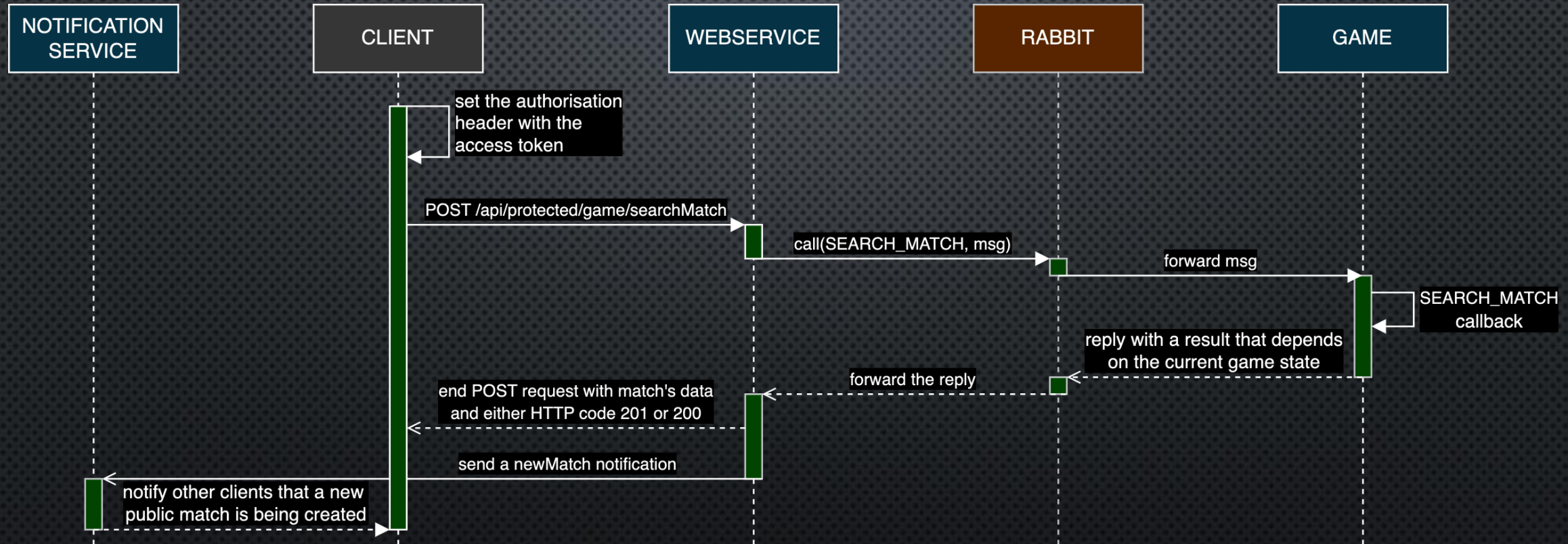
# DESIGN DI GAME – STRUTTURA



# DESIGN DI WEBSERVICE – STRUTTURA



# DESIGN – INTERAZIONE DEL SISTEMA PER LA RICERCA DI UNA PARTITA



# DETTAGLI IMPLEMENTATIVI



**RABBITMQ**  
CON PATTERN RPC



**COMUNICAZIONE WEBSOCKET**  
LATO BACKEND



**API REST**  
CON SPECIFICA FORMALE

# RABBITMQ



RPCClient



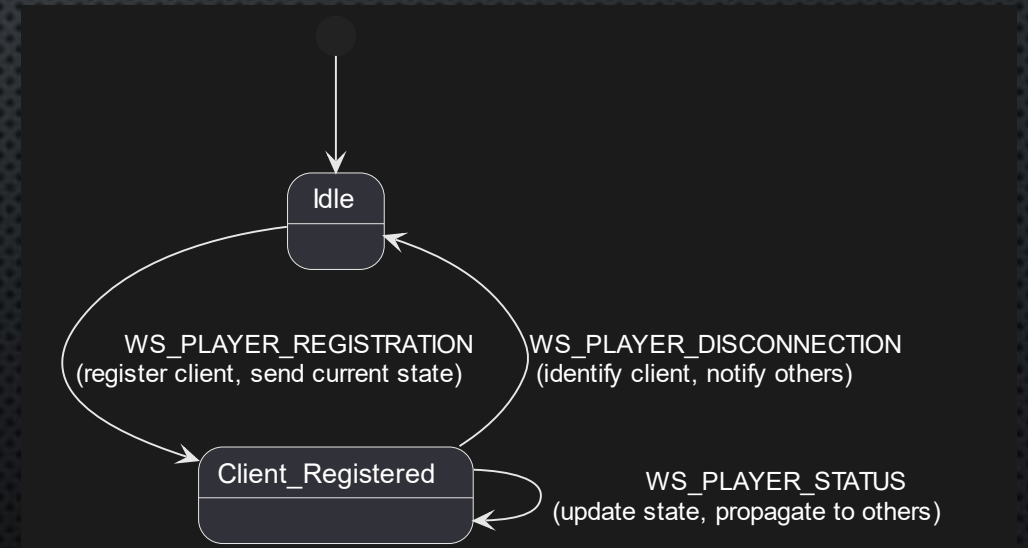
RPCServer

# COMUNICAZIONE WEBSOCKET

Server → Client

NEW\_MOVE -- NEW\_MATCH -- LEAVE\_MATCH  
CREATE\_ROOM

Client → Server (→ Client)



# API

RESTful

Autenticazione JWT

Operazioni relative  
agli utenti ed al gioco

# GESTIONE DEI PROBLEMI DI RETE

## FRONTEND

Perdita dell'accesso  
alla rete

Server  
non raggiungibile

## BACKEND

Client non più  
raggiungibile

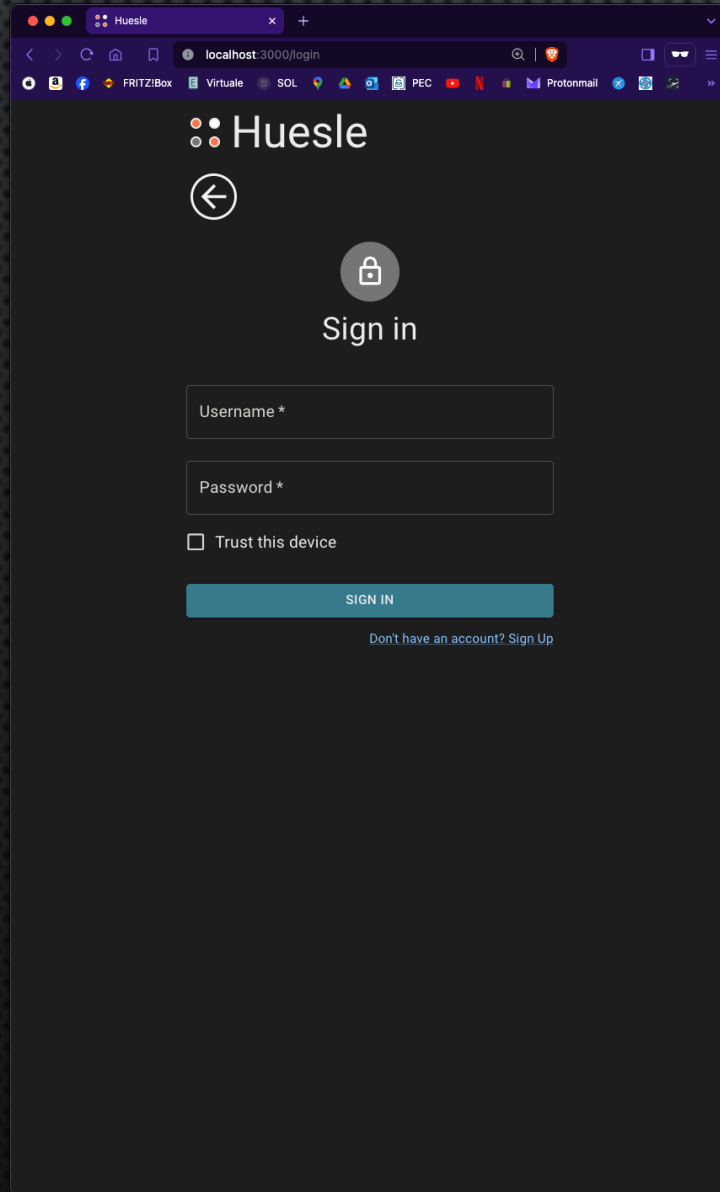
# ESEMPI D'USO E GUI

Interfaccia grafica  
semplice ma efficace

Interazioni lato utente

Interazioni lato  
giocatore

# ESEMPI D'USO - UTENTE



A screenshot of a web browser displaying the login page for 'Huesle'. The browser's address bar shows 'localhost:3000/login'. The page features the 'Huesle' logo at the top left, followed by a back arrow icon. Below this is a lock icon and the text 'Sign in'. There are two input fields: 'Username \*' and 'Password \*'. A checkbox labeled 'Trust this device' is positioned below the password field. A teal 'SIGN IN' button is at the bottom of the form. A link 'Don't have an account? Sign Up' is located below the button.

localhost:3000/login

Huesle

←

🔒 Sign in

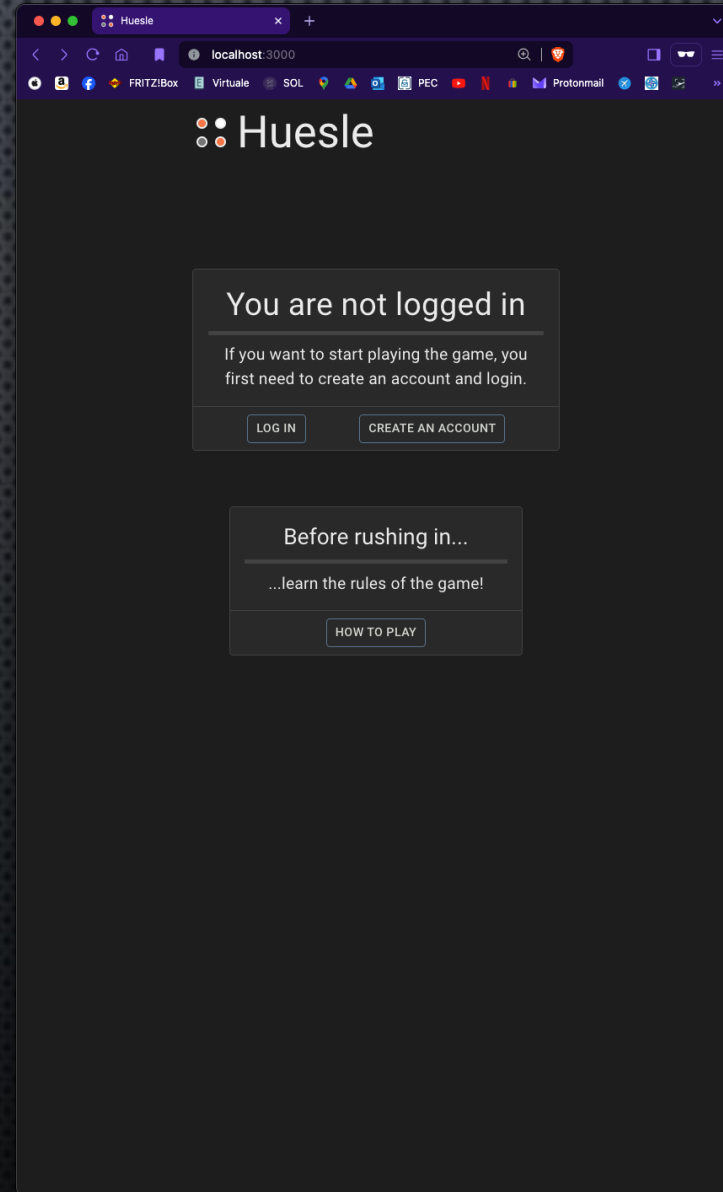
Username \*

Password \*

☐ Trust this device

SIGN IN

[Don't have an account? Sign Up](#)



A screenshot of the Huesle landing page for users who are not logged in. The browser's address bar shows 'localhost:3000'. The page has the 'Huesle' logo and a back arrow icon. A central message box states 'You are not logged in' and 'If you want to start playing the game, you first need to create an account and login.' It contains 'LOG IN' and 'CREATE AN ACCOUNT' buttons. Below this, another message box says 'Before rushing in...' and '...learn the rules of the game!' with a 'HOW TO PLAY' button.

localhost:3000

Huesle

←

You are not logged in

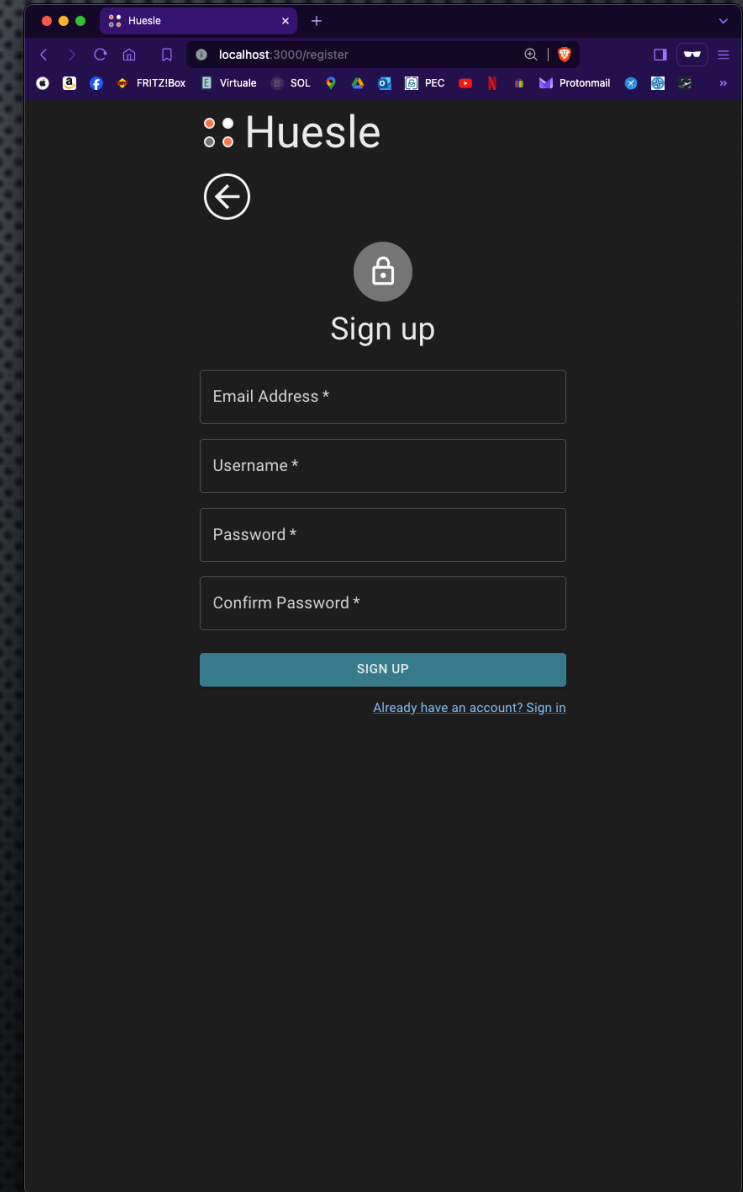
If you want to start playing the game, you first need to create an account and login.

LOG IN CREATE AN ACCOUNT

Before rushing in...

...learn the rules of the game!

HOW TO PLAY



A screenshot of the Huesle registration page. The browser's address bar shows 'localhost:3000/register'. The page features the 'Huesle' logo and a back arrow icon. Below is a lock icon and the text 'Sign up'. There are four input fields: 'Email Address \*', 'Username \*', 'Password \*', and 'Confirm Password \*'. A teal 'SIGN UP' button is at the bottom of the form. A link 'Already have an account? Sign In' is located below the button.

localhost:3000/register

Huesle

←

🔒 Sign up

Email Address \*

Username \*

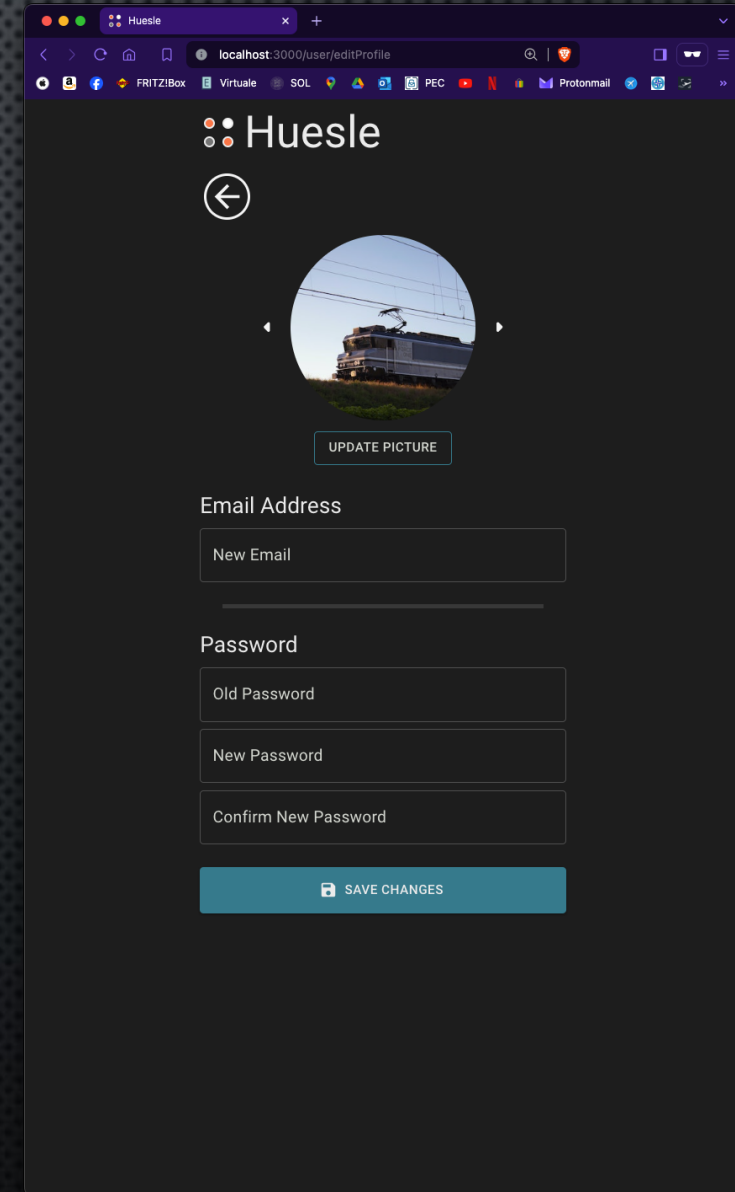
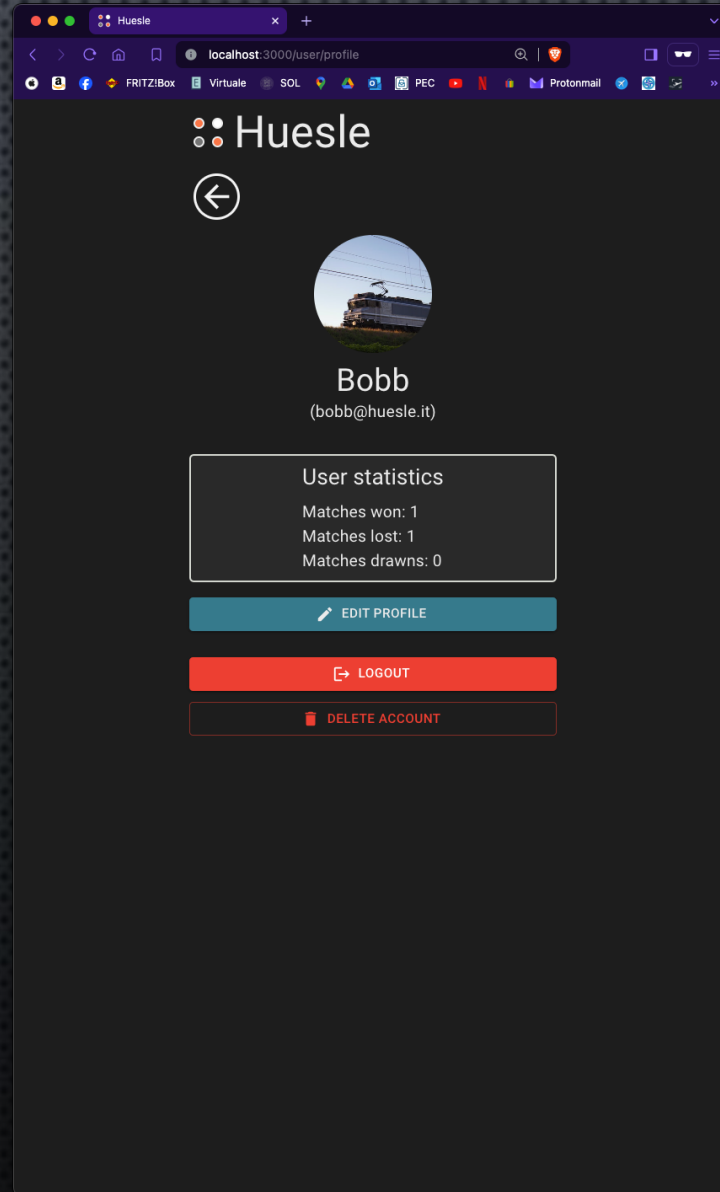
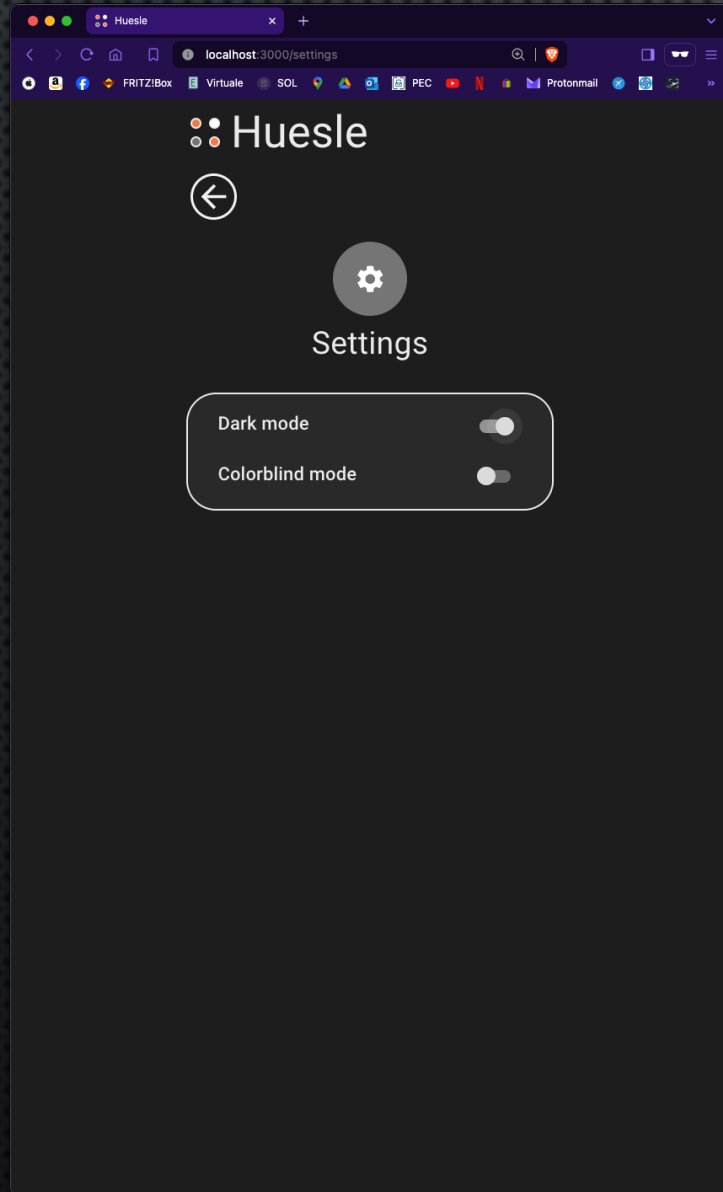
Password \*

Confirm Password \*

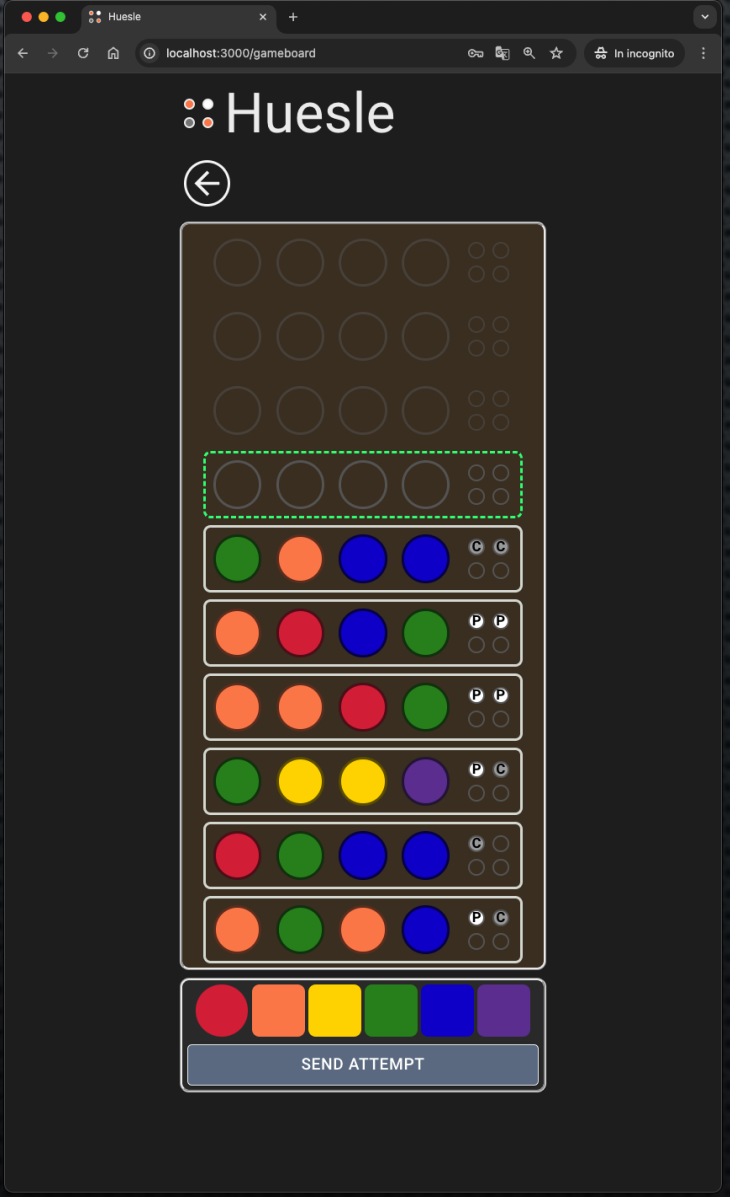
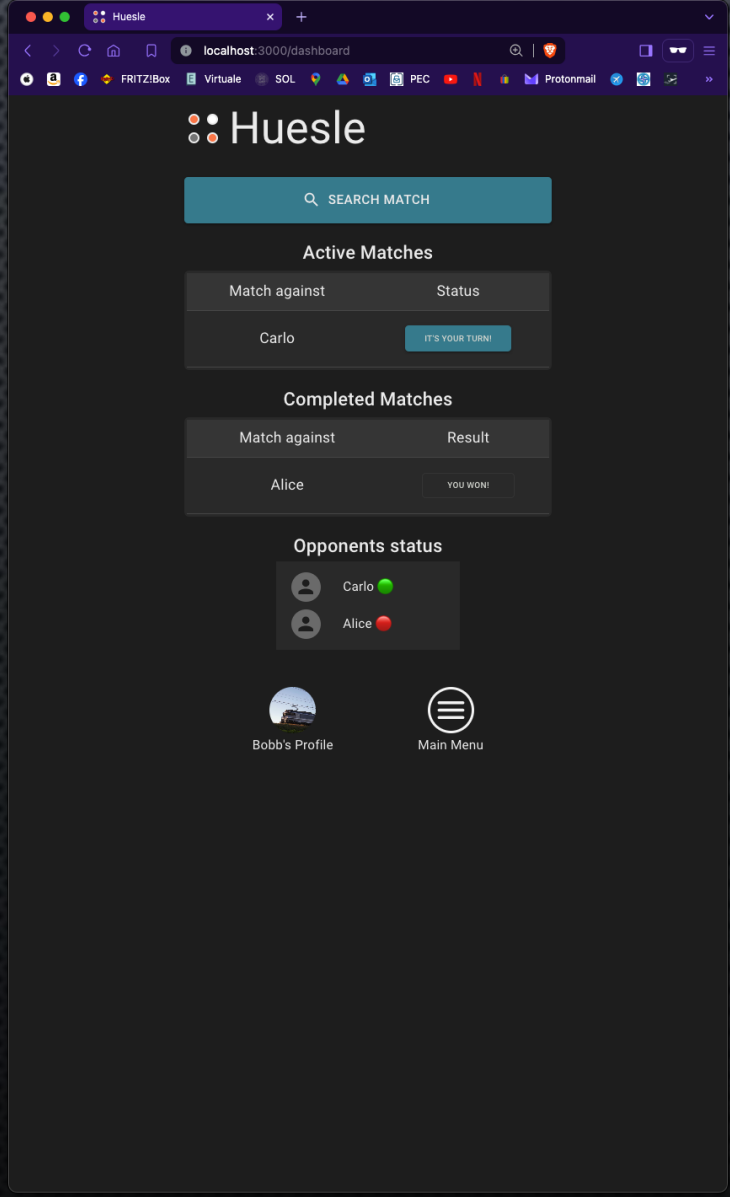
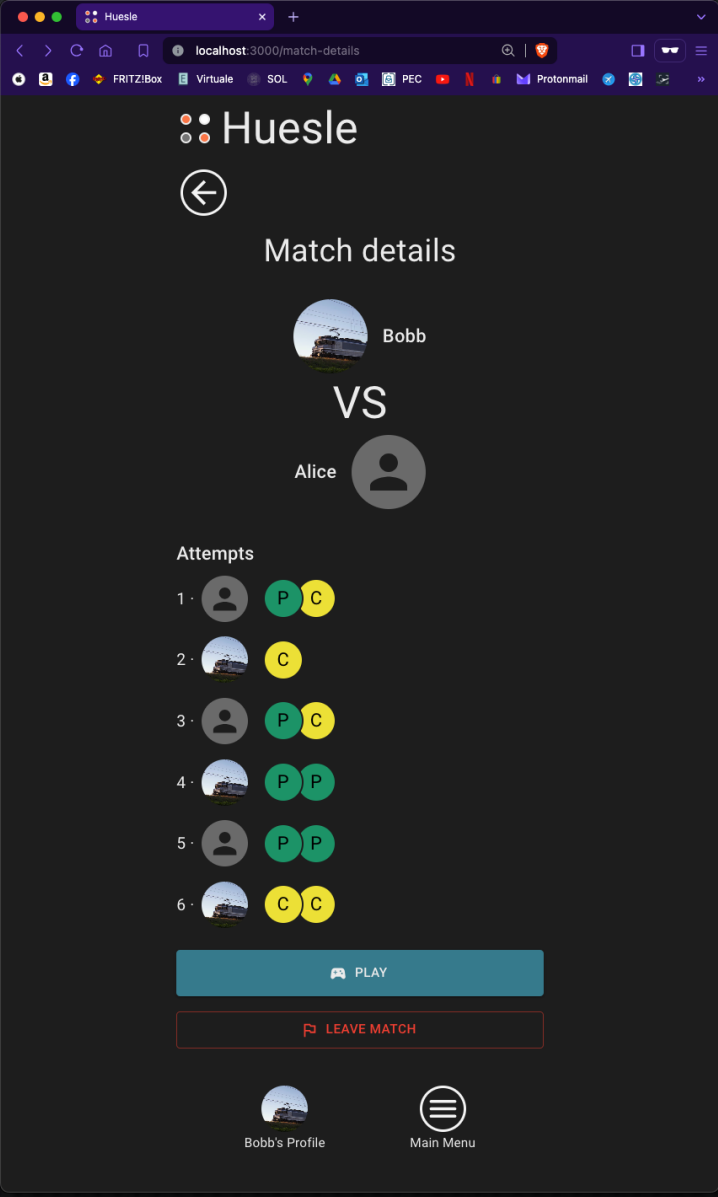
SIGN UP

[Already have an account? Sign In](#)

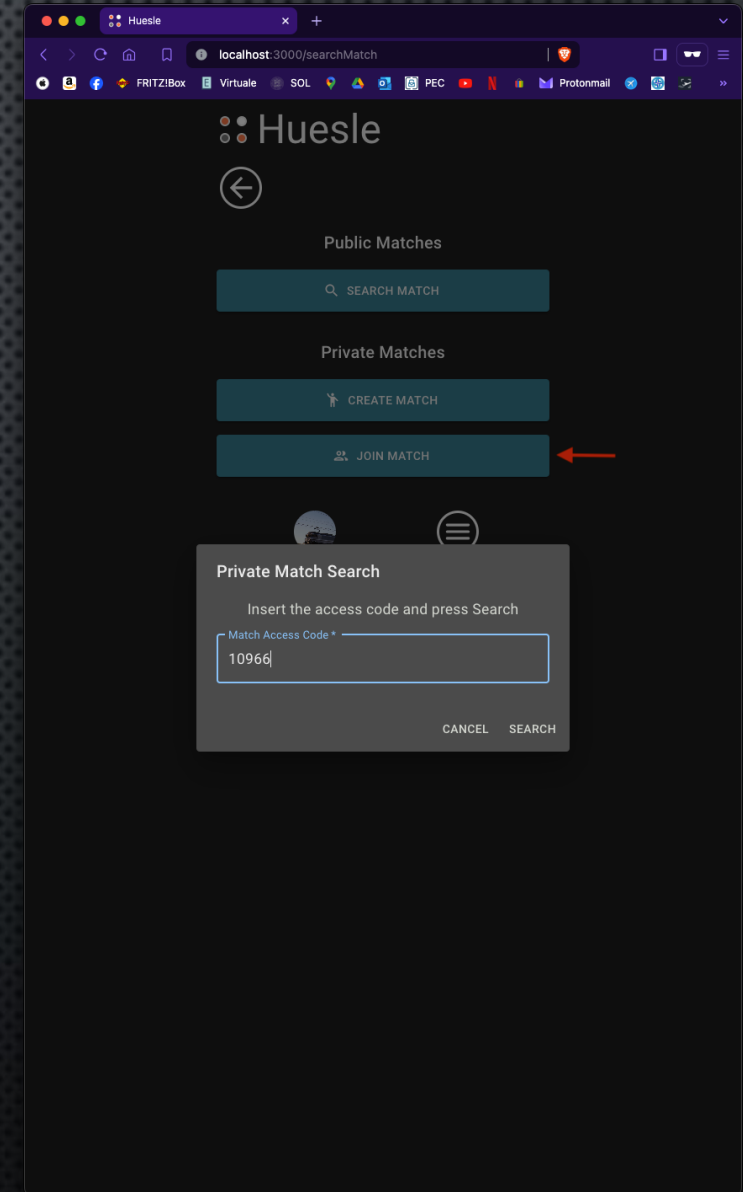
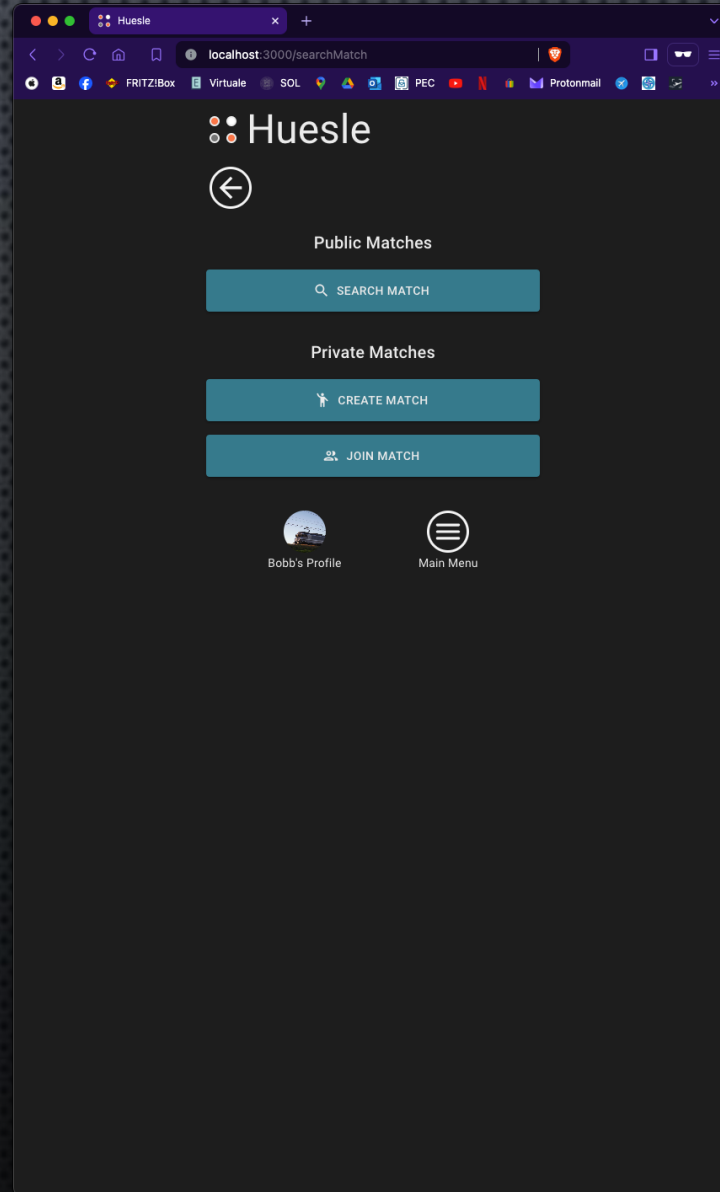
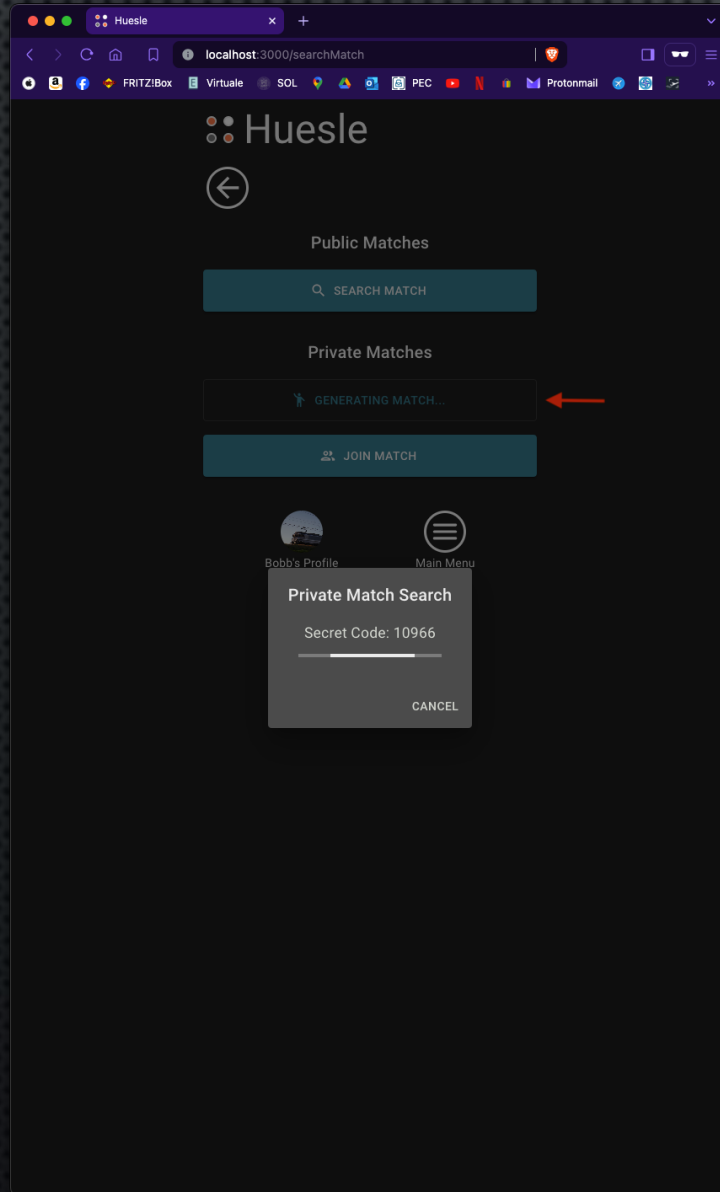
# ESEMPI D'USO - UTENTE



# ESEMPI D'USO - GIOCATTORE



# ESEMPI D'USO - GIOCATTORE



GRAZIE PER L'ATTENZIONE!