Project Milestone 4

Festive Haircut

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Revised List of Features
Most features are unchanged as of this point in the project
Removal of a feature is in red
Addition of a feature is in green

Priority Levels	Meaning
High	**This feature is currently being worked on by the group**
Medium	**This feature will either be started after High priority tasks are completed or will need to be started soon**
Low	**This feature will be started when all Medium and High priority tasks have been completed**

➢ Gameplay: Move - Attack - Block **- High**
  ○ Functional
    ■ Move - 2D movement with jumping
    ■ Move - Basic punch for an attack
    ■ Blocking reduces damage taken
  ○ Non-Functional
    ■ Proper animations for each action
    ■ Functional hitboxes

➢ Customization: Character select - Control Select - Background Select **- Medium**
  ○ Functional:
    ■ Skins for now, different characters if complexity needed
    ■ Can change button inputs
    ■ Can change background map
  ○ Non-functional
    ■ Saves most common stage **and skin**

- ■ Sprite change in game

- ➤ Account Management **- Medium**
  - ○ Account Management
    - ■ Functional Features
      - ● Create account
      - ● Login to account
      - ● Change display name
    - ■ Nonfunctional Features
      - ● Adding accounts into database
      - ● Checking/confirming account information from database
      - ● Database:
        - ○ Row for each user
        - ○ Columns:
          - ■ Username (unique, primary key)
          - ■ Display name
          - ■ Password
          - ■ Email
          - ■ Key bindings
          - ■ Wins
          - ■ Losses

- ➤ Gameplay Backend: Damage - Health **- High**
  - ○ Functional:
    - ■ ~~Player can choose to heal~~ **This feature is being removed as we decided it would be counterintuitive to the rest of the gameplay**
  - ○ Non - functional:
    - ■ Current Health automatically calculated after damage is applied
    - ■ Health Bar displaying current health

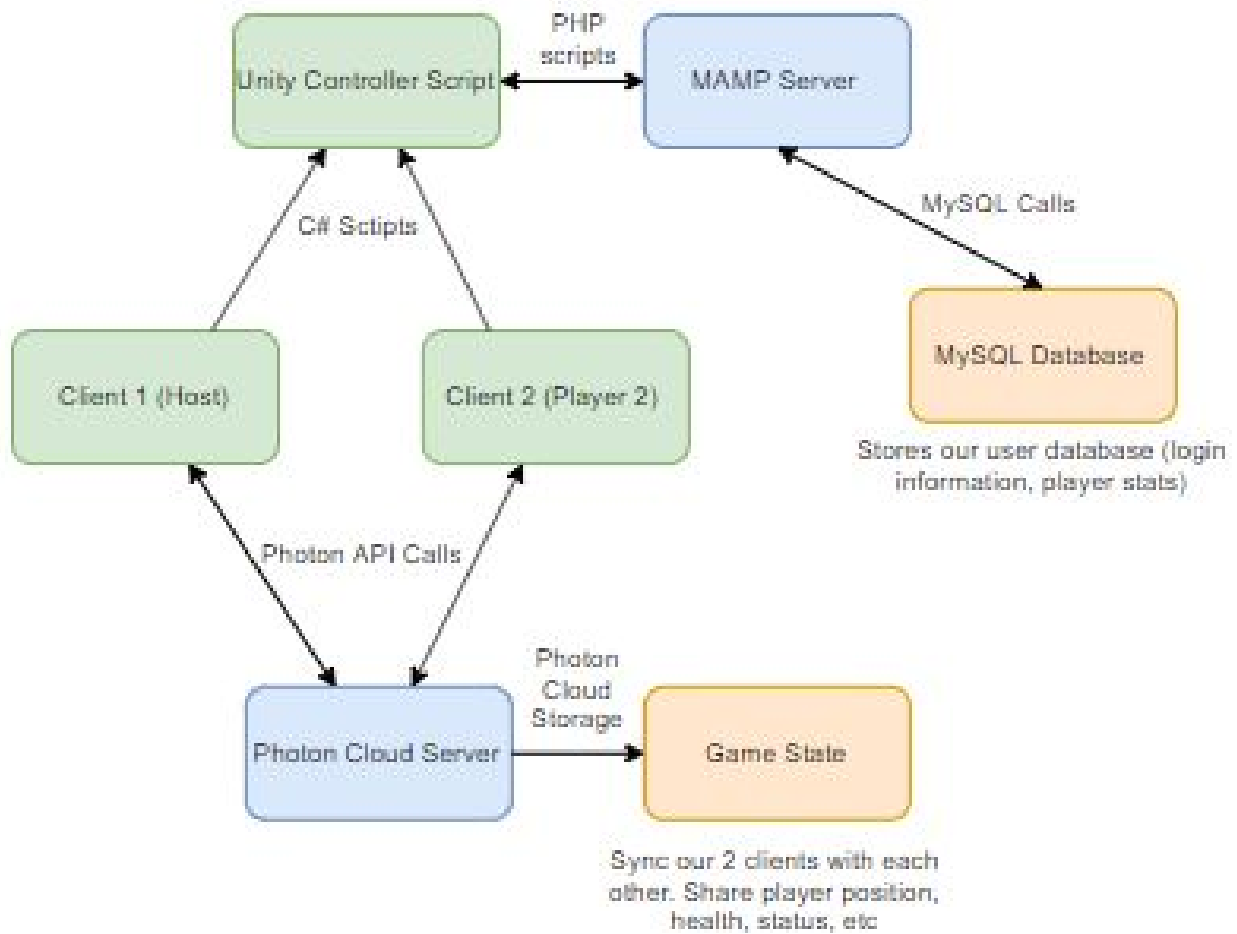- ➤ Account Data: User Data - Stats - Controls **- Low**
  - ○ Functional:
    - ■ Logging in will fetch the data
  - ○ Non-Functional:
    - ■ Stored data will be tied to a user's account
    - ■ Stats: Username, Wins, Losses, Win-rate, Lowest Match Time
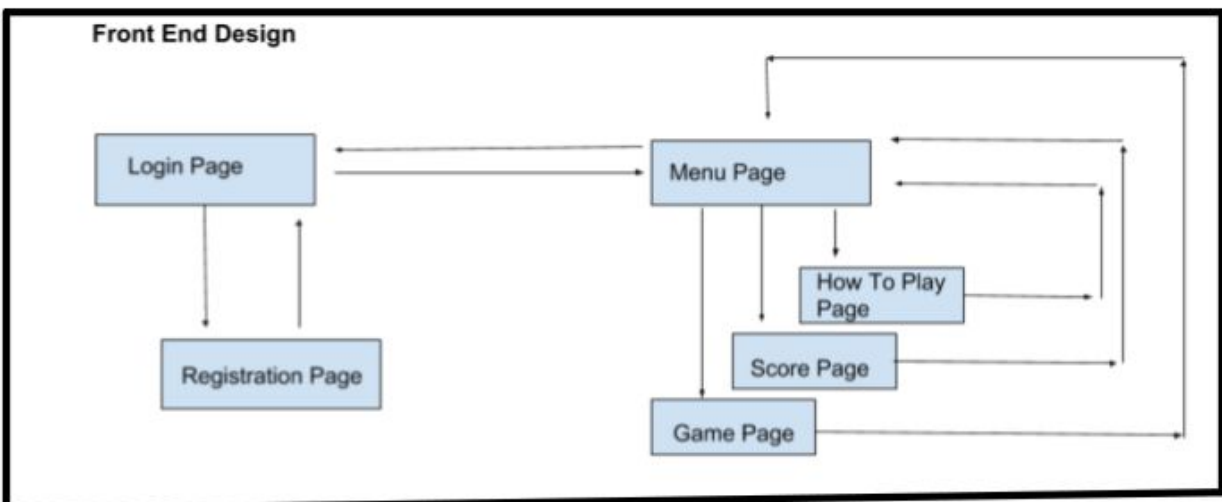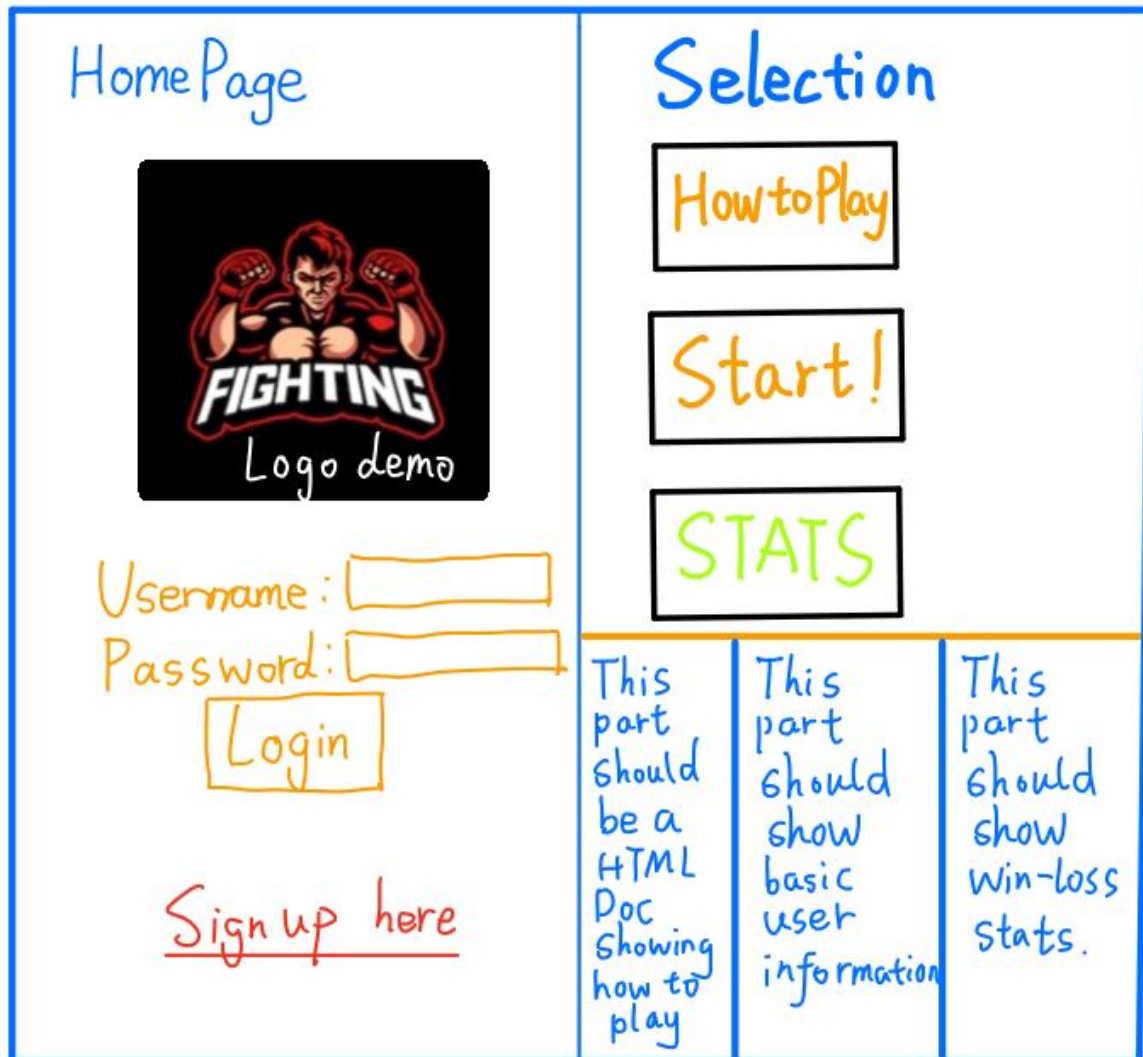
- ➤ UI/UX **- Low**
  - ○ Functional:
    - ■ Easy to navigate website
    - ■ Simple menu
  - ○ Non-Functional
    - ■ Background Music and Sounds Effects

- - 8 bit Rocky theme
    - 8 bit What is Love
    - 8 bit John Cena theme
  - Various other art assets
    - Character sprites
    - Background art

Architecture Diagram

Front End Design

Home Page

FIGHTING
Logo demo

Username: [____]
Password: [____]
[Login]

Sign up here

Selection

[How to Play]

[Start!]

[STATS]

This part should be a HTML Doc showing how to play

This part should show basic user information

This part should show win-loss stats.

Front End Design

Login Page → Menu Page

Registration Page

Menu Page → How To Play Page
Menu Page → Score Page
Menu Page → Game Page

Database design (MySQL database)

Game Data	
Wins	integer(10)
Losses	integer(10)
Win - Loss Ratio	double(10)
Lowest Match Time	double(10)

Preferences	
Most used stage	integer(10)
Most used skin	integer(10)
Movement Controls	varchar(10)
Attack controls	varchar(10)
Block	varchar(10)

Account	
Username	varchar(20)
Password	varchar(20)
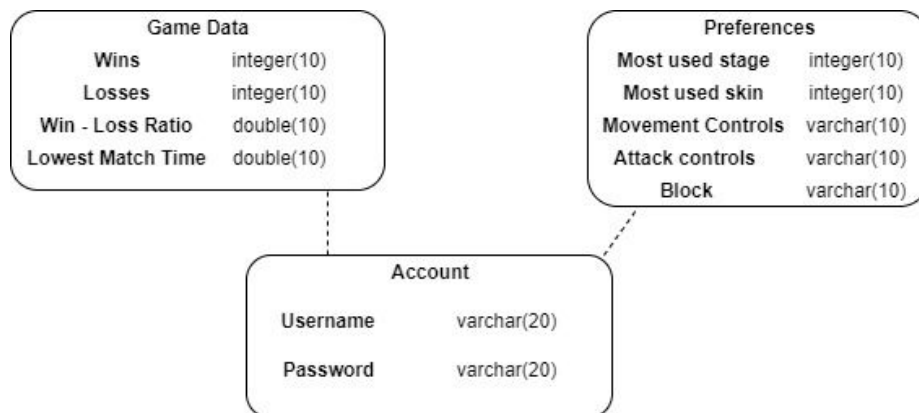
Web Service Design

       Our project will use two main web services, Photon and a MAMPS server. Photon will be used for syncing the two players in real time. Once a client is open, it connects to the Photon server and creates a lobby. The second client then connects to this lobby. The two clients share their Unity player object with the Photon server allowing both clients to have access to both player objects. The MAMPS server is used as a middleman between Unity and our MySQL database storing our player login information and stats. We will use PHP scripts connected to Unity and MAMPS to connect these together securely.