Description of site:

FN Tourney Hub is a website for finding, organising, and viewing results for third-party Fortnite tournaments. It allows players to easily see a list of upcoming third-party tournaments they can join, and it gives organisers a simple way to post their events and get sign-ups and publicity.

In terms of unique functions for this website, every tournament listing will need specific info such as the server region, the team size, the game mode, the format, and the prize. Additionally, organisers must be able to provide a private match code to those entered in their tournament.

Description of technology context (i.e. platform):

Web App

A web application does not require users to make any downloads to utilise and is accessible from every platform, resulting in superior accessibility and reach. It is also easier to maintain, as updates are deployed server-side for all users at once and only one codebase is needed. Though a web application is not without its disadvantages; web apps can be slower and less responsive than native apps, they require an internet connection, have limited access to device features like push notifications, and are inherently more vulnerable to security threats, requiring robust protection for user data and payments (Make It Simple, 2024).

Desktop App

A native desktop application can interface with other devices, be used offline, is more secure, and is capable of fully leveraging the power of the user's system, resulting in the best performance and responsiveness of any platform. However, accessibility is significantly reduced by the requirement of having to download and install the application. Additionally, the need to develop and maintain separate versions for Windows and macOS is costly and time-consuming, and users must elect to update the software; this often leads to fragmentation (Trinidat, 2023).

Mobile App

A native mobile application provides the best user experience; this platform can leverage the mobile device's full power, be used offline, is inherently secure, and can enable features such as push notifications to further enhance the user experience. However, the mobile app shares all the disadvantages seen with a desktop app; it requires multiple code bases and reduces accessibility (Krafft, 2024).

Ideal Platform

In the specific context of the "FN Tourney Hub," a web application is the most appropriate platform to use. FN Tourney Hub would require little processing power and possess the primary goal of maximising community participation and tournament discoverability, meaning accessibility and discoverability are valued far more than performance. As a result, a native desktop or mobile application would both cost more and be less effective for this given use case.

User Stories

ID	TITLE	STORY	ACCEPTANCE CRITERIA
#0001	Register Account	As a player I want to register an account so that I can book tournaments and track my history.	- User can enter name, email, and password. - System saves account. - Confirmation is shown.
#0002	Login	As a user I want to log in so that I can link my Fortnite account to enter tournaments easily.	- Login requires valid email and password. - Invalid login shows error. - Successful login redirects to homepage and allows for account linking.
#0003	Create Tournament	As an organiser I want to create a tournament so that players can join and compete.	- Form includes event name, date, server region, team size, mode, prize pool. - System saves and displays tournament. - Confirmation message shown.
#0004	View Upcoming Tournaments	As a player I want to browse upcoming tournaments so that I can decide which ones to join.	- Page lists tournaments with name, date, team size, prize. - Status (Open/Closed/Full) is visible. - "View Details" button works.
#0005	Book Place in Tournament	As a player I want to book a tournament so that I can participate.	- User can enter team member names. - Booking confirmation is displayed. - Booking is stored in history.
#0006	Provide Match Code	As an organiser I want to give players a private match code or middle-man account so that only registered players can join.	- Organiser can enter/edit match code. - Match code/Epic ID is visible only to booked players. - Players cannot see other event codes/IDs.
#0007	View Booking History	As a player I want to view my past tournament bookings so that I can track my participation.	- History page lists past events with event name, team members, booking date, event date, placement, and prize. - Each entry is formatted consistently. - Multiple past bookings are displayed.
#0008	Filter Events by Team Size	As a player I want to filter tournaments by solo, duo, trio, or squad so that I can quickly find suitable events.	- Dropdown or buttons for Solo/Duo/Trio/Squad. - Only relevant tournaments appear when filter is applied. - Option to reset filter.
#0009	Post Comments on Events	As a player I want to post comments on an event so that I can share feedback or ask questions.	- Text area available on event details page. - User can submit a comment. - Comments appear instantly under event.
#0010	View Results	As a user I want to view results of past tournaments so that I can see winners and prizes.	- Results page shows event name, winners, prize. - Multiple events displayed. - Page is consistent with site style.

Conceptual Model

List of concepts/classes that were identified from user stories

- User (Register, Login, Booking, Commenting)
- Player (specialisation of User – books tournaments, views history, comments)
- Organiser (specialisation of User – creates tournaments, provides codes)
- Tournament (events to join/view/create)
- Booking (links user/team to tournament, shows relevant information)
- Team (group of players booking together)
- Match Code (private code or Epic ID, organiser-provided)
- History (record of past bookings for a user)
- Result (winner, earningsMade)
- Comment (feedback/questions on tournaments)

Refined List

- User
  - Attributes: name, email, password, epicId (Fortnite username)
  -
- Tournament
  - Attributes: name, serverRegion, teamSize, mode, buyIn, prizePool, status, date
- Booking
  - Attributes bookingDate, placement, earnings, buyIn, members
  - Links a User/Team to a Tournament
- MatchCode
  - Attributes: code
  - Linked to Tournament
- Result
  - Attributes: winner, earnings
- Comment
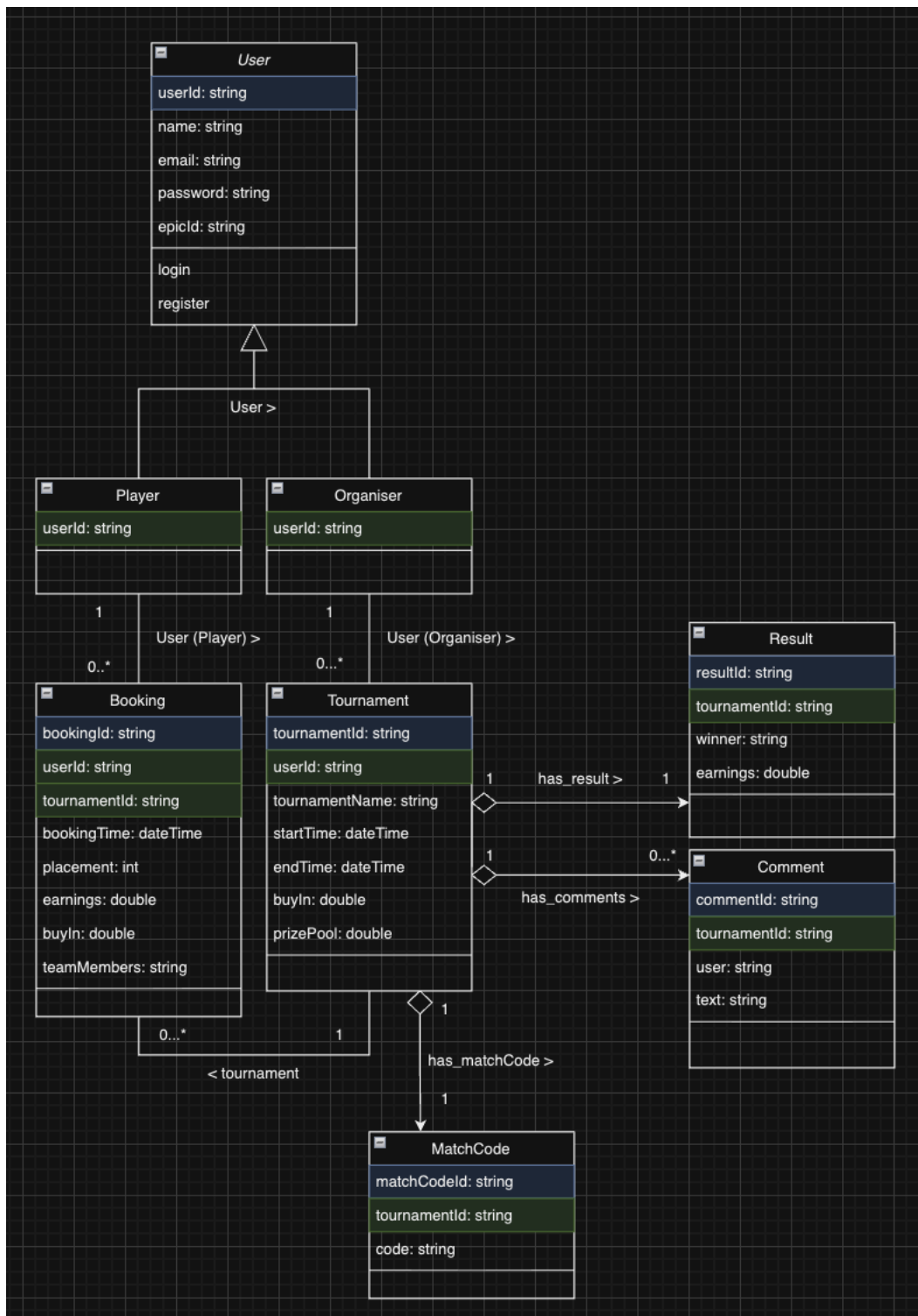 - Attributes: text, username

Responsibilities of Classes

- User: Register, login, comment
- Player: book_tournament
- Organiser: create_tournament
- Tournament: edit_details (including tournament status), get_details
- Booking: get_bookings
- MatchCode: get_code
- Result: get_results
- Comment: post_comment, delete_comments

UML Diagram
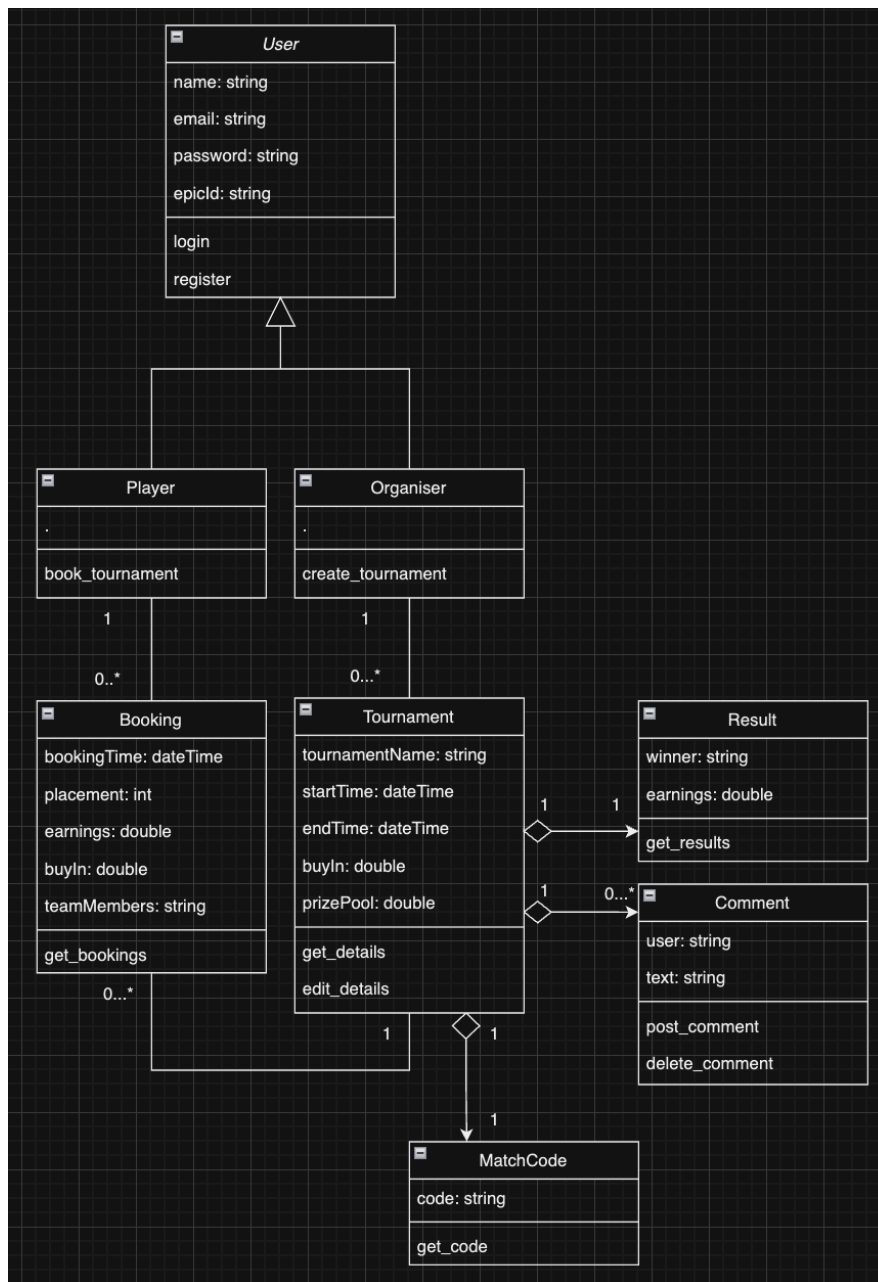
Data Model

References

Krafft, N. (2024). *Advantages and disadvantages of mobile apps*. Retrieved from Oppizi: https://www.mybib.com/tools/apa-citation-generator

Make It Simple. (2024). *Main Advantages & Disadvantages of Web Apps in 2024*. Retrieved from Make It Simple: https://www.makeitsimple.co.uk/blog/web-app-advantages-disadvantages

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Appendix 1: Use of AI Declaration in IAB207

Section A:

I confirm that did not use AI at all for my assignment.