1 Project Requirements

1.1 Functional Requirements

The functional requirements of the project include minimum requirements and those which we would like to implement, the latter will be diliminated by a star *:

1.1.1 Primary Requirements

The primary requirements are those which are to always be functional:

- Ability for the user to play a game:
  - Against another user locally.
  - Against an *AI* that will be provided.*

- Ability for the user to track their *statistics* of play over the lifetime of their account including wins, losses, and draws.[1]

- Ability for the user to modify the starting layout of the chess pieces to match a configuration of either a previously ongoing game or a game scenario.
  - FEN Processing
  - FEN Interpretation
  - FEN Generation

1.1.2 Secondary Requirements

Secondary requirements are those which will not always be available.

- Ability for the user to create an account to access online features.
  - Ability for the user to sync statistics.
  - Ability for the user to play against another user online.

- Ability for the user to login via their Google Account credentials.

1.2 Usability

1.2.1 User Interface

1.2.2 Performance

1.3 System

Serverside All server-side requirements of the this project were provided by eco.webhosting.co.uk

The requirements of the server include:

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[1]This does not include syncing which is a secondary requirement.

- Web Server setup to run Angular applications

- Database running MySQL 10.4.14

- Can handle multiple requests and sessions at a given time.

Clientside   The client side requirements are recommended requirements based on our own systems:

Operating System   This program does not require a specific Operating System.

Memory   The system should have at least 2GB of RAM.

Required Software   This program requires a modern GUI web browser, preferably:

- Firefox

- Google Chrome

- Brave

1.4   Database

This project will be using one database to keep track of ongoing games which is using MySQL version 10.4.14.

1.5   Networking

All project artifacts and interconnectivities are being provided by the hosing web server.

1.6   Security

For Google Authentication, we will be leveraging Google OAuth 2.0 API. The other security requirements are inherently provided by the hosting server.