
Software Requirements Specification

for

Predict WebApp

Version 1.0 approved

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1. Introduction

1.1 Purpose

A Social Media Platform for Friendly Prediction Battles related to Daily or Weekly Football Matches. The Platform has been made for the sole purpose of encouraging Fun and Entertainment amidst the Coronavirus Pandemic.

1.2 Document Conventions

The Documentation follows specific guidelines which are as follows:

- *Indexing of the Documentation has been mentioned on the 1st Page excluding the Cover Page.*
- *The Headings are written using Bold Font Times of size 18*
- *The Subheadings are written using Bold Font Times of size 14*
- *The Content is written using Italic Font Arial of size 11*

1.3 Intended Audience and Reading Suggestions

The Documentation is meant for the following categories of People:

- *Project Developers*
- *Project InCharge Faculty*
- *Project Maintainers*
- *End Users*

1.4 Product Scope

The Product consists of a Web Application Platform that allows users to engage themselves in friendly Prediction Battle Competitions wherein they predict the results of Daily or Weekly Football matches.

The vision of the Product is to gain Maximum User Base and profit using Ad based Marketing and sponsorships. First and foremost goal of the Product is optimum user engagement and satisfaction.

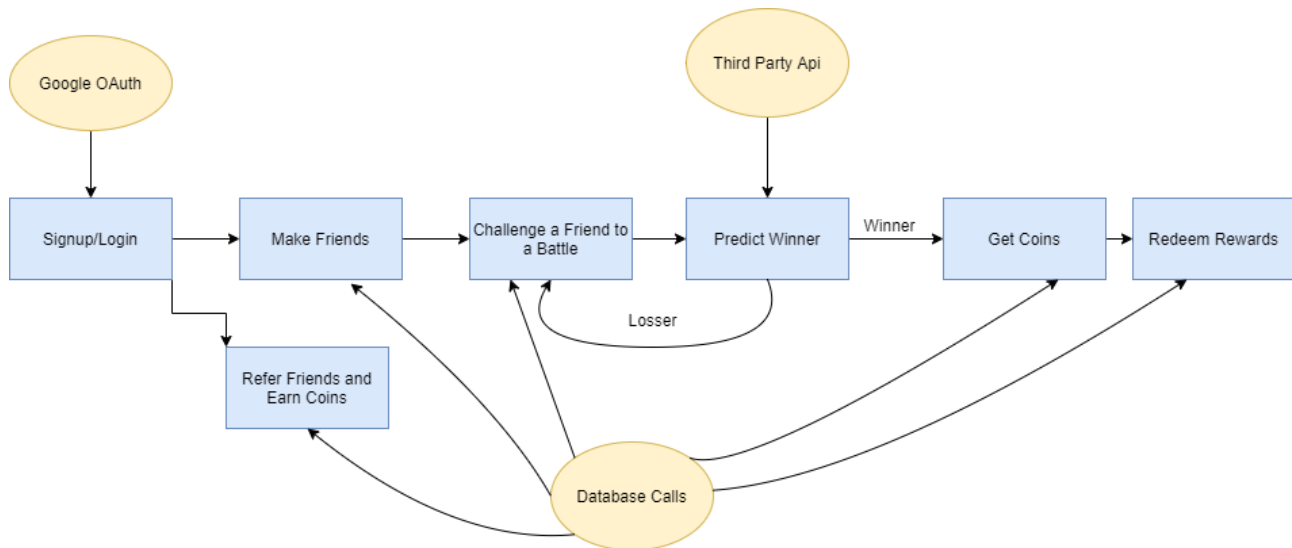
*From the perspective of the developers,
The goal of Predict WebApp is to be reliable, scalable and bug-free.*

*From the perspective of the end users,
The goal of Predict WebApp is to fulfill all the requirements.*

2. Overall Description

2.1 Product Perspective

The origin of the platform comes from the common prediction battles which happen in everyday life. Now as in the pandemic time it's hard to meet in person we offer an upgraded alternative to do friendly Prediction battles while earning rewards from the same.



2.2 Product Functions

- **Authentication System:** The End User can authenticate on the Platform using a standard Google Account.
- **Friendship System:** The End User can send, receive and accept Friend Requests from different users on the platform provided they have authenticated first.
- **Prediction System:** The End User can challenge Friends for a Prediction Battle against them using Initial Coins allotted to them. The Prediction can be done only on a game prior to its play phase.
- **Referral System:** The End User can invite other Users on the Platform using his/her unique referral link to gain rewards based on their invited User's engagement.
- **Reward System:** The End User can claim exclusive rewards using the Coins they gain by winning Prediction battles and using the Referral System.

2.3 User Classes and Characteristics

Various Types of Expected Users:

- Children above the age of 13
- Teenagers
- Adults

2.4 Operating Environment

Predict WebApp is a Platform Independent Web Application that can be accessed using any Latest Browser that includes but not limited to, Google Chrome, Mozilla Firefox, Microsoft Edge, Brave, Tor, etc.

It has no specific requirements for its Operating Environment apart from the fact that it requires a Stable Internet connection and a Javascript enabled browser.

2.5 Design and Implementation Constraints

No such constraints have been observed in the development of the Product.

Based on the popularity of the Product, the Dependencies might require Upgradation to Premium Package for Stable operation of Predict WebApp.

2.6 User Documentation

- *Authentication System: The End User can authenticate on the Platform using a standard Google Account.*
- *Friendship System: The End User can send, receive and accept Friend Requests from different users on the platform provided they have authenticated first.*
- *Prediction System: The End User can challenge Friends for a Prediction Battle against them using Initial Coins allotted to them. The Prediction can be done only on a game prior to its play phase.*
- *Referral System: The End User can invite other Users on the Platform using his/her unique referral link to gain rewards based on their invited User's engagement.*
- *Reward System: The End User can claim exclusive rewards using the Coins they gain by winning Prediction battles and using the Referral System.*

2.7 Assumptions and Dependencies

The Dependencies that will be used are as follows:

Package Manager:

- *Node Package Manager(NPM)*

Frontend Development:

- *ReactJS*
- *MaterialUI*

Backend Development:

- *NodeJS*
- *Passport Authentication Manager*
- *Mongoose*

Database Management System:

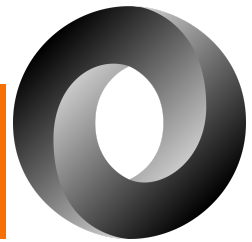
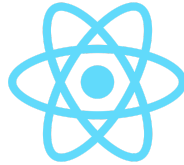
- *MongoDB*

Data Interchange Format:

- Javascript Object Notation (JSON)

3rd Party API:

- API-Football (<https://www.api-football.com/>)



3. System Features

Following are the System Features that are the core of Predict WebApp

3.1 Authentication System

3.1.1 Description and Priority

*The End User is allowed to authenticate on Predict WebApp Platform using a standard Google Account. All the details regarding the user are obtained from Google Authentication Services.
It is a primary priority system feature.*

3.1.2 Functional Requirements

- Google OAuth API
- Google Credentials

3.2 Friendship System

3.2.1 Description and Priority

*The End User is allowed to send, receive and accept Friend Requests from different users on the platform.
It is a primary priority system feature.*

3.2.2 Functional Requirements

- Database Management System and Backend Processing
- Atomic, Consistent, Isolated and Durable Transactions

3.3 Prediction System

3.3.1 Description and Priority

*It allows users to challenge Friends for a Prediction Battle against them using Initial Coins allotted to them. The Prediction can be done only on a game prior to its play phase. Statistics for all games would be available to help you make your choice.
It is a primary priority system feature.*

3.3.2 Functional Requirements

- Third Party API calls for Latest Updates on every Football Match and its Results.
- Database Management System and Backend Processing
- Atomic, Consistent, Isolated and Durable Transactions

3.4 Referral System

3.4.1 Description and Priority

*It allows users to refer other friends to join the platform and engage in friendly battles while earning reward coins for every friend added.
The System Feature is a Secondary Priority Feature.*

3.4.2 Functional Requirements

- Backend Database Maintenance
- Secure Reward Earning Procedure

3.5 Reward System

3.5.1 Description and Priority

*Reward System allows users to Claim Goodies, Gift Cards and other stuff using their Coins earned from Prediction battles and referrals.
The System Feature is a Secondary Priority Feature.*

3.5.2 Functional Requirements

- Backend Database Maintenance
- Secure Reward Redeeming Feature
- Authorized Reward Claim Procedure

4. Other Non Functional Requirements

4.1 Performance Requirements

For Optimum Performance, the following System Requirements are necessary:

RAM: 4GB or above DDR4

Processor: Intel Core i3 5th Gen or Above (1.6 GHz)

HardDisk Space: No Additional Requirements apart from OS

Application: Google Chrome, Mozilla Firefox, Microsoft Edge, Brave

4.2 Safety Requirements

We care deeply about the safety of the people who use our apps. We regularly consult with experts in suicide and self-injury to help inform our policies and enforcement, and work with organizations around the world to provide assistance to people in distress.

While we don't allow people to intentionally or unintentionally celebrate or promote suicide or self-injury, we do allow people to discuss these topics because we want Predict to be a space where people can share their experiences, raise awareness about these issues, and seek support from one another.

We define self-injury as the intentional and direct injuring of the body, including self-mutilation and eating disorders. We remove any content that encourages suicide or self-injury, including fictional content such as memes or illustrations and any self-injury content which is graphic, regardless of context. We also remove content that identifies and negatively targets victims or survivors of suicide or self-injury seriously, humorously or rhetorically, as well as real time depictions of suicide or self-injury. Content about recovery of suicide or self-harm that is allowed, but may contain imagery that could be upsetting, such as a healed scar, is placed behind a sensitivity screen.

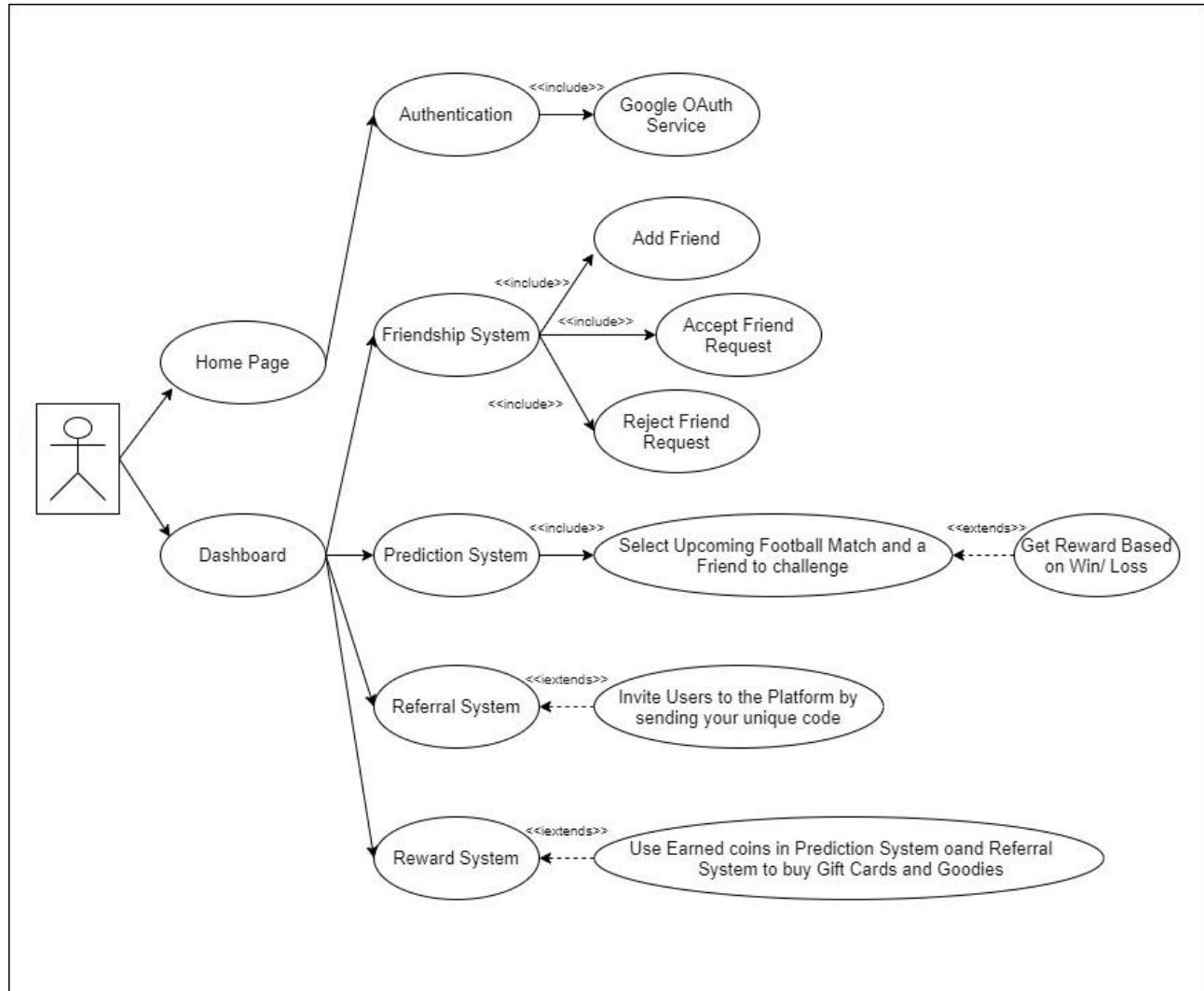
When people post or search for suicide or self-injury- related content, we will direct them to local organizations that can provide support and if someone is at immediate risk of harming themselves, we will contact local emergency services to get them help.

4.3 Security Requirements

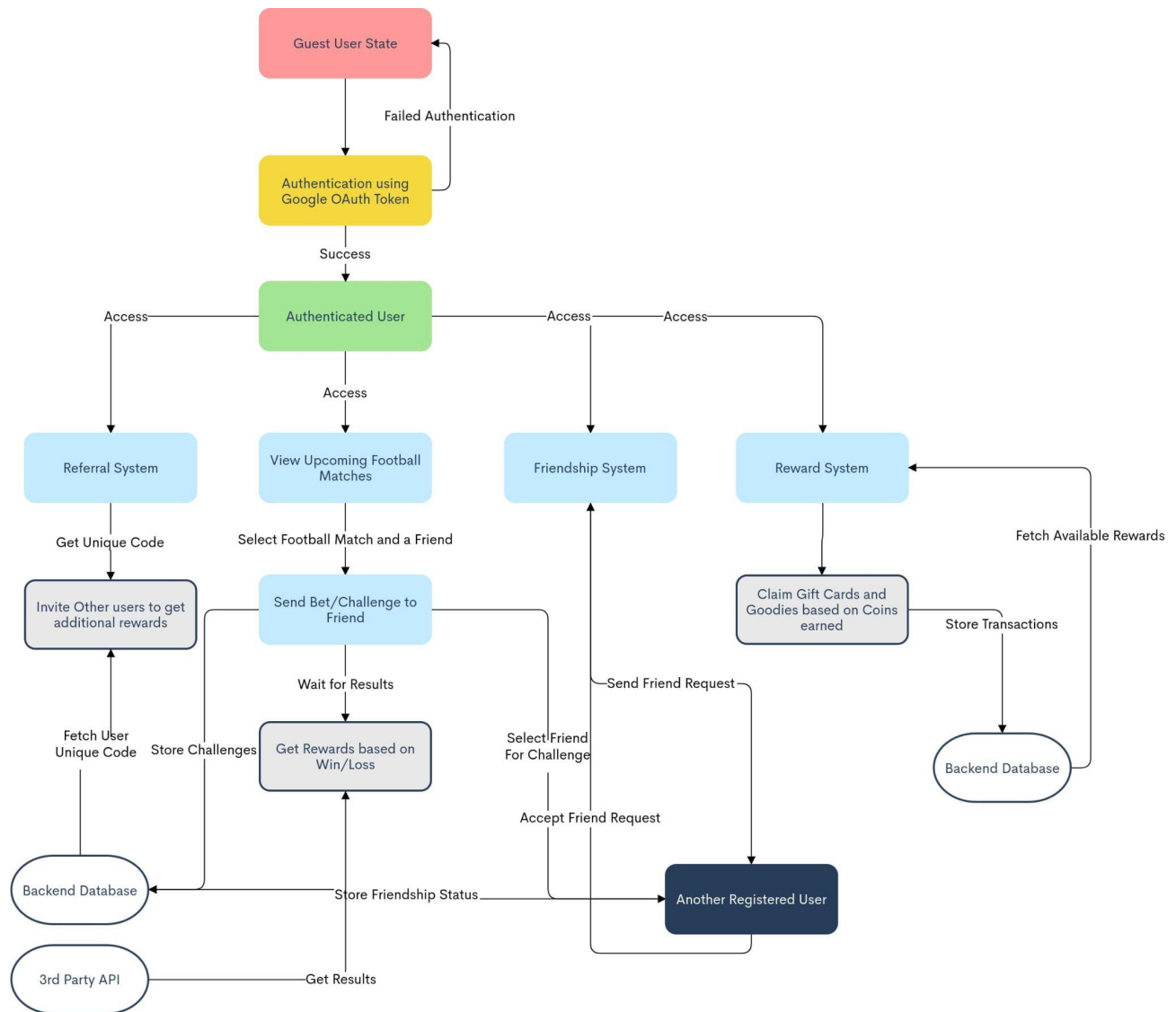
- *Use Secure HTTPS connection while browsing Predict WebApp*
- *Logout from your Account when using Predict at a Local Cafe or at a Public Location*
- *Store your Credentials carefully and in a secure manner (Don't share it with strangers)*
- *Predict Battles are liable to the End User. Predict WebApp is not responsible for any losses incurred due to it.*

5. Diagrams

5.1 Use Case Diagram:



5.2 State Diagram:



5.3 Sequence Diagram:

