Code of Duty

Football Tournament Management Website
Vision Document (Small Project)

Version <2.0>

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Revision History

Date	Version	Description	Author
<27/10/2023>	<1.0>	Revision document part 1,2,3.	Nguyễn Tuấn Đạt
		Revision document part: 4,5,6.	Nguyễn Đình Ánh
<18/11/2023>	<2.0>	Fix some minor mistypes; Update the table of contents; Add a new competitor;	Nguyễn Đình Ánh

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Vision (Small Project)

1.   Introduction

The purpose of this document is to collect, analyze, and define high-level needs and features of the *Football Tournament Management Website*. It focuses on the capabilities needed by the stakeholders and the target users, and why these needs exist. The details of how the Football League Management Website fulfills these needs are detailed in the use-case and supplementary specifications.

1.1   References

Applicable references are:

1.   IBM Corp (2004) Rational unified process: Examples, Examples. Available at: http://files.defcon.no/RUP/examples/ovu_arex.htm (Accessed: 23 October 2023).
2.   Nguyễn, T.T.M. (no date) 'Introduction to software engineering', Course at University of Science. Course at University of Science, Hồ Chí Minh: Phường Linh Trung, Thành Phố Thủ Đức, Thành phố Hồ Chí Minh.
3.   Sommerville, I. (2016). Software engineering (10th ed.). Boston, Mass. Amsterdam Cape Town Pearson Education Limited.

2.   Positioning

2.1   Problem Statement

The problem of	Inefficient management and communication of traditional methods.
affects	Organizers, football clubs, spectators.
the impact of which is	Disorganized tournament information, difficult access to tournament information for both spectators and clubs, decreased trust from investors towards the organizing committee.
a successful solution would be	Increasing trust from investors towards the organizing committee, managing the tournament more effectively, accessing tournament information for spectators and clubs easilier.

2.2   Product Position Statement

For	The organizing committee of the tournament
Who	Football clubs, spectators
The (product name)	Is a website
That	Manages tournaments online, posts tournament updates on the website, creates registration forms for tournament participation, sells tournament tickets online
Unlike	The myleague.vn website
Our product	Provides powerful tournament information management tool, online ticket selling feature and feature that presents tournament information in a visual and detailed manner

3.   Stakeholder and User Descriptions

This section describes the users of the Football League Management Website. There are 3 types of users of the Football League Management Website: the Organizing Committee, the Football Clubs, and the Spectators.

3.1   Stakeholder Summary

Name	Description	Responsibilities
Admin	Owns the exclusive privilege.	Responsible for content moderation and account management.
Organizer	Belongs to the Organizing Committee.	Responsible for posting tournament information, moderating club information participating in the competition, and managing online ticket sales.
Coach or Manager	Represents the club.	Responsible for tournament participation registration.
Footballer	Participates in football matches of the tournament.	Ensures that the system will provide enough fields to fill information for footballers.
Spectator	Attends and spectates football matches.	Responsible for registering information on the website for purchasing tickets, voting for the best player, and also providing access to tournament information whether logged in or not.
Referee	Officiates and oversees football matches to ensure fair play.	Ensure the system provides sufficient information about referees for each match
Tournament commentator	Provides live commentary, analysis, and insights during the tournament.	Ensure the system provides information in a visual, comprehensive, and accurate manner for the entire tournament that helps commentators to easily update information for evaluating and commenting on each match.
Sponsor	Provides financial or material support to a tournament.	Ensure the system displays a list of sponsors for the match.
IT Maintenance Team	Ensures the smooth functioning, security, and upkeep of the information technology (IT) infrastructure and systems.	Ensure the system has technical documentation to facilitate easier maintenance.

3.2   User Summary

Name	Description	Responsibilities	Stakeholder

Admin	Owns the exclusive privilege.	Manages database. Manages all accounts. Manages all data on the website.	self-represented
Organizer	Belongs to the organizing committee.	Needs tools for compiling articles, tournament brackets, etc. Posts and manages tournament information: Tournament regulations, schedule, tournament bracket, format, referee assignments, etc. Updates match statistics. Creates tickets and sells them. Manages ticket sales. Approve the participating clubs for the competition.	self-represented
Coach or Manager	Represents the club.	Registers for participation in the competition. Inputs and modifies necessary information of the team members participating in the competition (Including the coach). Registers and manages the lineup for the match. Receives notifications of upcoming match schedules.	self-represented
Spectator	Attends anh spectates football matches.	Views news and receives tournament updates. Selects a seating position and buys tickets. Votes best player of the tournament.	self-represented

3.3 User Environment

Football Tournament Management Website is a web application that has front-end, back-end and database.

Organizing committee requires at least one server and related hardware devices to host the web service and store data.

All users can use personal computers or internet-connected devices to access web services from the server. They can search the website by using SEO, this website will be public on the Internet.

In the future, this website may have version releases on mobile and desktop that help improve performance of the application.

3.4   Summary of Key Stakeholder or User Needs

Need	Priority	Concerns	Current Solution	Proposed Solutions
Posts and manages tournament information: Tournament regulations, schedule, tournament bracket, format, referee assignments, etc.	High	Sources of information are disparate and lacking in systematic organization.	Organizing committee utilizes social networks, newspapers, and television to disseminate information to users.	Organizing committee would like to have an official website to post all tournament information.
Views news and receives tournament updates.	High	Spectators may not know where to search for tournament information and might choose unreliable information channels.	Encouraging viewers to visit reputable sources such as television channels and other channels with clear verification.	Spectators would like to have an Organizing Committee's website for easy and secure information retrieval.
Registers for participation in the competition.	Medium	Registering in person is costly and time-consuming as clubs may be scattered across various locations.	The clubs will appoint a representative to go on-site for registration.	The clubs would like to register for online participation to reduce costs, time, and the risk of information errors.
Selects a seating position and buys tickets.	Medium	Viewers have to spend a lot of money and time to buy tickets in person. Buying tickets in person can also overload ticket sales points, causing security issues.	Viewers have to go to ticketing points to purchase tickets.	Spectators would like to buy tickets online to reduce travel costs, save time purchasing tickets, and easily choose suitable seats.

3.5   Alternatives and Competition

MYLEAGUE.VN:

- Strengths: Provides a social network focusing on football tournaments, including those within gaming platforms; Offers an intelligent and user-friendly tournament search tool; Is suitable for organizing both small and medium-sized tournaments: Is an intermediary platform for direct online sales of sports products;

- Weaknesses: Is not suitable for the Organizing Committees focused on organizing large tournaments; Information about matches is still too scattered and difficult for ordinary users to access; Does not provide online ticketing services as it caters to small-scale matches that do not require an audience; The website owner is not the Organizing Committees but a third-party intermediary;

FAGLEAGUE.VN:

- Strengths: It provides support for organizing tournaments easily and delivers accurate tournament information to everyone; It also allows team creation and member registration into various seasons; Dedicated to the tournament organizers, so it has very practical features; It uses popular competition formats today.
- Weaknesses: Does not provide online ticketing services as it caters to small-scale matches that do not require an audience; The website owner is not the Organizing Committees but a third-party intermediary;

4. Product Overview

This section provides a high level view of the Football Tournament Management Website capabilities, external interfaces, and the website configuration.

4.1 Product Perspective

The Football Tournament Management website is designed as an independent and self-contained platform. However, it does interact with external interfaces and services critical to its functionality:

- User Access and Internet Connectivity: The system assumes that users have basic internet connectivity, enabling them to access the website via web browsers.
- Payment Gateway: The website interfaces with a secure payment gateway for processing financial transactions related to tournament registration fees and ticket sales.
- External APIs and Services: The website supports external API on media sharing.
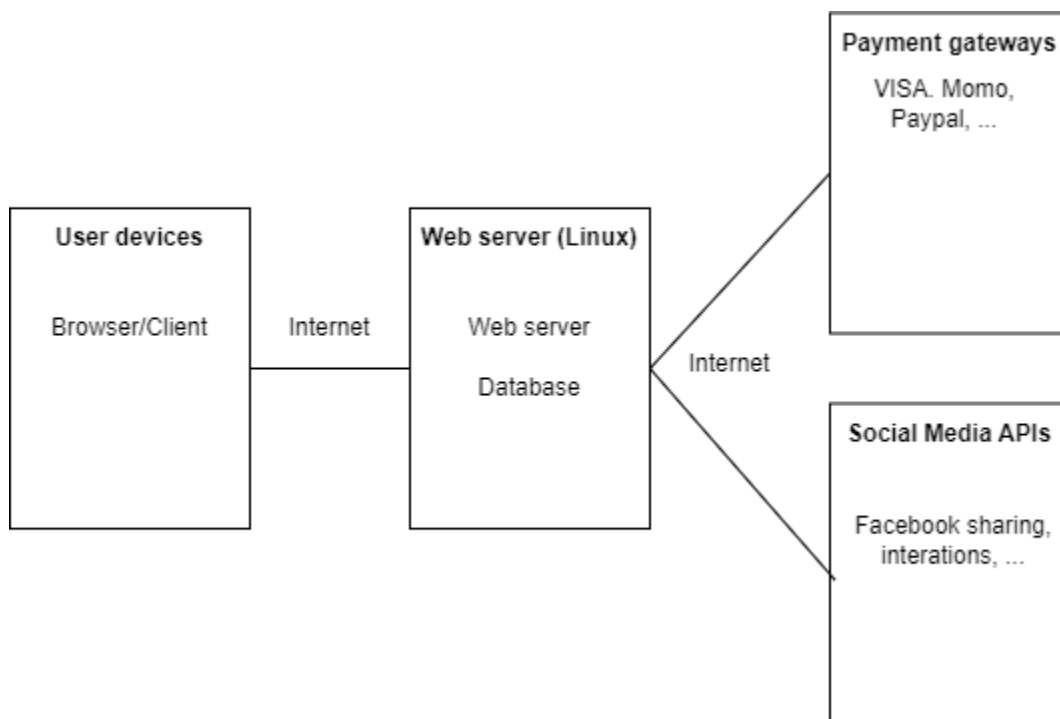
4.2 Assumptions and Dependencies

The following assumptions and dependencies relate to the capabilities of the Football Tournament Management Website as outlined in this Vision Document:

- The technology stack, including both frontend and backend frameworks and tools, is supported and actively maintained throughout the project's development (at least after Jan 2024).
- The hosting infrastructure, including web servers and databases, will continue to be supported and operational throughout the project timeline.

- ○ External interfaces, such as payment gateways and social media services, will remain available and their functionality will not significantly change until at least Jan 2024.
- ○ The availability and reliability of internet connectivity for users is assumed. The system relies on a stable internet connection for user access and interaction.
- ○ The accuracy and timeliness of match result reporting depend on organizer's representatives promptly inputting match results.
- ○ Secure and functional payment gateways are essential for the Payment Processing component to handle registration fees and ticket sales securely.

5. Product Features

This section defines and describes the features of the Football Tournament Management Website. Features are the high-level capabilities of the system that are necessary to deliver benefits to the users.

No.	Feature	Description	Priority
1	Login	Users, including organizers, teams, and spectators, shall provide valid credentials (ID and password) for access to the Football Tournament Management website. Users will receive their credentials upon registration. The system allows users to change their passwords for enhanced security.	High
2	Tournament Creation	Organizers can create new football tournaments, specifying rules and categories.	High
3	Tournament Details	Users can access comprehensive information about each tournament, including name, date, location, and rules.	High
4	Match Management	Organizers can adjust scheduling, stadiums, match details, adjust team information.	High
5	Match Result Handling	Organizers can oversee and manage match results in real-time. When other users can achieve information about the match.	High
6	Organizer Reporting	The website shall help organizers to generate reports, manage finances, and oversee tournament progress.	Medium
7	Winner Announcement	The system announces the champion of the tournament and the best player based on spectator votes at the end of the tournament.	Medium

8	Announcement Board	The system shall include a dedicated announcement board for important updates, news, and event-related messages.	Medium
9	Team Registration	Teams can register for tournaments.	High
10	Player Roster Management	Teams can manage player rosters, adding or removing players as needed.	High
11	Communication Tools	Teams have access to communication tools for coordination.	Low
12	Team Profiles	Teams can view and update their profiles, while spectators can view profiles of participating teams, including team name, captain, and player roster.	High
13	Team Statistics	Teams can access and analyze statistics about the number of tournaments they took part in, average cards in a match, …	Medium
14	Spectator Registration	Spectators can create profiles, and need to authenticate their credentials for the sake of being safe when purchasing tickets.	High
15	Best Player Selection	Spectators can select and cast their votes for the player they consider the best in the tournament. The system ensures transparency and fairness in the voting process.	Medium
16	Ticket Sales	Spectators can purchase tickets for tournaments. The tickets are bound to the credentials on the users' accounts.	Medium
17	Ticket Information	Information about tournament venues, including seating charts, is available.	Medium
18	Statistics Access	Users can access statistics on team performance, match results, and tournament progress.	Low

6.   Non-Functional Requirements

This section outlines the non-functional requirements that globally affect the product features described in the previous section.

6.1   Applicable Standards

The website must adhere to industry-standard web development best practices, recommendations published by the World Wide Web Consortium (W3C), including HTML5 and CSS3 standards.

6.2   System Requirements

The server component of the website shall operate under the Linux operating system.

The website shall operate on any personal computer with at least 1.5 GHz CPU or better.

The website shall not require more than 100 MB RAM and 20 MB Disk Space.

The website should be compatible with major web browsers, including Chrome, Firefox, Safari, and Edge.

The website must be accessible on various devices, including desktop computers, tablets, and mobile devices.

6.3   Performance Requirements

The website should provide fast response times to ensure a smooth user experience. Pages must load within 2 seconds on average.

The website shall support up to 2000 simultaneous users against the central database at any given time, and up to 500 simultaneous users against the local servers at any one time.

The website should have an uptime of at least 99.9%.

Data storage and retrieval operations should take no more than 200 milliseconds on average.

The website shall complete 80% of all purchases within 2 minutes.

Automated notifications must be sent within 30 seconds of the relevant event.

For input fields: maximum 30 data fields, no complex data calculations, no interaction with external systems, can store data directly to the DB, and no storage of large content files such as: images, videos, files exceeding 3MB.

6.4   Environmental Requirements

None.

6.5   Quality Ranges

Availability: The website shall be available 24 hours a day, 7 days a week, upgrade a maximum of once within 3 months, and downtime must not exceed 1 hour per year.

Usability: The website shall be easy-to-use and shall be appropriate for the target market of small to middle football tournament organizers. Moreover, the website should adapt to different screen sizes and resolutions for a consistent user experience on devices with screen sizes from 320x480 pixels to 1920x1080 pixels.

Usability: The System shall include online help for the user, with an average time to find information not exceeding 2 minutes. The time for training tournament organizers' IT admin to use the website should be less than 2 hours.

Maintainability: The website shall be designed for ease of maintenance by team Tournament data shall be modifiable without restarting the web server.

6.6   Constraints

The system shall not require any hardware development or procurement.

The number of available tournaments is limited to those organized by the given organizer.

The website relies on a third-party payment gateway for financial transactions. The choice of payment gateway is constrained by the availability and compatibility of external payment processing services.

6.7 Documentation Requirements

This section describes the documentation requirements of the Football Tournament Management Website.

6.7.1 User manual

The User Manual provides comprehensive guidance for users, including organizers, referees, teams, and spectators. The User Manual shall include:
- System Usage
- Minimum System Requirements
- Installation
- Logging In and Out
- Feature Descriptions
- Customer Support

The User Manual should consist of 50 to 100 pages and follow a standardized format from TA. It will be available in both hardcopy and digital formats through online help.

6.7.2 Online help

Online Help offers immediate assistance to users for each website function. Each topic covered in the User Manual will also be accessible through the online help system.

6.7.3 Installation Guides, Configuration, and Read Me File

The Installation Guide for the server component shall include:
- Minimum System Requirements
- Installation Instructions
- Configuring Organization-Specific Parameters
- How to Initialize the Database
- Customer Support Information
- How to Order Upgrades
- The ReadMe File shall be available for display following installation. The ReadMe File will also reside on disk and be available for viewing at any time by the user. The ReadMe File shall include:

The ReadMe File shall be available for display following installation. The ReadMe File will also reside on disk and be available for viewing at any time by the user. The ReadMe File shall include:
- New release features
- Known bugs and workarounds.

6.7.4 Labeling and Packaging

The Football Tournament Management website's branding, including the official logo, shall be prominently displayed on user documentation and splash screens.

As the initial releases are primarily for specific organizations or institutions and not the general market, there are no plans for extensive product marketing literature, product packaging, or promotional materials at this stage.