HNDIT Individual Project - Project Proposal Form 2024

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Title of Project: Sports Team Management Platform

1) Problem Statement

Coaches and team managers often face challenges in organizing practice sessions, managing player attendance, and tracking team performance. A dedicated platformcan streamline the organization and communication between teams, coaches, and players, reducing manual tasks and improving overall team management. The current manual or decentralized systems make it difficult for coaches to effectively manage schedules, communicate updates, and monitor player statistics, leading to inefficiencies.

2) Objective of the Project

The objective of this project is to develop a cross-platform **Sports Team Management Platform** that will simplify and enhance the management of sports teams. It will allow team managers and coaches to efficiently organize their teams, schedule practices and games, track player performance, and communicate with players, all in one integrated system.

Key Features:

- **User-Friendly Interface**: The platform will have a simple and easy-to-navigate interface for coaches, managers, and players.
- **Team Management**: Coaches can create and manage multiple teams, assign players, and manage rosters.

- **Scheduling**: The platform will include features for scheduling practices, games, and tournaments, with automated reminders and notifications.
- **Player Analytics**: Detailed player performance analytics, including stats such as goals, assists, and attendance records.
- **Team Communication**: Instant messaging and notifications for schedule changes or important updates.
- **Game Reports**: Post-match reports and team analytics for performance evaluation.

3) Related Projects

Existing sports management tools such as **TeamSnap** and **Sportlyzer** offer similar functionalities but often require additional fees for basic features. They also lack in-depth analytics tailored for team performance and individual player statistics in real-time. Our platform will focus on providing advanced features without a heavy pricing model, ensuring a more accessible platform for local and regional sports teams.

4) Scope of this Project

This project will cater to:

- **Coaches and Managers**: The platform will allow them to manage multiple teams, schedule events, track attendance, and review player statistics.
- **Players**: Players will be able to check schedules, get notifications, and review their own performance statistics.
- **Real-time Notifications**: Schedule changes and updates will be sent to users immediately.
- **Cross-Sport Functionality**: The platform will be adaptable to multiple sports, supporting a wide variety of team structures and performance metrics.

Functional Requirements:

1) **User Registration**: Coaches, team managers, and players will be able to register and create profiles.
2) **Team Creation and Roster Management**: Coaches will be able to create teams and add/remove players to the roster.
3) **Scheduling and Event Management**: Coaches and managers will schedule practice sessions, games, and tournaments.

4) **Attendance Tracking**: Coaches will track player attendance for each practice session or game.
5) **Player Statistics**: The platform will track performance data, such as goals scored, assists, and other game-related metrics.
6) **Messaging and Notifications**: Coaches can send team-wide messages, and the system will send automatic notifications for schedule changes.
7) **Game Reports**: After every game, coaches can input team performance, which will be displayed in the form of reports and analytics.
8) **Team and Player Analytics**: The platform will generate statistics for both teams and individual players to aid in performance review.

Non-Functional Requirements:

1) **Cross-Platform Compatibility**: The system will be compatible with mobile, tablet, and desktop devices.
2) **Real-Time Push Notifications**: Notifications for schedule updates and changes will be sent in real time.
3) **Secure Data Handling**: The platform will use encryption and secure protocols to protect player information.
4) **Fast Performance**: The system will ensure fast page loads for smooth user experience.
5) **Scalable Infrastructure**: The platform will be designed to handle multiple teams and support different sports.

5) Is this Project Work Related?

No

6) Client for the Project:
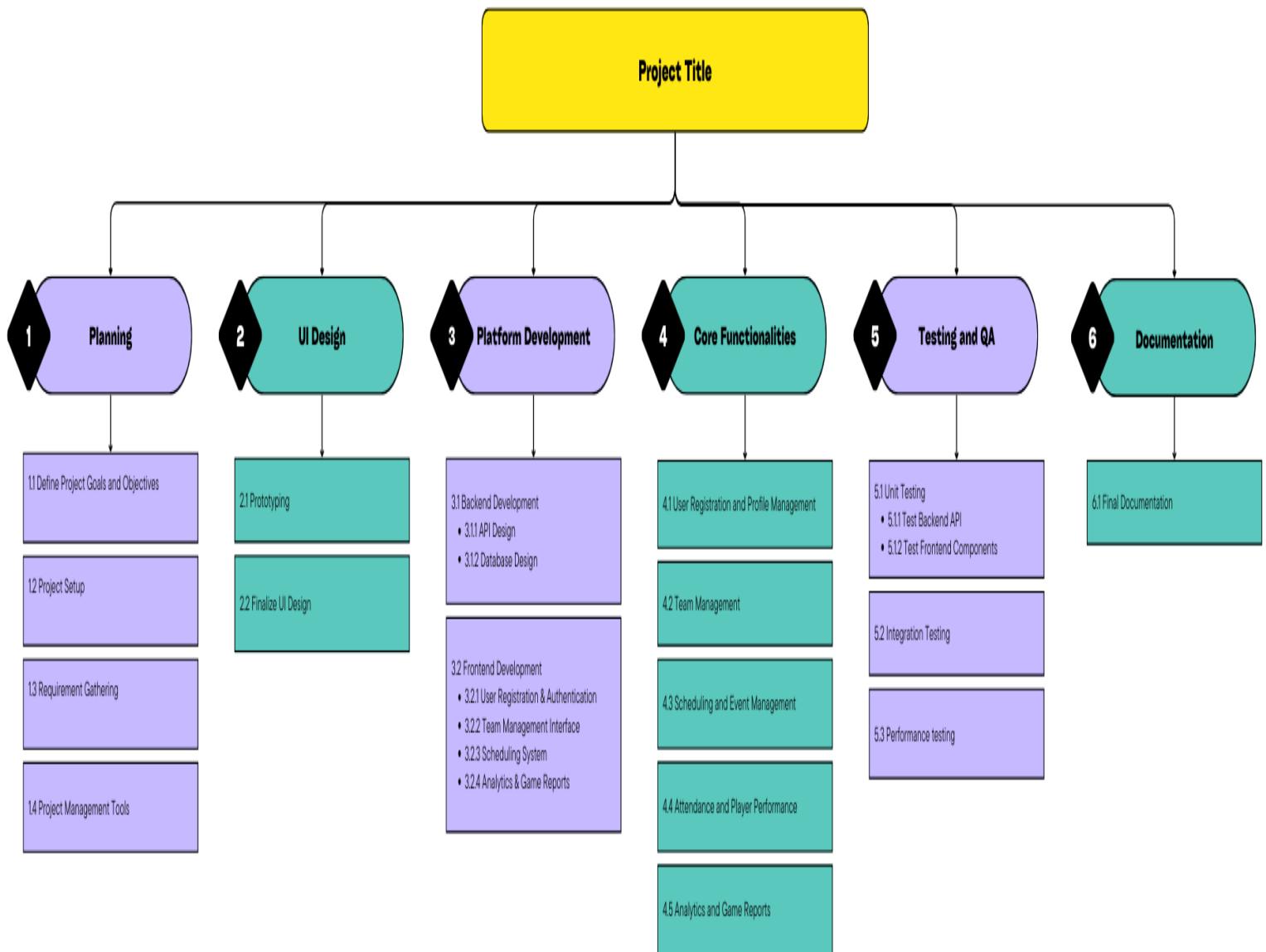
[Client Name or N/A]

7) List of Deliverables

1) Source Code & Database Backup.
2) User Manual.
3) System Documentation.
4) Test Plan, Test Cases & Test Data.

8) Work Breakdown Structure

Work Breakdown Structure

Project Title

1 Planning
- 1.1 Define Project Goals and Objectives
- 1.2 Project Setup
- 1.3 Requirement Gathering
- 1.4 Project Management Tools

2 UI Design
- 2.1 Prototyping
- 2.2 Finalize UI Design

3 Platform Development
- 3.1 Backend Development
  - 3.1.1 API Design
  - 3.1.2 Database Design
- 3.2 Frontend Development
  - 3.2.1 User Registration & Authentication
  - 3.2.2 Team Management Interface
  - 3.2.3 Scheduling System
  - 3.2.4 Analytics & Game Reports

4 Core Functionalities
- 4.1 User Registration and Profile Management
- 4.2 Team Management
- 4.3 Scheduling and Event Management
- 4.4 Attendance and Player Performance
- 4.5 Analytics and Game Reports

5 Testing and QA
- 5.1 Unit Testing
  - 5.1.1 Test Backend API
  - 5.1.2 Test Frontend Components
- 5.2 Integration Testing
- 5.3 Performance testing

6 Documentation
- 6.1 Final Documentation

Signature of Candidate: _____
Date: /14/09/2024