BRD: Management Information System (MIS)

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1.0 Executive Summary

1.1 Vision Statement

To create a unified digital ecosystem that transforms how Wushu athletes in India are identified, developed, and supported throughout their sporting journey.

1.2 The Problem

Currently, Wushu athlete management in India is fragmented, relying on manual processes and paper-based records. This leads to significant inefficiencies, difficulty in tracking long-term performance, and a major barrier to identifying and nurturing talent on a national scale.

1.3 The Recommended Solution

This document proposes the development of theManagement Information System (MIS), a centralized, real-time web platform. It will connect athletes, coaches, and administrators across all levels to streamline every aspect of training, performance, and competition on a single, unified digital platform.

2.0 Project Objectives

2.1 Measurable Success Criteria

The success of this project will be measured against the following specific criteria:

- Reduce athlete registration processing time at training centers by **50%** within 6 months of launch.
- Receive a satisfaction score of **4 out of 5** or higher from coaches on the usability of the performance tracking feature.
- Achieve a system uptime of **99.5%** during championship seasons.
- Reduce championship registration processing time by **40%** compared to current manual processes.

3.0 Project Scope

3.1 In-Scope Deliverables

- **User & Profile Management:** Secure registration, login, and profile management for all user roles, online payment processing for registration fees..
- **Performance Tracking System:** A system for logging daily training data and official competition results, with automated performance charting for athletes.
- **Role-Based Dashboards:** Customized dashboards for each user role to provide relevant, at-a-glance statistics and insights.

3.2 Out-of-Scope

- **Championship Management:** Admin tools to create and manage championships, with an interface for athletes to browse and register for events.
- Live video streaming of championships.
- A dedicated native mobile application (the system will be a mobile-responsive website).
- Integration with wearable IoT devices or sensors.

3.3 Future Considerations

The following features may be considered for future project phases but are not part of the current scope:

- Mobile application development.
- Integration with government sports databases.
- Multi-language support beyond English.

4.0 High-Level Business Process Flow

4.1 Athlete Registration Process

1. An athlete creates an account on the MIS platform.
2. The athlete selects their designated training center.
3. The athlete is directed to complete the admission fee payment.

4. The Training Center Administrator receives a notification of the completed registration and payment.
5. The Administrator reviews and formally approves the athlete's admission.
6. The athlete receives confirmation and gains full access to their dashboard and features.

4.2 Championship Management Process

1. An Administrator creates a new championship with all relevant details.
2. The system notifies eligible athletes based on their level and qualifications.
3. Athletes apply for participation through their dashboard.
4. Officials input scores and results during the championship.
5. The system automatically updates athlete profiles with their new achievements.

5.0 Stakeholders & User Roles

5.1 Project Governance

- **Name:** Prof. Devdutta
- **Role:** Project Supervisor / Product Owner
- **Responsibilities:** To provide the initial project vision, review and approve key documents like this BRD, and act as the primary stakeholder for sprint reviews and final grading.

5.2 Project Team

- **Names:** Aditya, Nandini, Aryan, Prakhar, Abhisek, Harsh
- **Role:** Development Team
- **Responsibilities:** To conduct research, create documentation, design the system, and develop, test, and deploy the final web application using the Scrum methodology.

5.3 End-Users

- **Role:** Athlete (e.g., "Priya, a young Taolu competitor")
  - **Interest in Project:** Needs a central hub to manage their profile, view performance graphs, track progress over time, and easily register for championships.
- **Role:** Coach (e.g., "Ramesh, a local training center coach")
  - **Interest in Project:** Needs an efficient tool to manage athletes appointed under him and quickly log daily attendance and training performance data without excessive paperwork.
- **Role:** Administrator (e.g., "Mr. Gupta, a Training centre Administrator")
  - **Interest in Project:** Needs a high-level dashboard to see statistics for their jurisdiction, manage official championships, and use centralized data to manage the training centre and effectively identify top-performing athletes.

6.0 Business Requirements

Requirement ID	Priority	Requirement Description
BR-01	**Critical**	Secure user account and profile management for all roles.
BR-02	**Critical**	A comprehensive system for tracking athlete performance.
BR-03	**Critical**	A secure and reliable system with clear access controls.
BR-04	**High**	Personalized dashboards for each user role to access relevant information quickly.
BR-05	**High**	Tools for administrators to create and manage championships.
BR-06	**Medium**	A basic module for tracking athlete-related payments.
BR-07	**High**	An intuitive and accessible user experience on both desktop and mobile.

7.0 Project Constraints

- **Deadlines:** The project must be completed within the specified academic timeline. Intermediate deadlines are dictated by a one week sprint cycle.
- **Resources:** The team is constrained to using only free and open-source technologies for

development, hosting, and collaboration.
- **Team Availability:** The project's progress is dependent on the consistent availability of all six team members, balanced against other academic commitments.

8.0 Risks

Risk ID	Risk Description	Mitigation Plan
R-01	A key team member becomes unavailable.	Implement a Knowledge Transfer (KT) process. All code will be on a shared GitHub repository, allowing another member to take over.
R-02	The team's understanding of a Wushu rule is incorrect, leading to faulty logic.	All functional requirements related to scoring will be demonstrated early and frequently to the Project Supervisor for validation.
R-03	The project scope expands beyond the team's capacity (scope creep).	All new feature requests must be formally reviewed against this BRD. Any changes to the scope must be approved by the entire team and the project supervisor.

9.0 Resources

9.1 Human Resources
- **Product Owner:** Prof. Devdutta
- **Scrum Master:** (To be assigned from the team)
- **Development Team (6 members):** Frontend Lead, Backend & API Lead, Database & Authentication Guru, Features Specialists.

9.2 Technical Resources

To be decided…

10.0 Glossary of Terms

- **BRD:** Business Requirements Document.
- **MIS:** Management Information System, the official name of this project.
- **Scrum:** The Agile framework used for project management.
- **Sprint:** A short, time-boxed period (e.g., one weeks) for development.
- **Taolu:** The non-combat, forms-based discipline of Wushu.
- **Sanda:** The full-contact, sparring discipline of Wushu.

12.0 References

- Official IWUF Wushu Taolu & Sanda Competition Rulebooks (2024)
- Wushu (sport) - Wikipedia
- Relevant YouTube videos for visual reference on Wushu techniques and competitions.