

Municipal of Sta. Cruz Sports Committee Program and Activity Monitoring System with Online Registration

1. Introduction and Purpose

The "Municipal of Sta. Cruz Sports Committee Program and Activity Monitoring System with Online Registration" is designed to streamline the process of organizing, managing, and monitoring sports activities and programs within the municipality. It aims to improve the efficiency of the Sports Committee by automating registrations, tracking activities, and enhancing communication and oversight.

Objectives:

- Digitize manual registration and monitoring processes.
 - Enable real-time access to event and participant data.
 - Secure sensitive user information through modern web security practices.
-

2. Overall Description

This web-based system uses PHP and MySQL, designed with user roles (Admin and Users), and includes modules for event registration, participant management, QR code verification, and activity monitoring. It integrates modern UI components and security features like CSRF protection and anti-bruteforce mechanisms.

System Users:

- **Admin:** Manages events, users, and registrations.
- **User:** Registers for events, views programs.

Operating Environment:

- **Server:** Apache (via XAMPP)
 - **Database:** MySQL
 - **Frontend:** HTML, CSS, Bootstrap, SweetAlert2
-

3. Functional and Non-Functional Requirements

Functional Requirements:

- User Registration and Login with Role-Based Access
- Event and Program Creation and Management
- Participant Registration with Form Validation
- QR Code Generation and Verification
- Dashboard for Admin and Users
- Audit Log of Activities

Non-Functional Requirements:

- System must support at least 20 concurrent users.
 - System response time should be under 3 seconds.
 - Passwords must be hashed and never stored in plain text.
 - Must use CSRF tokens on all form submissions.
-

4. System Features and Interfaces

Features:

- Secure Authentication and Session Management
- SweetAlert2 Integration for Improved Alerts
- Responsive UI for Mobile and Desktop
- CSRF Protection and Input Sanitization
- Admin Control Panel for Program Oversight
- Anti-Bruteforce Login Protection
- QR Code Verification
- Inventory Monitoring System (Borrowed, Returned, and Available Items)
- Announcement and Scheduling Module

Interfaces:

- **Admin Dashboard:** Program stats, registration logs, user management
 - **User Dashboard:** Event calendar, registration status, QR code access
-

5. Assumptions and Constraints

Assumptions:

- Users will have internet access.
- Admins are technically trained to manage the platform.

Constraints:

- Must operate on local XAMPP setup unless deployed to live server.
 - Internet-dependent for online registration features.
-

6. Use Case Descriptions

Use Case 1: User Registration

Actor: Guest **Description:** A guest user registers by filling out a form, which is validated and stored securely.

Use Case 2: Admin Creates Event

Actor: Admin **Description:** Admin logs in, creates a new sports event, and assigns time, location, and slots.

Use Case 3: QR Code Verification

Actor: Staff/Admin **Description:** Scans QR code at the event to confirm participant presence.

7. Testing Tool Documentation

Tools Used:

- **PHPUnit:** Used to perform unit testing of backend logic to ensure each function behaves as expected.
- **Google Chrome Developer Tools:** Used for inspecting page responsiveness and detecting front-end performance issues.
- **Postman:** Utilized for testing endpoint functionality, including login, registration, and CSRF validation.

Rationale for Tool Selection:

- **PHPUnit** is standard for PHP applications and integrates easily with existing code.
 - **Postman** simplifies API testing and form submission simulations.
 - **Chrome DevTools** provides real-time UI debugging and performance benchmarking.
-

End of Document.