

Test Plan for Sports Management System

Introduction

This is a system test plan for a Sports Club Management System, an application that provides access to athletes, coaches, and administration to navigate through their accounts and other relevant data and information in a more convenient and elegant fashion.

Objective

- Test all implemented functional requirements and ensure there are no active bugs or errors in the current increment we are submitting.
- Conduct validation and acceptance testing to detect errors early in the development process, before they cause further complications.

References

- Register use case scenario
- Login use case scenario
- Display Financial Report use case scenario
- Update Coach Salary use case scenario
- View Athlete Class Schedule use case scenario
- Enroll in Class use case scenario
- Drop Class use case scenario
- View Checked Equipments use case scenario
- Checkout Equipment use case scenario
- Return Equipment use case scenario
- System requirements
- Test case worksheets

Scope: Features to be Tested

Validation/ Acceptance testing for the following requirements:

1. Register
 - a. Record the user's inputted personal information
 - b. Check if the username is already registered
 - c. Raise an error in a display box if information is missing or if username already exists
 - d. Priority: High
2. Login
 - a. Validate username and password inputted by user.
 - b. Direct the user to appropriate home page if login successful
 - c. Raise error in a display box if credentials are incorrect
 - d. Priority: High

3. Logout
 - a. Redirect user to website homepage
 - b. Priority: High
4. Display Financial Report
 - a. Get data on all coach salaries
 - b. Get data on all athlete fees
 - c. Do calculations and display all the data as a report
 - d. Priority: Medium
5. Update Coach Salary
 - a. Get all the coaches in a list for the admin to look through
 - b. Allow the admin to select a coach and give a new salary
 - c. Update the coach salary in the database
 - d. Priority: Medium
6. View Athlete Class Schedule
 - a. Display all classes an athlete is currently enrolled in, including the sport, coach, day, and time of the class
 - b. Priority: High
7. Enroll in Class
 - a. Present available sports and class dates/times
 - b. Allow athlete to select and enroll for a class
 - c. Error handling: Ensure there are no timing conflicts in coach and athlete schedules
 - d. Priority: High
8. Drop Class
 - a. Present selection of currently enrolled classes to drop
 - b. Allow athlete to drop any class they are currently enrolled in
 - c. Error handling: Display an error if athlete attempts to drop a class he/she is not currently enrolled in
 - d. Priority: High
9. View Coach Class Schedule
 - a. Display all classes a coach currently has including the athlete's ID, the date, and time
 - b. Priority: High
10. View Checked Equipments
 - a. Display all equipment currently checked out by the athlete
 - b. Priority: Medium
11. Checkout Equipment
 - a. Present selection of equipment to athlete
 - b. Allow athlete to checkout an equipment of choice

- c. Error handling: Does not allow athlete to checkout unavailable equipment (already checked out equipment)
- d. Priority: Medium

12. Return Equipment

- a. Allow athlete to type in the equipment he/she would like to return
- b. Error handling: Display error if athlete attempts to return equipment that he/she does not have currently checked out
- c. Priority: Medium

Scope: Features not to be Tested

This test plan does not account for use cases that have not been implemented yet. As this is an increment submission of critical functionalities, it is not a final version and does not include the full intended functionalities of the system. This test plan also does not account for unit, integration, and system testing.

Approach/Strategy

1. Validation testing

- Test all functional requirements
- Data flow testing
 - Test if data is being read from both the UI and the database correctly
 - Test if data is being recorded into the database correctly and
 - Test if data is being displayed to the user correctly
- Exhaustive input testing
 - Test all possible valid and invalid inputs for every use case
 - Ensure that all expected inputs are returned
 - Ensure that errors are handled correctly for invalid inputs
- Acceptance testing
 - Alpha testing
 - System components are tested by developers
 - System components are tested by a selected group of customers in controlled environment
 - Beta testing
 - Since this is merely an increment of our system and not the complete one, in addition to the fact that the system has not been deployed online yet, beta testing is not possible at this stage

2. Regression testing

- Regression testing is implemented every time a defect is corrected to ensure no additional errors were introduced

Pass/Fail Criteria

Pass criteria for every use case being tested:

- Test cases completed with 100% pass rates (since a 100% success rate is vital for all presented functionalities)
- All defects corrected and regression testing is done to ensure 100% pass rate
- Pass/ Fail criteria for every use case is described in test case worksheets

Test Deliverables

- Test plan document
- Test cases for every use case
- Test results document

Resources Required

- Realistic test data to be collected from sports clubs
- Stubs/ drivers required for testing
- **Hardware and Software requirements needed for test environment:**
 - **Software**
 - Python
 - MySQL
 - HTML
 - MySQL 'sportsmanagement' database
 - User interface (to test data flow)
 - Web browser
 - **Hardware**
 - Computer

Roles and Responsibilities

Name	Role	Responsibilities
Arb	Tester	Test case design, execution, documentation, defect reporting
Nahom	Tester	Test case design, execution, documentation, defect reporting
Michael	Tester	Test case design, execution, documentation, defect reporting
Nour	Tester	Test case design, execution, documentation, defect reporting

Testing Schedule

Test Cases	Day 1-2	Day 3-4	Day 5-6	Day 7-8	Day 9-10	Day 11-12	Day 13-14	Day 15-17	Day 18-20
T-1: Register as New User									
T-2: Login									
T-5: Logout									
C-001: Enroll in Class									
C-002: Drop Class									
C-003: View Classes (athlete)									
C-004: View Classes (coach)									
N-001: Checkout Equipment									
N-002: Return Equipment									
N-003: View Checked Equipments									
T-4: Display Financial Report									
T-3: Update Coach Salary									
Alpha Testing									

Legend:

User Functionalities

Class Functionalities

Equipment Functionalities

Admin Functionalities