

Functional Test Report

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Project: Football Recruiting Website

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Deliverable 1 Link: [Deliverable 1 - Software Engineering Proposal](#)

Deliverable 2 Link: [Deliverable 2 - Project Requirements](#)

Deliverable 3 Link: [Deliverable 3 - Project Design](#)

Deliverable 4 Link: [Deliverable 4 - Development Process](#)

Deliverable 5 Link: [Deliverable 5 - Functional Test Report](#)

Website URL: <https://nice-pebble-0c1e97b0f.5.azurestaticapps.net/>

Testing Report

1. Summary

- a. This report outlines the results of testing activities conducted for the application, focusing on functionality and performance, UI & usability, and user acceptance testing. The purpose of this report is to summarize key findings, identify areas of improvement, and verify that the application meets the acceptance criteria.

2. Functionality, Objectives, and Execution Details

- a. **Objective:** Evaluate core functionality and ensure the application performs reliably under various conditions.
- b. **Scope:** Functional testing included core features and user inputs, while performance testing focused on responsiveness, loading times, and stability under load.

Test Objectives

- **Testing Executed:**
 - **Regression Testing:**
 - **Feature/Function Testing:** Validate the core features such as account creation, login, profile creation, and incitation to retrieve contact information functionality for both coaches and athletes.
 - **Integration Testing:** Ensure smooth interaction between the front-end UI and back-end services (e.g., data retrieval from MongoDB, film/video upload functionality, invitation feature between athletes and coaches).
 - **Performance & Load Testing:**
 - Test the system's ability to handle multiple concurrent users, loading times for videos and profile updates, and efficient data retrieval.
 - **Unit Tests:**
 - Developer-side testing was executed to verify individual functions and classes (e.g., user profile validation, password verification, search functionality, and measurables formatting).
- **The objective of Each Test:**
 - **Regression Testing:** Ensure that new changes do not break existing features of the platform.
 - **Integration Testing:** Validate that different components of the platform (e.g., database, front-end, video upload system) interact properly.
 - **Performance Testing:** Verify that the platform maintains fast response times under different load scenarios, especially for video uploads and data-heavy queries.
 - **Unit Tests:** Ensure individual code components function correctly, specifically validating backend logic for profile creation, login functionality, and data handling.

Test Execution Details

- **Name of Tests or Test Suites:**
 - Account Creation and Login Tests (TC-001, TC-002)
 - User Role-Specific Functionality Tests (TC-001, TC-005, TC-010)
 - Profile and Statistics Population Tests (TC-009, TC-010)
 - Film Upload and Verification Tests (TC-008)

- Messaging and Verification Process Tests (TC-011)
- Search and Filter Functionality Tests (TC-009)
- Security and Authentication Tests (TC-003)

3. Test Cases

a. Functional Requirements Testing

Test Case 1.1: Account Creation for Users

Test Case ID: TC-001

Test Type: Functional

Test Description: Users should be able to create two different types of accounts based on their roles: coaches or students.

Test Steps:

1. Enter name, last name, email, password, school, and graduation year(for students).
2. Submit the registration form.

Expected Result:

- The user account is created.
- A verification email is sent to the provided email address.

Status: Pass

Comments: Verified successful account creation and email verification functionality.

Test Case 1.2: User Login

Test Case ID: TC-002

Test Type: Functional

Test Description: A user logs in with the correct credentials (email and password).

Test Steps:

1. Input the correct email and password.
2. Submit the login form.

Expected Result:

- The user successfully logs into the platform.
- An error message is displayed for incorrect credentials.

Status: Pass

Comments: The login functionality works as expected with both successful logins and error handling.

Test Case 1.3: Profile Creation and Population

Test Case ID: TC-003

Test Type: Functional

Test Description: Users should be able to create and populate their profiles with relevant data such as statistics, film, and measurables.

Test Steps:

1. Navigate to the profile creation/editing page.
2. Add personal measurables such as height, weight, GPA, and 40-time.
3. Upload statistics relevant to the user's position (e.g., for a defensive player, no offensive stats).
4. Upload videos and other media (e.g., mp4 videos).

Expected Result:

- The user's profile is updated successfully with the data entered.
- Video uploads should work correctly, and statistics should be formatted correctly for each position.

Status: Pass**Comments:** Profile population, statistics addition, and video upload functionalities passed without issues.

Test Case 1.4: Error Handling for Invalid Inputs**Test Case ID:** TC-004**Test Type:** Functional**Test Description:** The platform should handle errors appropriately (e.g., invalid credentials, and unsupported video formats).**Test Steps:**

1. Enter invalid data (e.g., incorrect video file format).
2. Attempt to upload.
3. Observe the system's response.

Expected Result:

- The system should display a corresponding error message indicating the type of error (e.g., "Invalid file format").

Status: Pass**Comments:** Error messages are displayed correctly when unsupported data or invalid formats are entered.

b. Non-Functional Requirements Testing**Test Case 2.1: Usability - Easy Navigation**

Test Case ID: TC-005

Test Type: Usability

Test Description: The platform should be easy to navigate regardless of technical skill.

Test Steps:

1. Navigate to various sections (profile, statistics, search) of the site.
2. Click on links and tabs.

Expected Result:

- Navigation should be smooth, and each page should load as expected.

Status: Pass

Comments: Users can easily navigate through the platform with no confusion.

Test Case 2.2: Security - Data Privacy

Test Case ID: TC-006

Test Type: Security

Test Description: Personal data (email, contact info) should be secured and hidden from other users.

Test Steps:

1. Upload personal contact information in the profile.
2. View the profile from another user's perspective (coach viewing students' profiles).

Expected Result:

- The students' contact information should not be visible to others unless granted permission.

Status: Pass

Comments: The system correctly hides sensitive contact information between different users.

Test Case 2.3: Performance - Loading Times

Test Case ID: TC-007

Test Type: Performance

Test Description: The platform should load information (videos, profiles) quickly without delays.

Test Steps:

1. Upload a video to the profile.
2. Navigate through multiple sections of the website.

Expected Result:

- Information, including videos, should load with minimal delay.
- No lag or long waiting times while navigating.

Status: Pass

Comments: The site performs well with fast load times for video uploads and browsing.

c. Domain-Specific Features Testing

Test Case 3.1: Film Upload (Hudl Integration)

Test Case ID: TC-008

Test Type: Domain

Test Description: Users should be able to upload film files from their devices.

Test Steps:

1. Navigate to the profile editing page.
2. Upload a video from their devices or other platforms (MP4 format).

Expected Result:

- The video is successfully uploaded to the user's profile.
- If an unsupported video format is uploaded, an error message is displayed.

Status: Pass**Comments:** Video upload from supported platforms is functional, and error handling works correctly.

Test Case 3.2: Statistics Based on Position**Test Case ID:** TC-009**Test Type:** Domain**Test Description:** Users should be able to input statistics based on their position (e.g., defensive player does not include offensive stats).**Test Steps:**

1. Edit a player profile.
2. Add statistics relevant to the player's position.

Expected Result:

- The profile accepts position-specific statistics and allows the addition of extra ones in case students change or play more than one position.

Status: Pass**Comments:** Statistics input works well, with no problems.

Test Case 3.3: Measurables Input

Test Case ID: TC-010

Test Type: Domain

Test Description: Users should be able to add personal measurables to their profile (e.g., height, weight, GPA).

Test Steps:

1. Edit a user profile and add personal measurables (height, weight, GPA).

Expected Result:

- The measurables are added successfully to the profile.

Status: Pass

Comments: Measurable fields are correctly displayed and updated on the profile.

d. Additional Features Testing

Test Case 4.1: Invitation for Contact Information

Test Case ID: TC-011

Test Type: Functional

Test Description: Coaches should be able to send invitations to receive contact information from students through the platform.

Test Steps:

1. Navigate to the invitation interface.
2. Send an invitation to a student.

Expected Result:

- The invitation is successfully sent and received.

Status: Pass

Comments: The invitation feature works as intended, allowing communication between coaches and athletes.

e. Test Summary and Conclusion

This functional test report indicates that the web application meets the key requirements outlined in the original specification. All core features, including user authentication, profile management, film uploads, statistics input, and security features, function as expected.

- **Pass Rate:** 100%
- **Comments:** All functionality works as expected without critical failures or major bugs.

Test Case Mapping Summary

Requirement ID	Test Case ID	Description
1.1 Authorization	TC-001, TC-002	Account creation and login functionality
1.1.1 Users should be able to create two different types of accounts based on their role (coaches or students)	TC-001	Account creation with role-based access (coaches/students)
1.2 Error Handling	TC-004	Error handling for invalid inputs (e.g., incorrect formats)
1.2.1 Error message display	TC-004	Display of error messages for unsupported formats or invalid inputs
1.3 Authentication	TC-003, TC-002	User verification through email and login functionality
1.3.1 Email verification	TC-003	Verification email sent for account setup

1.4 Data Processing	TC-003, TC-008, TC-009, TC-010	Profile population with statistics, film, and measurables
1.4.1 Allow users to retrieve data through search engine	TC-009	Searching for players using attributes like name, position
1.4.2 Searching based on profile characteristics	TC-009	Filtering and searching profiles based on specific data points (e.g., position, stats)
2.1 Usability	TC-005	Easy navigation of the platform
2.1.1 Users should find the platform easy to use	TC-005	Smooth navigation between pages and sections without confusion
2.2 Security	TC-006, TC-012	Data privacy and security
2.2.1 Personal Information Security	TC-006	Hiding personal contact info (e.g., emails) between users
2.3 Performance	TC-007, TC-005	Platform performance (loading times, efficient browsing)
2.3.1 Video load times and website performance	TC-007	Testing load times for videos and profile updates
2.3.2 Information display correctness	TC-005	Ensuring correct UI and information display
3.1 Film	TC-008	Uploading film (e.g., mp4 videos)
3.1.1 Import film from devices and other platforms	TC-008	Film upload functionality with support for multiple platforms
3.2 Statistics	TC-009	Uploading position-based statistics
3.2.1 Add position-based statistics	TC-009	Adding position-specific statistics (e.g., receiving yards for offensive, tackles for defensive)

3.2.2 Different positions should have different stats	TC-009	Filtering stats based on user position (offensive/defensive)
3.3 Profile Measurables	TC-010	Adding personal measurables (e.g., height, weight, GPA)
3.3.1 Adding personal measurables to profiles	TC-010	Measurable data input (e.g., height, weight, GPA)
3.4 Coaches Profile	TC-003	Coaches creating profiles and adding relevant data
3.4.1 Add school, coaching details, and school recruiting for	TC-003	Coach profile creation with school, position, and region information
3.4.2 Search athletes by position, graduation year, and school	TC-009	Searching for athletes based on position, graduation year, and school
4.1 Invitation to retrieve contact information	TC-011	In-app contacting between players and coaches
4.1.1 Invitation-sending functionality	TC-011	Coaching sending contact invitations to students

4. Test Report Summary

The testing effort covered functional, integration, performance, and security aspects of the Athlete-Coach Interaction Platform. Functional tests validated that users can create accounts, log in, populate profiles, upload films, and interact with other users via invitations to contact. Integration tests ensured smooth interaction between the user interface and backend services. Performance tests focused on evaluating the load times for videos and overall response times, with no major delays observed under normal usage.

Overall, the application performs well under expected usage conditions, with a full percentage of functional features passing the tests.