## **Technical Test Report**

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#### 1. Overview

**Objective:** Make sure that the frontend and backend of the FIFA 21 application function correctly and meet the specified requirements.

#### **Test environment:**

• OS: Windows 11

• Backend: Node.js v18.17.1 (Express API)

• Frontend: React v17.0.2 and TypeScript v4.4.2

• Project Version: v0.1.0

• Browsers tested: Chrome 139

### 2. Setup

- Backend: successfully started (npm install + npm start).
- Frontend: successfully started (npm install + npm start --openssl-legacy-provider).
- Database: loaded properly.

Note: After installation and adjustments to the environment, all features became available.

# 3. Test Execution Summary

Feature	Status	Note
Player List page	✓ Pass	Page loaded properly.
Player List: Pagination	<b>✓</b> Pass	Functional pagination (First, Previous, Next, Last).
Search Player page	✓ Pass	Page loaded properly.
Search Player: List by Name	✓ Pass	Search by name returns properly.
Search Player: List by Team	✓ Pass	Search by team returns properly.
Search Player: List by League	✓ Pass	Search by league returns properly.
Search Player: List by Nationality	✓ Pass	Search by nationality returns properly.
Search Player: List by Position	✓ Pass	Search by position returns properly.
Player List: Details Player	<b>X</b> Failed	Details displayed but picture not shown
Top Players page	✓ Pass	Page loaded properly.
Top Players: By Position	✓ Pass	Filtering by position returns properly.
Top Players: By Nationality	✓ Pass	Filtering by nationality returns properly.
Top Players: By League	<b>V</b> Pass	Filtering by league returns properly.
Top Team page	✓ Pass	Page loaded properly.
Top Team: Best Team	✓ Pass	Ideal team listed properly.
Top Team: By League	✓ Pass	Ideal team by league displayed properly.
Top Team: By Nationality	✓ Pass	Ideal team by nationality displayed properly.

# 4. Bugs Found

ID	Description	Priority/Severity
FIFA-01	Player details modal does not display player picture	Major

### 5. Suggestions for Improvement

- Currently, in the Search Player screen, if the user enters unexpected data (e.g., integers in Name or Team fields), the application simply returns an empty result without feedback.
  - Improvement suggestion: Add a user-friendly message such as "No players found for the given input" or an error validation message, so the user knows that the input was not valid or that no results matched.
- Improve frontend responsiveness and layout consistency.

### 6. Automation Strategy

- A **test automation strategy** was defined to ensure regression coverage on the most critical flows.
- Selected cases for automation: Player List (TC01), Search Players (by name (TC04), team (TC05), league (TC06), nationality (TC07), position (TC08)), Top Players (TC11), and Top Teams (TC16). These represent the core flows of the application and will be validated in all future updates.
- **Approach:** Black-box testing, focusing on validating the system from the user perspective.
- Tools & Stack:
  - o **Playwright** for browser automation.
  - **TypeScript** for implementation.
  - Page Object Model (POM) for maintainability.
- **Execution:** Automated regression runs will be executed locally and can be integrated into CI/CD in the future.

#### 7. Technical Statement

- The **application setup** (frontend + backend + database) has been successfully completed.
- All test cases passed except Player List: Details Player, due to the lack of player picture.

The application meets the majority of requirements successfully. All main flows (search, listing, top players, team generation) work as expected.

However, the Player Details modal does not display the player picture. This is considered a Major bug, since it impacts requirement compliance, but it does not block the overall workflow of the system.

**Conclusion**: The application is functional and covers the requirements, with a gap (missing pictures in player details).

A test automation suite was also defined, ensuring continuous validation of the most critical flows in future releases.