

Assignment o

Requirements Document

General

Athlete management systems are becoming increasingly important for sports teams and organizations to keep track of their athletes' training, performance, and health.

In this assignment, you will get user requirements of an athlete management system for a professional sports team. The requirements were given to you by the team's coaching staff and medical team. Your task is to elicit formal system requirements from these user requirements.

Goals

Practice requirements engineering.

User requirement

These are the client's needs for different aspects of the system, as transcribed from your conversations:

1. Training Management: The system should allow coaches to create and manage individualized training plans for each athlete, with the ability to set goals, track progress, and adjust the plan as needed. The system should also integrate with wearable devices to track athletes' physical activity. The extraction of data from the remote servers of the wearables devices will be done each day at 4 am. In case that some of the data from the wearable devices is missing or defective, the system will automatically send an email to the appropriate athlete, and they will need to manually type in the data.
2. Performance Analysis: When clicking on the "Performance" button, the system should provide a way for coaches to analyze athletes' performance metrics, such as speed, strength, and endurance, over time. The data should be presented very quickly. By choosing a list of athletes, several performance features and clicking the "Benchmark analysis" button, the system should allow the coaches to compare

athletes' performance to each other and to benchmarks for their respective positions.

3. Injury Tracking: The system should allow medical staff to track athletes' injuries, including the type of injury, the date of the injury, and the expected recovery time. The system should also have a feature that allows medical staff to monitor athletes' progress through rehabilitation programs and provide feedback to coaches on when the athlete is ready to return to training and competition. By clicking on the “Add injury” button, the user will be able to record a new injury in the system and will have to supply the next fields: date of injury, severity (scale of 1 to 10), affected parts of the body, expected recovery time. After clicking the “Save” button the system will save the current data and then return to the homepage.
4. User Interface: The system should have a modern and intuitive user interface that is easy to navigate and visually appealing. The interface should be responsive and accessible on both desktop and mobile devices, with a consistent design across all pages and features.
5. Integration: The athlete management system should integrate with other systems used by the sports team, such as scheduling and roster management software, to provide a seamless experience for coaches and staff.

Your Mission

Your task is to elicit system requirements from these user requirements.

Functional requirements

1. Elicit 16 functional requirements in total, with at least three functional requirements for each aspect that represent functionality.
2. You can add details to the requirement (e.g., to make it non-ambiguous) though you cannot “elicit” something that is completely new (for example, do not add a requirement on management of the athletes competition's scores because it was not mentioned by the client). If you change the client's requirement — justify it in the short explanation row.
3. For each requirement, specify actors, entities, actions, and states. You should circle entities, underline actions and draw a rectangle around states. You should mark only entities/action/states that are the subject of the requirement.
4. Make sure that your requirements are unambiguous and feasible.

5. For each functional requirement:

- a. Relevance - is the requirement relevant to the client's need? Copy the sentence that justifies it.
- b. Testable - is it possible to test this requirement? Write a test for verifying that the requirement is implemented correctly (it is enough to describe the test in words, no need to code it).

Here is a template for a functional requirement:

Requirement: <the requirement with squares/circles/underlines>
Relevance: <the copied sentence>
Test: <a description of the test(s)>
Changes Justification: <a justification for any change made to the client's requirement>

Example of a good functional requirement:

Once the injury record is submitted the system will update the injury status of the relevant athlete.

Non-Functional Requirements

Elicit five non-functional requirements for the system.

Non-functional requirement template:

Requirement: <the requirement>
Relevance: <the copied sentence>
Changes Justification: <a justification for any change made to the client's requirement>

General Guidelines

This task is different from what you are used to in the sense that there is no one correct answer. This is not a case of black and white, and the same answer may be correct in one requirement and wrong in another one. You must make decisions regarding what is major/important and what is not.

Deliverables and Grading

The assignment should be submitted in a group of three, no more and no less.

General Submission Notes

1. The assignment can be written in Hebrew or English.
2. The submission will be in Moodle, in groups only!
3. The submission should be in a single PDF file.
4. Submissions should be in a group of three students.
5. Points will be reduced for a late submission.

Good Luck!