Project Management Report

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LGP-17

António Augusto Brito de Sousa, 202000705
Daniel Cabral Bernardo, 202108667
Gustavo Nuno Ferreira Tarábbia, 202104655
Leonor Silva Santos de Azevedo Maia, up202302864
Pedro de Almeida Lima, 202108806
Rodrigo Campos Rodrigues, 202108847
Rodrigo José de Castro Pinheiro, 202403040
Tomás Alexandre Soeiro Vicente, 202108717
Tomás Eiras Silva Martins, 202108776

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1. Introduction

The Project Management Report (PMR) is an informative document that we present as a comprehensive overview of the project's progress at two important stages: the review and closure phases. This formal report plays a critical role in keeping all the stakeholders of the project, such as clients, supervisors, and team members, informed about the project outcome and beneficial lessons learned during the time of its execution.

The PMR takes into account the feedback of all team members and cross-references corroborating artefacts such as the Project Charter, Weekly Briefs, and Minimum Viable Product (MVP).

By providing detailed knowledge about the project's evolution and milestones, the PMR promotes transparency, accountability, and continuous improvement regarding project management.

2. Company

2.1. Company status and overview

The startup has been making consistent progress, with all tasks completed on schedule through an effective strategy supported by structured weekly planning, ongoing monitoring, and scheduled client meetings. Positive client feedback has further validated our approach and strengthened our commitment to continuous improvement.

The following challenges have emerged and need to be addressed for sustainable progress:

- **Workload Distribution:** While tasks were generally distributed evenly, there was a point when too few tasks were assigned, leading to some members being temporarily underutilized. This was primarily a planning issue and could have been avoided with more proactive task management and forecasting.

- **Commitment Issues:** Despite fair task allocation, some team members did not dedicate sufficient time to their responsibilities. If unaddressed, this lack of commitment risks future delays in meeting deadlines. To address this issue, the team

decided to hold mid-week progress check-ins to track each member's contributions and, when needed, reassign tasks to ensure a more balanced workload.

2.2. Company description and organization

The name of our company is XPSports. Our core mission is "Empowering sports communities through accessible technology that enhances every game experience," guided by our motto, "Revolutionizing sports." Our primary focus is the ZScore digital scoreboard and event management system, a product concept originating from our team's vision to enhance live sports events. Recognizing the value of industry expertise and data, XPSports is developing this product in close collaboration with zerozero.pt as a strategic partner. This partnership allows us to leverage zerozero.pt's extensive sports data and platform knowledge, alongside our technological innovation, creating a synergy to jointly refine and validate the ZScore system throughout its development lifecycle.

The people who incorporate the startup team and help to achieve the project's goals are:

- **António Sousa**, *Developer*
- **Daniel Bernardo**, *Developer*
- **Gustavo Tarábbia**, *CPO*
- **Leonor Maia**, *Market Research Analyst*
- **Pedro Lima**, *CTO*
- **Rodrigo Rodrigues**, *CEO*
- **Rodrigo Pinheiro**, *Developer*
- **Tomás Vicente**, *Developer*
- **Tomás Martins**, *Product Owner*

3. Communication, Team Coordination and Work Planning

The team agreed on assigning different roles to each member, ensuring clear responsibilities and allowing focus on specific tasks, which fosters a natural and structured collaboration. To operationalize our work, we've established a consistent weekly cadence: tasks are formally distributed to each member on Fridays, setting clear goals for the week ahead. Team members are expected to complete their assigned tasks by Wednesday evening.

Throughout the week, proactive communication among members is crucial for assessing progress, resolving dependencies, and ensuring alignment. This structured work period culminates in our regular Thursday meeting with our partner, zerozero.pt, where we present progress, discuss challenges, and gather valuable feedback. While we have faced some initial challenges, particularly with precise task distribution and adapting to technical requirements, this defined weekly rhythm is helping us establish an effective process, and we are actively learning from our experiences to continuously improve our workflow and collaboration.

4. Project

4.1. Project Overview

4.1.1 Project Status

The current status of the project is the following:

- **Review Phase:**
    - The primary objective of the review phase was to develop the PVP, which was completed successfully and received very positive feedback from the client. However, following the review phase, we had to implement additional adjustments based on new client input. As of now, all mock-ups have been finalized, and the client is highly satisfied with the outcome.

    - Moreover, all deliverables and their associated sub-tasks up to the review phase were completed on time and with strong discipline.

- **Current status:**
    - Since last week, we have begun developing our application and have updated our sprint format. Instead of one-week sprints, we are now following the build-measure-learn approach (refer to the Gantt Chart annex), where each sprint is two weeks long. So far, everything is progressing smoothly, with every team member demonstrating strong commitment and dedication to the project. If this momentum continues, we are confident that the product will be completed on time and to a high standard of quality.

4.1.2 Main Challenges

- **Lack of Knowledge on Deliverables:** We encountered some challenges while drafting certain documents due to a clear lack of prior knowledge. However, by dedicating time to understand the purpose of each document, we were able to overcome these difficulties, and we believe that every document was ultimately completed successfully.

- **PVP and Mock-ups:** This was definitely the task that took us the longest to complete and to secure the client's approval. Although we received positive feedback from the client each week, they consistently came back with additional modifications. While this required a significant amount of extra work, it ultimately proved very valuable, as it helped us understand how to achieve a modular design — something that will save us time during the development phase.

- **Company challenges:** Although the company challenges are detailed in another section of this document, it is important to acknowledge that they inevitably impacted the progress of the project. However, as of today, we believe these issues have been resolved, and everyone is fully committed to both the company and the project.

4.2. Project description

Our product is a digital scoreboard and event management system designed for sports events. Take this example of how it would work in a real-life scenario:

Imagine a volleyball game. Usually, there's a need for a scoreboard in the sports hall so that spectators and players can follow the current state of the match. It is also common practice to have someone at the scorer's table—often game officials—registering every event of the game, such as points, set results, cards, and substitutions. This information is crucial, as it is later sent to the respective federation to keep records and update the championship standings.

This is where our product comes in. We provide a software with two main interfaces: one for the scoreboard, which is displayed on a large screen visible to everyone at the venue, and another for the scorer's table, where officials can input and update real-time data. The flow is simple: the officials insert game events into the app via the scorer's table view, and this data is immediately reflected on the scoreboard.

The application is being developed with the help of common technologies, such as MariaDB, React, PHP, Vite, Nginx, etc.. The docker for the project is set up, the developers are currently working on developing the user stories into the application.

4.3. Client

The client we are working with is zerozero.pt, a portuguese platform that stands out for its exceptionally comprehensive and well-maintained sports database, built and refined over more than two decades. With detailed records on thousands of players, teams, competitions, and match statistics across multiple countries, it has become one of the most reliable references in the sports data ecosystem—especially within the football world. The depth and accuracy of its information make it an invaluable resource for analysts, fans, journalists, and developers alike. The platform also provides statistical insights, news, interviews, and opinion articles.

zerozero.pt is widely recognized as one of the leading sources of football statistics and information in Portugal. In addition, the platform has also expanded internationally, with a strong presence in Brazil, smaller-scale operations in the UK and Spain, and more limited reach in other countries.

5. Project Management Practices

To effectively manage the ZScore project, XPSports has adopted an agile methodology, primarily using practices inspired by the Scrum framework. This approach facilitates iterative development, continuous feedback, and adaptability throughout the project lifecycle.

- **Implemented Agile Practices:**
    - **Sprints:** We operate in two-week sprints, transitioning from initial one-week cycles during the ideation phase. This adjusted length provides sufficient time for the development team to tackle more complex user stories and deliver potentially shippable increments of the ZScore system.

    - **Sprint Planning:** At the beginning of each sprint (typically on Fridays), the team collaborates to select user stories from the Product Backlog and break

them down into manageable tasks for the upcoming Sprint Backlog. This session ensures clarity on the sprint goal and distributes work among team members based on roles and capacity.

- **Sprint Reviews:** At the end of each sprint, we conduct Sprint Reviews involving key stakeholders, including the client (zerozero.pt representatives, when feasible) and supervisors. During these sessions, the team demonstrates the working software developed during the sprint, gathers feedback, and discusses the next steps. This ensures consistent alignment with the client's vision.

- **Sprint Retrospectives:** Following each Sprint Review, the team holds a retrospective to reflect on the past sprint – identifying what went well, what could be improved, and actionable steps for enhancing processes, collaboration, and addressing challenges in subsequent sprints. This is our primary mechanism for continuous improvement and tackling issues like workload distribution and technical skill gaps.

- **Product Backlog Management:** The Product Owner (Tomás Martins), in collaboration with the CTO (Pedro Lima) and the team, maintains a prioritized Product Backlog consisting of user stories that define the features and requirements of the ZScore system.

To enhance transparency and track progress objectively during the build-measure-learn phase, we are implementing/monitoring the following metrics:

- **Key Metrics Tracked** (or to be tracked going forward)**:**

- **Sprint Velocity:** We are tracking the number of story points (or tasks) completed per sprint. Current Status: Establishing a baseline velocity over the initial development sprints to better forecast future capacity and manage workload distribution.

- **Sprint Goal Achievement:** At the end of each sprint, we assess whether the defined sprint goal was met. Current Status: Aiming for consistent achievement; results are discussed in Retrospectives to identify reasons for any deviations.

- **Qualitative Team Feedback:** Input gathered during Sprint Retrospectives regarding team morale, workload balance, and blockers. Current Status: Actively used to identify recurring issues like uneven engagement and technical knowledge gaps, feeding into action plans.

- **Client Feedback Score:** A simple rating or qualitative summary from the client after Sprint Reviews regarding satisfaction with progress and deliverables. Status: Informal feedback currently positive; considering formalizing slightly.

In addition to internal indicators, we also monitor development progress metrics, such as the number of features delivered per sprint, task completion, features tests and adherence to the release schedule. These indicators provide an objective view of the product's evolution and allow for more precise adjustments to planning.

These metrics are tracked using a combination of tools and practices integrated into our workflow. For instance, task completion and sprint progress are monitored via our issue tracker: GitHub Projects, and miro.com, with test coverage being assessed through the manual replication of a given list of steps and instructions for a particular feature. During Sprint Retrospectives and Planning sessions, the team reviews these metrics to identify trends, adjust sprint goals, and refine the backlog prioritization. This data-driven approach ensures that the team can react promptly to delays, scope changes, or quality issues, maintaining a steady and measurable development rhythm.

Moving forward, the consistent application and refinement of these agile practices and metrics will be critical for managing risks proactively and delivering a robust and responsive ZScore application within the constrained 17-week timeline.

6. Current Scope

The current scope of the project has evolved slightly from the original plan. Initially, the system was intended to support 4 to 5 indoor sports, including handball, basketball, volleyball, hockey, and futsal.

However, in early discussions with the client, it was mutually agreed to begin with a more focused approach, limiting the initial implementation to just two sports: volleyball and futsal. These two were chosen because they have very different types of in-game events and dynamics. This allowed the team to better understand and design for a wider range of requirements while also ensuring a solid foundation for the scoreboard system.

Later on, after further meetings and positive development progress, basketball was identified as a feasible third sport to include at this stage. With this update, the project now actively supports three sports, with the remaining ones reserved for potential future phases.

As mentioned previously in this report, the system will consist of two main components:

- **Scoreboard**: Displays real-time game events and dynamic information that enhances viewer engagement by providing additional game information, e.g., goals, fouls, players.
- **Scorer's Table**: The central interface for managing live game events. It allows both game officials and other authorized users—whether in professional or amateur matches—to input and update game data quickly and efficiently.

7. Risks Overview

The project faces several **medium to high-level risks** that should be actively managed to ensure smooth progress throughout the development phase. Here's an overview of the key risks:

- **Uneven Team Engagement (High Risk)**

  A recurring issue across multiple weeks is unequal participation among team members. Some individuals have consistently contributed less, while others have taken on excessive workloads to compensate. If not addressed, this imbalance could lead to burnout, reduced motivation, and missed deadlines, especially as the

complexity of development increases. To mitigate this issue, it was agreed to implement mid-week progress check meetings, allowing the involvement of each member to be monitored and tasks to be redistributed if necessary.

- **Technical Knowledge Gaps (Medium-High Risk)**

  There are knowledge limitations within the team regarding technologies like React, Redis, and possibly integrating with the zerozero API. As development progresses, these gaps could slow implementation, cause integration issues, or affect performance, particularly when building real-time features like the input table and scoreboard. Sharing knowledge between members and teaching one another could mitigate this issue.

- **Time Management and External Commitments (Medium Risk)**

  Due to other academic responsibilities, some members have struggled to dedicate consistent time to the project. With a tight 17-week schedule, this may lead to delays, especially if the team underestimates the time required for development, testing, and final polish. The team began to use a more granular planning approach, incorporating micro-deadlines within sprints. This made it easier to reconcile work with other academic activities.

- **API Dependency and Integration (Low Risk)**

  The system’s reliance on zerozero’s API poses a potential risk. If the API has availability issues, changes its structure, or responds slowly, it could disrupt data fetching and affect key components such as team and player data. Close monitoring and fallback strategies will be essential. To address this issue, mocked-up data was generated during development to ensure continuity in the event of external API unavailability before the final deployment.

- **Usability Challenges (Medium Risk)**

  As the scorer's table is central to the system’s functionality, there is a risk that it may become too complex or unintuitive for game officials. Poor usability could hinder real-time data entry, leading to inaccurate or delayed updates on the scoreboard. To

overcome this, we reached out to actual game officials to test the interface alongside us, allowing us to gather relevant feedback early and make adjustments to improve usability and efficiency.

likelihood	impact				
	Very Low	Low	Medium	High	Very High
Very High					
High				Uneven Team Engagement / Time Management and External Commitments	
Medium				Usability Challenges	
Low		API Dependency and Integration	Technical Knowledge Gaps		
Very Low					

Figure 1: Risk Matrix

8. BUILD-MEASURE-LEARN Phase Project Plan

The Build-Measure-Learn phase involves iteratively developing the ZScore system through planned releases, allowing for continuous feedback and adaptation. Our high-level plan includes three main releases, with detailed planning occurring at the start of each two-week sprint. (refer to the Gantt Chart annex)

- **Release 1:** Core Scoring & Event Tracking (April 4th - April 24th, 2025)
    - **Goal:** Establish the fundamental real-time scoring and event management capabilities.
    - **Key Features Planned:**
        - Add/edit core game events: goals/points, cards, substitutions, fouls.
        - Assign goals/points to players.
        - Implement game clock functions: start, stop, rewind.
        - Implement timeout functions: start and edit duration.
        - Ensure real-time scoreboard updates based on the scorer's table input.
        - Implement user authentication.
        - Track accumulated team fouls.
        - Develop initial frontend structure and views.

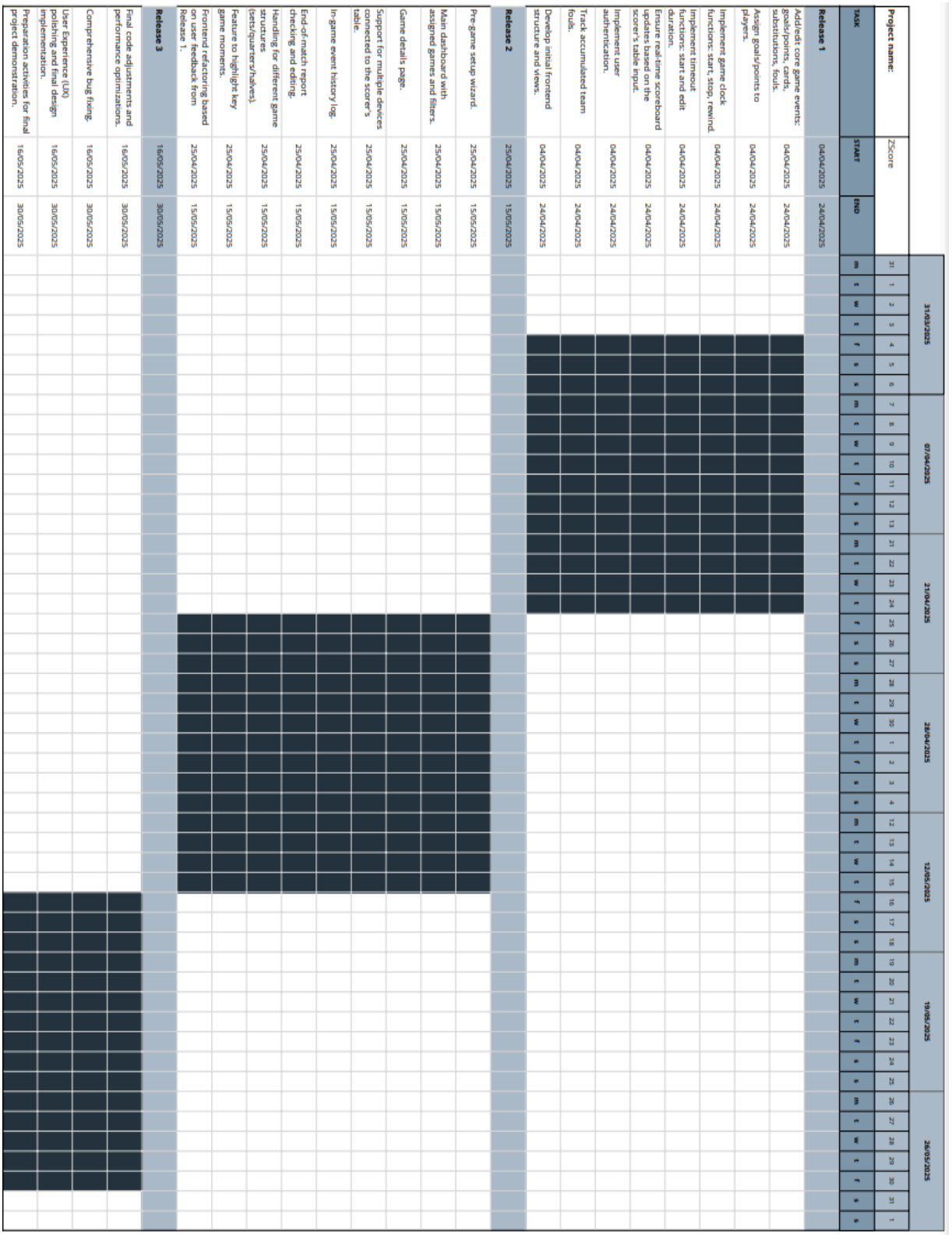
- **Release 2:** Usability, Game Lifecycle & Feedback Incorporation (April 25th - May 15th, 2025)
    - **Goal:** Enhance the user experience, manage the full game lifecycle (pre/post-game), and integrate early feedback.
    - **Key Features Planned:**
        - Pre-game setup wizard.
        - Main dashboard with assigned games and filters.
        - Game details page.
        - Support for multiple devices connected to the scorer's table.
        - In-game event history log.
        - End-of-match report checking and editing.
        - Handling for different game structures (sets/quarters/halves).
        - Feature to highlight key game moments.
        - Frontend refactoring based on user feedback from Release 1.

- **Release 3:** Refinement & Final Polish (May 16th - May 30th, 2025)
    - **Goal:** Ensure a stable, polished application ready for final review/delivery.
    - **Key Features Planned:**
        - Final code adjustments and performance optimizations.
        - Comprehensive bug fixing.

- User Experience (UX) polishing and final design implementation.
- Preparation activities for final project demonstration.

Note: This plan is a high-level guide. The scope and specific features within each release are subject to refinement during sprint planning based on ongoing feedback and development progress.

9. Annexes



Annex 1: ZScore's Gantt Chart