

Beyond the Board Pio-Pera

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Project definition:

Project Overview:

Pio-Pera is an interactive board game combined with a progressive web app (PWA), designed to enhance social play with mystery elements and educational value. The theme revolves around travel and exploration, with players unlocking surprise challenges, answering location-based questions, and progressing through quests inspired by real-world destinations.

Client:

Beyond the Board (Petra Vujicic and Maikel Putman)

Team:

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Current Situation:

At the start, we only had a rough idea of a travel-themed board game with mystery elements. There were no rules, cards, or visual design—just early sketches and concepts. We also planned to add a digital app, but we didn't yet know what its purpose would be. The main challenge was figuring out how to connect the physical game with the app in a way that felt useful and fun. We also needed to make sure the app could work offline and support the game without making it feel like just a quiz.

Problem Description:

In the beginning, one of the main problems was how to connect a physical board game with a digital experience in a smooth and useful way. We weren't sure which framework to use for the app—options like React, Vue, or plain JavaScript were considered. We also needed the app to work offline, support randomization, and store player progress locally. The challenge was not just technical, but also about creating a fun and seamless experience that enhances the game rather than distracts from it.

Project goals:

The main goals of the project were to build a user-friendly PWA app using a reliable framework like React for long-term usability and offline access, design a visually engaging and travel-themed board game, and create a clear and well-structured rulebook for smooth gameplay. We also aimed to ensure consistency between the physical and digital parts, follow UI/UX best practices, and document the development process for future updates or improvements.

Deliverables:

- A fully functional PWA app built with React and Vite
- IndexedDB integration for offline game progress storage
- A complete, visually designed physical board game set
- Mystery box and side quest system (both digital and physical)
- A well-structured and easy-to-follow rulebook
- Branding materials (e.g., logo, visual theme)
- Documentation for app setup, logic, and future development
- User testing reports and observation feedback

Non-Deliverables:

- Online multiplayer functionality
- Backend server or cloud sync system
- A mobile-native app (iOS/Android store release)
- Voice or AR integration
- Marketing campaign or commercial release plans

Constraints:

Budget: 0,00 €

Workforce: 3

Initiation: 10/03/2025

Deadline: 19/06/2025

Risk Analysis:

Executive Support:

- Risk: A team member (e.g., designer, developer) becomes unavailable due to illness or absence.
 - Impact: Delays in game development or missing components.
 - Severity: Medium probability / High effect
- Risk: Reduced motivation or engagement from the team over time.
 - Impact: Lower output or missed deadlines.
 - Severity: Medium probability / High effect

Integration:

- Risk: App and physical board game don't align well.
 - Impact: Confusing user experience, broken game flow.
 - Severity: Medium probability / High effect
- Risk: Hera server or Indexed DB fails during testing.
 - Impact: App functions offline improperly or loses data.
 - Severity: Low probability / High effect

Design:

- Risk: Visual or component design becomes too complex or unrealistic to produce in time.
 - Impact: Time-consuming revisions or simplified fallback design.
 - Severity: High probability / Medium effect
- Risk: Printed elements (cards, board, tokens) are unclear or not user-friendly.
 - Impact: Poor gameplay experience.
 - Severity: Medium probability / Medium effect

Resources and Team:

- Risk: Team needs to learn new tools (e.g., Vite, Indexed DB, printing methods).
 - Impact: Slower development due to learning curve.
 - Severity: High probability / Medium effect
- Risk: Limited access to materials or technical equipment.
 - Impact: Delay in prototyping or final production.
 - Severity: Medium probability / Medium effect