RMIT Hackathon 2025

Vietnam Semester 2, 2025

Challenge 3 — Vibe Coding - Play to Impact

Preigns - Balance your nation's future through wise leadership

Competition Name	RMIT Hackathon 2025
Semester Name	Vietnam Semester 2, 2025
Location & Campus	SGS Campus
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I. Introduction

Preigns is a browser-based decision-making game inspired by the Reigns series, where players assume the role of Minister of Climate Affairs. Through simple swipe mechanics, players make critical policy decisions that affect four interconnected metrics: Environment, Economy, People's Support, and Energy Supply. The game addresses climate change and sustainability challenges specific to Vietnam and Australia, combining educational content with engaging gameplay to raise awareness about the complexities of environmental policymaking and the delicate balance required in climate governance.

II. Topic Justification

Climate change represents one of humanity's most pressing challenges, particularly for Vietnam and Australia facing unique environmental threats. Preigns gamifies complex policy decisions to make climate education accessible and engaging. By placing players in the decision-maker's seat, the game illustrates real-world trade-offs between economic development, environmental protection, energy security, and public acceptance. This interactive approach helps players understand why climate action is challenging yet essential, fostering empathy for policymakers while encouraging critical thinking about sustainable solutions.

III. Potential Impact

Preigns serves as an educational tool that bridges the gap between abstract climate concepts and tangible decision-making consequences. By simulating the interconnected nature of environmental, economic, social, and energy systems, the game helps players understand that climate solutions require balanced approaches rather than single-minded strategies. Educational institutions can utilize Preigns to teach systems thinking and policy analysis in an engaging format. The game's focus on Vietnam and Australia provides culturally relevant scenarios that resonate with local audiences while demonstrating universal sustainability principles. By experiencing the difficulty of maintaining balance across competing priorities, players develop greater appreciation for the complexity of climate governance. The browser-based format ensures accessibility across devices and locations, maximizing reach and educational impact while requiring no technical setup.

IV. Technology Stack

Preigns is built using pure vanilla JavaScript, HTML5, and CSS3, ensuring universal browser compatibility without external dependencies. The development process leveraged AI tools including ChatGPT, Claude, and GitHub Copilot for concept generation, code assistance, and debugging. CSS animations power the card swipe mechanics, creating smooth interactive experiences. Version control through Git

maintained project organization throughout rapid development cycles during the hackathon timeframe.

V. Mechanics Overview

Preigns employs intuitive swipe-based gameplay where players review policy proposals and choose to approve by swiping right or reject by swiping left. Each decision impacts four critical metrics displayed as bars: Environment measures ecological health, Economy tracks financial stability, People's Support reflects public approval, and Energy Supply indicates power availability. The game challenges players to maintain balance, as allowing any metric to reach zero or one hundred results in immediate game over, representing catastrophic failure in that dimension. Players progress through years, with each year consisting of twelve monthly decisions drawn from over thirty diverse policy cards. These proposals range from banning plastic bags to investing in solar energy or subsidizing coal power, each presenting realistic trade-offs that mirror actual climate policy dilemmas. The scoring system tracks survival duration, encouraging strategic thinking and long-term planning. Real-time visual feedback shows stat changes immediately after each decision, helping players understand cause-and-effect relationships in policy-making while maintaining engaging, fast-paced gameplay suitable for both quick sessions and extended play.

VI. Reflection

Developing Preigns under hackathon time constraints presented significant technical and creative challenges. Finding appropriate AI image generation models for policy proposal cards proved particularly difficult, as generic generators often produced inconsistent results that failed to match our climate policy theme. We resolved this by manually curating images and selectively using AI for refinements, ensuring thematic consistency. Creating animated floating background circles to enhance UI aesthetics required multiple iterations and unexpected CSS troubleshooting before achieving the desired visual effect. However, AI-assisted vibe coding dramatically accelerated development speed, enabling rapid prototyping and iteration essential for meeting hackathon deadlines. This approach proved invaluable for quickly implementing features, though it required solid foundational knowledge of HTML, CSS, and JavaScript to effectively guide the AI tools and customize outputs to our specific requirements, demonstrating that AI assistance complements rather than replaces fundamental programming understanding.