Resilience Roll — Project Report
Team: Cyber ANT (Blue Team)
Hackathon: RMIT Hackathon 2025

1) Introduction
Resilience Roll is a 2D, browser-only board-card game that teaches community resilience in the face of climate-driven hazards.
Players make policy choices that impact four gauges: Budget, Resilience, Awareness, Equity. The game supports two contexts:
Việt Nam (floods, typhoons, coastal erosion) and Australia (heatwaves, bushfires).

2) Theme Justification & Potential Impact
- Vietnam & Australia both face climate extremes. Decisions like early warnings, mangrove planting, cooling centers, and inclusive outreach significantly reduce harm.
- The game creates empathy for trade-offs: limited budgets vs equitable protection vs long-term resilience.
- Expected impact: increased awareness of practical community actions; a shareable tool for classrooms or civic workshops.

3) Technology Stack
- HTML, CSS, Vanilla JavaScript (no frameworks; no backend)
- Accessible-first design (keyboard support, high-contrast mode, reduced-motion)
- All assets are Unicode/emoji, so the game runs offline, anywhere

4) Game Mechanics Overview
- Board of 30 tiles represents a season.
- Each turn: roll a die, move, draw an event card with 3 responses.
- Each response updates gauges (Budget, Resilience, Awareness, Equity).
- Win condition: end with Resilience ≥ 70, Budget ≥ 0, Awareness ≥ 60, Equity ≥ 55.
- Difficulty scales effects and encourages planning.

5) AI Tools & Web Libraries
- LLM prompts used for ideation, event writing, and code scaffolding (see /prompts).
- No external JS/CSS libraries used to maximize portability for judges.

6) Reflection (What we learned)
- Mapping abstract policy to simple numbers is hard; focusing on four intuitive gauges kept it teachable.
- Equity must be explicit; otherwise, optimal play can ignore vulnerable groups.
- Small UX touches (facts popover, quick demo mode) make judging and replay smoother.

7) Future Work
- Add localized language packs.
- Add more event cards sourced from real municipal playbooks.
- Export run logs to JSON for classroom discussion.