Natural Science and Artificial Intelligence

Week 10 · Final Project

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Week	Date	Commercial Design	Product Design	Notes
1	2026-09-16	Course Syllabus		
2	2026-09-23	Lab: AI Tools and Brand Design *****		
3	2026-09-30	Lab: Future Classrooms and the Metaverse		
4	2026-10-07	Introduction to Artificial Intelligence		
5	2026-10-14	Introduction to Deep Learning		
6	2026-10-21	Lab: Vibe Coding and Building with AI		
7	2026-10-28	The Science of Sports		
8	2026-11-04	Midterm Exam Week (Adjusted Schedule)		No classroom session
9	2026-11-11	Lab: Physics of Plumbing, Wiring, and Renovation		Final project group roster due
10	2026-11-18	Lab: AI Features and Project Extensions		Midterm report due
11	2026-11-25	Lab: Project Refinement and Deployment		Submit at least one draft Nov 18–25, before class
12	2026-12-02	Group Presentations: AI Applications (1)		
13	2026-12-09	Group Presentations: AI Applications (2)		
14	2026-12-16	Self-Study: Limits and Responsibilities of AI Use		Self-study off-site (18+2)
15	2026-12-23	Self-Study: Creative Careers and Human–AI Collaboration		Self-study off-site (18+2)
16	2026-12-30	Group Presentations: AI Applications (3)		
17	2027-01-06	Group Presentations: AI Applications (4)		
18	2027-01-13	Final Exam Week (Adjusted Schedule)		

Final Group Project

Final Project | Build with an AI Agent

Vibe Coding: Turn an idea into a working website

- **What can I build?**
  Choose any topic. Reuse your theme and logo from the start of the semester, or start fresh. Try a portfolio, brand site, market analysis, game, or everyday tool.

- **How do I start?**
  Paste your personal guide link into an AI agent. Explain what to build and how it should work. Try the first version and tell the agent what to change.

- **What should I present?**
  Treat classmates as clients, investors, or interviewers. Explain why you built it and who it is for. Demo it live and share what you improved, what worked well, or what you found fun.

Grading Criteria

- Groups of 1–4 students
  - Split into two groups if you have more than four. If you stay together, each student’s final score is capped at 79.
- How points are awarded
  1. Core project: 60 base points for submitting the project.
  2. Online publication (+1–10): Publish your website online, for example by deploying it to Vercel.
  3. Admin and data (+1–10): Add, edit, or delete products, game records, or users in an admin interface.
  4. Individual contribution (+1–10): Make at least one version-control commit to the project.
  5. Completeness (+1–10): Points depend on the quality of the work.

Tools and Setup

Discuss, edit, preview, and debug

Save the project and track edits

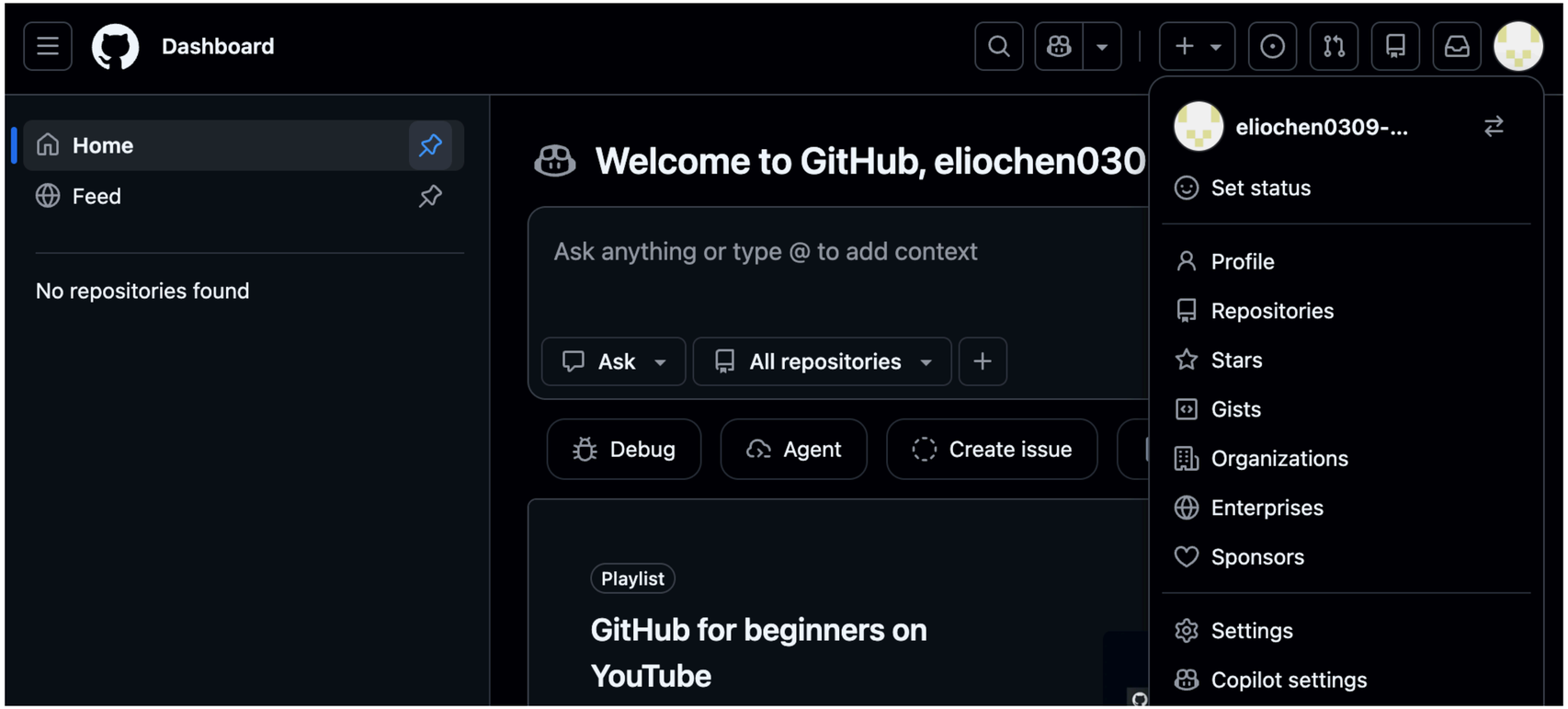
Publish the project at a shareable URL

Store large, structured datasets

- Chat assistant: Gemini (https://gemini.google.com/)
- AI agent: Antigravity (https://antigravity.google/)
- Code, version control, and teamwork: https://github.com/
- Web hosting and basic database: http://vercel.com/
- (Optional) Database for production use: https://supabase.com/

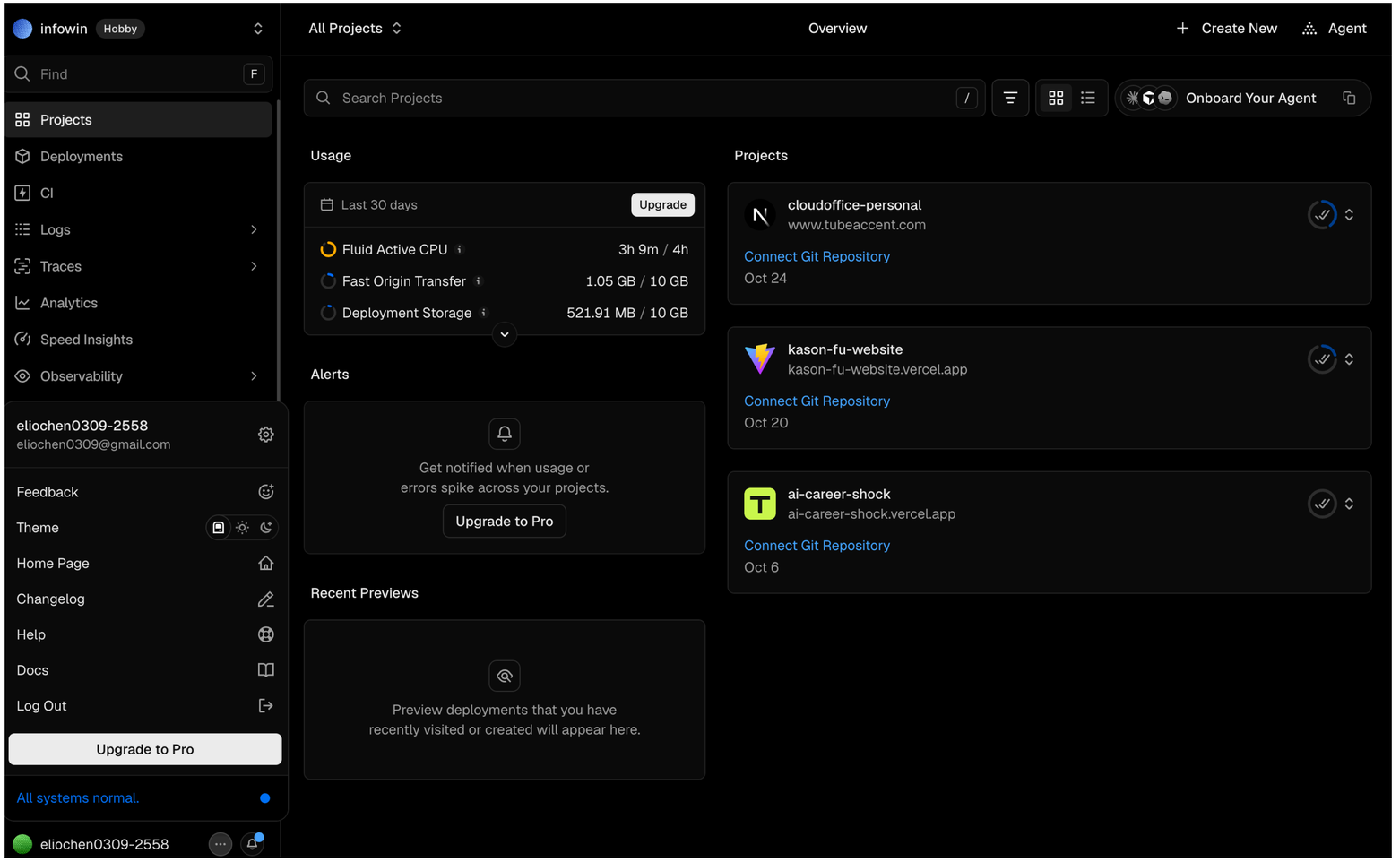
1. Create a GitHub Account

https://github.com/

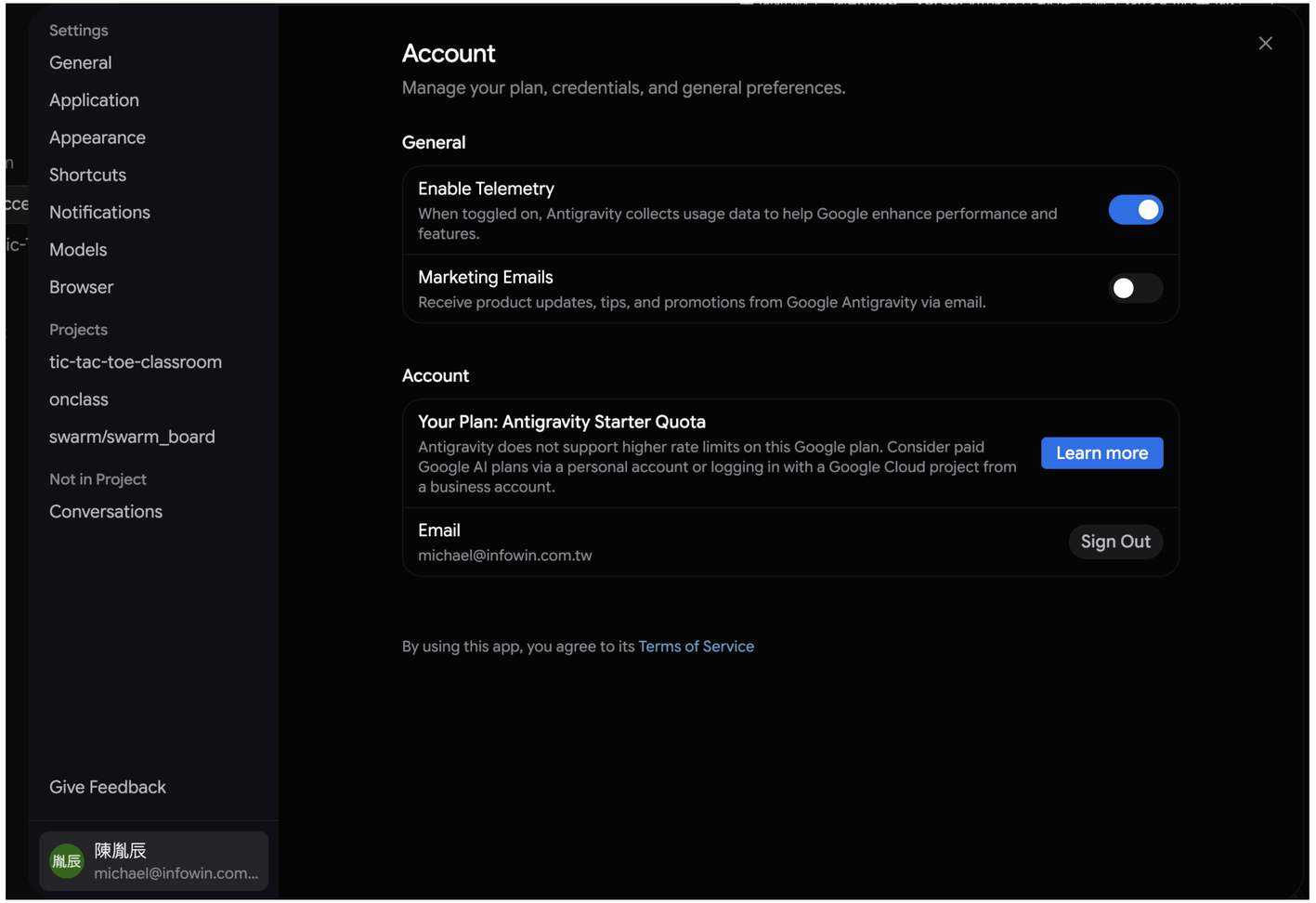


2. Create a Vercel Account

https://vercel.com/



3. Download and Sign In to Google Antigravity



4. Get Your Final Project Guide

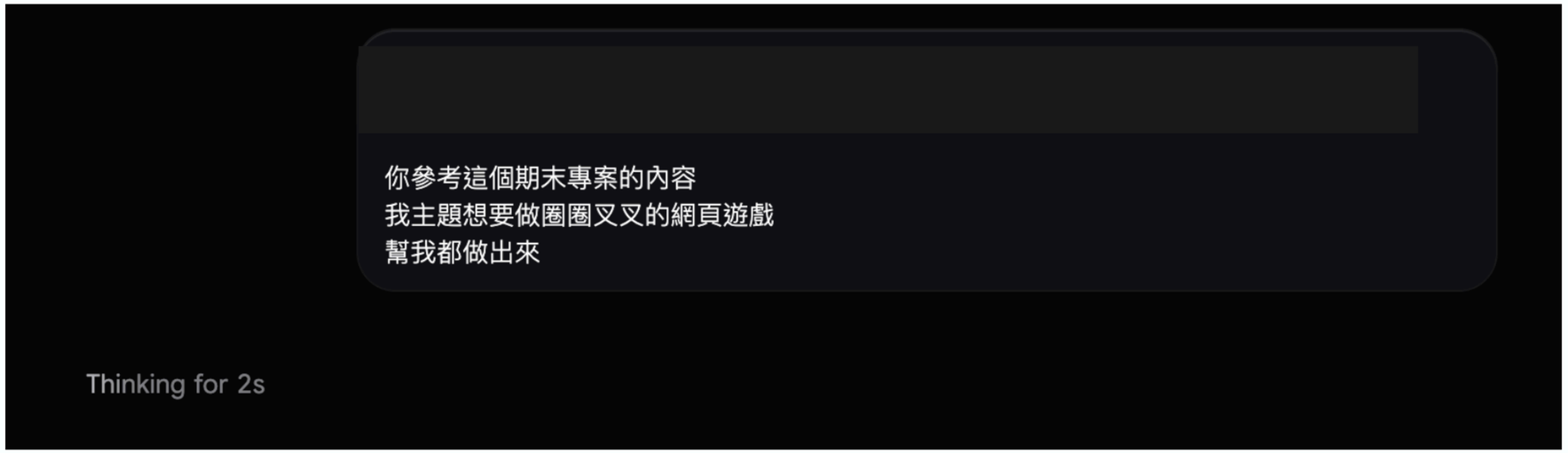
The bot will send it through the course’s official LINE account.





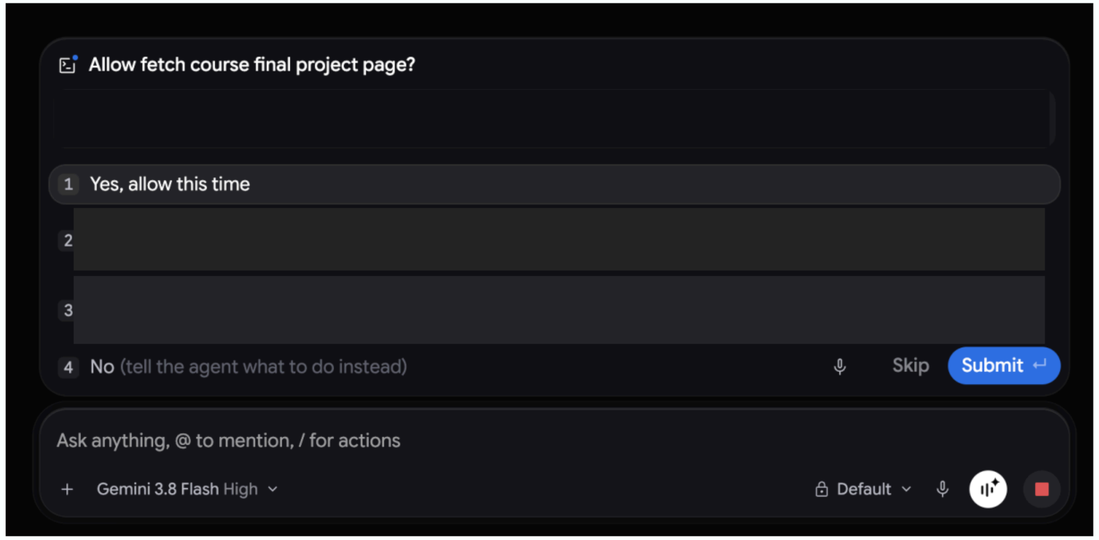
5. Generate Your Final Project

- Paste the link into Google Antigravity.

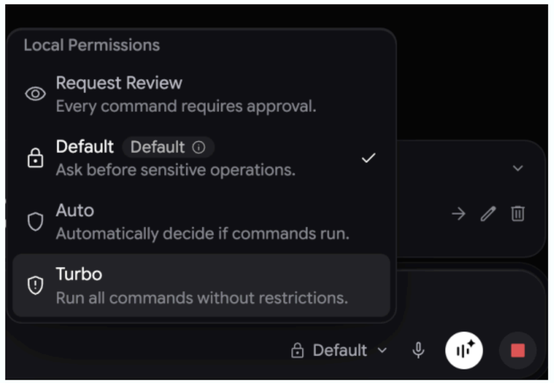


Agent Permissions

- Submit: Approve each request



- Turbo: Let the agent proceed



After a Long Wait

4. GitHub 連動 Vercel 自動部署與 HTTP 驗證

PR #1 合併進 GitHub `main` 後，已自動觸發 Vercel 正式環境部署，並透過 `curl -i` 實際驗證線上內容：

1. **首頁（`https://tic-tac-toe-classroom.vercel.app`）**：
    - 回傳 `HTTP/2 200`（`content-length: 3540`），頁首已包含新增的 `<a href="help.html">查看遊戲說明與戰術指南（如何遊玩與閱讀建議）</a>` 連結。
2. **說明頁（`https://tic-tac-toe-classroom.vercel.app/help.html`）**：
    - 回傳 `HTTP/2 200`（`content-length: 3072`），完整顯示繁體中文「遊戲說明與戰術指南」與返回首頁連結。

Website Ready

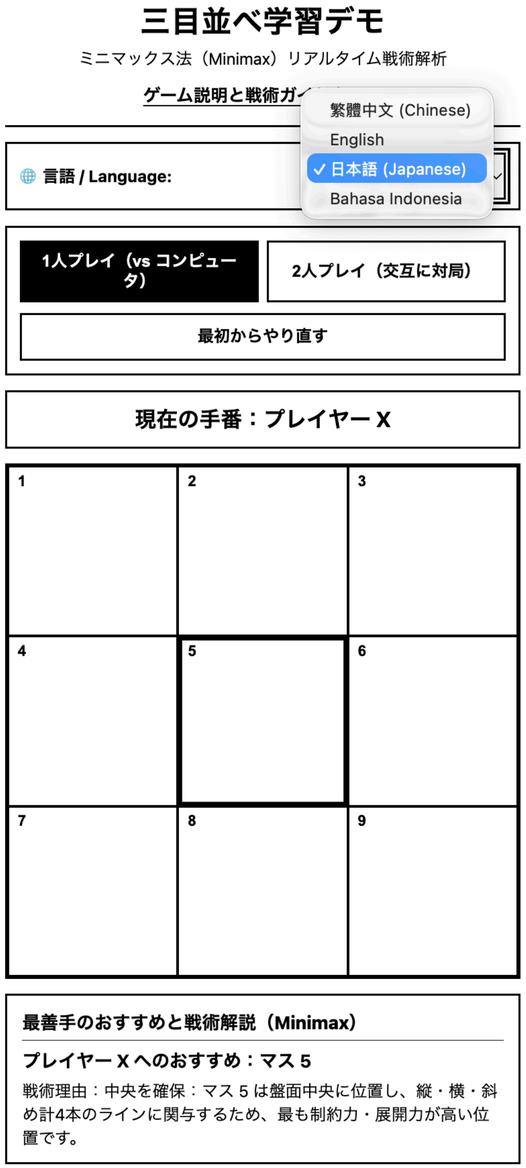
- https://tic-tac-toe-classroom.vercel.app/



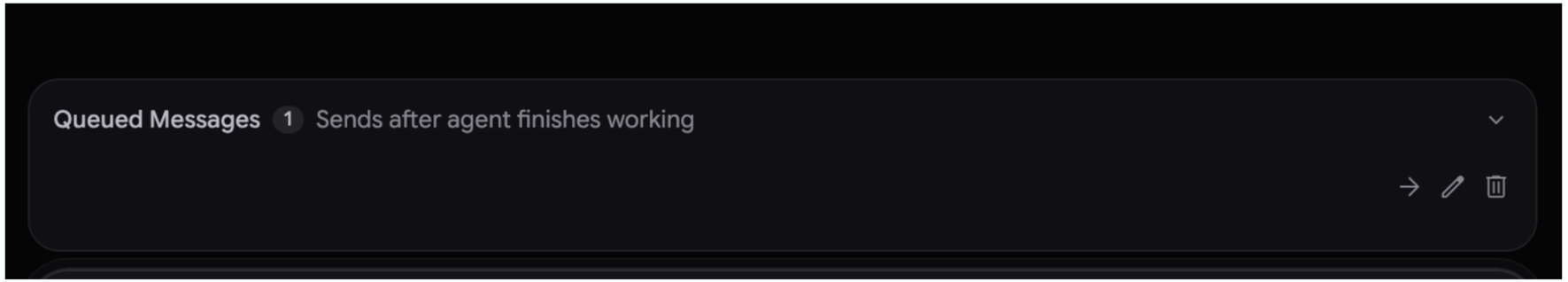
Request New Features

幫我確定RWD有沒有做好、加入多國語系(中文/英文/日文/印尼文)

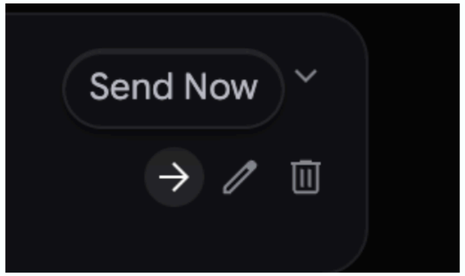
- Common requests
- Make the site responsive on phones, tablets, and desktops.
- Add support for multiple languages.



Queued Messages



- By default, your new message waits until the current task finishes.
- Choose Send Now to send it immediately. Use it to add details you want the agent to address before it reports back.



Solo Project Workflow

1. Paste your personal guide link and say it is for the final project.
2. Give the agent your topic and requirements. Ask: “Build my final project from these instructions, commit and push it to GitHub, then deploy it to Vercel.”
3. Open the link the agent gives you. Try the site and tell the agent what to improve.
4. The live site usually updates automatically. If it does not, ask: “Deploy the latest version to Vercel.”

Team Project | First Member Uses the Solo Workflow

1. Paste your personal guide link and say it is for the final project.
2. Give the agent your topic and requirements. Ask: “Build my final project from these instructions, commit and push it to GitHub, then deploy it to Vercel.”
3. Open the link the agent gives you. Try the site and tell the agent what to improve.
4. The live site usually updates automatically. If it does not, ask: “Deploy the latest version to Vercel.”

Workflow for Other Team Members

1. Paste your personal guide link and say it is for the final project.
2. Ask the agent to clone the existing final project repository.
3. Ask the agent to run the project locally.
4. Try it and decide what to change.
5. The live site usually updates automatically. If it does not, ask: “Deploy the latest version to Vercel.”

Submit via the Project Guide

- Prompt: [Paste your personal link.] Follow the instructions on this page and submit the required materials.

- The scores shown are preliminary estimates.



個人交件狀態 個人連結有效，請勿轉傳。

學生 TESTLINE 期末測試 11111111 陳胤辰（測試）
組員 單人組
專題主題 井字遊戲教學示範（Tic-Tac-Toe Classroom）

全組交件進度

GitHub (放程式碼)	github.com/yinchen618/tic-tac-toe-classroom （建庫者 陳胤辰（測試））
Vercel (讀程式碼變網站)	tic-tac-toe-classroom.vercel.app （部署者 陳胤辰（測試））
簡報	尚未提供 （第 7 版草稿待收件）
改善紀錄	3 項（至少 3 項）

我的交件進度

AI 開發紀錄	1 段（建議 1～2 段）
GitHub 貢獻紀錄	已提供
AI 使用量截圖	待補

目前至少有幾分

目前至少 100 / 100 分（AI 暫估：基本 60 + 加分 40）。

草稿已儲存，等待老師確認收件。 經 AI 依作品與證據逐項檢核：主題用途為課堂井字遊戲教學（10/10）；網站主要功能（單人/雙人/AI對弈）可完整操作（20/20）；能現場走完對戰、和局與重開流程（15/15）；整理 3 項具體改善前後證據（10/10）；單人組已詳述各項技術與設計決定（5/5）；已上線 Vercel 公開網址（10/10）；支援 localStorage 跨頁偏好資料儲存與狀態矩陣管理（10/10）；個人具備多筆 GitHub commit 與 PR 貢獻證據（10/10）；具備確定性 Minimax 戰術解析、WCAG 44px 手機 RWD 與繁中/英/日/印尼 4 國語系切換的高完成度與創意（10/10）。

基本作品

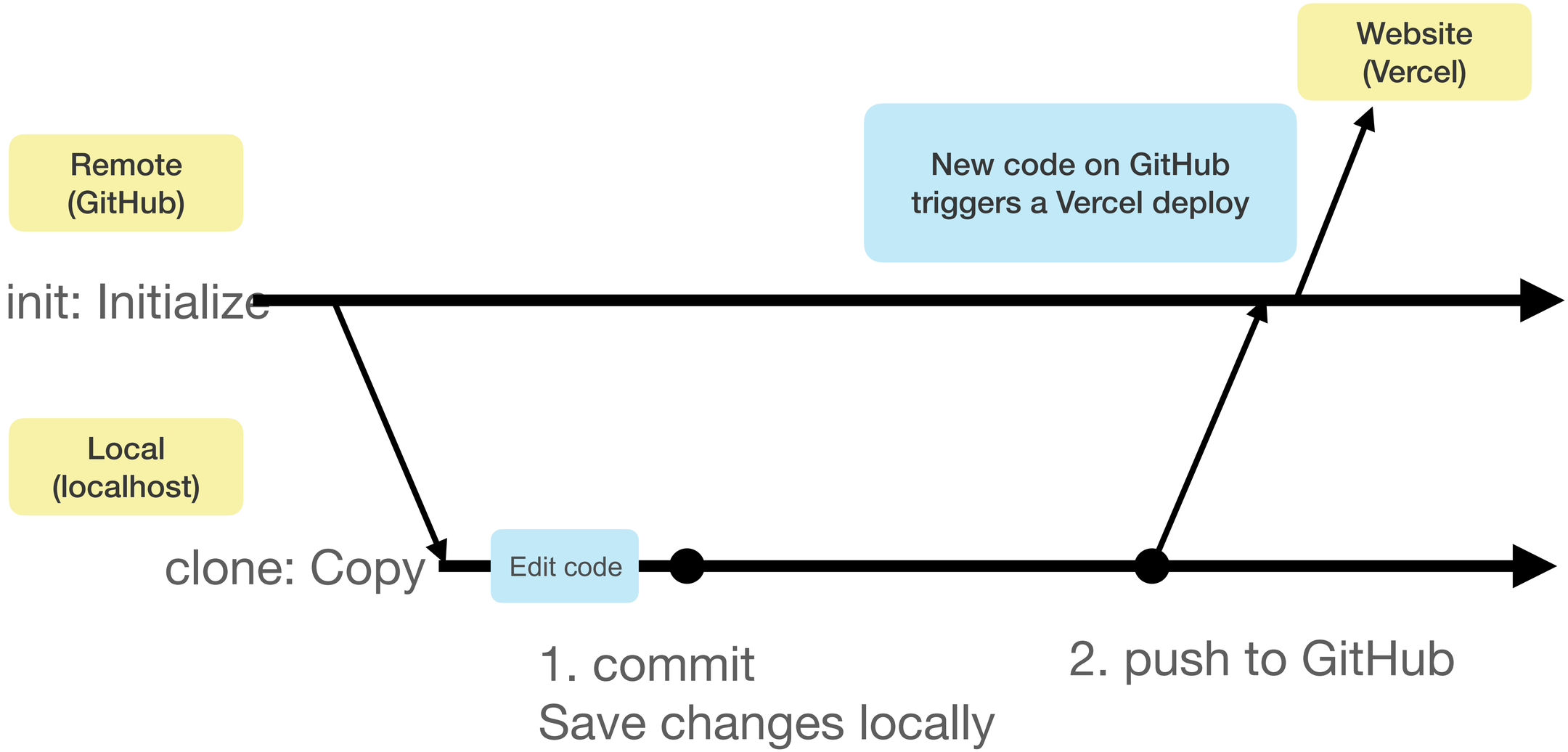
主題與使用情境	10 / 10
網站內容與基本功能	20 / 20
實際展示與操作	15 / 15
AI 使用與改善說明	10 / 10
組員分工	5 / 5

四個加分項目

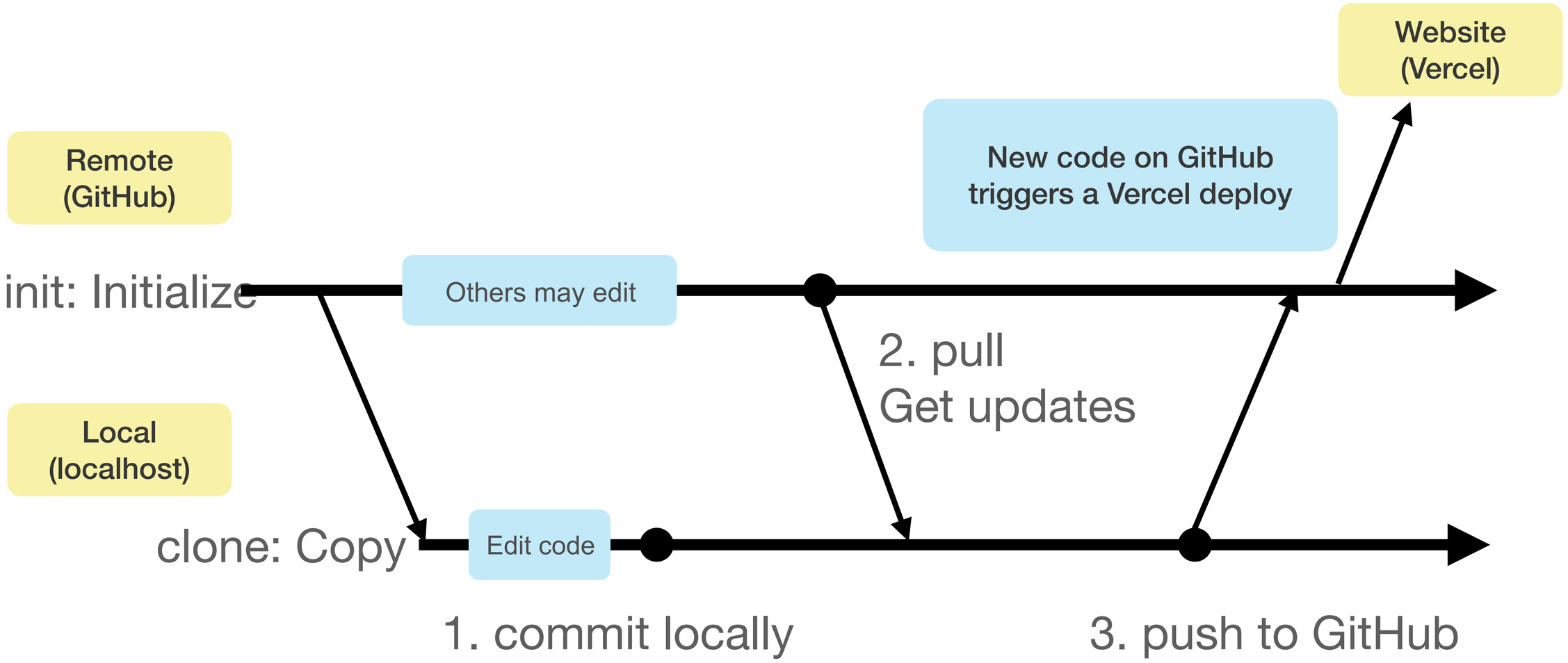
作品上線	10 / 10
管理 / 資料功能	10 / 10
個人貢獻	10 / 10
完成度與創意	10 / 10

Agent 依作品與證據逐項估分。上方總分等於所有打勾項目的得分相加。正式成績由老師評定。 查看得分條件

Appendix 1 | Solo Git Workflow: Commit → Push



Appendix 2 | Team Git Workflow: Commit → Pull → Push



This Week’s Assignment

- Between Nov 18 and the start of class on Nov 25, 2026, have at least one team member submit a draft through the guide page.
- What to do
  - Paste the final project guide link into your AI agent and tell it your topic.
  - The agent will build a basic website for you.