Hands-on Tutorial on Vibe Coding using Lovable + Demo of Google's Antigravity.
Time: Mar 21, 2026 10:00 AM Pacific Time (US and Canada)

In this 2-hour, hands-on workshop led by Stanford researcher Catherine Qing, high school students are invited to explore the latest generative AI tools and design a product from scratch to address a social problem they care about. No programming or computer science experience is required. The goal of the workshop is to prepare students for college and careers in an AI-driven world. Students are guided step-by-step through the no-code platform Lovable and move from idea to launch, using vibe coding skills to define their app's purpose, target users, and impact. Catherine is an instructor with [Inspirit AI](#), a leader in AI Programs for high schoolers

Meeting summary

Quick recap

This meeting was a workshop on Vibe Coding, where Catherine introduced participants to text-to-prototype tools and demonstrated how to use Lovable to create web applications. The session included hands-on time for students to build their own prototypes, with participants sharing examples including games like tic-tac-toe, pong, and chess, as well as an economics/finance app and a multilingual health app. Rajiv then presented an advanced demo using Anti-Gravity to build a college recommendation app in 15 minutes, followed by practical advice on best practices for Vibe Coding, including the importance of testing, using GitHub for version control, and not relying solely on AI tools. The workshop concluded with students being encouraged to continue developing their prototypes for their TAI challenge projects, with Catherine offering to provide ongoing support and guidance.

Summary

Vibe Coding Demonstration Session

Catherine explained the concept of Vibe Coding, describing it as a collaborative process between humans and AI where users guide AI to build applications and games by describing their ideas rather than writing code manually. She demonstrated this with a simple tic-tac-toe game generated using ChatGPT and challenged participants to create their own games using the same approach. The session included a brief discussion about file dependencies, with Catherine confirming that simpler games like Hangman or Connect 4 would likely generate just one HTML file, though more complex games might require additional files.

AI Game Development Demonstrations

The meeting focused on participants sharing games they created using AI tools like Claude and ChatGPT. Julie shared a paddle game with color-changing mechanics, Suhas demonstrated a two-player pong game with plans to add difficulty levels, Ayannah presented a Sudoku game with interactive number selection, and Amelia showed a Wordle game. Following the game demonstrations, Catherine provided an overview of AI prototyping tools, explaining that while ChatGPT can be used for basic prototypes, other tools like Lovable, Cursor, and Replit are more suitable for different experience levels. The discussion emphasized how these tools lower the barrier to entry for coding and allow for rapid prototyping and iteration.

AI Prototyping for Teen Challenges

Catherine explained the process of using text-to-prototype tools to create AI-powered applications, including describing the project in plain English, generating code, and testing and refining the prototype. She emphasized the potential of AI prototypes to address global challenges, including sustainable development goals, and provided examples of socially impactful AI applications in education, healthcare, and climate action. Ashvin clarified the requirements for the TAI challenge, noting that the project should relate to the life of teens and AI, and outlined the deliverables, including an app description, working app, and demo explanation video. The session concluded with Catherine starting a timer for participants to brainstorm and select their project topics.

Lovable Web App Tool Introduction

Catherine introduced Lovable, a web app development tool, and provided guidance on how to use it effectively. She emphasized the importance of considering user experience, problem-solving, UI design, and must-have features when creating prompts. Catherine suggested bundling requests into comprehensive prompts to maximize free credits and offered alternative tools like Bolt or Replit if needed. She also mentioned optional enhancements for experienced users, such as adding real-world data or multi-modality, and announced a follow-up session at 11:30 for sharing progress.

Lovable Project Development Guidance

The meeting focused on providing guidance for participants working on their projects using Lovable and other tools like Replit. Catherine and Rajiv offered support for troubleshooting and suggested alternative approaches, including using different accounts or tools to continue development. Participants were informed about publishing their projects and submitting them for feedback, with a link provided for submission and the promise of certificates upon completion. The session also mentioned an upcoming presentation by Rajiv on anti-gravity and a demo using Lovable.

Student App Presentation Planning Meeting

The meeting focused on planning a session where students would present their apps and receive feedback. Catherine, Ashvin, and Rajiv discussed the format, deciding that students would share their projects first, followed by Rajiv providing advanced feedback and best practices. They agreed to allocate about 15 minutes for student presentations, with a total time slot until 12:30. Technical issues arose during Suhas's presentation attempt, leading to a suggestion to share app links directly in the chat for Catherine to demonstrate. The meeting also highlighted the use of Lavela, a tool that allows publishing apps with built-in cloud hosting capabilities.

App Demonstrations and Development Plans

Amelia presented an economics and finance app built in Replit that displays accurate data on inflation rates, S&P 500, and allows users to build sample investment portfolios. She identified teenagers and beginners in economics as the ideal users and proposed adding an educational tab to explain financial concepts. Suhas demonstrated a sports-focused app with live scores, quizzes, and fantasy basketball features, targeting users interested in sports. Julie briefly introduced a multilingual health app with features for managing medications and emergency contacts, focusing on addressing language barriers in medicine.

Vibe Coding Tools Overview

Catherine presented an overview of Vibe Coding tools, highlighting Lovable as an accessible starting point for beginners and introducing additional tools like Cloud Code, Replit, and Cursor for more advanced users. She shared resources and opportunities through INSPIRIT, including AI Scholars and mentorship programs. Rajiv then discussed his experience with Vibe Coding, emphasizing the shift toward user-focused features rather than technical syntax, and introduced Antigravity as his preferred tool due to its interactive capabilities and integration with multiple LLMs. He demonstrated building a college admission assistant app in 15 minutes using Antigravity, highlighting its potential for automating development processes, including testing, debugging, and deployment.

AI College Match Prototype Demo

Rajiv demonstrated an AI-powered web application prototype called "anti-gravity" that matches high school students with ideal college campuses based on various criteria including academic interests, career goals, and personal preferences. He showed how the system prompts users for information and then generates recommendations from a database of over 4,000 colleges, with the example demonstration resulting in recommendations including Georgetown, Duke, UCLA, and USC. The application can also suggest development frameworks like White, though Rajiv noted this was a basic 15-minute prototype and not a finished product.

Vibe Coding Tools Best Practices

Rajiv presented best practices for using Vibe coding tools like Antigravity, emphasizing the importance of thorough testing, using version control systems like GitHub, and not relying solely on AI assistants. He advised trying different tools and being aware of potential inconsistencies in AI systems. Catherine and Rajiv discussed the upcoming app development challenge, where students will submit proposals and apps by specific deadlines, with peer and judge evaluation planned. Catherine offered to serve as a judge for the challenge and expressed interest in meeting with students to discuss their projects, particularly given her psychology background and the challenge's focus on cognitive biases and brain-related topics.