

EE/CprE/SE 491 WEEKLY REPORT 4

Start Date – End Date: 10/14/2025 - 10/21/2025

Group number: sdmay26-16

Project title: AI Home Design Moodboard

Client &/Advisor: Md Maruf Ahamed

Team Members & Roles:

- **Prakeerth Regunath: Frontend & Scheduler/Organizer**
- **Onur Onal: Project Lead/Project Manager & Full-stack**
- **Kemal Yavuz: Lead Backend**
- **Erroll Barker: Lead Frontend**
- **Bae Meh: Backend**
- **Om Sanghvi: Backend**

Weekly Summary

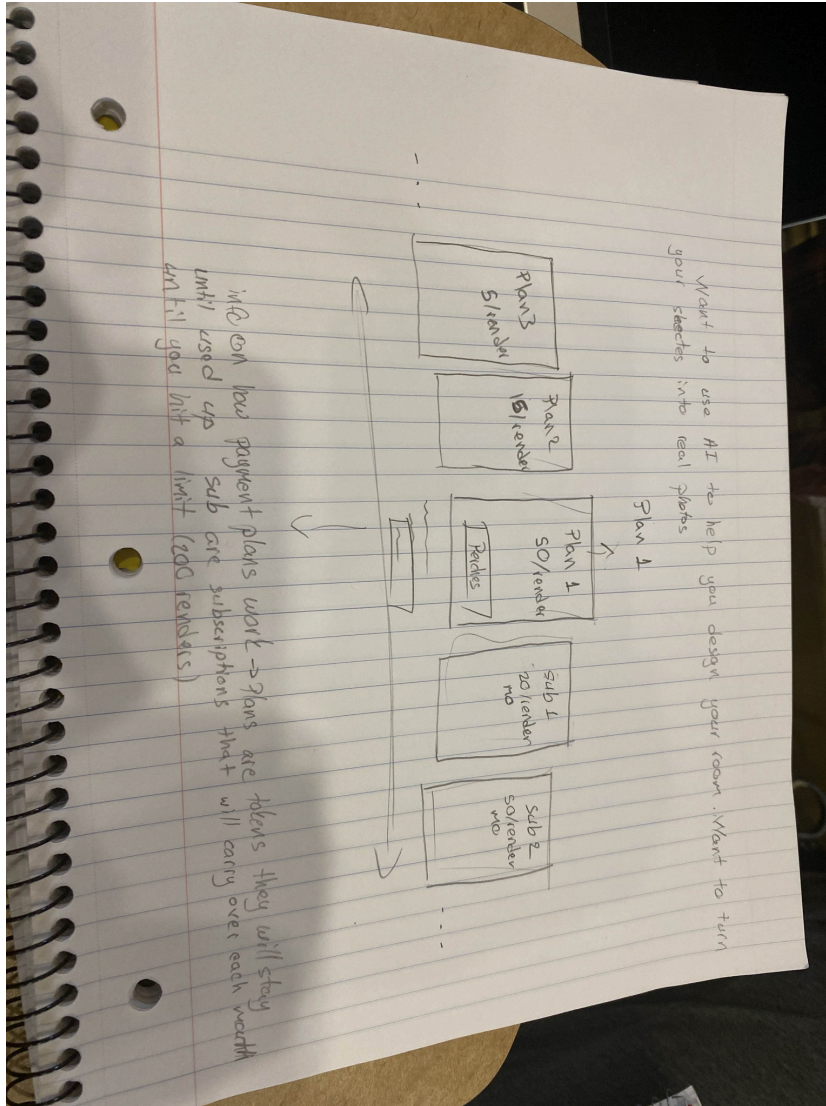
- o **The team made steady progress this week. The Moodboard and Hub pages started development based on the Figma designs, Docker integration was completed for both frontend and backend, and the CI/CD pipeline setup continued. The landing page was finalized with 3D animations, and initial work began on the payment pages. AI image generation tools were also researched to guide future integration.**

Past Week Accomplishments

- **Prakeerth Regunath:** I was satisfied with my ongoing progress, as I was able to get the backend working with the frontend in terms of a user logging in and signing up. In Google's integration case, the API was working right in terms of creating/logging in a user.
- **Onur Onal:** This week, I partially built the Moodboard Editor page, implementing the canvas, toolbar, and sidebar to match the Figma design while setting up the overall layout and styling. I also created the sidebar toggle button and integrated toolbar icons with proper typography. I also completed Dockerfiles for both frontend and backend for Om to connect them to our GitLab CI/CD pipeline for automated build and deployment. Additionally, I met individually with team members to discuss progress, assigned new tasks to Kemal, Prakeerth, and Erroll, and conducted code reviews for Erroll's landing page and Prakeerth's Google authentication code.
- **Om Sanghvi:** Worked on the team project website and focused on improving backend infrastructure through a CI/CD pipeline. Connected the backend with Docker to streamline deployment and ensure reliable builds across different environments.
- **Erroll Barker:** I'm really happy that I was finally able to wrap up the landing page with the 3D animation. I fixed the lag that was happening when all the files were loading at once, and I also resolved the issue I ran into last week, where an object file wouldn't rotate in the 3D animation. In addition, I made the final design touch-ups and fixed some navigation bar issues. I've now started working on the payment pages for both subscription plans and token purchases.
- **Kemal Yavuz:** This week I focused on the backend database and frontend for the moodboards feature. On the frontend, I built the Moodboards Hub page to match the Figma design. For now, placeholder data and images are used until the backend endpoints are connected. The hub layout includes user-specific boards displayed in a responsive grid, forming the foundation for the board management system.
- **Bae Meh:** This past week, I researched and evaluated multiple image generation AI for our project. I explored options such as OpenAI (DALL-E/Imagen API), Gemini, Leonardo.ai, Pollinations.ai, and Together.ai, focusing on their costs, performance, API capabilities, and ease of integration. After gathering this information, I narrowed the list down to the most promising tools and created a comparison chart outlining their strengths, limitations, and pricing structures. I also shared my findings with the team for feedback and discussed which options might align best with our project's goals and budget.

Rough Sketches/Drafts

- This sketch is about the payments page, how it's supposed to look like how it's supposed to operate, what kind of text/information, and other sorts what details we came up with



Pending issues

- <Add if needed>

Individual Contributions Table

<u>NAME</u>	<u>Individual Contributions</u> <i>(Quick list of contributions. This should be short.)</i>	<u>Hours this week</u>	<u>HOURS cumulative</u>
Prakeerth Regunath	Integrated signup/login auth flow into frontend, working on Pinterest Integration.	6	24
Om Sanghvi	Developed CI/CD pipeline and Docker integration for backend deployment.	14	20
Erroll Barker	Finished landing page with the 3D animation & Payment page has been started	~30	60
Onur Onal	Partially built the Moodboard Editor page, set up Docker integration for deployment, met with team members, assigned tasks, and conducted code reviews.	16	49
Kemal Yavuz	Designed the Moodboard Hub page on the frontend with placeholder visuals.	6	27
Bae Meh	Researching image generation APIs and testing a few of the top options	6	24

Plans for the upcoming week

- **Prakeerth Regunath:** Next week I plan to verify and finish the functionality of the Pinterest Integration, as well as thinking about making the functionality of the main moodboard page.
- **Onur Onal:** Continue developing the Moodboard page with the goal of completing remaining design elements and beginning implementation of interactive moodboard features. Research the Seedream AI image generation API for potential integration, and working with Kemal on building and connecting the boards backend.
- **Om Sanghvi:** Finalize the CI/CD pipeline by adding automated testing and health-check triggers, then connect the deployment process to the project's frontend for full system integration.
- **Erroll Barker:** Finishing the payment page, adding a third-party payment handler, something like Square or PayPal, to deal with the security of withdrawing payments and if I get a chance, at the animation that I was planning on adding to the sign-up and login page
- **Bae Meh:** Next week, I plan to continue researching image generation APIs and begin testing a few of the top options to see which one works best for our project. Based on the results, I'll document my findings and share recommendations with the team.
- **Kemal Yavuz:** Connect the frontend moodboard hub to backend data, implement CRUD API calls for creating, editing, and deleting boards, and help with Docker setup so the database is shared across the team.

Summary of Weekly Advisor Meeting

In our meeting, we discussed our strong progress in the development of Renova and highlighted the major milestones we've achieved so far. We also explored new ideas to enhance user experience and functionality within the application. One key topic was implementing a page that allows users to withdraw purchases once an account is created. This feature would make the platform more dynamic and user-friendly by enabling real transaction management. We also considered how this page would connect with the backend and ensure secure data handling. Overall, the discussion helped us refine our goals and set clear next steps for integrating this feature into Renova.