

## EE/CprE/SE 491 WEEKLY REPORT 2

**Start Date – End Date:** *Previous report due date - 10/7/2025*

**Group number:** *sdmay26-16*

**Project title:** *AI Home Design Moodboard - Renova*

**Client &/Advisor:** *Md Maruf Ahamed*

### **Team Members & Roles:**

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

### **Weekly Summary**

- ***This week's objective was to continue developing and formulating the web application for our Home Design Moodboard. So far, we have designed the primary moodboard pages in our application and implemented user interfaces for a landing page, as well as login and signup panels.***

### **Past Week Accomplishments**

- **Prakeerth Regunath:** This past week, I strategized and formed a basic idea as to how to implement the frontend of the Login/Signup Page of Renova. After learning a bit from how Erroll did his landing page, I incorporated his UI elements into the page, making a seamless transition. I also learned from Onur that I needed to improve the Project Structure by reorganizing the CSS stylesheets and the needed JSX files based on the endpoint (or folder) called “/auth” across the app and components in the overall frontend folder.
- **Onur Onal:** These past two weeks, I primarily worked on designing the main pages of our web application in Figma. Key pages, such as the moodboard dashboard and the moodboard + AI integration pages, have been designed for the most part and will begin implementation in the coming weeks. I also created and pushed initial Next.js frontend and Express backend projects. Lastly, I coordinated with team members and assigned tasks based on availability and interest, and conducted code review for Erroll and Prakeerth's commits on the landing page and login/signup frontend code, respectively.
- **Om Sanghvi:** Created and organized all backend issues on the issue board to help track progress and assign responsibilities efficiently. Began implementing the backend for the Login Page, setting up user authentication, validation, and secure JWT handling.

Committed and pushed the initial version to the repository and prepared for merging into the main branch after team review. Also contributed to outlining database relationships between users and projects to support upcoming CRUD features.

- **Erroll Barker:** This week, I kicked off the landing page and set the visual/UX foundation. I implemented a responsive navbar and hero section, defined the initial guest-user flow (no backend dependency), and locked the overall theme and users' first experience. I'm especially proud of the 3D hero animation, which features room-aware furniture layouts (living room, kitchen, bedroom, bathroom) auto-arrange, a blue "render" scan sweeps the scene, and items transition from neon wireframe to shaded solids in a seamless, double-buffered loop (this was a pain to do) but over all result is a nice little preview of what Renova's about.
- **Kemal Yavuz:** This week, I focused on preparing and setting up the backend development environment to begin implementing the authentication system. I successfully cloned the repository through SSH, configured Docker for MySQL and Adminer, and initialized the Prisma ORM schema for user management. I also created the foundational Express server structure and tested initial routes to ensure backend communication. Additionally, I started developing the authentication module that will handle user registration, login, and JWT-based session validation for the upcoming integration with the frontend.
- **Bae Meh:** This week, I focused on setting up my local development environment. I pulled both the backend and frontend projects from our Git repository and verified that they ran correctly on my machine. I also began reviewing the assigned backend ticket to familiarize myself with the project structure and plan how to implement my part over the upcoming week.

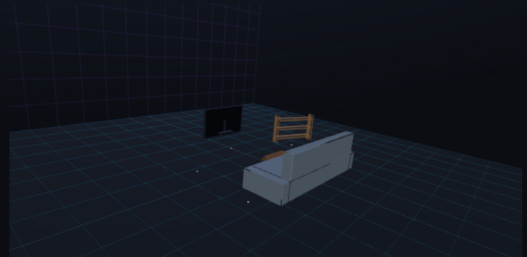
### Rough Sketches/Drafts

- **Initial Landing Page of Renova**

CREATE. ARRANGE. PREVIEW.

# Design your dream room with Renova.

Try us out and see how your room could look! Upload your space, arrange inspirations on a moodboard, and preview AI-powered renovations. NO design skills required!!



Start a New Board

See Examples

Guest mode

• 3 trial renders on signup

## Features

N

- Drag-and-drop moodboard editor
- Upload and organize your items
- Before/after previews (Coming Soon)

## How it works

1. Upload a photo of your room
2. Add inspiration items to the canvas
3. Preview AI renovations (when enabled)

## Contact

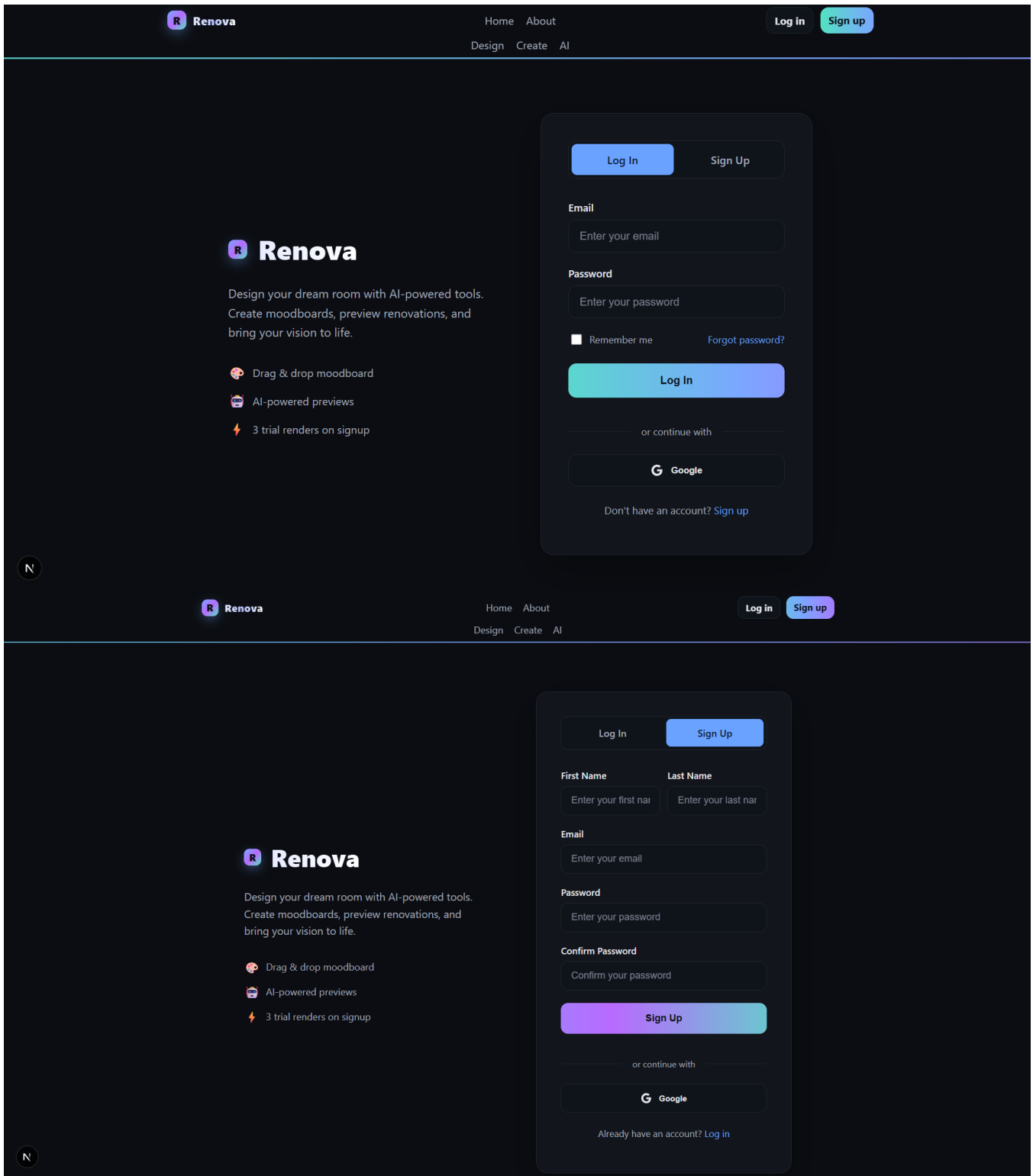
Questions? [hello@renova.example](mailto:hello@renova.example)

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### ○ Initial Login/Signup Page of Renova



○ Moodboard User Interfaces



**Onur Onal**  
Student

Moodboards

AI Generations

Account

Settings

Help

### Moodboards

Create moodboards for your renovation projects

Create moodboards for your renovation projects

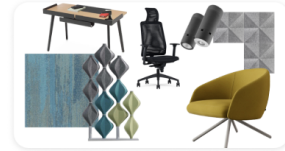
Create a New Moodboard



Bathroom Project



Kitchen Project



Office Project



Living Room Project



Board



List

Project Name : Sandstone Villas



Pinterest

AI Gen

Results

### Selected Items



+ Select Items

### Public Display

Show this image publicly on Explore page



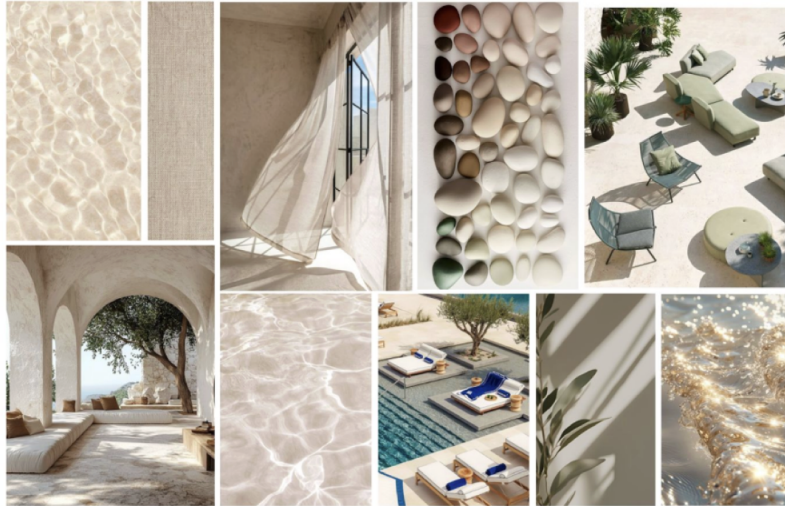
### Upload Room Image



### Custom Prompt

Direct the AI's design choices...

Generate



Remove BG



Shadow



Crop



Mirror



Duplicate



Forward

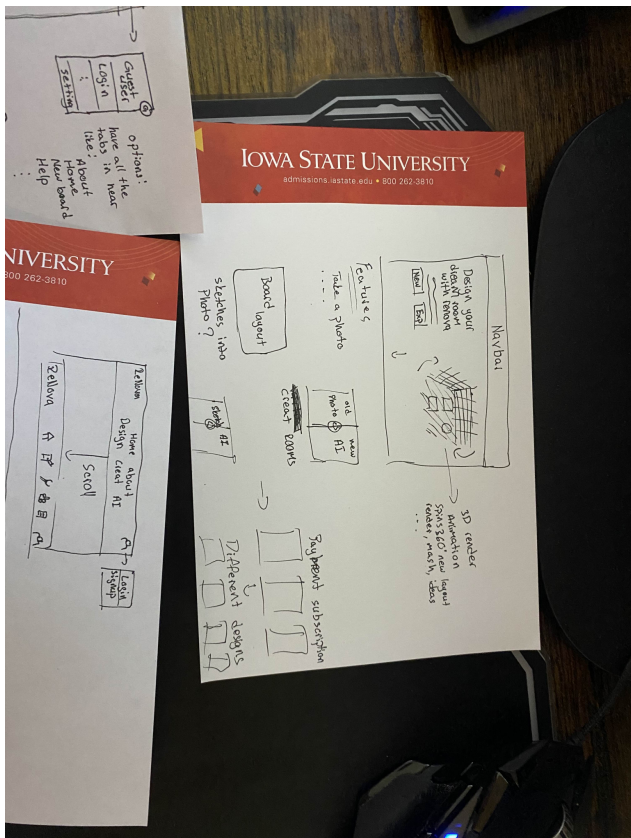


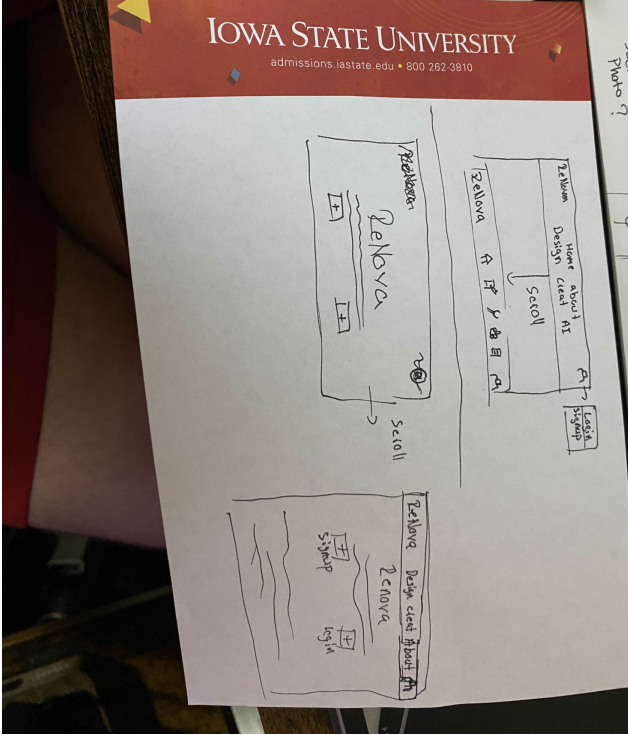
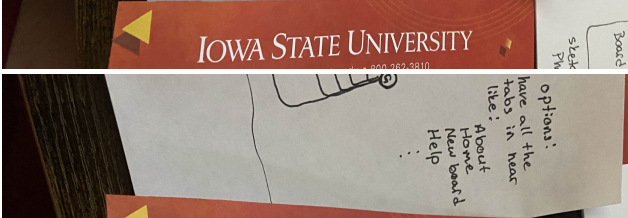
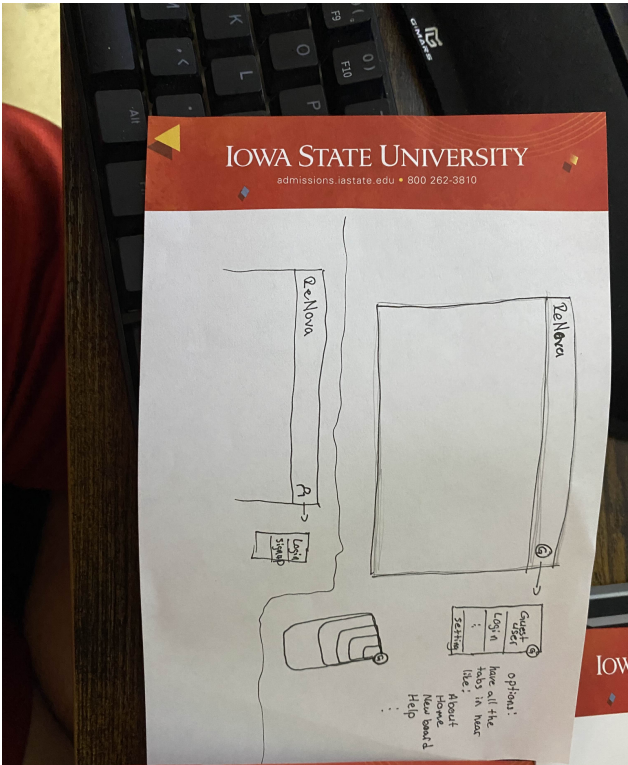
Backward



Delete

## ○ Rough Sketches





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	Created a Signup/Login Page using the colors provided by Erroll's main page. Soon to include Google Sign-in Integration.	6	12
Om Sanghvi	Created backend issues on the issue board. Developed a Login backend with JWT authentication. Committed and pushed updates to the repo. Planned upcoming CRUD and profile features.	6	12
Erroll Barker	Created the initial front-end, plus the beginning of the landing page.	~17	23
Onur Onal	Designed moodboard dashboard and moodboard + AI integration user interfaces. Created and pushed initial frontend and backend projects to GitLab. Assigned tasks to team members and conducted code review on frontend commits.	15	21
Kemal Yavuz	Set up backend environment (Express, Docker, MySQL, Prisma), initialized authentication routes, and prepared user model for upcoming integration.	6	12
Bae Meh	Pulled and set up backend and frontend from Git repository, Verified project functionality and resolved initial setup issues, reviewed project structure and dependencies	6	12

## Plans for the upcoming week

- **Prakeerth Regunath:** Apply Google Integration and Backend endpoints to the frontend Login/Signup. Will need to ensure that authentication tokens (Active and refresh tokens) are properly handled and stored securely.
- **Onur Onal:** Hasten backend development by working on user model and controller. Assist Kemal and Bae with setting up MySQL database and implementing JWT-based authentication for login/signup panels. Finish Figma design phase by designing final pages such as moodboard list and account page.
- **Om Sanghvi:** Continue backend development by completing Feat: User Profile & Settings and Feat: CRUD for Projects. This includes adding profile update functionality, implementing JSON-based user preferences, creating endpoints for project creation and management, and ensuring all routes are validated and secured with JWT authentication.
- **Erroll Barker:** finished the landing page + add real renders into the 3d animation (pull the real renders from our database) + add a animation of sometype of Furniture into the login page
- **Bae Meh:** Begin implementing the backend for the user profile and settings feature
- Set up routes and controllers for user data retrieval and updates
- Test endpoints using Postman to ensure proper functionality
- Coordinate with the frontend team to align data flow between frontend and backend.

- Commit and push progress updates to the repository regularly
- **Kemal Yavuz:** Finalize the backend authentication module by implementing /auth/register, /auth/login, and /auth/me endpoints using Prisma and JWT. Test full user creation and login flow locally, then integrate with PK's frontend Login/Signup UI. Additionally, begin working on project CRUD routes (/projects/create, /projects/list) and ensure database relations are functional.

### **Summary of Weekly Advisor Meeting**

In our meeting with Prof. Maruf, we discussed setting up the initial project structure and starting the user interface design. We shared our current progress and got his feedback on how to organize our work moving forward.

Since then, we've made good progress on both the initial frontend pages and the UI design. We plan to show Prof. Maruf the updated version and walk him through our improvements in next week's meeting.