

AWS CLOUD CLUB · VIT CHENNAI

Full Stack Project Submission — Web Development Domain

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Track: Full Stack

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GitHub Repository Link



Repository

<https://github.com/Gowreesh-VT/AWS-Web-Dev>

2

Hosted Website Link



Live Deployment

<https://aws-web-dev.vercel.app>

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Tech Stack Used

FRONTEND

- Next.js 15 (React 19, App Router)
- TypeScript
- Tailwind CSS 3
- Radix UI (Shadcn/ui components)
- Lucide React (Icons)

BACKEND

- Next.js API Routes (Route Handlers)
- MongoDB Atlas (Cloud Database)
- Mongoose ODM v9
- JWT Authentication (jsonwebtoken)
- bcryptjs (Password Hashing)

AI & APIs

- Google Gemini AI (Genkit)
- TMDB API (Movie Database)
- Mood-to-Genre AI Conversion

DEV TOOLS

- ESLint + TypeScript strict mode
- Turbopack (Dev Server)
- PostCSS

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API Endpoints Description

METHOD	ENDPOINT	DESCRIPTION	AUTH
POST	/api/auth/signup	Register a new user with email, password, and name. Returns JWT token via HTTP-only cookie.	PUBLIC
POST	/api/auth/login	Authenticate user with email & password. Validates credentials via bcrypt and returns JWT cookie.	PUBLIC
POST	/api/auth/logout	Clears the JWT authentication cookie to log the user out.	PUBLIC
GET	/api/auth/me	Returns the currently authenticated user's profile (excluding password) by verifying the JWT token.	JWT
POST	/api/recommendations	Accepts a mood string, uses Gemini AI to convert it into genres, then fetches matching movies from TMDB. Saves to user history if authenticated.	JWT
GET	/api/favorites	Returns the authenticated user's saved favorite movies list.	JWT
POST	/api/favorites	Adds a movie to the user's favorites. Prevents duplicates.	JWT
DELETE	/api/favorites?id={movieId}	Removes a movie from the user's favorites by movie ID.	JWT
GET	/api/history	Returns the user's mood search history sorted by most recent first.	JWT

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How to Run Locally

```
# 1. Clone the repository
git clone https://github.com/Gowreesh-VT/AWS-Web-Dev.git
cd AWS-Web-Dev

# 2. Install dependencies
npm install

# 3. Create a .env.local file with the following variables
TMDB_API_KEY=your_tmdb_api_key
GEMINI_API_KEY=your_gemini_api_key
MONGODB_URI=your_mongodb_atlas_connection_string
JWT_SECRET=your_jwt_secret

# 4. Whitelist your IP on MongoDB Atlas
# Go to MongoDB Atlas → Network Access → Add IP Address

# 5. Start the development server
npm run dev

# App runs at http://localhost:3000
```

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Screenshots of All Webpages

The screenshot shows the homepage of the CineMood AI website. At the top left is the logo 'CineMood AI' with a blue square icon. Top right features 'Login' and 'Sign Up' buttons. The main title 'CineMood AI' is centered in large white font. Below it is a subtitle: 'Stop scrolling, start watching. Let our AI find the perfect movie for your exact mood.' Two buttons, 'Login' and 'Sign Up', are positioned below the subtitle. A navigation bar at the bottom includes 'Mood Analysis', 'Smart Recommendations', and 'Personalized Library'. A callout box highlights the 'Landing Page — Hero section with CTA to Login / Sign Up'.

- Landing Page — Hero section with CTA to Login / Sign Up

The screenshot shows the 'Sign Up' page. It has a dark background with a light gray form box. The title 'Sign Up' is at the top, followed by a sub-instruction: 'Create an account to save your favorite movies'. There are three input fields: 'Name' (with placeholder 'John Doe'), 'Email' (with placeholder 'm@example.com'), and 'Password'. Below the password field is a 'Sign Up' button. At the bottom of the form is a link: 'Already have an account? [Login](#)'. A navigation bar at the bottom includes 'Mood Analysis', 'Smart Recommendations', and 'Personalized Library'. A callout box highlights the 'Login Page — Email & password authentication form'.

- Login Page — Email & password authentication form

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How are you feeling today?

Tell us your mood, and our AI will find the perfect movies for you.

e.g., 'Feeling adventurous and want to see something epic'

Find Movies

● Dashboard — Mood input form where users describe how they feel

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How are you feeling today?

Tell us your mood, and our AI will find the perfect movies for you.

Feeling adventurous

Find Movies

Suggested Genres: Adventure Action Fantasy Sci-Fi

● Search Results — AI-generated genre pills + TMDB movie recommendations

CineMood AI

Your Favorite Movies

Avatar ★ 7.6

Hamnet ★ 7.8

96 Minutes ★ 5.8

● Favourites — User's saved movies collection

CineMood AI

Search History

Mood: "romance "

⌚ less than a minute ago

Generated Genres: Romance

Mood: "Feeling adventurous "

⌚ 1 minute ago

Generated Genres: Adventure Action Fantasy Sci-Fi

● History — Past mood searches with timestamps and matched genres

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Design Theme & Rationale

Dark Cinematic Theme

CineMood AI uses a **dark-mode-first cinematic design** inspired by modern streaming platforms like Netflix and Letterboxd. The dark background (#0a0a0f) reduces eye strain during extended browsing sessions and makes movie poster artwork pop with vibrant contrast — exactly what users expect in a movie discovery app.

The color palette centers around **deep blacks, muted grays, and purple-violet accents**, creating a premium, immersive feel that mirrors the atmosphere of a movie theater.

Typography uses clean, modern Inter font with gradient text effects on hero elements to add visual sophistication.

Why This Design?

Dark Mode First

Movie posters and artwork stand out best against dark backgrounds, creating an immersive browsing experience similar to cinema.

AI-Centric UX

The mood input is front and center on the dashboard — a single text field that makes the AI interaction feel natural and effortless.

Minimal & Functional

Clean card-based layouts with generous spacing. No visual clutter — users focus purely on discovering movies that match their mood.

Responsive Grid

Movie cards use adaptive grid layouts (2–5 columns) that reflow gracefully across all screen sizes from mobile to desktop.