TEAM NAME: monikajadhav1211

TEAM LEADER: Monika Jadhav

TEAM MEMBERS: Komal Narawade, Disha Ghongade

TITLE:

AI-Powered Collaborative Ideation & Project Management Platform

ABSTRACT:

The proposed solution is an AI-Powered Collaborative Ideation and Project Management Platform designed to solve the problems of unstructured brainstorming, inefficient task allocation, and lack of smart workflow execution. Traditional tools like Trello, Jira, and Asana focus only on task management but do not support AI-powered idea generation, idea ranking, or automated project conversion. Our platform fills this gap through AI-driven brainstorming assistance, NLP-based idea clustering, and automatic Kanban project creation.

A user submits an idea ■ Gemini AI suggests improvements ■ NLP extracts keywords ■ system checks similarity ■ ranks ideas ■ converts approved ideas into structured projects. The solution also provides a Kanban board, real-time chat, files, notifications, analytics dashboard, and role-based task assignment.

TECH STACK:

• React.js – Frontend UI

• Node.js + Express.js – Backend Logic & API

• MongoDB – Database & Idea Storage

• Gemini API – AI Ideation & Content Generation

WORKFLOW:

User Login → Submit Idea → Gemini AI Generates Suggestions → NLP Keyword Extraction → Similarity Check & Ranking → Convert to Project Tasks → Dashboard + Chat + Analytics

EXPECTED IMPACT:

✔ 3x Faster Brainstorming

✔ Eliminates Duplicate Ideas

✔ Boosts Team Collaboration and Remote Productivity

✔ Useful for Students, Startups, IT Teams, Research Collaboration

WIREFRAME OVERVIEW:

[DASHBOARD VIEW]

Sidebar → Dashboard | AI-Ideas | Tasks | Files | Analytics | Chat | Profile

Main Section → Create Idea | AI Generate Idea | Activity Overview

[AI IDEA PAGE]

Enter Title → Refine using Gemini → AI Suggestions → Convert to Task Boards

[KANBAN BOARD]

TODO | IN-PROGRESS | COMPLETED

GITHUB REPOSITORY STRUCTURE

/client

src/components

src/pages

src/App.jsx

/server

routes/

models/

geminiAI.js