

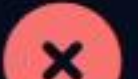




JAKOHO

AI-Powered Student Project Collaboration Platform

Unifying collaboration, code, communication, and AI in one workspace

Hackathon Submission 2025

The Problem

-  **Fragmented Toolset:** Students juggle WhatsApp, GitHub, Drive, and ChatGPT separately.
-  **Context Switching:** No unified platform means constant loss of focus.
-  **Beginner Struggles:** Students get stuck on debugging and documentation without guidance.
-  **AI Disconnect:** Generic AI tools don't understand the specific project context.
-  **Inefficient Coordination:** Team sync becomes a chaotic manual process.



Our Solution: JAKOHO



Unified Workspace

One seamless platform for files, tasks, code, and team communication, eliminating app switching.



Context-Aware AI

Built-in AI that reads and understands your entire project structure, acting as an intelligent teammate.



Intelligent Teammate

Goes beyond a tool—proactively helps with debugging, documentation, and coordination.

AI at the Core

Deep Understanding

The AI engine reads and indexes every project file, understanding dependencies, logic, and architecture.

Proactive Assistance

It doesn't just wait for prompts; it helps with coding, debugging, and drafting documentation automatically.

Predictive Insights

Predicts potential project delays and identifies technical bottlenecks before they become blockers.

Automation

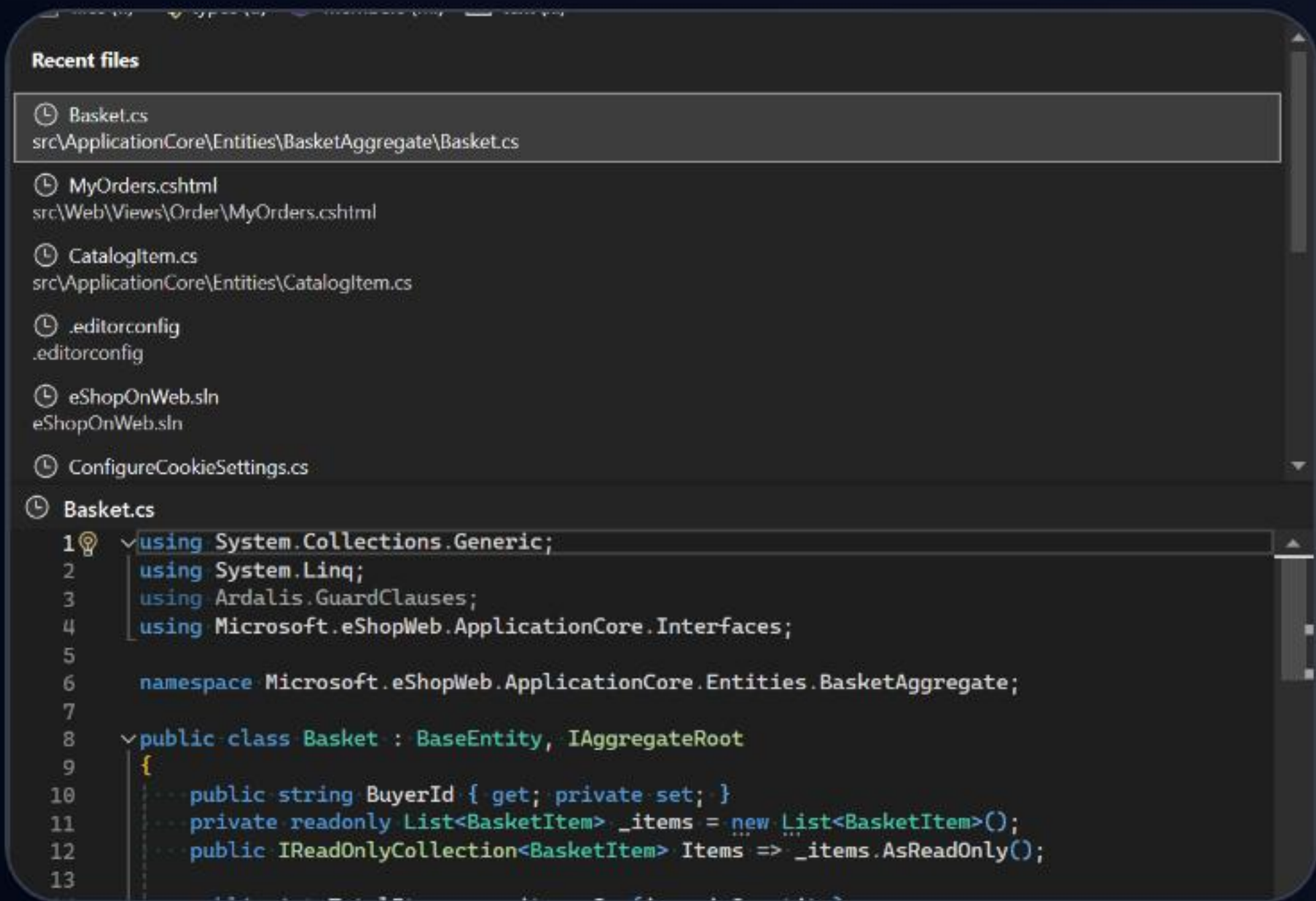
Handles repetitive tasks like boilerplate code generation and routine status updates.

AI Project Assistant

- 💬 **RAG-Based Chatbot:** A project-aware assistant that knows your code better than you do.
- 🐛 **Intelligent Debugging:** Explains bugs in plain English and suggests precise code fixes.
- 📦 **Code Generation:** Generates entire modules that fit perfectly into your existing architecture.
- 📄 **Summarization:** Instantly summarizes long discussions and technical documents.
- ❓ **Contextual Q&A:** Answers "Where is the authentication logic?" pointing to the exact file.

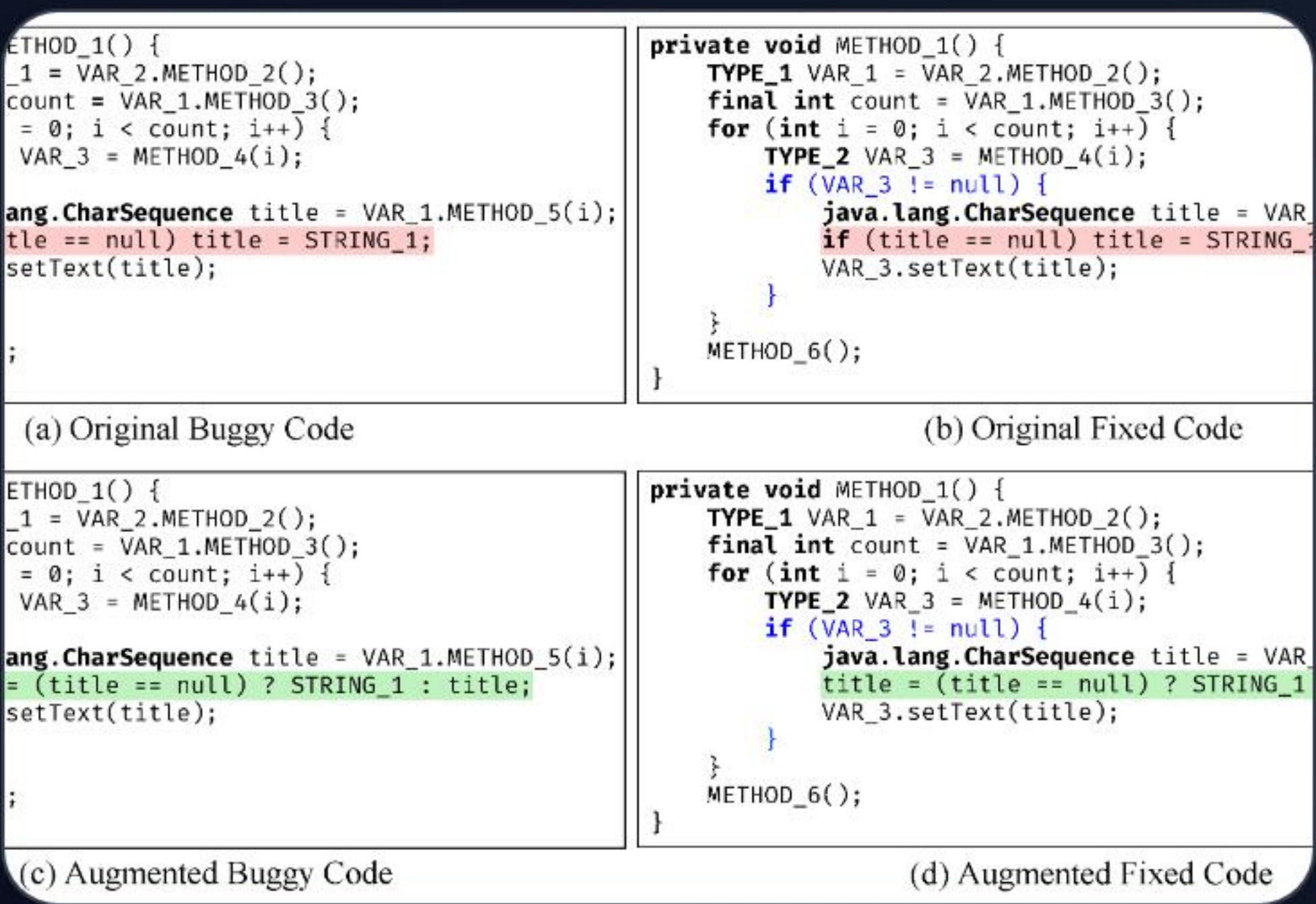


AI Code Intelligence



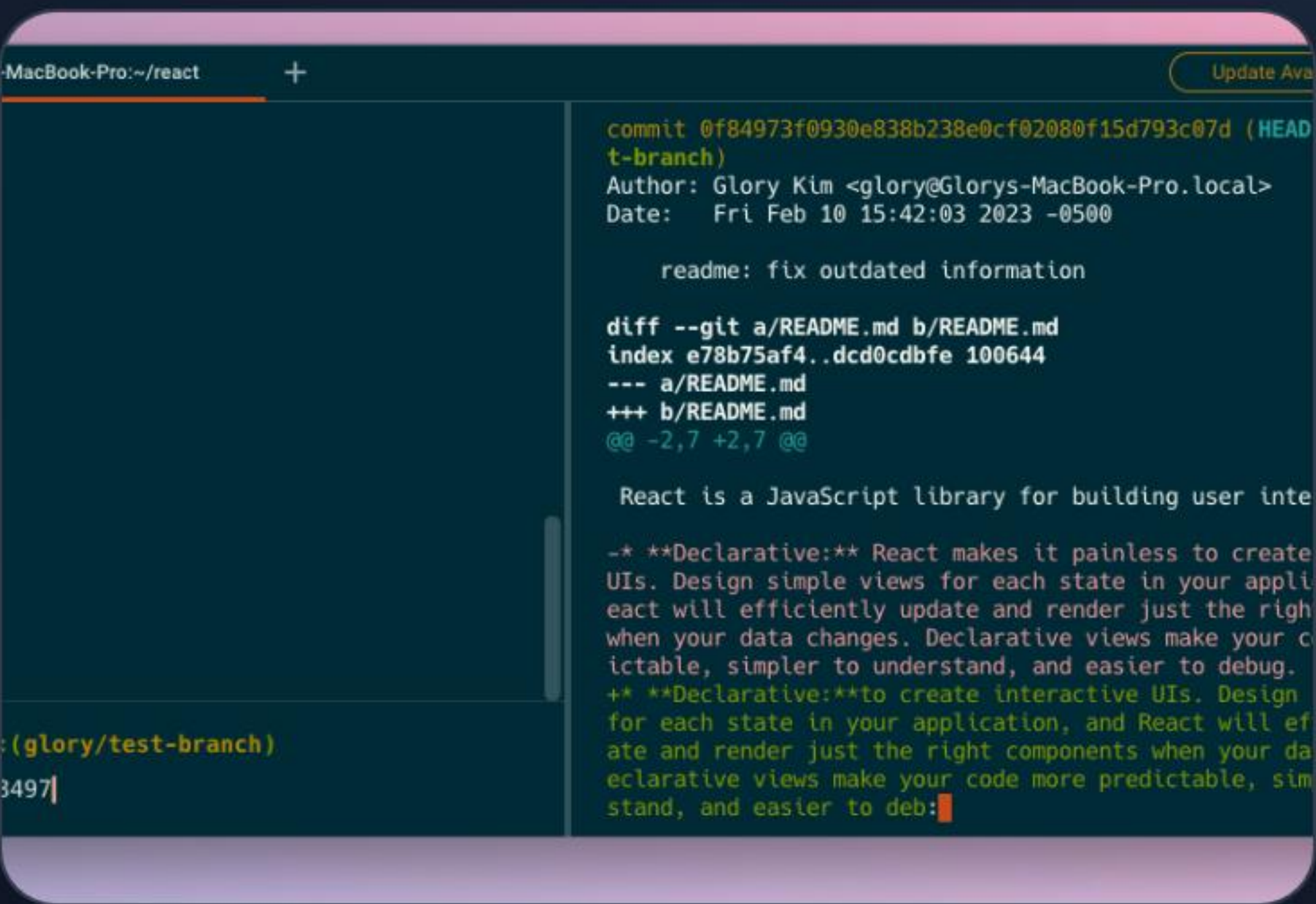
Semantic Search

Find code by intent, not just keyword matching.



Auto-Bug Fixes

Localizes bugs and proposes instant solutions.







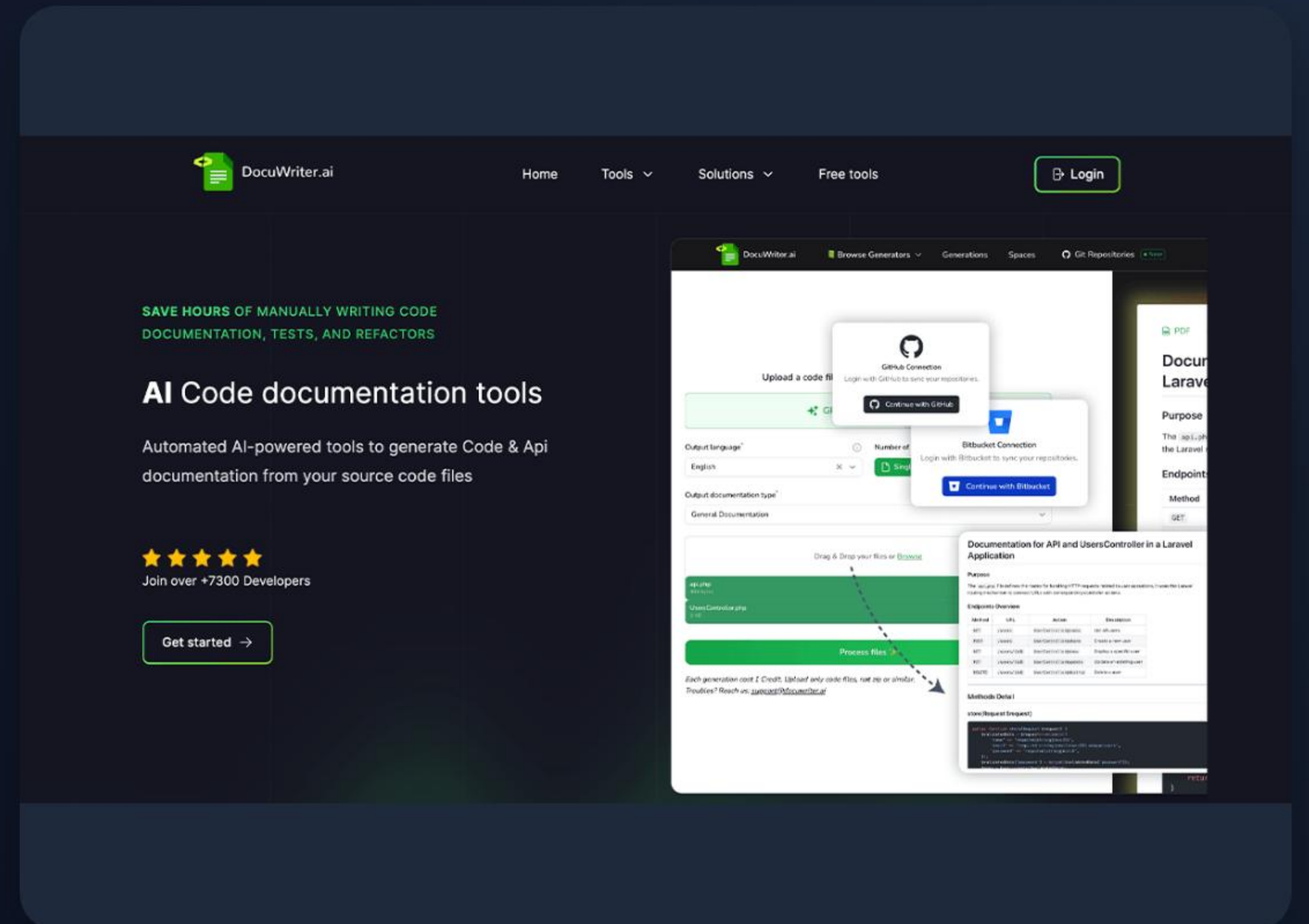
Smart Commits

Auto-generates descriptive commit messages.





AI Documentation Engine

Documentation is often neglected in student projects. Jakoho automates it entirely.

-  **Auto-README:** Generates comprehensive README files from your codebase.
-  **Technical Docs:** Creates detailed function summaries and API references.
-  **Drafts & Diagrams:** Visualizes code flow automatically.
-  **Code-to-English:** Converts complex logic into simple explanations.
- **Instant Slides:** Generates presentation decks with one click.

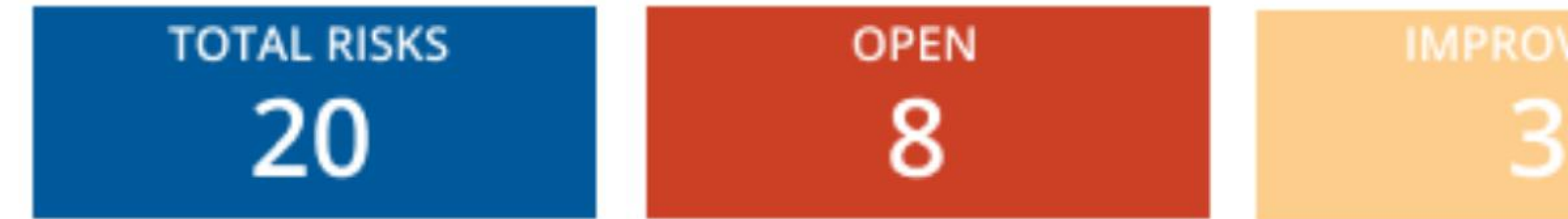


Workflow Optimization

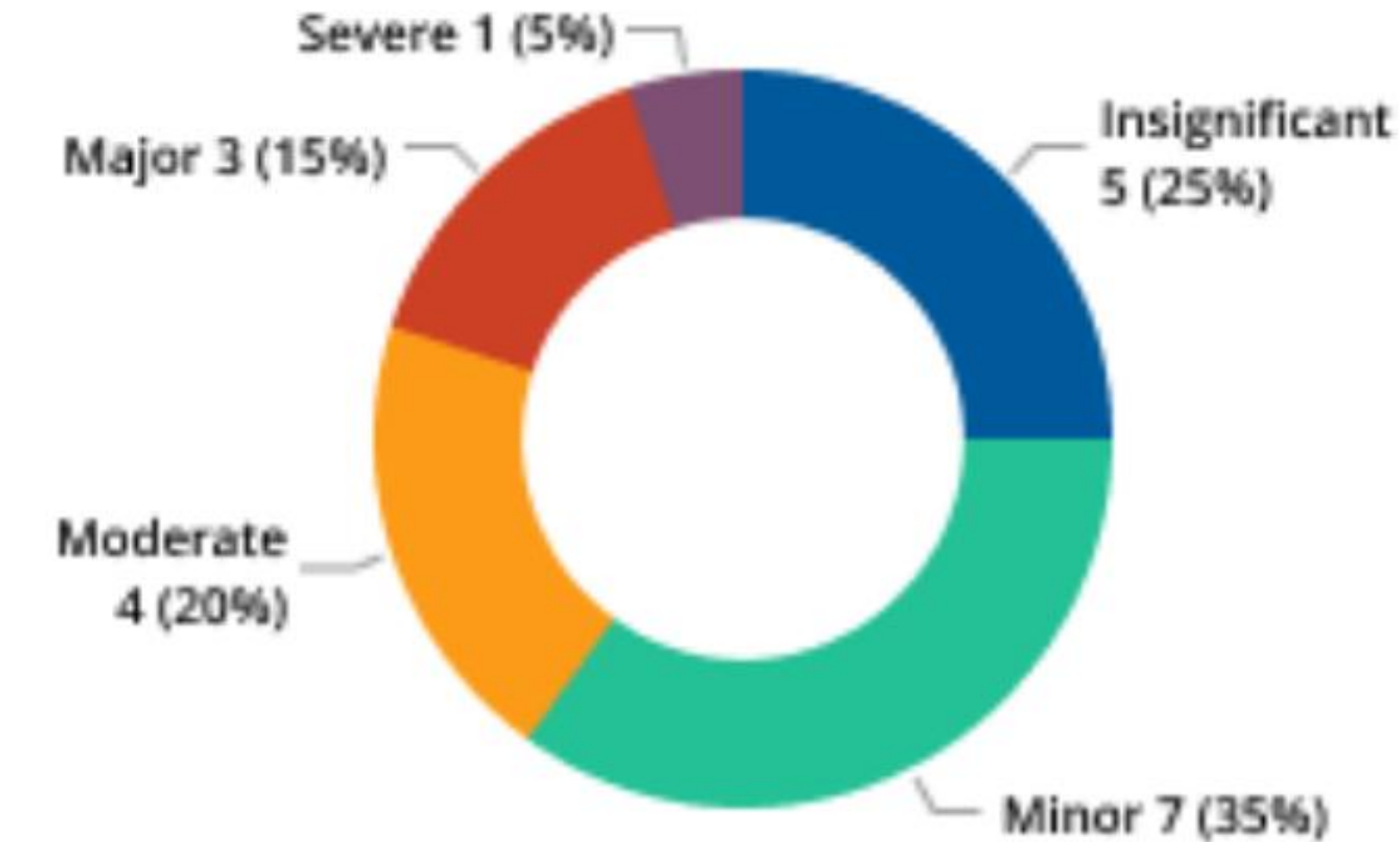
-  **Smart Team Building:** Recommends teammates based on complementary skill sets.
-  **Load Balancing:** Detects overloaded members and suggests task redistribution.
-  **Delay Prediction:** Analyzes velocity to predict if you'll miss a deadline.
-  **Process Improvement:** Suggests workflow tweaks to boost overall efficiency.

Project - MOVE IN IT

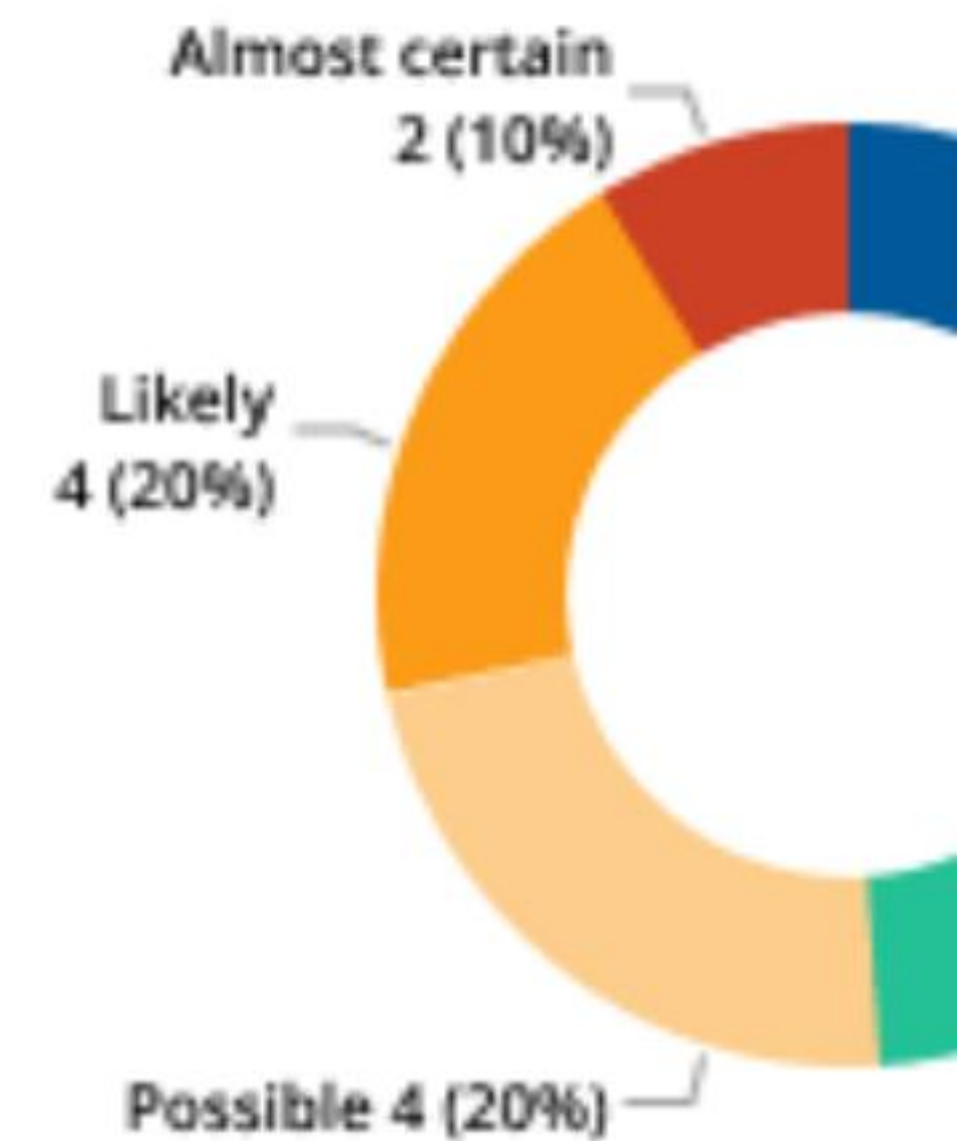
▼ Risk Information



Risk Rating Breakdown



Risk Likelihood Breakdown



Risk Asset Breakdown



Core Features Implemented

Authentication & Identity

Secure user authentication with JWT/OAuth, managing user profiles and roles within the ecosystem.

Project & File Management

Full project creation flow, team formation, and a robust file upload system managed in the cloud.

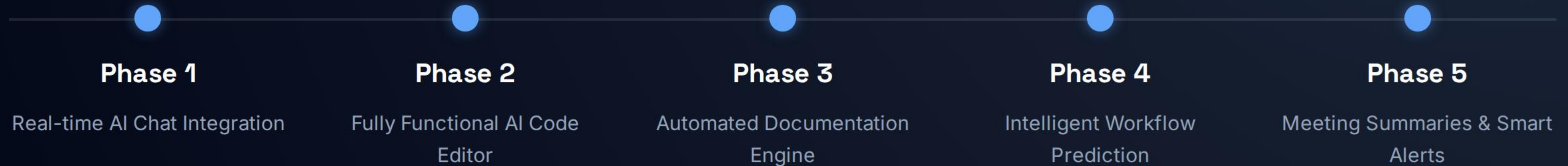
Mini Code Repository

A lightweight version control system allowing basic code storage and retrieval.

Kanban & Dashboard

Visual task management board and a central activity feed to track real-time project progress.

Upcoming AI Features



Tech Stack



Frontend

React, Next.js, Tailwind
CSS



Backend

Node.js, Express



Data

PostgreSQL, S3
Storage

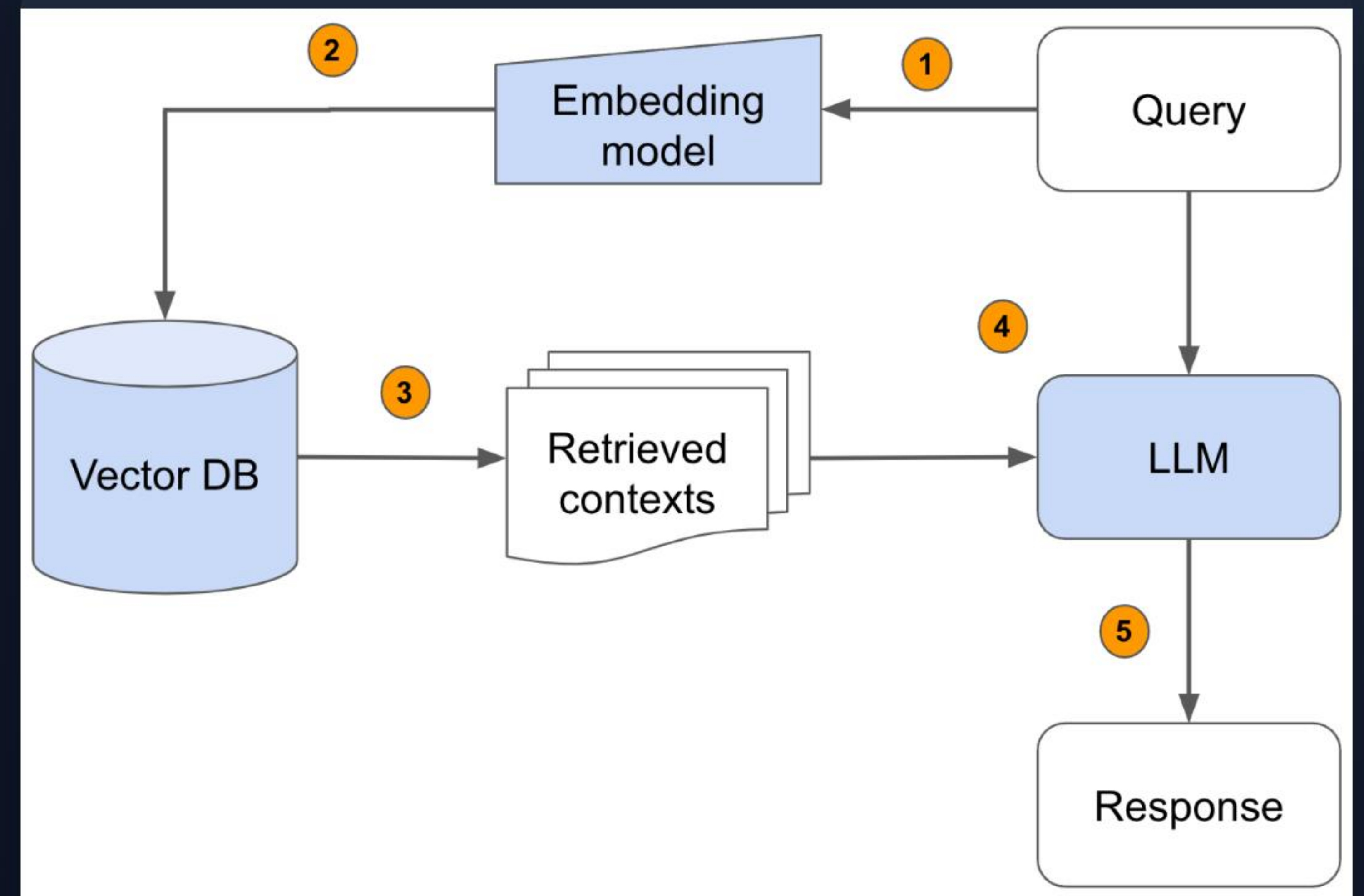


AI Layer

LLM, Embeddings,
Vector DB

AI Architecture

- 🧠 **LLM Engine:** Handles complex reasoning and code generation tasks.
- 📄 **Embeddings:** Converts code and text into vector representations for semantic understanding.
- 🗄️ **Vector DB:** Enables high-speed, relevant context retrieval for the RAG pipeline.
- 🔗 **RAG Pipeline:** Combines retrieval and generation for accurate, context-aware answers.
- 🏗️ **Microservices:** Modular architecture for scalable AI processing.



Impact on Students

Efficiency

Saves hours by eliminating context switching between multiple apps. Everything is in one place.

Learning

Helps beginners understand complex codebases faster through AI explanations and semantic search.

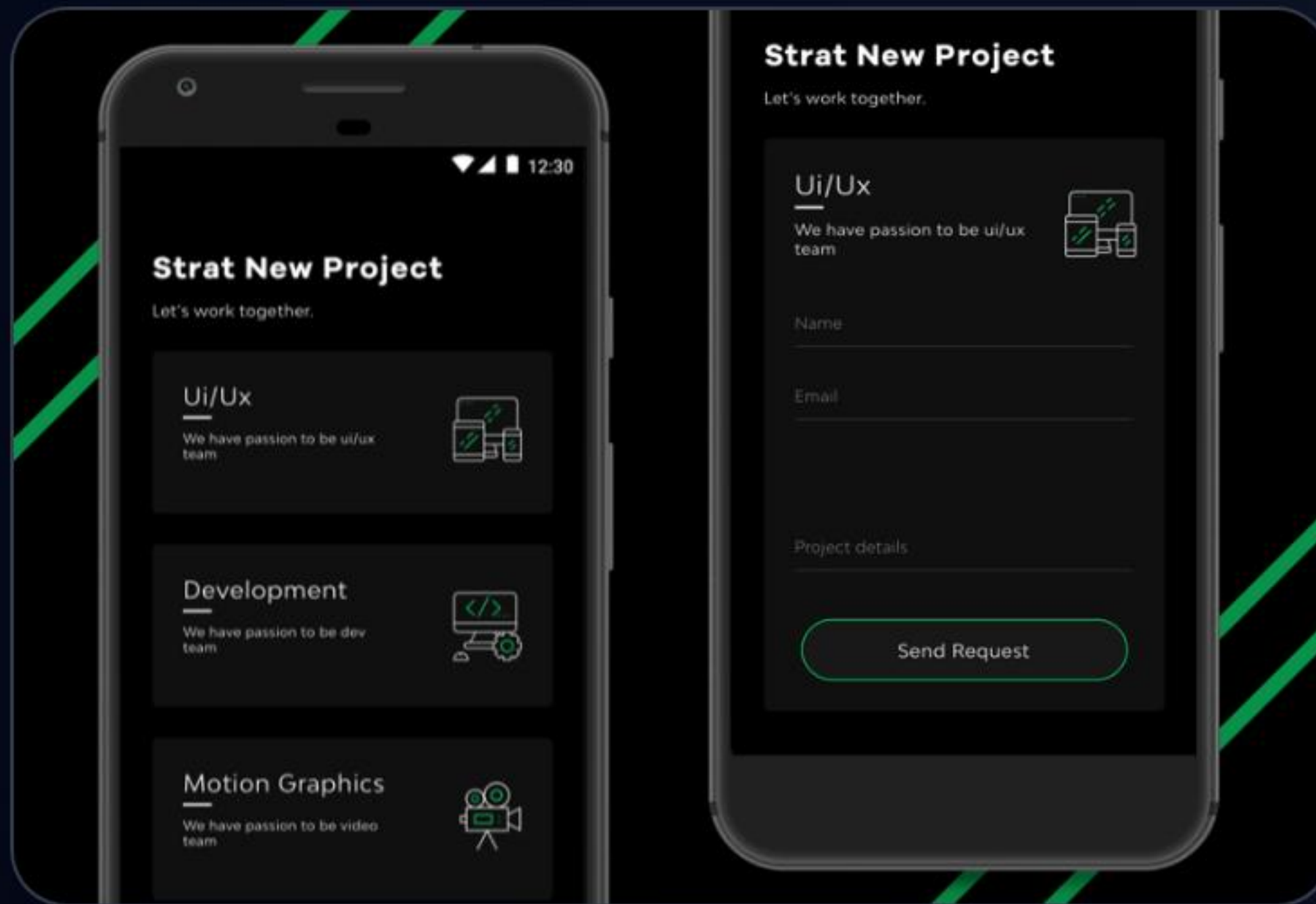
Quality

Automates documentation and testing, leading to higher quality, better-maintained student projects.

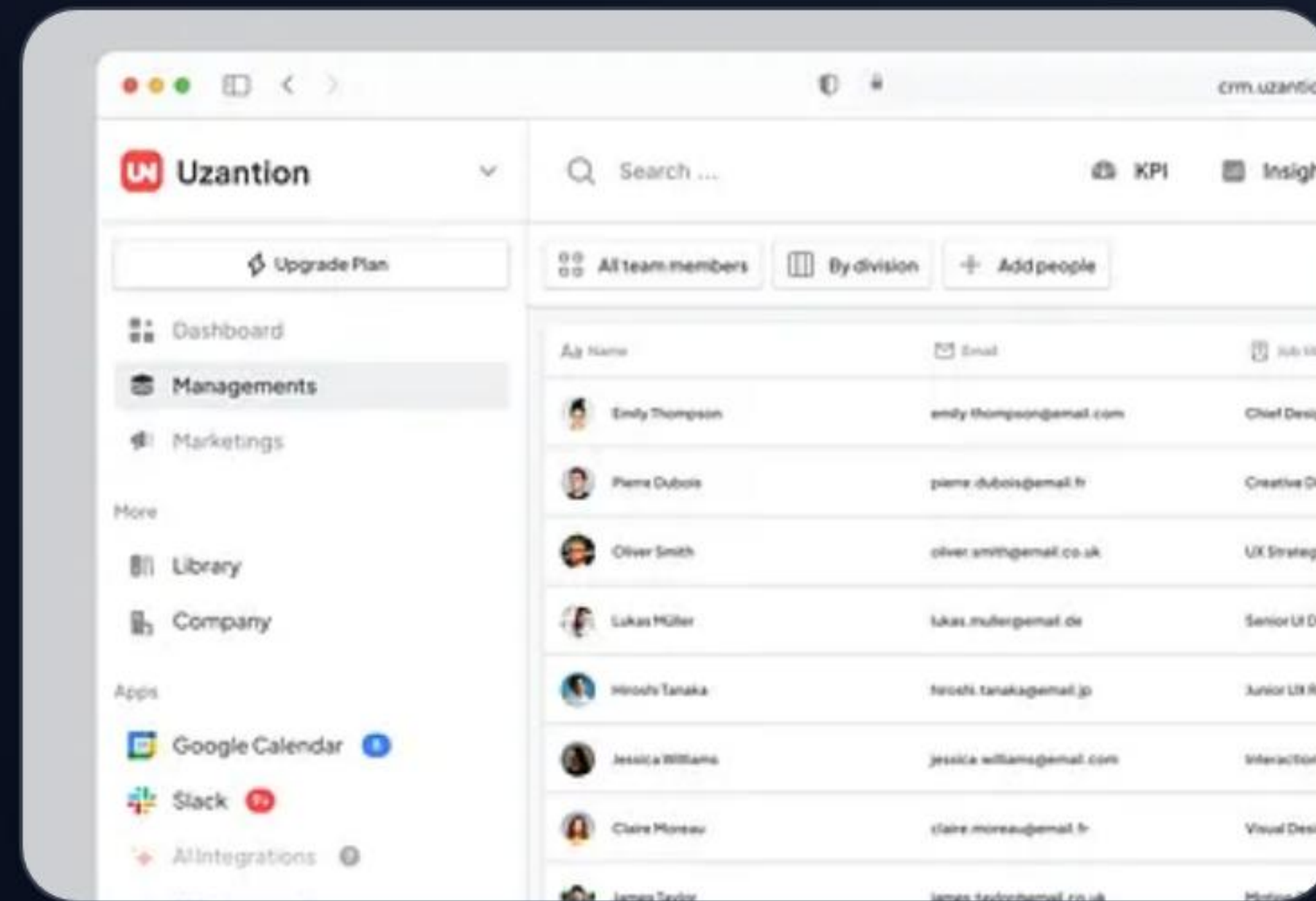
Collaboration

Boosts teamwork efficiency through intelligent task assignment and streamlined communication.

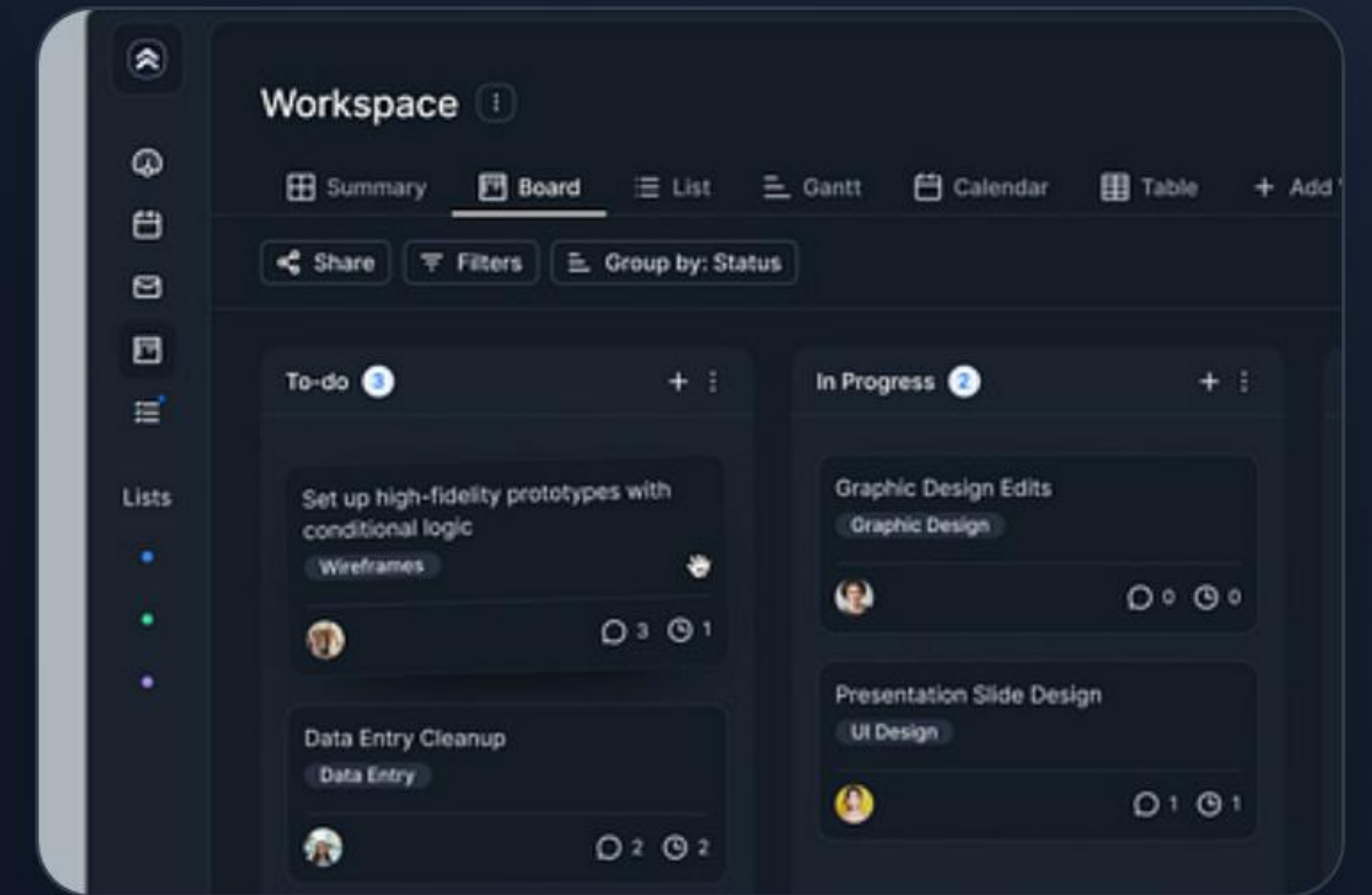
Jakoho in Action



Project Creation



Team Formation



Task Tracking

The Future of Student Innovation

Jakoho is more than a tool. It's an AI-native workspace designed to empower the next generation of innovators with smart teamwork and unified collaboration.

Thank You!

Presented by **The Jakoho Team**

AI Hackathon Submission 2025

Image Sources



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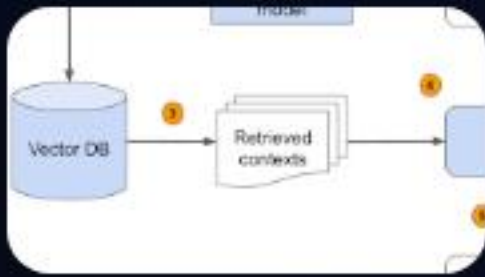
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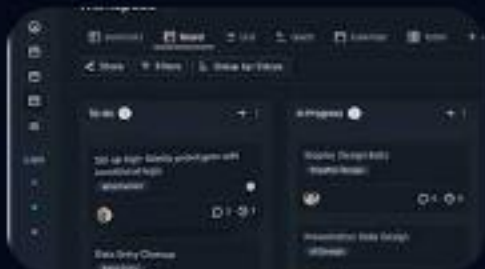
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