



# CodeMentor AI

**REAL-TIME AI-POWERED CODING MENTOR AT YOUR FINGERTIPS**

## TEAM MAKSFLARE

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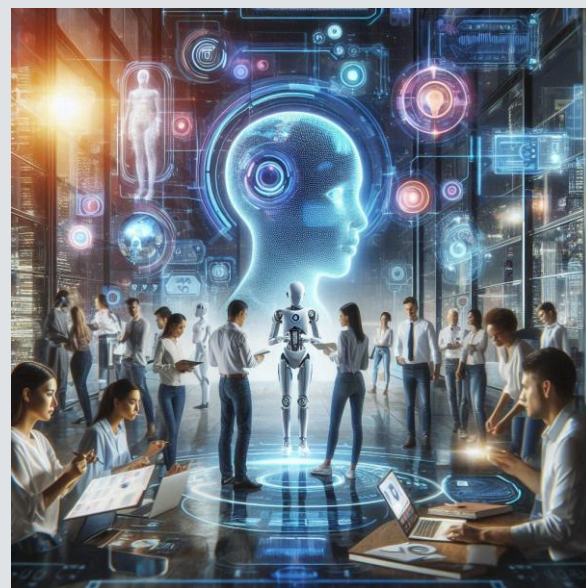
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# THE PROBLEM STATEMENT:

- Many developers, especially beginners, lack **real-time mentorship** while learning or building projects.
- Resources like forums, Stack Overflow, and YouTube videos are either **static, slow to respond**, or too broad for individual needs.
- Hiring a one-on-one coding mentor is **expensive** and **not available 24/7**.
- As a result, developers often get **stuck**, lose motivation, or **repeat bad coding habits** without knowing.



# The Solution

- CodeMentorAI is a web-based platform that bridges the gap between learning and doing. Unlike typical AI tools that just output code, this platform functions like a **personal AI mentor**. It understands a developer's coding style, tracks their progress, and helps them **improve** over time. It works inside the Trae AI IDE, using multiple intelligent agents:
- One agent analyzes the code's structure and complexity.
- Other acts as a coach, delivering feedback and challenges tailored to the developer's weak points.
- Developers receive real-time assistance when stuck, along with weekly progress summaries, skill ratings, and micro-tasks that push them to grow. It's an interactive learning environment where mentorship is **instant, contextual, and personalized**.



# Why This Project Stands Out

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- Goes **beyond code generation** – focuses on long-term **developer growth**.
- Offers **personalized, real-time feedback** using multi-agent AI — not static suggestions.
- Built on **Trae AI's architecture**, showcasing deep integration of agents, memory, and reasoning.
- Solves a real need: affordable, **24/7 coding mentorship**.
- Hard to replicate in a short time — **unique concept** in a sea of generic AI tools.
- Judges will remember a tool that helps people **become better developers**, not just faster ones.





# Tech Stack & Architecture

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## Tech Stack:

- **Core IDE:** Trae AI IDE (multi-agent support)
- **AI Agents:** DeepSeek model (Novita.ai)
- **Frontend:** React
- **Backend:** Node.js, Flask, or FastAPI



## Key Features:

- **Code Habit Analyzer** – Detects patterns, flaws, and improvement areas
- **DevScore Generator** – Scores code by quality and complexity
- **Personalized Challenges** – Based on identified weak areas
- **Micro-Coaching Agent** – Instant help when stuck
- **Weekly Reports** – Track improvements and suggest next steps
- **Dashboards & Leaderboards** – Visualize growth & compete



# Roadmap & Submission

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GitHub Link :-

<https://github.com/codebyAtharva09/CodeMentorAI>

Demo :-

[https://drive.google.com/file/d/1eMC42g5CyJ0nIjiBvDV7iXBJTr4KUcUU/view?usp=drive\\_link](https://drive.google.com/file/d/1eMC42g5CyJ0nIjiBvDV7iXBJTr4KUcUU/view?usp=drive_link)



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