HackNiche 2024
PS-3

Tensionflow
empowering developers with Tension_Code

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OVERVIEW

Welcome to the future of software development with TensionCode. We've developed a cutting-edge platform that streamlines the entire development process, from schema extraction to code generation and evaluation, all while offering seamless integration with popular development tools.

NEED FOR TENSION_CODE

Traditional development workflows are often cumbersome and time-consuming, requiring developers to manually translate database schemas into functional code. This process is prone to errors, inefficiencies, and inconsistencies across different databases and programming languages. Moreover, maintaining version control and providing code explanations can be challenging, leading to reduced productivity and code quality.

Tech-Stack

NEXT.JS

Flask

🦜🔗 LangChain

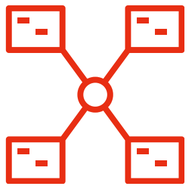
Gemini

OpenAI

Salient Features of Tension_Code

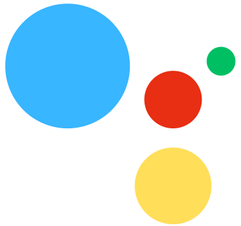
01

Function Code Generation and Evaluation



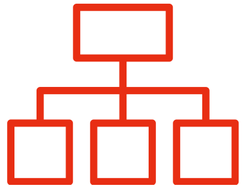
02

Schema from E-R diagram



03

Google Extension



04

Flowchart Generation.

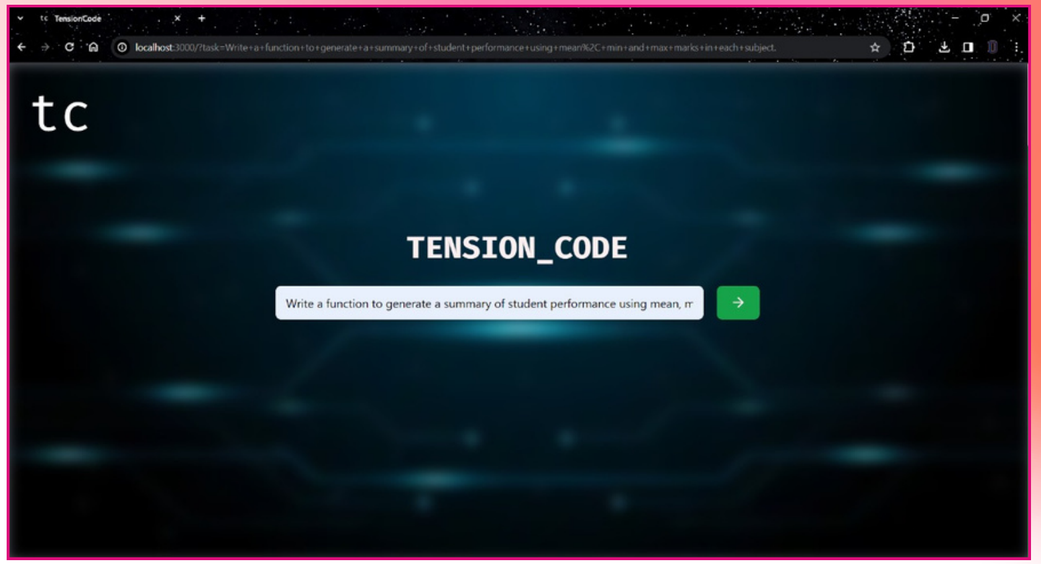
05

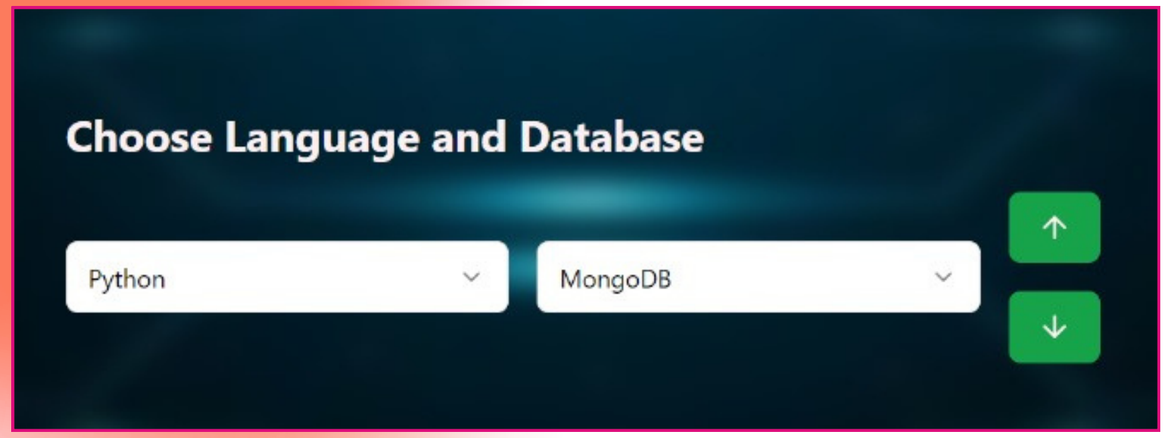
VSCode Integration

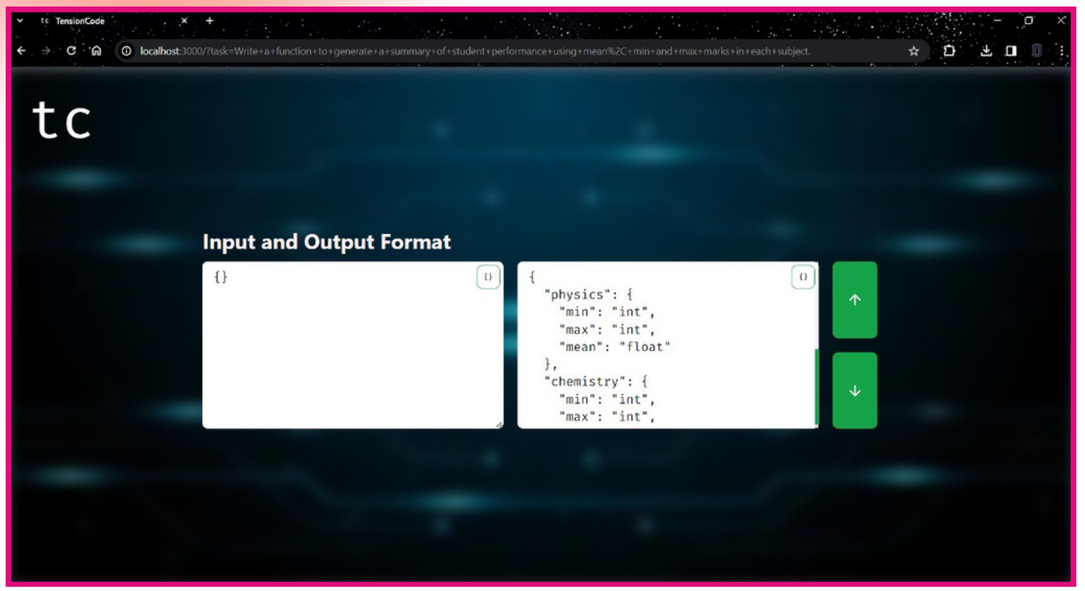
06

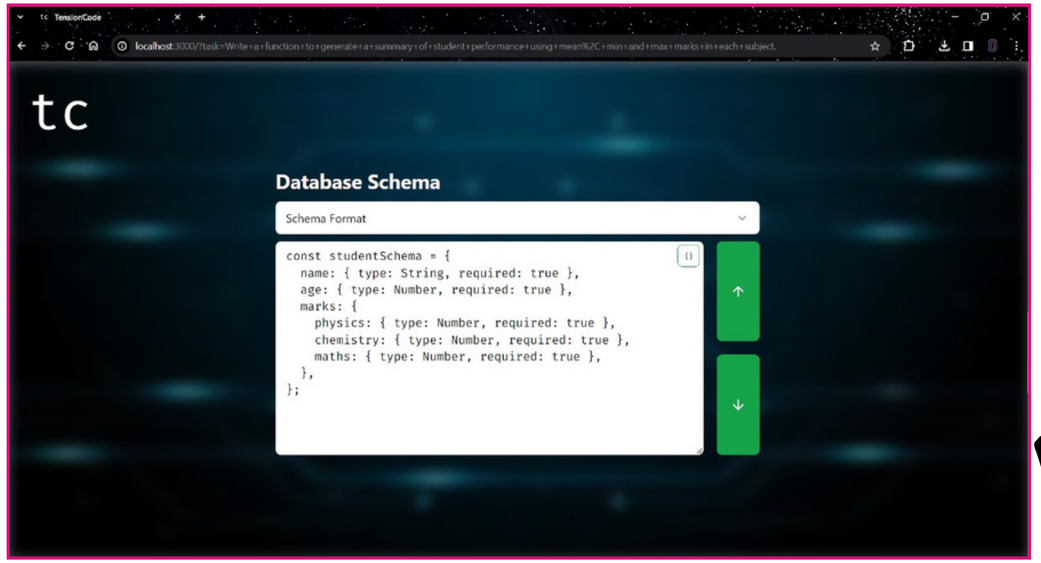
Youtube Recommendations

User Interface



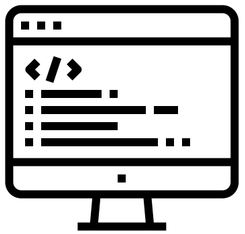


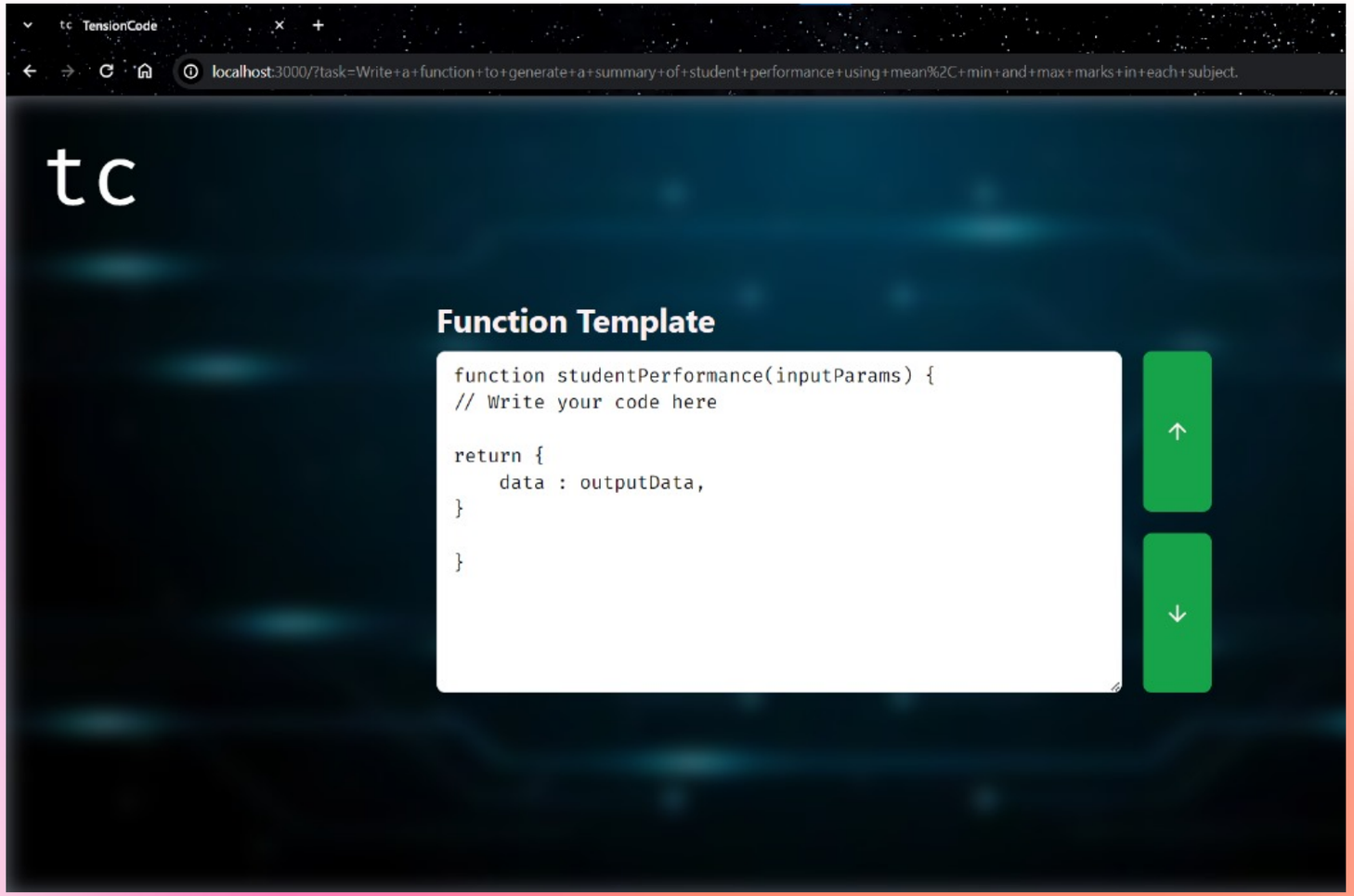




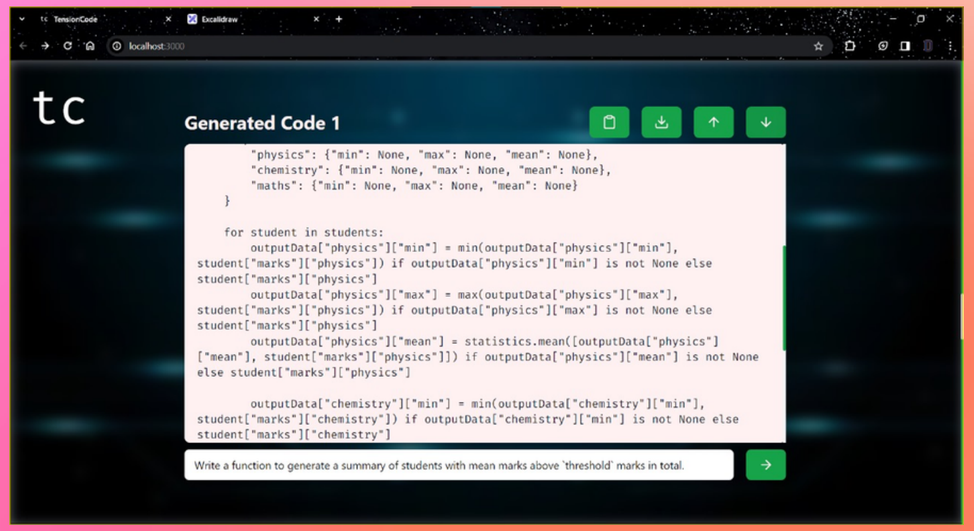
Function Code Generation and Evaluation

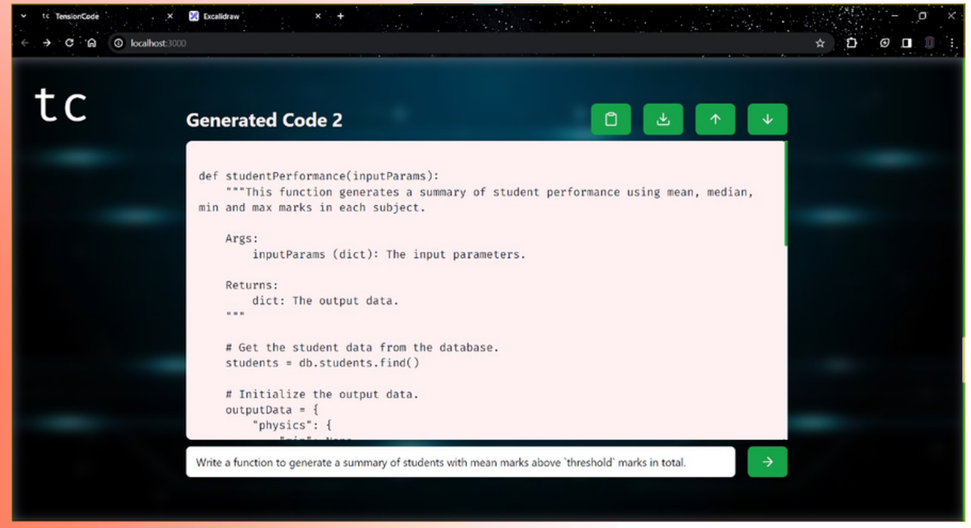
Tension_code goes beyond code generation by incorporating reinforcement learning techniques to optimize generated code for performance and reliability. Developers can evaluate generated functions internally within our platform, ensuring correctness and efficiency before deployment.

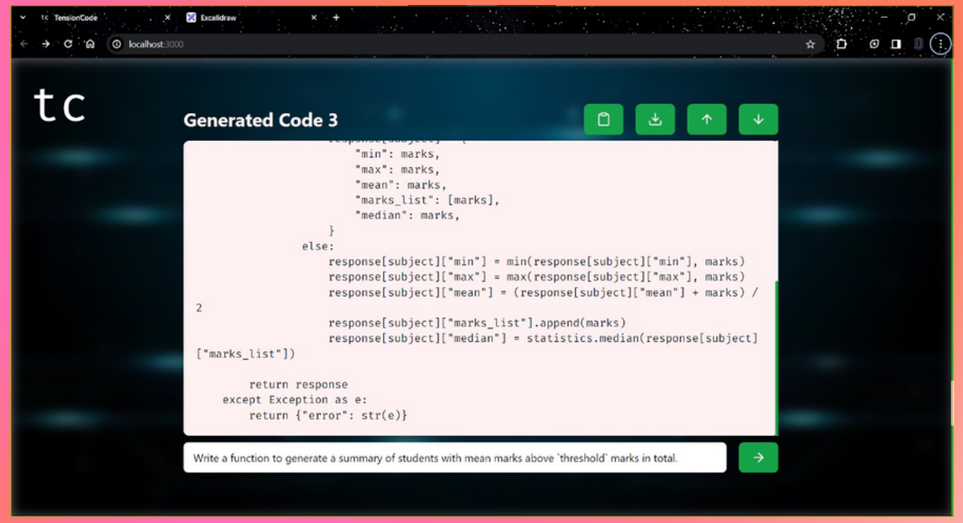




Function Code Generation and Evaluation



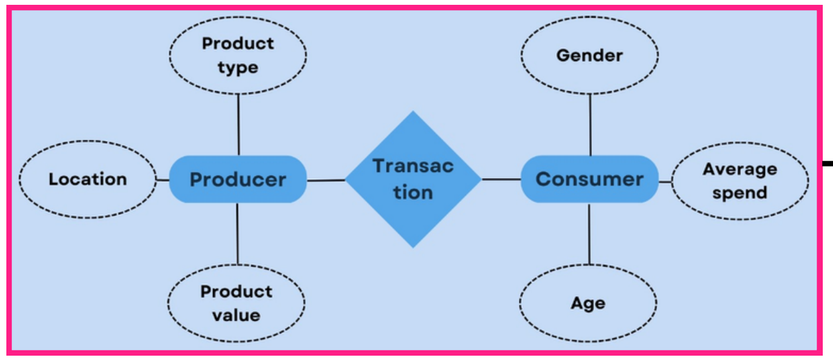


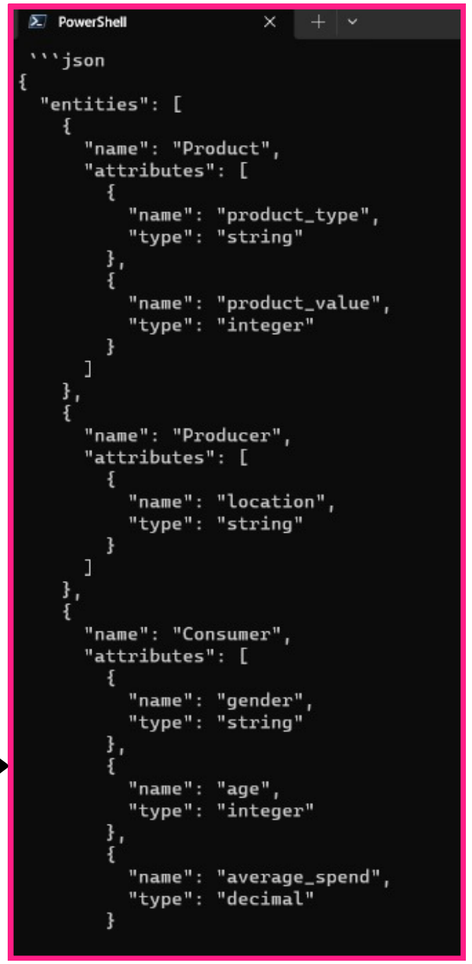


Optimisation and evaluation of code using Autogen

Schema Extraction from ER-Diagram

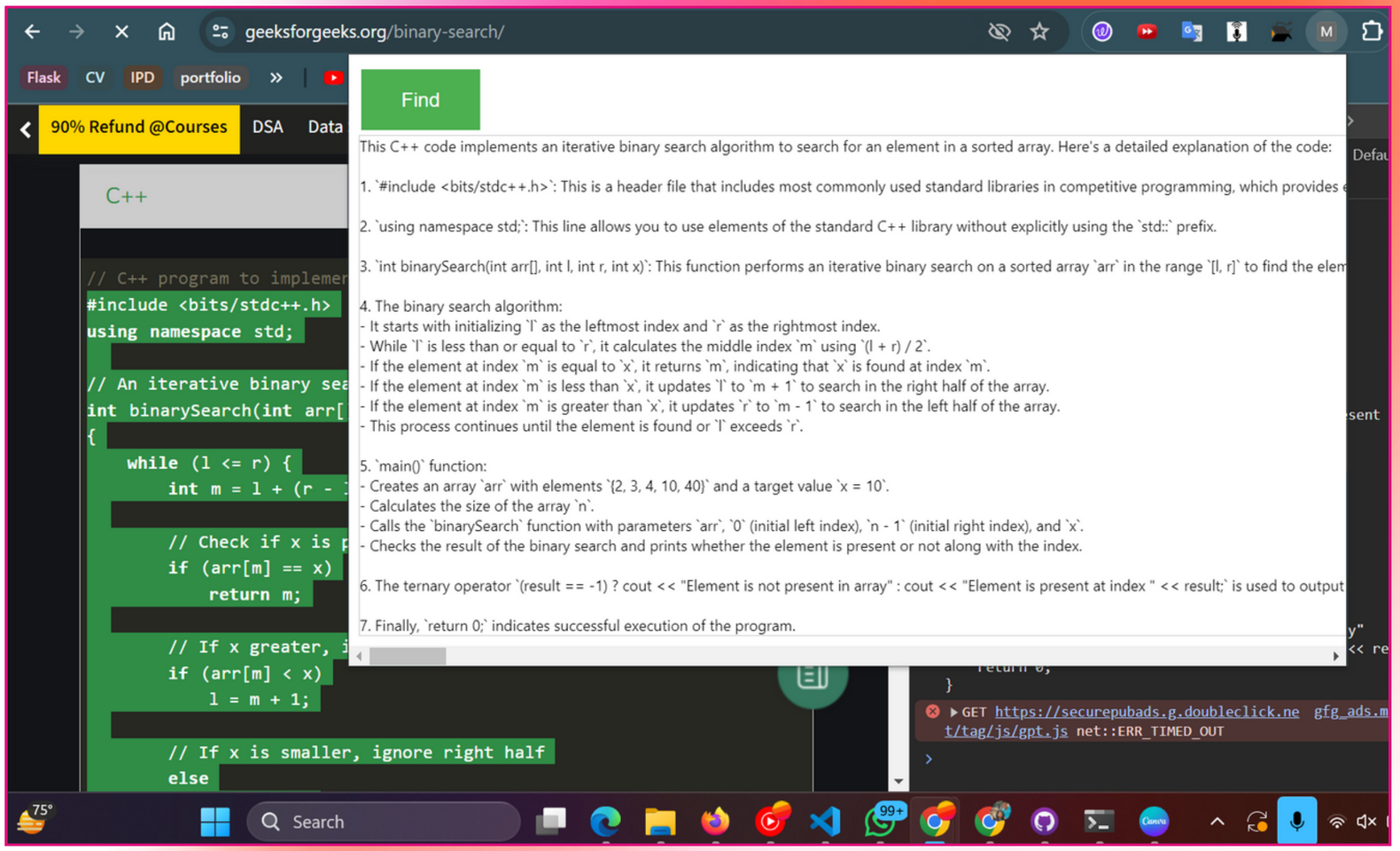
Tension_Code leverages advanced algorithms to extract schemas from Entity-Relationship diagrams and automatically generates clean, efficient code tailored to the specific requirements of different databases and programming languages. Our integration with Gemini **1.0 Pro Vision** ensures accurate image-to-text conversion for seamless schema extraction.





Google Extension for Code Explanation

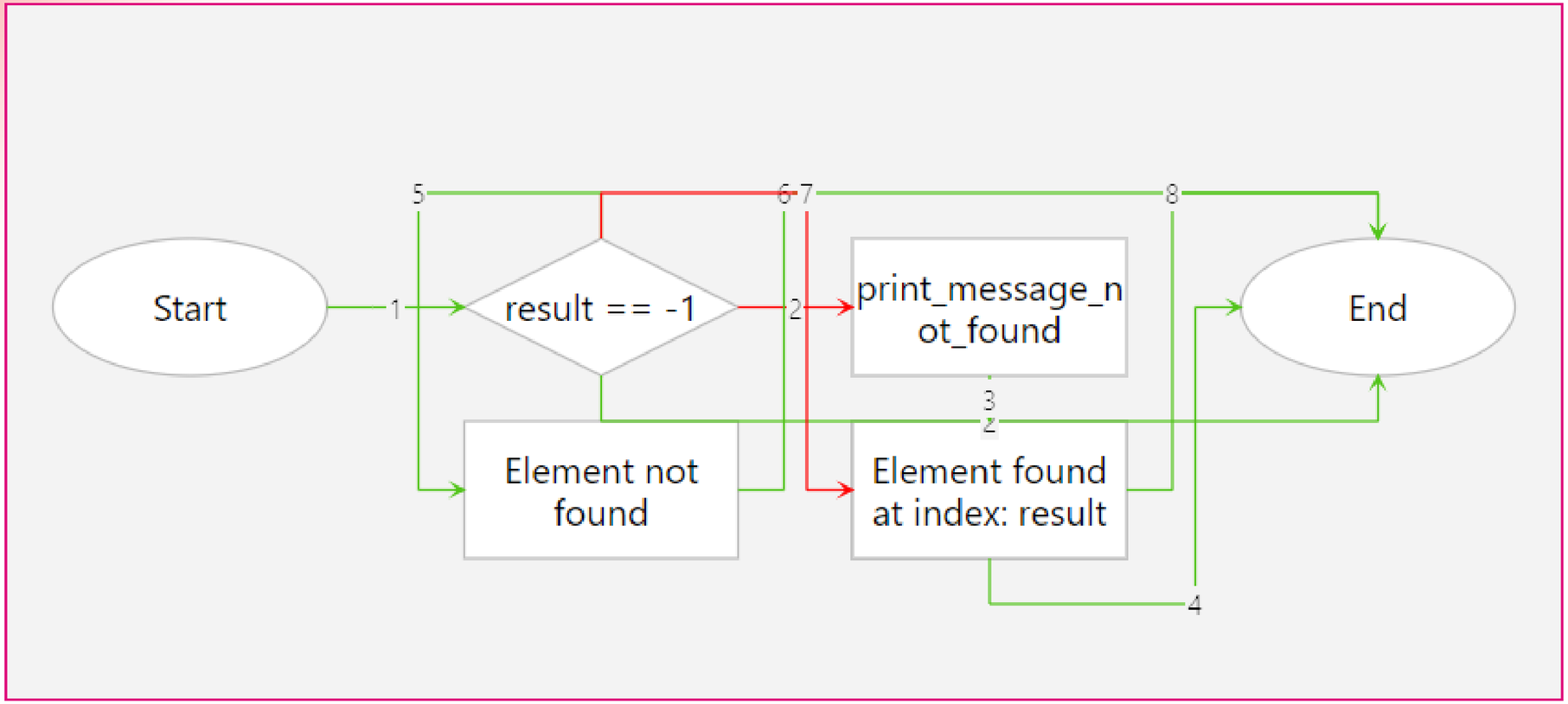
Our Google extension enhances developer productivity by providing instant code explanations for **third-party** code snippets, eliminating the need for manual analysis and interpretation.



Disclaimer: This tool is **designed for students** who get stuck at some point and **immediately** want the explaination for the code

Flow-Chart Generation

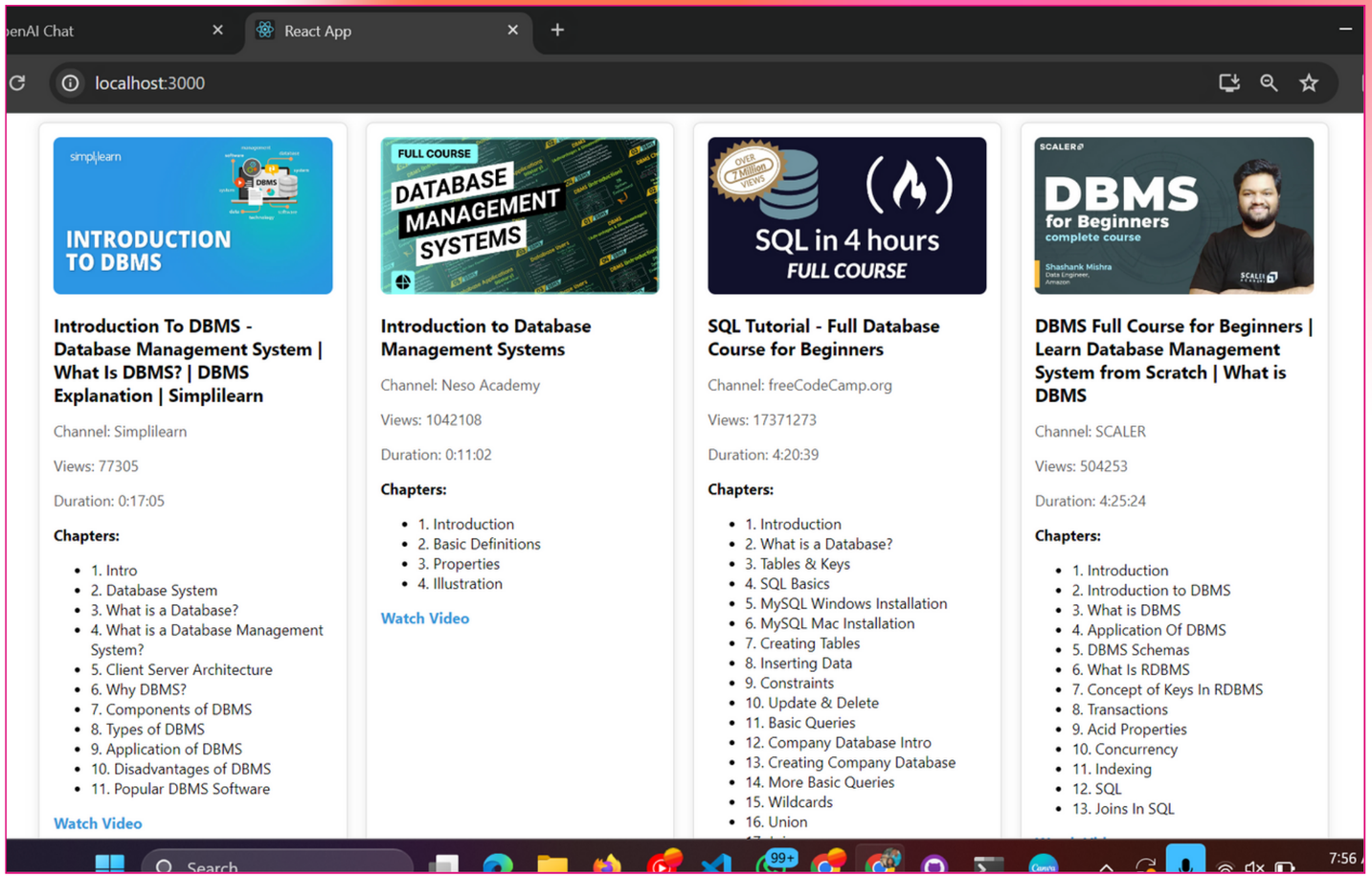
We offer flowchart generation from code, aiding developers in visualizing code logic and structure.



Disclaimer: you **JUST** have to input the schema: and you get a very visually appealing flowchart out of it

Youtube Recommendations

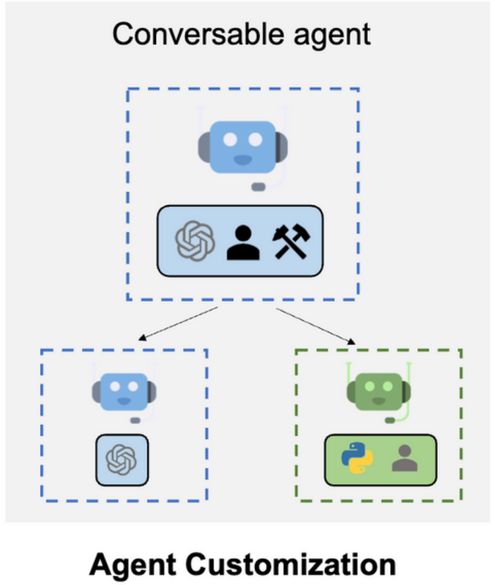
Tension_Code offers tailored educational resources, including YouTube recommendations for code-related content, empowering developers to continuously enhance their skills.



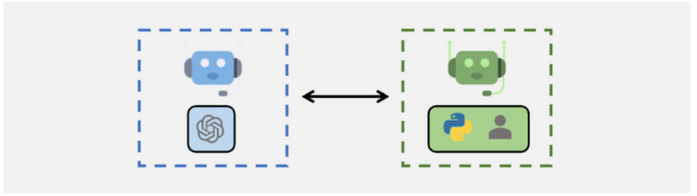
Disclaimer: This tool is **designed for students** who want guided lectures and courses to follow for the same

Our USPs: Automated Error Handling, Debugging, and Feedback

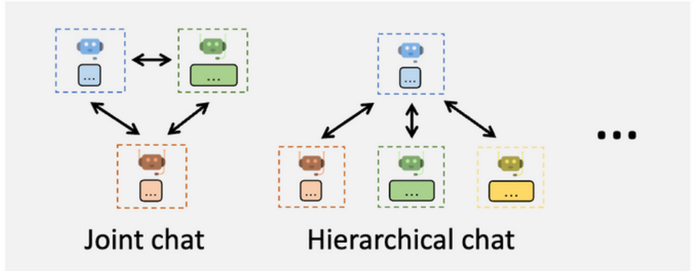
Utilizing reinforcement learning and **Microsoft's open-source LLM manipulation** agent, **AutoGen**, we aim to seamlessly integrate error handling and debugging mechanisms into code generation. By automating error detection and soliciting user feedback, our system ensures robust, reliable code while continuously refining its performance by **optimising** the code to its **best time and space complexity**



Agent Customization



Multi-Agent Conversations



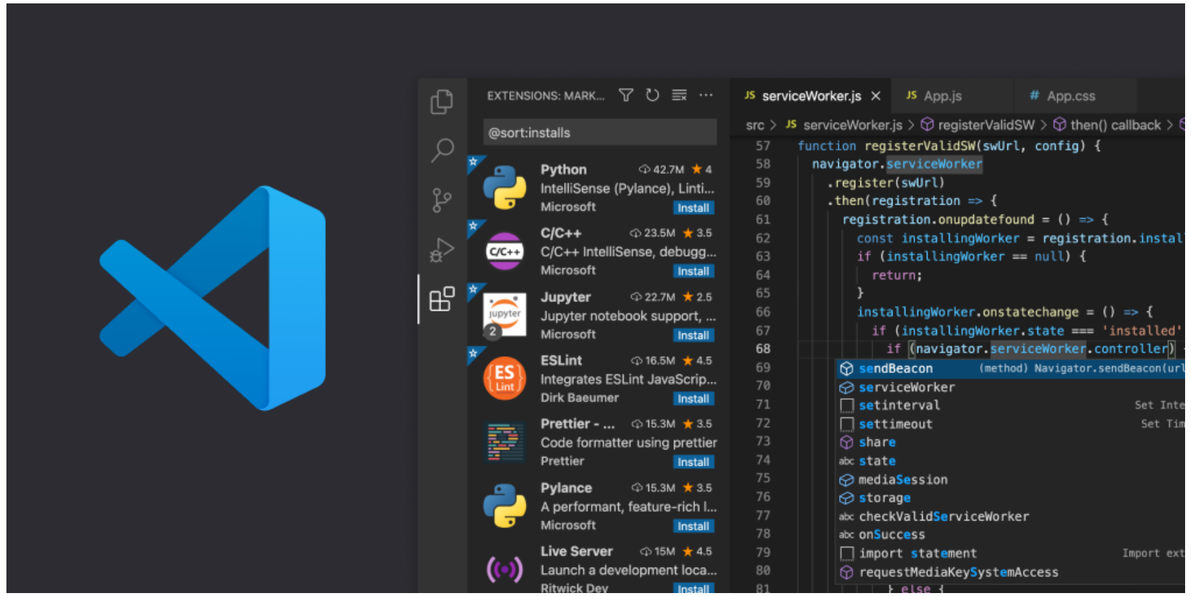
Flexible Conversation Patterns

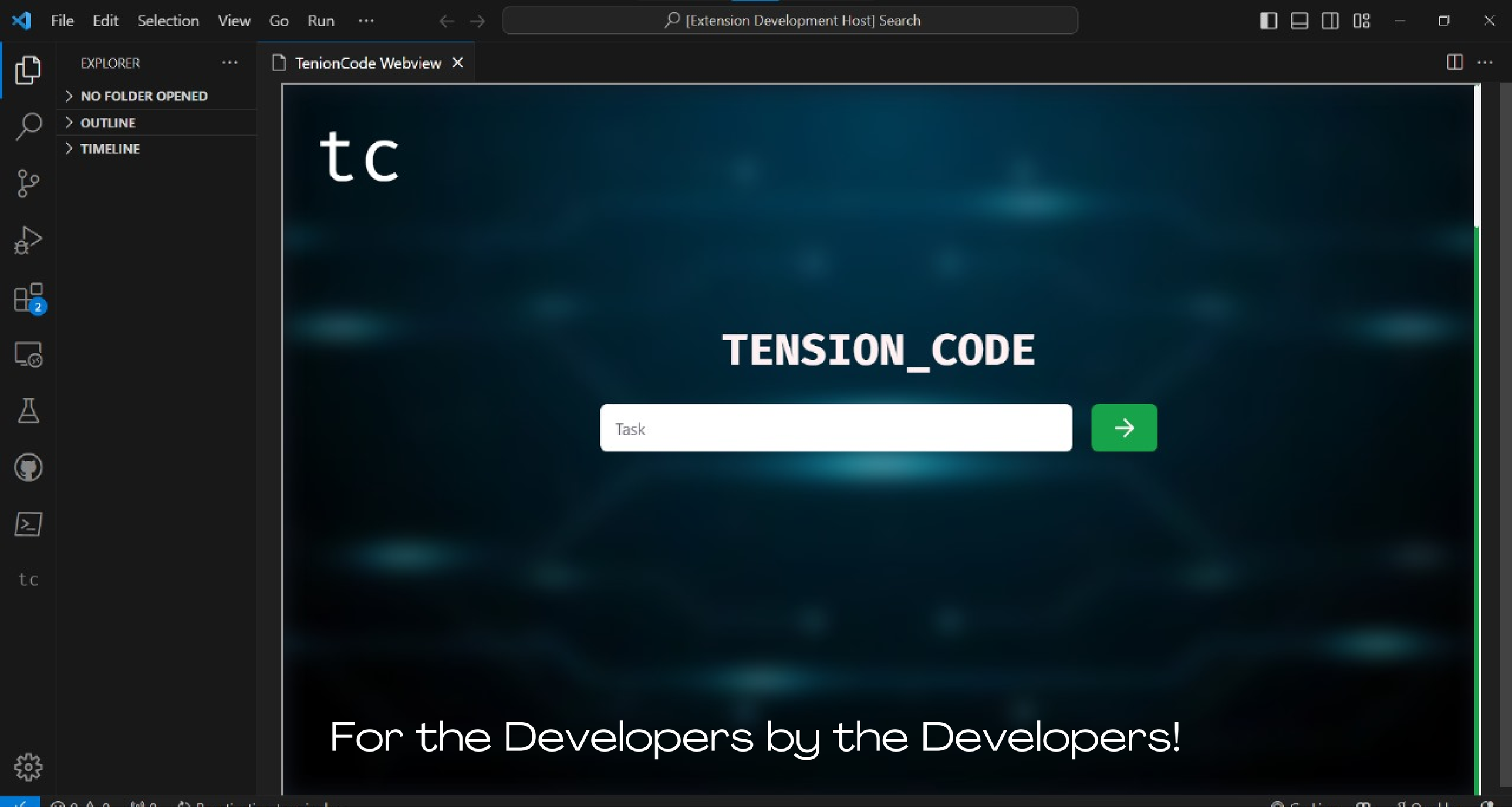
Disclaimer: This will give you the **most efficient and optimsed** function code you can ever get

Our USPs: Visual Studio Code Integration

Visual Studio Code

Unleash the full potential of our tool with our **Visual Studio Code extension**. Seamlessly leverage advanced capabilities directly within your preferred IDE. Streamline workflows, boost productivity, and empower your coding journey—all effortlessly **integrated into VS Code**. Elevate your development experience today.

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