Code review system

Objective :

Develop a code review system leveraging a GPT model to automatically review and provide feedback on code submissions. The system should identify potential issues, suggest improvements, and ensure code quality and consistency.

Requirements:

1. Use of Gemini Model:

-Utilized the Gemini model through the langchain\_google\_genai library to analyze code submissions, providing feedback on code quality, best practices, potential bugs, and readability.

2. Code Submission:

- Created a user interface using HTML, CSS, and JavaScript where users can submit code for review. The interface supports multiple programming languages, including Python, JavaScript, and Java.

3. Review Criteria:

- Check for coding standards and best practices.

- Identify potential bugs and vulnerabilities.

- Suggest improvements for code readability and maintainability.

- Provide comments on code efficiency and performance.

- I used Flask for API integration to assess code based on standards, best practices, potential bugs, readability, maintainability, efficiency, and performance.

4. Feedback Mechanism:

Developed a system to generate detailed review reports with line-by-line comments, an overall code quality summary, improvement suggestions, and severity levels for detected issues.

Note:-

I mentioned all the code functionality in ReadME.MD file:

How to create an environment and run the code and install all the library dependencies.

Also video file present of code review system.

Git repository :

url - <https://github.com/sumitMLAI/code_review_system.git>

Setup:

Create a folder of project name

open vs code select open folder and choose it project folder name or command terminal set path directory of project folder

Use command :

Cmd : git clone <https://github.com/yourusername/your-repo.git>

After you should follow all the ReadME.MD files I mention everything.