ERNIE AI Developer Challenge Project

Project Overview

Project Name: CodeK2.AI

Elevator Pitch:

An AI-powered assistant designed to help students and beginners generate structured code snippets, explanations, and learning resources quickly and clearly.

About the Project

Inspiration:

Many students find it challenging to learn coding effectively, especially at the start. This project aims to simplify coding by using AI to provide smart suggestions, code examples, and explanations in an easy-to-understand format.

What I Learned:

This project provided valuable experience in working with ERNIE's AI models, fine-tuning them, and deploying the solution through a web interface that is beginner-friendly and interactive.

How It Was Built

- Used Baidu ERNIE models for generating code snippets, explanations, and learning tips.

- Developed the frontend using HTML, CSS, and JavaScript for a responsive and simple user experience.

- Backend powered by Python with Flask to handle API requests and serve data.

- Integrated Hugging Face and ERNIE APIs for AI capabilities.

- Hosted the application using Render/ Vercel/ Replit for easy access and deployment.

Challenges Faced

- Integrating ERNIE API with limited official documentation.

- Handling large AI model responses efficiently.

- Designing an intuitive UI that caters to beginners without overwhelming them.

Built With

- Languages: Python, JavaScript, HTML, CSS
- Frameworks: Flask (Backend), Bootstrap (Frontend)
- AI Models: ERNIE Text Generation
- APIs: Baidu ERNIE API, Hugging Face Transformers
- Hosting: Render / Vercel / Replit
- Collaboration Tools: GitHub, Google Colab

What to Submit

- Deployed web page hosted on GitHub Pages generated from my PDF.
- URL to open-sourced fine-tuned model weights.
- URL to code repository including training code, data, hyperparameters, and README.
- Text description explaining features and functionality.
- Demo video (≤5 minutes) showcasing fine-tuned model performance.

-