EduTutor AI: Personalized Learning with IBM Granite

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Abstract — EduTutor AI leverages IBM Granite models from Hugging Face to create personalized learning tools such as concept explainers and quiz generators. This paper presents the project workflow, requirements, and deployment using Google Colab and GitHub for accessibility.

Keywords — EduTutor AI, IBM Granite, Hugging Face, Google Colab, GitHub, Generative AI

I. Introduction

EduTutor AI is designed to simplify the use of Generative AI for educational purposes. By leveraging IBM Granite models, it provides customized tools such as concept explainers and quiz generators. The deployment in Google Colab makes it accessible and easy to use.

II. Pre-requisites

1. Gradio Framework Knowledge 2. IBM Granite Models (Hugging Face) 3. Python Programming Proficiency 4. Version Control with Git 5. Google Colab’s T4 GPU Knowledge

III. Project Workflow

The EduTutor AI project is structured into the following activities: • Activity-1: Exploring Naan Mudhalavan Smart Interz Portal. • Activity-2: Choosing an IBM Granite Model from Hugging Face. • Activity-3: Running the Application in Google Colab. • Activity-4: Uploading the Project to GitHub.

IV. Results

The application was successfully deployed in Google Colab, where the model was downloaded and executed. The Gradio interface provided a URL to access and test the application in real-time.

V. Conclusion

EduTutor AI demonstrates the practical application of IBM Granite models in personalized education. With easy deployment on Google Colab and integration with GitHub, it serves as a simple yet effective tool for learners and educators.

References

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