Naan Mudhalvan Project Documentation

Project Title: EduTutor AI – Personalized Learning with Generative AI and LMS Integration

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Team Details

- Team Leader: Dravid

- Team Members:

- Sanjay J

- Alex

- Prakash

Project Description

EduTutor AI leverages IBM Granite models (via Hugging Face) to build a personalized learning assistant.

It provides:

- Concept explainers

- Quiz generators

- LMS Integration for streamlined learning management

- And additional customizable learning tools

The project is deployed using Google Colab for ease of setup and GPU acceleration.

Pre-requisites

Before starting, ensure you are familiar with:

1. Gradio Framework → https://www.gradio.app/guides/

2. IBM Granite Models (Hugging Face) → https://huggingface.co/ibm-granite

3. Python Programming → https://docs.python.org/3/

4. Git & Version Control → https://git-scm.com/docs/git

5. Google Colab T4 GPU → https://www.geeksforgeeks.org/python/how-to-use-gpu-in-google-colab/

Project Workflow

Activity 1 – Exploring Naan Mudhalvan Smart Interz Portal

1. Open: https://naanmudhalvan.smartinternz.com/

2. Login → Go to Projects → Select EduTutor AI.

3. Access resources under Guided Project.

4. Open Workspace → Track project progress & upload Demo link.

Activity 2 – Choose an IBM Granite Model from Hugging Face

1. Go to https://huggingface.co/ → Create account.

2. Search for IBM Granite Models.

3. For this project, use granite-3.2-2b-instruct (lightweight & fast).

Activity 3 – Running the Application in Google Colab

1. Open https://colab.research.google.com/.

2. Create a New Notebook → Rename as Health AI.

3. Change runtime → T4 GPU.

4. Install dependencies:

!pip install transformers torch gradio -q

5. Run the provided code → https://drive.google.com/file/d/1HV-VHnABR0OU93G3p3dL55U3h4K39w8S/view?usp=sharing

6. Output → Model downloads & Gradio App launches.

7. Click on generated URL → Test your application.

Activity 4 – Upload Your Project to GitHub

1. Go to https://github.com/ → Create account/sign in.

2. Create a new repository (e.g., IBM-Project).

3. Enable Add README.

4. Download your Colab code → Save as .py.

5. Upload the file to GitHub → Commit changes.

Final Deliverables

- GitHub Repository: https://github.com/mgc7sureshe23-tech/Edututor.git

- Live Demo: https://4fed0a39ea83af04dc.gradio.live/

- Working Gradio Web App link from Colab

- Source Code (.py) uploaded to GitHub

- Documentation (this file)