Health AI: Intelligent Healthcare Assistant

Project Presentation Document

Introduction

The healthcare industry is being revolutionized by Artificial Intelligence (AI). HealthAI is an intelligent assistant built using IBM Granite models. It provides disease prediction, treatment plans, and patient chat support through an easy-to-use interface.

Project Description

HealthAI integrates AI models with Google Colab and Gradio to create a healthcare assistant. Key Features:

- Patient Chat
- Disease Prediction
- Treatment Suggestions
- Scalable Deployment

Pre-requisites

To develop HealthAI, the following knowledge/tools are required:

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

Project Workflow

1. Explore Naan Mudhalvan Smart Interz Portal
2. Select IBM Granite Model from Hugging Face
3. Setup Google Colab with T4 GPU
4. Run application code & build Gradio interface
5. Upload project to GitHub

Project Output

The application runs successfully on Gradio with Google Colab. Users can enter symptoms and receive AI-driven responses, predictions, and treatment guidance via a web link.

Significance

- Improves healthcare accessibility
- Provides quick preliminary guidance
- Reduces workload for doctors
- Demonstrates real-world use of AI in healthcare

Challenges

1. Data privacy and security
2. Limited Colab GPU resources3. Accuracy of AI predictions
4. Simple but effective UI design

Future Scope

- Integration with wearable devices
- Multi-language support
- Partnership with hospitals
- Mobile app version
- Advanced AI techniques for better accuracy

Conclusion

HealthAI showcases how AI can enhance healthcare services. By combining IBM Granite models, Hugging Face, and Colab, it creates a scalable and intelligent healthcare assistant that can be improved and deployed globally.