**Developer Documentation: Conversational AI WhatsApp Chatbot**

**Project Overview**

**Project Name**: Conversational AI WhatsApp Chatbot

**Abstract**

This project involves the development of a conversational AI-based WhatsApp chatbot using Microsoft's **DialoGPT** model, implemented through the **Hugging Face** library. The chatbot simulates interactive, human-like conversations by generating responses based on user input. It stores conversation history to maintain context and provides relevant replies. In case of an inability to generate a response, random fallback replies are used to ensure continuous interaction. This system demonstrates the use of **NLP** and pre-trained **transformers** for building an intuitive, user-friendly conversational agent.

**Keywords:**

Chatbot, DialoGPT, Transformers, Natural Language Processing, NLP, Hugging Face, Microsoft DialoGPT, Conversational AI

**Project Structure**

* **chatbot\_chats\_1**: Stores initial chat interactions for training and testing.
* **chatbot\_chats\_2**: Additional chat history for further conversations and model tuning.
* **Conversational\_Al\_ChatBot**: Core application directory.
* **conversational-ai-chatbot**: Main implementation folder.
* **conversational-ai-chatbot\_1**: Variations or versions of the chatbot.
* **requirements**: Python package dependencies.

**System Requirements**

**Hardware**

* A computer with sufficient memory to run Python-based AI models.
* GPU support is optional but recommended for faster model inference.

**Software**

* **OS**: Linux, Windows, or macOS.
* **Python**: Version 3.7+
* **Dependencies**: