

CDP Support Chatbot

Technical Documentation

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1. Project Overview

The CDP Support Chatbot is a sophisticated Streamlit-based application designed to provide comprehensive and nuanced answers to complex how-to questions about Customer Data Platforms (CDPs). The system leverages advanced similarity matching and multi-CDP documentation integration to deliver accurate and relevant responses.

2. Core Features

- Advanced Question Handling

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3. Technical Architecture

Core Components

Question Handler

Processes and analyzes user queries for intent and complexity

Document Processor

Manages document retrieval and similarity matching

Response Generator

Creates structured and contextual responses

UI Layer

Streamlit-based interactive interface

4. Implementation Details

Question Analysis

- **Advanced tokenization and preprocessing**
- **Intent classification**
- **Complexity assessment**
- **Multi-part question breakdown**

Similarity Matching

- **TF-IDF vectorization**
- **BM25 ranking**
- **Hybrid scoring system**
- **Context-aware response selection**

Response Generation

- **Structured response formatting**
- **Confidence scoring**
- **Platform-specific adaptations**
- **Step-by-step answer generation**

5. User Interface

- Clean and intuitive chat interface

6. Future Enhancements

- Cross-CDP comparison functionality