**AI-Powered Customer Support Assistant**

**Requirement**:

In order to maintain the optimal capacity of the CS team of ‘A’ product company, the CS team needs solutions to reduce the number of support tickets. They are also looking for Chat bot solutions which will be conversational and help customers to provide relevant links and instructions to solve the problem( mostly repetitive and done without speaking to the CS team).

**Scope**:

Come up with solutions architecture which will showcase the end to end implementation of this requirement.

**Available data source point:**

Customer support team logged all the tickets in a document based(no-sql) database which has historical tickets and post resolution comments.

Company also created a knowledge document (wiki) for each of the product issues and stored them in AWS S3 .

**Flow**:

1. Data collection
   1. Use of Historical MongoDB tickets data as well as new data
   2. S3 data of wiki page,
      1. Collect metadata of files and store in Mongodb
2. User input using NLP or OpenAI
3. Generate embedding of user query and ticket history(MongoDB) data
4. Vector search of embedded user query and historical ticket in MongoDB Atlas.
   1. Additionally search S3(embedded in mongodb) and retrieve link or content
5. Use OpenAI to generate conversational responses based on response or search results from Mongodb Atlas and S3 file link.
6. Return the response to user

**Key Features:**

Conversational AI Interface

* • Vector Search Integration
* • Historical Ticket Analysis
* • Knowledge Base Integration