

# AI-Powered Insurance Policy Information Chatbot



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# Agenda

- Background
- Objective
- Requirements
- Methodology
- Technology Stack
- Conclusion

NEXT

# BACKGROUND:

## Content:

- Goal: Develop a chatbot to assist customers with insurance policy queries.
- Core Features:
  - Understand natural language queries.
  - Provide accurate and relevant responses.
  - Guide customers through insurance options and processes.

# REQUIREMENTS :

## Content:

### 1.LLM (Large Language Model):

- Use for natural language processing to understand and generate responses.

### 2.Knowledge Base Integration:

- Create a knowledge base from PDFs containing insurance policies, coverage, premiums, and claims.
- Ensure chatbot retrieves and presents relevant info accurately.

### 3.Conversation Management:

- Implement fallback mechanisms to escalate complex queries to human agents.

### 4.User Interface:

- Design a simple, user-friendly interface for integration into websites or mobile apps (Streamlit for UI).

# METHODOLOGY

## Content:

### 1.Data Collection:

- Extracted information from LIC "Jeevan Utsav Sales Brochure" PDF.

### 2.Document Chunking:

- Divided the document into smaller chunks to facilitate easier semantic search.

### 3.Embedding:

- Used Hugging Face's embedding model to vectorize document chunks.

### 4.Vector Database:

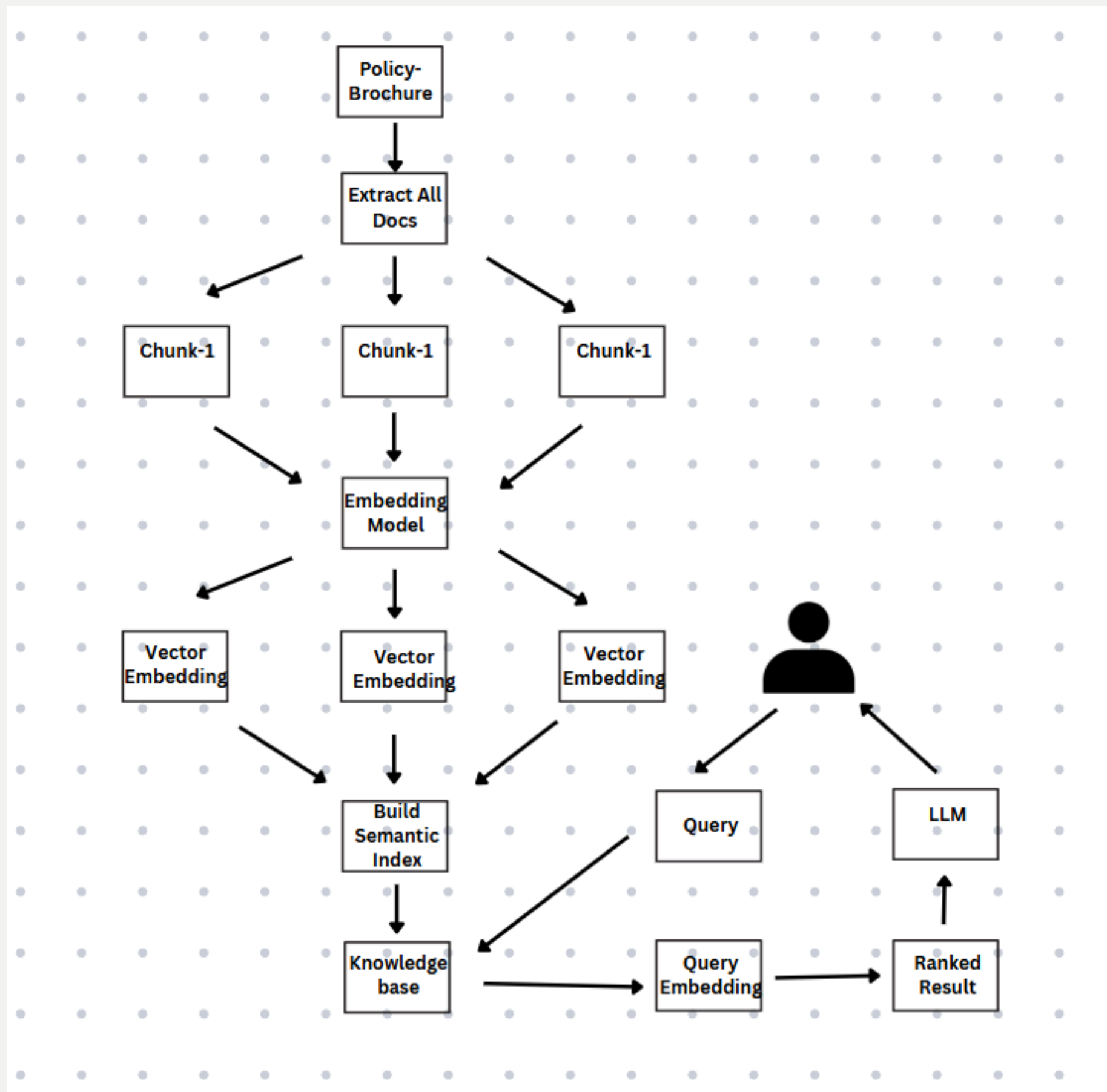
- Stored embeddings in Pinecone to create the knowledge base.

### 5.Query Processing:

- User queries are embedded and compared against the knowledge base using semantic search.

### 6.Response Generation:

- Used Mixtral-8x7B-Instruct (Hugging Face) to generate human-like responses.



# TECHNOLOGY STACK :

Content:

- Pinecone: Vector database for semantic search and knowledge base management.
- Flask: Backend framework to handle user queries and chatbot logic.
- GitHub: Source code version control and collaboration platform.
- Hugging Face: Embeddings and large language models (Mixtral-8x7B-Instruct).

NEXT

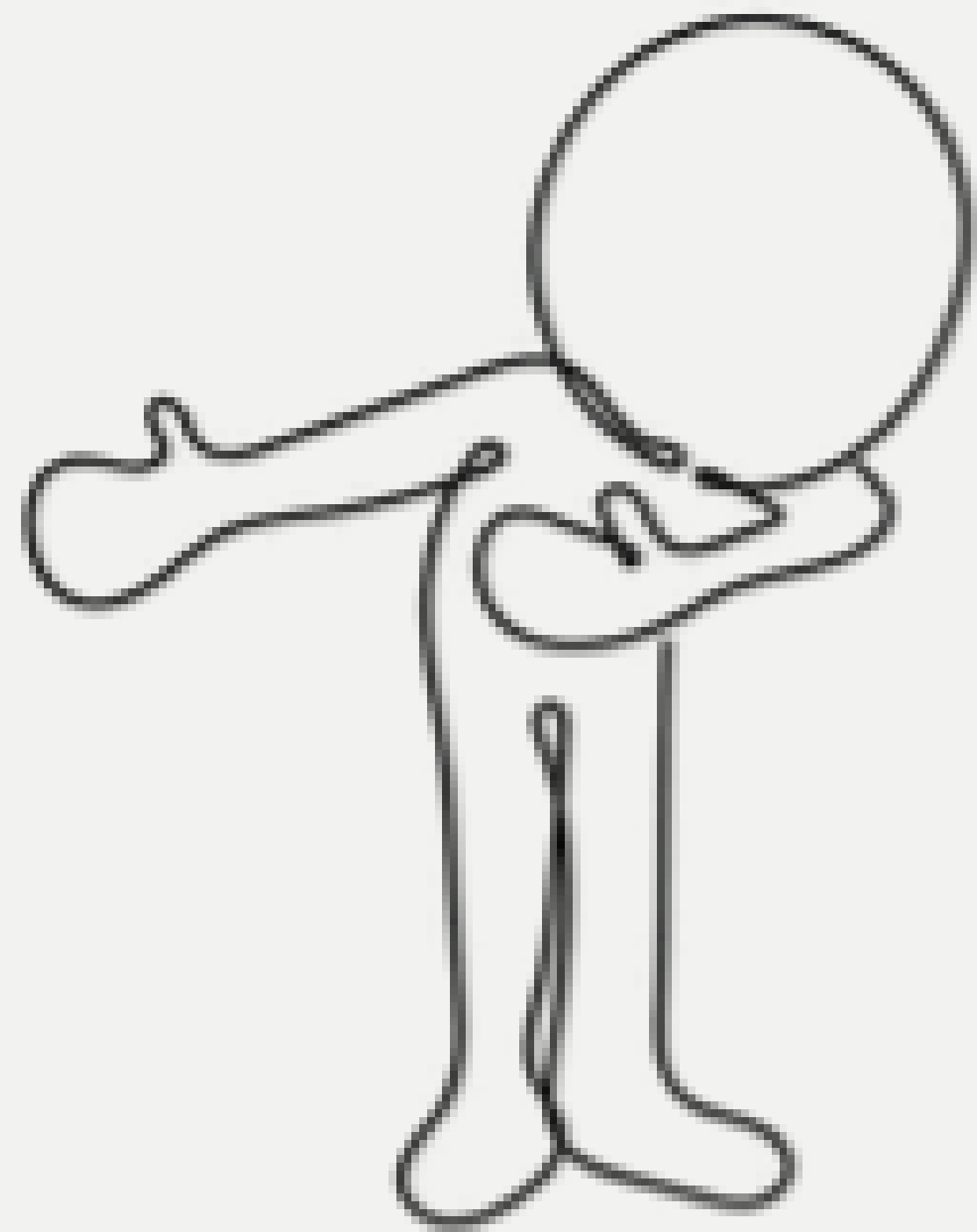
# CONCLUSION

Content:

- The AI-powered chatbot streamlines the insurance query process.
- It improves customer support by providing quick, accurate answers.
- Future Enhancements:
  - Support for multiple languages.
  - Fine-tuning the model for better performance.

**NEXT**





**Thank You**