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AI Powered Bhagavad Gita Chatbot

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ABSTRACT: The AI Powered Bhagavad Gita Chatbot is an intelligent conversational system designed to provide meaningful answers based on the teachings of the Bhagavad Gita. The project focuses on developing a chatbot that can understand user queries and provide relevant verses and explanations using Artificial Intelligence and Natural Language Processing (NLP) techniques.

The system uses modern AI technologies such as text embeddings, semantic search, vector databases, and generative AI models. The Bhagavad Gita verses along with their meanings and explanations are stored in a structured dataset. When a user asks a question, the chatbot converts the query into a vector representation using an embedding model. This vector is then compared with stored verse embeddings to find the most relevant verses.

The chatbot uses semantic retrieval to identify the most meaningful verses related to the user's question. After retrieving the relevant verses, the Gemini API is used to generate a natural language response based on the retrieved knowledge. This allows the chatbot to provide context-aware responses rather than simple keyword matching.

The system aims to make spiritual knowledge more accessible to users by allowing them to interact with the Bhagavad Gita in a conversational format. It can help users understand philosophical concepts such as karma, dharma, devotion, and self-realization. The chatbot also ensures that responses remain grounded in scripture by retrieving actual verses before generating answers.

This project demonstrates how Artificial Intelligence can be used to preserve and share traditional knowledge in an interactive and modern way. The chatbot can be useful for students, researchers, and spiritual seekers who want to explore the teachings of the Bhagavad Gita easily.

KEYWORDS: Artificial Intelligence, Bhagavad Gita Chatbot, Natural Language Processing, Text Embeddings, Vector Database, Semantic Search, Gemini API.

I. INTRODUCTION

The **Bhagavad Gita** is one of the most important spiritual texts in Indian philosophy. It contains teachings about life, duty, righteousness, and self-realization. However, understanding the deep meaning of the Bhagavad Gita can sometimes be difficult for readers because of its philosophical nature and traditional language. The **AI Powered Bhagavad Gita Chatbot** is designed to make these teachings more accessible by allowing users to interact with the text in a conversational way. Instead of manually searching through verses, users can simply ask questions and receive relevant answers along with supporting verses. The chatbot uses **Natural Language Processing (NLP)** to understand user queries and convert them into numerical representations using text embeddings. These embeddings help capture the semantic meaning of the query rather than relying on simple keyword matching. The system stores Bhagavad Gita verses and explanations in a **vector database**, where each verse is converted into an embedding vector. When a user asks a question, the chatbot finds the most similar vectors in the database using similarity search techniques. After retrieving the most relevant verses, the system uses the **Gemini API** to generate a well-structured and meaningful response. The generated answer remains grounded in the original verses to maintain authenticity and accuracy. This project highlights the potential of Artificial Intelligence in preserving spiritual knowledge and making it easily accessible to modern users through conversational technology.



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II. LITERATURE REVIEW

Artificial Intelligence has become an important tool for building intelligent conversational systems. Chatbots are widely used in many fields such as education, healthcare, customer support, and knowledge retrieval systems. Natural Language Processing techniques allow machines to understand and process human language. Modern chatbots use **transformer-based language models** and **embedding techniques** to represent text in a meaningful way. Text embeddings are numerical representations of words or sentences that capture their semantic meaning. By converting sentences into vectors, machines can compare different texts and identify similarities between them. Vector databases are commonly used in AI systems to store embeddings and perform similarity search operations. These databases allow fast retrieval of relevant documents based on vector similarity. Generative AI models such as **large language models (LLMs)** are capable of generating human-like responses. These models are often integrated with retrieval systems to produce accurate and context-aware responses. Recent research shows that combining **retrieval-based systems with generative models** improves chatbot performance. The retrieval system provides factual information while the generative model produces natural responses. In spiritual and educational domains, AI chatbots can help users explore knowledge interactively. By integrating sacred texts with AI technologies, it becomes possible to create systems that provide guidance and explanations based on traditional scriptures.

III. SYSTEM ARCHITECTURE

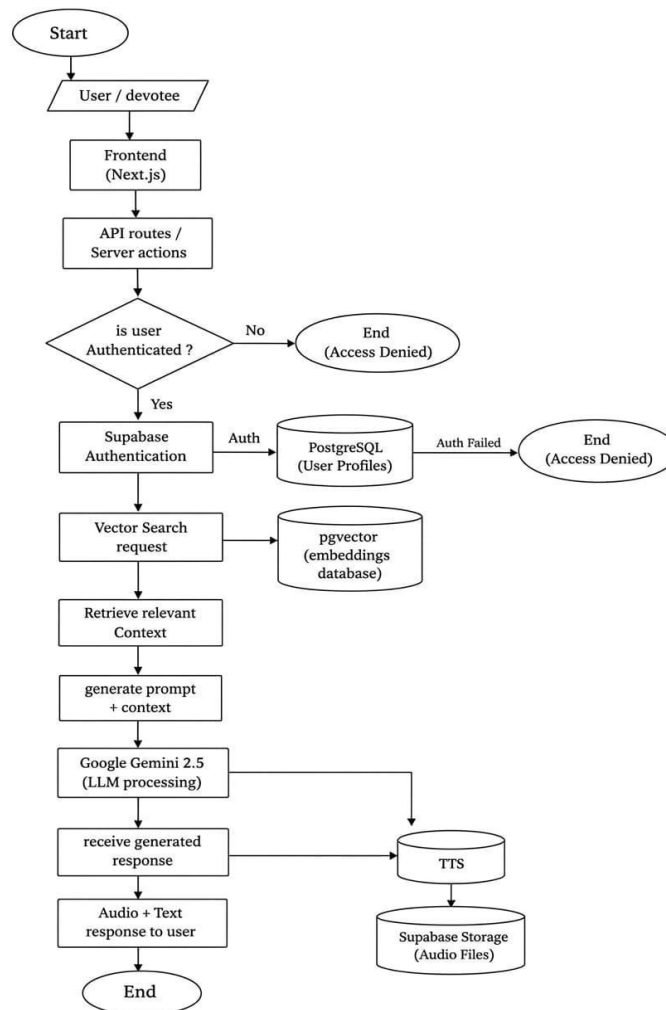


Fig 1.1 System Architecture



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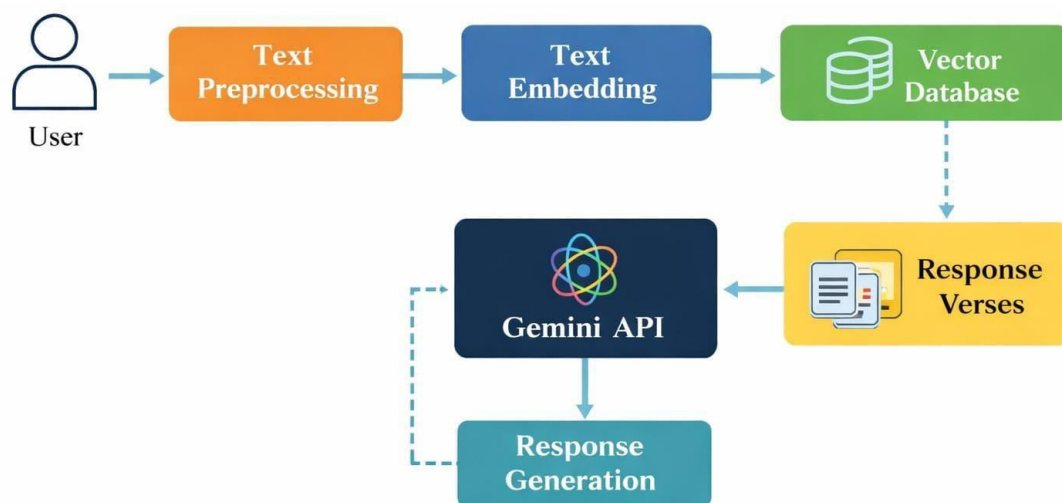
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- 1) **User Input (Query / Voice / Image):** The process begins when the user enters a question, speaks a query, or uploads an image related to spiritual guidance. This input is received through the chatbot interface.
- 2) **Request Processing:** The input is sent to the backend server where it is cleaned, formatted, and analyzed. The system identifies keywords and understands the intent of the user's query using Natural Language Processing techniques.
- 3) **Knowledge Retrieval:** The system searches the stored dataset of verses from the Bhagavad Gita to find relevant teachings that match the user's question.
- 4) **Context Formation and AI Response Generation:** The retrieved verse and user query are combined to form a structured prompt. This prompt is then processed by the generative AI model, which produces a meaningful explanation, guidance, or interpretation based on the verse.
- 5) **Output to User:** The final response is displayed in the chat interface. The conversation is also stored in the history panel and saved in the database for future reference

IV. METHODOLOGY

The proposed system is designed to provide intelligent answers to user queries related to the **Bhagavad Gita** using Natural Language Processing and vector search techniques. The architecture consists of multiple stages including preprocessing, embedding, vector storage, and response generation.

Fig 1.2 System Flow Diagram



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1. User Input

The process begins when the **user enters a question or query** related to the Bhagavad Gita.

Example:

- “What does Bhagavad Gita say about karma?”

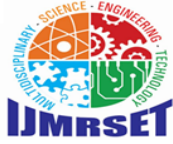
The system receives this natural language input and forwards it to the preprocessing stage.

2. Text Preprocessing

In this stage, the input text is **cleaned and prepared for processing**.

The preprocessing includes:

- Removing unnecessary symbols and punctuation
- Converting text to lowercase



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- Tokenization (splitting text into words)
 - Stop-word removal (removing common words like *is, the, and*)
- This step improves the quality of the text before converting it into embeddings.

3. Text Embedding

After preprocessing, the cleaned text is converted into **vector embeddings**.

Text embeddings are **numerical representations of text** that capture semantic meaning. This allows the system to compare the user query with stored knowledge efficiently.

For example:

- Similar questions produce **similar vector representations**.
- These embeddings help the system perform **semantic search** instead of simple keyword matching.

4. Vector Database

The generated embeddings are stored or compared with embeddings stored in a **Vector Database**.

The vector database contains:

- Bhagavad Gita verses
- Their meanings and explanations
- Precomputed embeddings of those verses

When a query is received, the system performs **similarity search** to find the most relevant verses related to the user's question.

5. Response Verses Retrieval

After similarity matching, the system retrieves the **most relevant Bhagavad Gita verses** from the vector database.

These verses act as **context information** for generating an accurate answer.

Example retrieved content:

- Chapter number
- Verse number
- Sanskrit verse
- Meaning or explanation

6. Gemini API

The retrieved verses and the user query are then sent to the **Gemini API**.

The Gemini API acts as the **Large Language Model (LLM)** that:

- Understands the user query
- Uses the retrieved verses as context
- Generates a meaningful explanation or answer.

This ensures the response is **context-aware and accurate**.

7. Response Generation

Finally, the system generates the **final response** based on the Gemini API output.

The generated response may include:

- Relevant Bhagavad Gita verse
- Explanation of the verse
- A contextual answer to the user's question.

This response is then returned to the user.

Summary of Workflow

1. User enters a query.



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2. Query undergoes **text preprocessing**.
3. The text is converted into **vector embeddings**.
4. Embeddings are compared with data in the **vector database**.
5. Relevant **Bhagavad Gita verses** are retrieved.
6. Context and query are sent to **Gemini API**.
7. The system generates a **final response** for the user.

V. RESULT AND DECISION

The AI Powered Bhagavad Gita Chatbot successfully retrieves relevant verses and generates meaningful responses for user queries. The system demonstrates the ability to understand semantic relationships between user questions and Bhagavad Gita teachings. The chatbot provides users with explanations based on scripture, helping them understand philosophical concepts more easily. The integration of text embeddings and generative AI improves the quality and accuracy of responses. The system performs well in retrieving relevant verses and generating coherent responses. The results indicate that combining vector search with generative models is effective for building knowledge-based conversational systems.

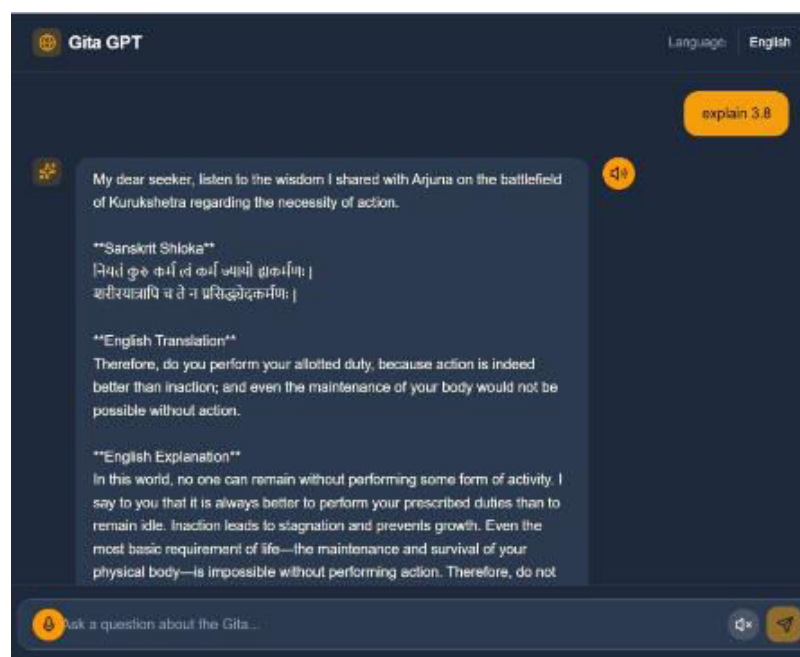
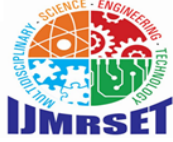


Fig 1.3 Chatbot Response for User Query (verse 3.8)

The above figure shows the response generated by the chatbot when a user asks about a Bhagavad Gita verse. The system retrieves the relevant verse from the dataset and generates a meaningful explanation using the generative AI model. The response includes the Sanskrit shloka, English translation, and a detailed explanation, helping users understand the spiritual meaning of the verse.



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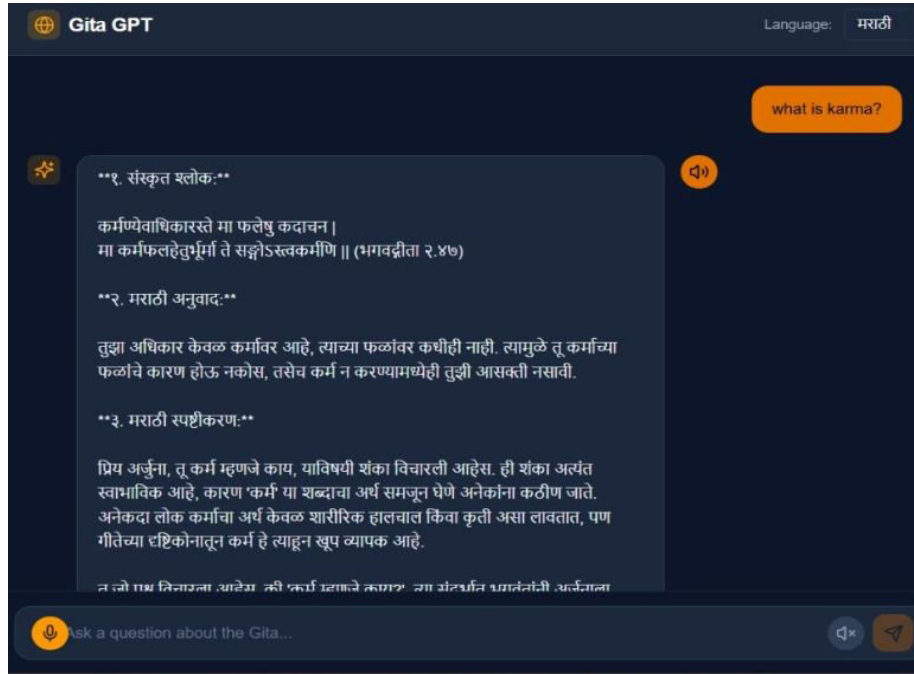


Fig 1.4 Chatbot Response for Karma Explanation (2.47)

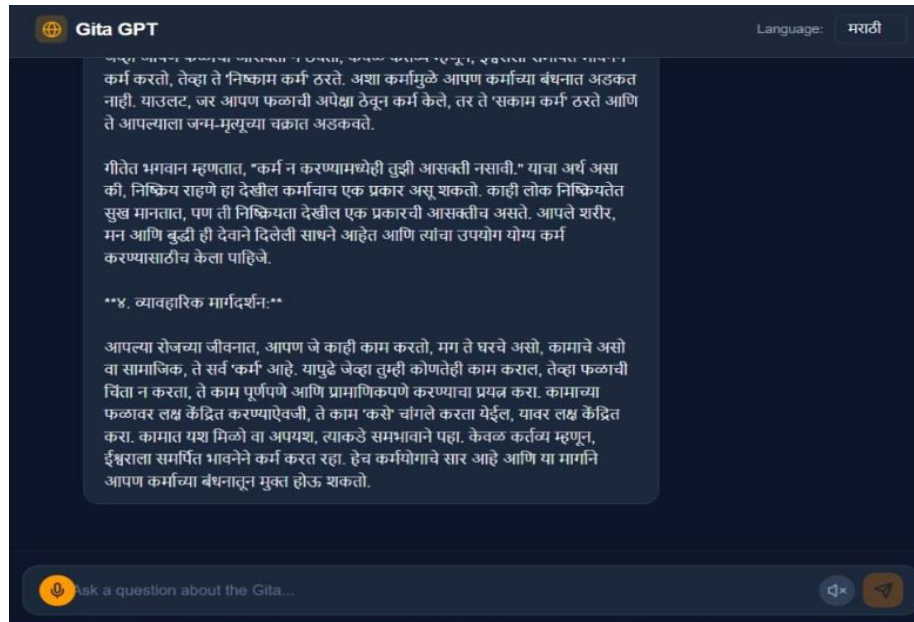


Fig 1.4 Chatbot Response for Karma Explanation (2)

The above figure shows the response generated by the chatbot when a user asks the question “What is Karma in Bhagavad Gita?”. The system analyzes the user query and searches for relevant verses from the Bhagavad Gita dataset using semantic similarity. The retrieved verses are then used as contextual information for the generative AI model. The chatbot produces a structured response that includes the Sanskrit verse, English translation, and a clear explanation of the concept of Karma. This helps users understand the philosophical meaning of Karma and its significance in the Bhagavad Gita.



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The system performs well in retrieving relevant verses and generating coherent responses. The results indicate that combining **semantic search, vector databases, and generative AI models** is effective for building knowledge-based conversational systems.

VI. CONCLUSION

The **AI Powered Bhagavad Gita Chatbot** project demonstrates how Artificial Intelligence can be used to make spiritual knowledge more accessible and interactive. By integrating Natural Language Processing, text embeddings, vector databases, and generative AI models, the system provides users with meaningful responses based on Bhagavad Gita teachings. The chatbot allows users to explore philosophical concepts such as duty, devotion, karma, and self-realization through a conversational interface. This approach simplifies the process of understanding complex spiritual texts. The system also highlights the importance of combining retrieval-based methods with generative models to ensure responses remain grounded in authentic scriptures. In the future, the system can be improved by expanding the dataset with additional commentaries and translations. More advanced evaluation techniques and user feedback mechanisms can also be added to improve response accuracy. Overall, the project demonstrates the potential of Artificial Intelligence in preserving traditional knowledge and delivering it in a modern and accessible format.

VII. ACKNOWLEDGMENT

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REFERENCES

Journal Papers:

- 1) "**Natural Language Processing with Transformers for Conversational AI**"
Authors: IEEE Research Community
Publisher: IEEE Conference Publications, 2023
- 2) "**Retrieval-Augmented Generation for Knowledge-Based Chatbots**"
Authors: Patrick Lewis et al.
Publisher: IEEE Conference Publications, 2023
- 3) "**Semantic Search using Text Embeddings in AI Systems**"
Authors: Bhaskar Mitra and Nick Craswell
Publisher: IEEE Transactions on Knowledge and Data Engineering, 2024
- 4) "**Vector Databases for Large Language Model Applications**"
Authors: James Briggs and Francisco Ingham
Publisher: IEEE Conference Publications, 2024
- 5) "**Advances in Conversational AI using Large Language Models**"
Authors: IEEE Research Community
Publisher: IEEE Access, 2025



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Web References:

- 1) Bhagavad Gita Online Source: <https://www.holy-bhagavad-gita.org>
- 2) Google AI – Gemini API Documentation: <https://ai.google.dev>
- 3) Pinecone – Vector Database Documentation: <https://www.pinecone.io>

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