A PROJECT REPORT

On

Shrimad Bhagavad

Submitted to

KIIT Deemed to be University

In Partial Fulfilment of the Requirement for the Award of

BACHELOR'S DEGREE IN
COMPUTER SCIENCE AND ENGINEERING

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CERTIFICATE

This is certified that the project entitled

"SHRIMAD BHAGAVAT"

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is a record of bonafide work carried out by them, in the partial fulfilment of the requirement for the award of Degree of Bachelor of Engineering (Computer Science & Engineering) at KIIT Deemed to be university, Bhubaneswar. This work is done during year 2024, under our guidance.

Project Guide

MR. N BIRAJA ISAAC

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ABSTRACT

‘Bhagavad Gita’ is one of the essential Indian ancient scriptures like Vedas, Puranas and Upanishads. It guides us by showing various spiritual paths through which we can gain self-knowledge as well as inner-peace. Many of our legendary leaders like Mahatma Gandhi, Dr. Radhakrishnan, Lokmanya Tilak and many more was influenced by the philosophy of ‘Bhagavad Gita’. This study showcases that, how ‘Gita’ influences the life of modern human society especially ‘Y’ and ‘Z’ generation. It also tries to analyse and highlight, how Bhagavad Gita supports and develops certain management vision and thoughts, which has created a benchmark in the modern world as a key source for success to any organization or an individual.

Keywords: Bhagavad Gita, Management Thoughts, Organization, Inner-peace, Self-Knowledge.

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Chapter 1

Introduction

The **Bhagavad Gita** , often referred to as the **Gita** is a 700-verse Hindu scripture, which is part of the epic *Mahabharata*. It forms the chapters 23–40 of book 6 of the Mahabharata called the Bhishma Parva. The work is dated to the second half of the first millennium BCE.

The Bhagavad Gita is set in a narrative framework of dialogue between the Pandavas prince Arjuna and his charioteer guide Krishna, an avatar of Vishnu. At the start of the Kurukshetra War between the Pandavas and the Kauravas, Arjuna despairs thinking about the violence and death the war will cause in the battle against his kin and becomes emotionally preoccupied with a dilemma.[3] Wondering if he should renounce the war, Arjuna seeks the counsel of Krishna, whose answers and discourse constitute the Bhagavad Gita. Krishna counsels Arjuna to "fulfil his Kshatriya (warrior) duty" for the upholding of dharma.[4] The Krishna–Arjuna dialogue covers a broad range of spiritual topics, touching upon moral and ethical dilemmas, and philosophical issues that go far beyond the war that Arjuna faces.[1][5][6] The setting of the text in a battlefield has been interpreted as an allegory for the struggles of human life.

Summarizing the Upanishadic conceptions of God, the Gita posits the existence of an individual self (Atman) and the supreme self (Brahman) within each being. The dialogue between the prince and his charioteer has been interpreted as a metaphor for an immortal dialogue between the human self and God. Commentators of Vedanta read varying notions in the Bhagavad Gita about the relationship between the Atman (individual Self) and Brahman (supreme Self); Advaita Vedanta affirms on the non-dualism of Atman and Brahman, Vishishtadvaita asserts qualified non-dualism with Atman and Brahman being related but different in certain aspects, while Dvaita Vedanta declares the complete duality of Atman and Brahman.

Per Hindu mythology, the Bhagavad Gita was written by the god Ganesha, as told to him by the sage Veda Vyasa. The Bhagavad Gita presents a synthesis of various Hindu ideas about dharma, theistic bhakti, and the yogic ideal of moksha. The text covers Jñāna, Bhakti, Karma, and Rāja yogas, while incorporating ideas from the Samkhya-Yoga philosophy.

Chapter 2

Basic Concepts/ Literature Review

This section contains the basic concepts about the related tools and techniques used in this project.

2.1 HTML

Hypertext Markup Language or **HTML** is the standard markup language for documents designed to be displayed in a web browser. It defines the content and structure of web content. It is often assisted by technologies such as Cascading Style Sheets (CSS) and scripting languages such as JavaScript.

Web browsers receive HTML documents from a web server or from local storage and render the documents into multimedia web pages. HTML describes the structure of a web page semantically and originally included cues for its appearance.

2.2 CSS

Cascading Style Sheets (**CSS**) is a style sheet language used for specifying the presentation and styling of a document written in a markup language such as HTML or XML. CSS is a cornerstone technology of the World Wide Web, alongside HTML and JavaScript.

CSS is designed to enable the separation of content and presentation, including layout, colors, and fonts. This separation can improve content accessibility; provide more flexibility and control in the specification of presentation characteristics; enable multiple web pages to share formatting by specifying the relevant CSS in a separate .css file, which reduces complexity and repetition in the structural content; and enable the .css file to be cached to improve the page load speed between the pages that share the file and its formatting.

2.3 BOOTSTRAP

Bootstrap is an HTML, CSS and JS library that focuses on simplifying the development of informative web pages (as opposed to web applications). The primary purpose of adding it to a web project is to apply Bootstrap's choices of color, size, font and layout to that project. As such, the primary factor is whether the developers in charge find those choices to their liking. Once added to a project, Bootstrap provides basic style definitions for all HTML elements. The result is a uniform appearance for prose, tables and form elements across web browsers. In addition, developers can take advantage of CSS classes defined in Bootstrap to further customize the appearance of their contents. For example, Bootstrap has provisioned for light- and dark-colored tables, page headings, more prominent pull quotes, and text with a highlight.

2.4 JAVASCRIPT

JavaScript , often abbreviated as **JS**, is a programming language and core technology of the Web, alongside HTML and CSS. 99% of websites use JavaScript on the client side for webpage behavior. JavaScript is a high-level, often just-in-time compiled language that conforms to the ECMAScript standard.[11] It has dynamic typing, prototype-based object-orientation, and first-class functions. It is multi-paradigm, supporting event-driven, functional, and imperative programming styles. It has application programming interfaces (APIs) for working with text, dates, regular expressions, standard data structures, and the Document Object Model (DOM). The ECMAScript standard does not include any input/output (I/O), such as networking, storage, or graphics facilities. In practice, the web browser or other runtime system provides JavaScript APIs for I/O.

Although Java and JavaScript are similar in name, syntax, and respective standard libraries, the two languages are distinct and differ greatly in design.

2.5 PYTHON

Python is a high-level, interpreted programming language often praised for its simplicity and readability. It supports multiple programming paradigms, including object-oriented, functional, and procedural styles. Python features dynamic typing, automatic memory management, and a comprehensive standard library for tasks like file handling, data manipulation, and web services. Widely used in web development, data science, artificial intelligence, and automation, it is supported by an extensive ecosystem of libraries and frameworks. Although Python excels in ease of use and versatility, it differs significantly in design and application from languages like Java or JavaScript.

2.6 FLASK

Flask is a lightweight web framework written in Python. It is classified as a microframework because it does not require particular tools or libraries, offering simplicity and flexibility for developers. Flask includes built-in support for routing, templating via Jinja2, and a WSGI server through Werkzeug.

Flask is commonly used for building RESTful APIs and small to medium-sized web applications. Its modular design allows developers to add extensions for tasks like database integration, authentication, and form validation. While Flask provides a minimal starting point, it is scalable and well-suited for projects requiring fine-grained control over application architecture.

Chapter 3

Requirement Specifications

The requirement specification for the website to operate smoothly:

- Internet Explorer 9 & 10
- Firefox 7 and higher
- Chrome 14 and higher
- Safari 5 and higher
- Opera 11 and higher

Chapter 4

Concepts Used

MACHINE LEARNING

Machine Learning (ML) is a field of artificial intelligence that enables systems to learn from data, identify patterns, and make predictions or decisions with minimal human intervention. In this project, ML plays a pivotal role in processing and analyzing the dataset of the **Bhagavad Gita**, which forms the foundation for the chatbot integrated into the website's backend. The dataset was pre-processed to structure the text in a format suitable for model training, ensuring efficient interpretation and response generation.

Using **Natural Language Processing (NLP)** techniques, the ML model is capable of understanding user queries, identifying key themes, and mapping them to the teachings of the Bhagavad Gita. Supervised learning was employed to train the model on labeled data, enabling it to provide contextually accurate and insightful responses. The integration of this trained ML model into the website's backend facilitates real-time interaction, ensuring a seamless and meaningful user experience.

This implementation demonstrates the application of Machine Learning in transforming philosophical and spiritual texts into a dynamic, interactive platform, making complex teachings accessible and engaging for users.

SENTIMENTAL ANALYSIS

Sentiment Analysis is a Machine Learning (ML) technique that interprets the emotional tone of text to classify it into categories like positive, negative, or neutral sentiments. In this project, sentiment analysis was implemented to enable the chatbot to understand the emotional state of users based on their inputs and provide relevant shlokas from the **Bhagavad Gita**.

The chatbot analyzes user inputs by identifying specific keywords and expressions indicative of emotions such as anger, sadness, happiness, or anxiety. A curated dataset mapping emotional expressions to corresponding shlokas was used to train the ML model. By leveraging **Natural Language Processing (NLP)** techniques, the model extracts features from the user input, determines the user's mood, and retrieves appropriate shlokas that align with the identified sentiment.

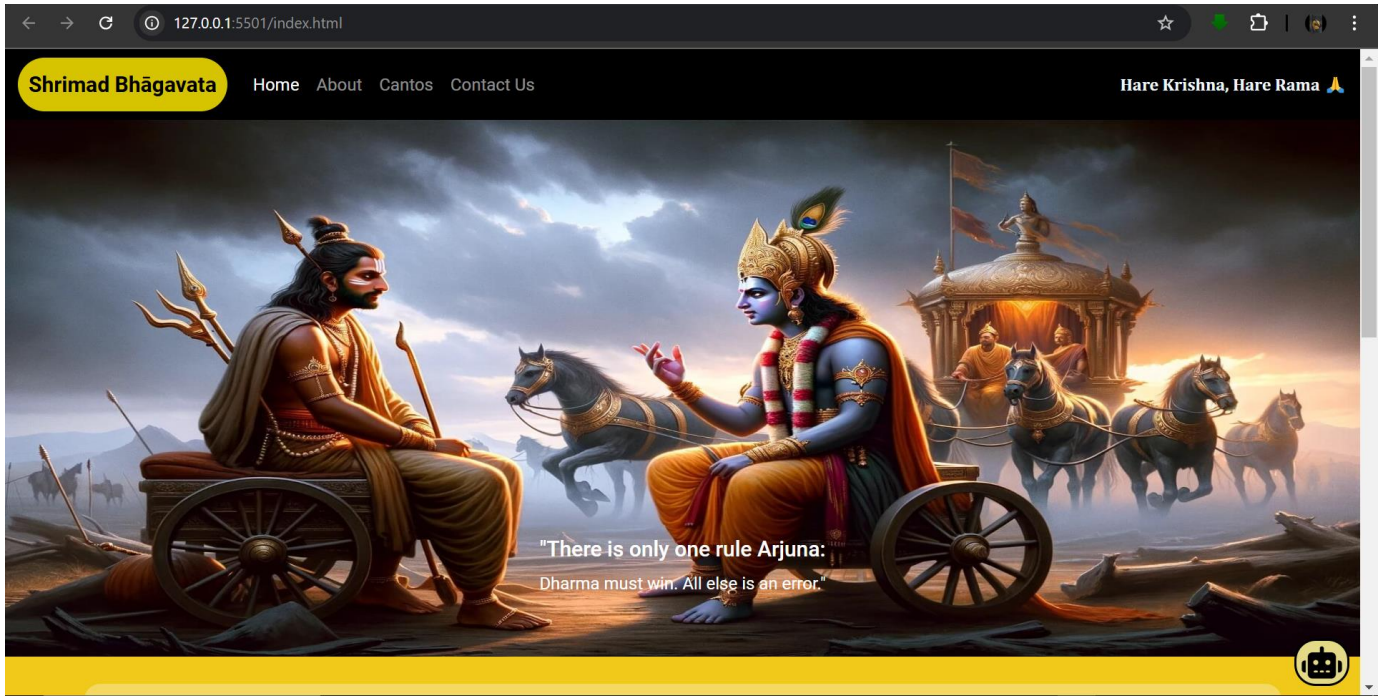
For example, if a user types, "I’m feeling angry," the chatbot detects the emotion as anger and suggests shlokas that provide guidance on managing anger. This integration of sentiment analysis ensures that the chatbot delivers a personalized and meaningful experience, making the teachings of the Bhagavad Gita accessible and applicable to users' emotional contexts.

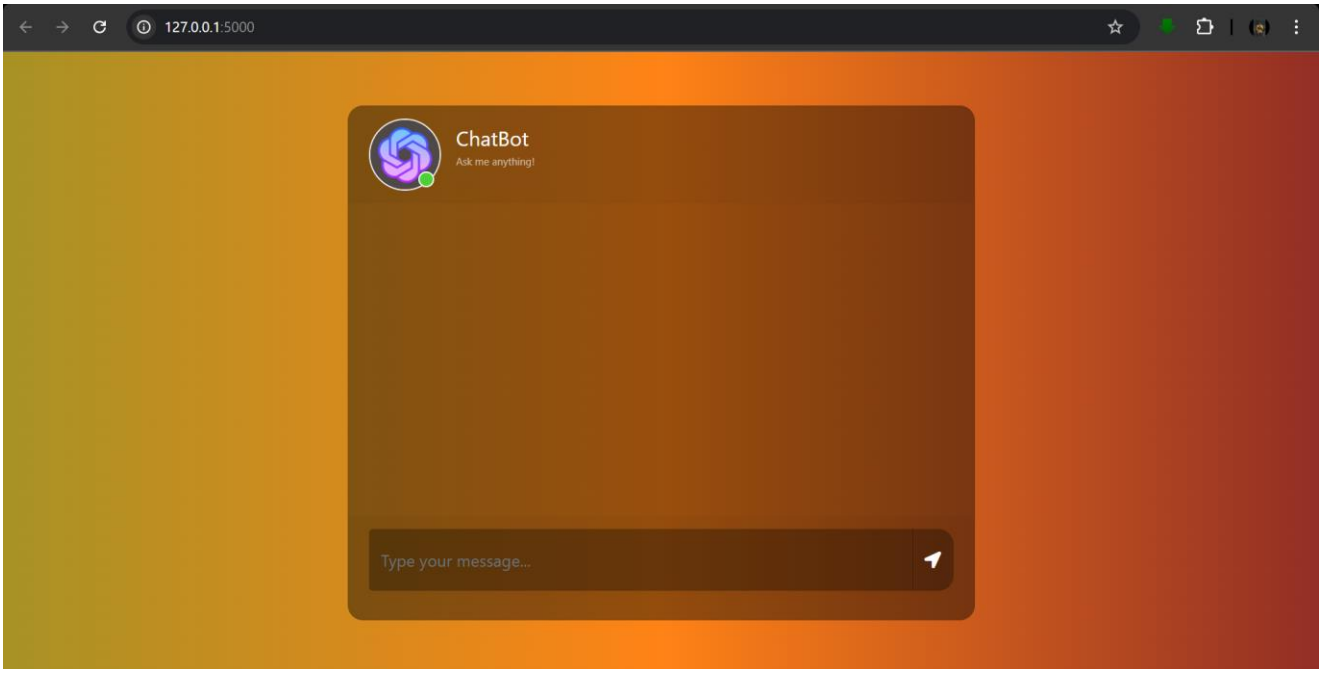
Chapter 5

Implementation

5.1 LAYOUT

The initial page that the audience land on is the homepage but also acts as a landing page directing the audience to commit to an action. In this case, the ‘Cantos’ link is the call to action, therefore having the outline of the border in a different color to the other links on the page helps simplify the decision-making process for the audience. Although there are other links on this page, the call to action is positioned both under the <h1> tag and at the bottom of the page, giving more than one opportunity to approach it. According to the Gutenberg Diagram, the call to action is located in the terminal area, where the user will need to make a decision. In the primary optical area is the navigation bar. This is “where eyes will naturally focus,” and means that users will see it immediately and easily. This will aid them in understanding what the website has to offer and will guide users to pages beyond the homepage. To ensure the website was made as modern as possible, a parallax scrolling design has been used. This is interactive in nature and will therefore increase the level of engagement. It is common for the younger audience to be used to a scrolling design on their phones thus creating a recognizable feel to the website.



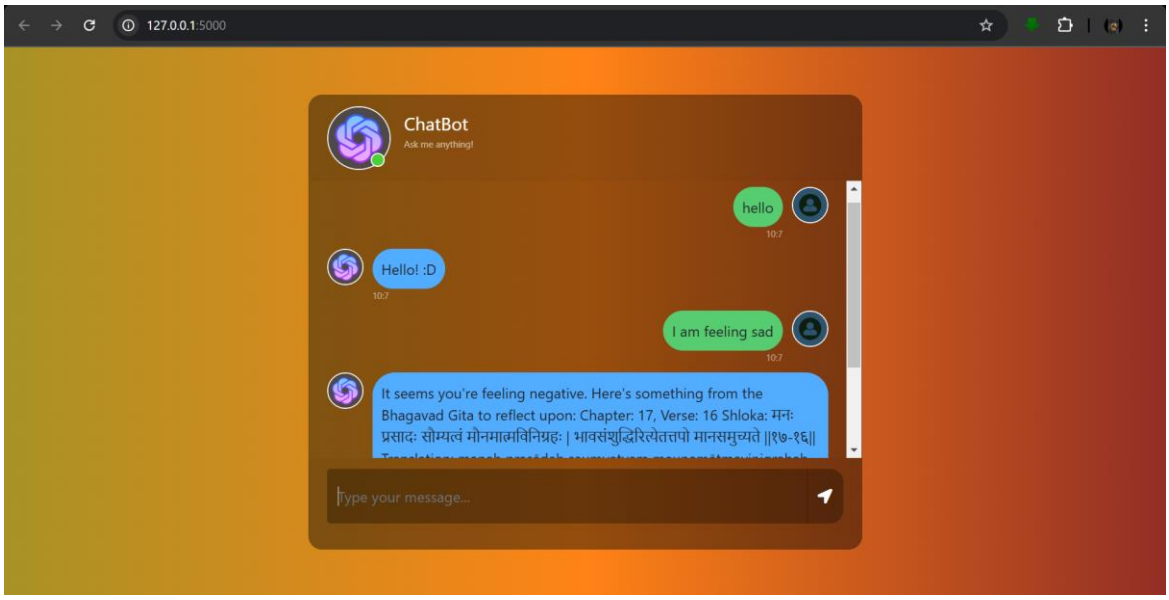


5.2 MOBILE OPTIMIZATION

In order to maximize the number of potential audience members this site uses media queries. This website is responsive on 3 different sizes of device:

- Smartphones >500px
- Tablets >960px
- Desktop / Laptops <960px

According to Kemp (2017), more than half of the world now use a smartphone, and more than half of the world's web traffic now comes from smartphones, so it is of vital importance that a website can be viewed on mobile phones. However, not only are sites being accessed by more people on more devices, "customers are returning to our sites at different times using different devices." Therefore, having a responsive website is a key trend that modern websites must incorporate. To minimize loading times on smaller devices, the background video changes to a still image on devices under 960px. The call to action adapts to have a background color to keep the user's attention as there is no ability to hover a mouse on anything other than desktops or laptops.


127.0.0.1:5000
ChatBot
Ask me anything!
hello
10:7
Hello! :D
10:7
I am feeling sad
10:7
It seems you're feeling negative. Here's something from the Bhagavad Gita to reflect upon: Chapter: 17, Verse: 16 Shloka: मनः प्रसादः सौम्यत्वं मौनमात्मविनिग्रहः | भावसंशुद्धिरित्येतत्तपो मानसमुच्यते ||१७-१६||
Type your message...

5.3 COLORS

Color deeply influences the overall look and feel of a website and will be the first impression visitors will have about you, often decisive in making them want to stay or close their browser. Colors have different meanings in different cultures and countries, so understanding the meaning of color in your target market can be important. The color palette used for the website was kept really clean and simple.

The colors used for the website:
1. rgb (240, 201, 26) [DARK YELLOW]
2. rgb (214, 196, 0) [MEDIUM YELLOW]
3. rgb (255, 231, 122) [LIGHT YELLOW]
4. BLACK
5. #fff [WHITE shade]
6. #8ff2f9 [LIGHT BLUE]
7. rgb (133, 248, 71) [LIGHT GREEN]
8. #555 [DARK GREY]

Background colors used in the Chatbot:
Gradient 1: -webkit-linear-gradient (rgb(40, 59, 34), rgb(70, 61, 54), rgb(32, 32, 43)).
Gradient 2: Linear-gradient (rgb(168, 146, 37), rgb(255, 131, 22), rgb(146, 46, 37)).
White for clean sections.
Transparent Overlay: rgba(0,0,0,0.3).

5.4 FONTS

To avoid looking messy, the best is to use a maximum of two or three fonts on a page. For the main font, the one used for the title, we wanted something modern but again not too distracting.

The fonts used here:
1. 'Poppins', sans-serif
2. Regular

All the fonts used are used within a list of fallback fonts because not every computer or every browser will have the same fonts available. In this case, if the first font in the list is not available, the browser will try to use the next font specified, and so on.

Chapter 6

Conclusion

The goal of this project is to make the teachings of the **Bhagavad Gita** more accessible to today's generation, who may be unaware of the profound wisdom contained within our religious mythologies. By utilizing Machine Learning and sentiment analysis, the chatbot offers personalized shloka recommendations based on user emotions, providing guidance on overcoming challenges, self-doubt, and fear. The integration of these technologies helps users tap into their inner strength and connect with their true nature, just as the **Bhagavad Gita** encourages. Ultimately, this project aims to inspire courage, self-awareness, and conviction in the face of adversity, promoting a deeper understanding of our spiritual heritage.

Chapter 7

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CONTRIBUTION

ANURAG PANDA (2105181):
1. Integration of frontend & backend.
2. Write the backend using python framework “Flask” for necessary API call & server management.
3. Push the project in the GitHub repository.
4. Deploy website in a free domain.

ANKIT HATI (21052897):
1. Integrate dataset in with the ML Model.
2. Create & train the ML model.
3. Integrate Sentimental Analysis for emotion detection.
4. Fix bugs in the model with every review session.

PRAJUKTA SAHOO (21051231):
1. Code the required APIs for the chatbot to fire the sentimental analysis.
2. Frontend integration with the APIs.
3. Research of appropriate dataset for proper training of the ML model.

SAUMYA (2129100):
1. Design the Chatbot layout.
2. Implement it through HTML and CSS.
3. Make the chatbot Responsive to all screen-types and devices.

PLAGIARISM REPORT

ORIGINALITY REPORT

24%	20%	11%	13%
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