**An Industrial Oriented Mini Project Report on**

# HISTORICAL FACTS AND TRIVIA CHATBOT

Submitted in Partial fulfillment of requirements for the award of the degree of

**BACHELOR OF TECHNOLOGY**

**In**

**COMPUTER SCIENCE AND ENGINEERING(AI&ML)**

**By**

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**Under the guidance of**



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**DEPARTMENT OF COMPUTERSCIENCE ANDENGINEERING**

**KESHAV MEMORIAL INSTITUTE OF TECHNOLOGY**

**(AN AUTONOMOUS INSTITUTION)**

**Accredited by NBA & NAAC, Approved by AICTE, Affiliated to JNTUH.**

**Narayanaguda, Hyderabad, Telangana-29**

**2024-25**

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## DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING(AI&ML) CERTIFICATE

This is to certify that this is a bonafide record of the project report titled **“**Historical Facts And Trivia Chatbot**”** which is being presented as the Industrial Oriented Mini Project report by

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Submitted for Viva Voce Examination held on



# Vision & Mission of KMIT

## Vision of KMIT

* To be the fountainhead in producing highly skilled, globally competent engineers.
* Producing quality graduates trained in the latest software technologies and related tools and striving to make India a world leader in software products and services.

## Mission of KMIT

* To provide a learning environment that inculcates problem solving skills, professional, ethical responsibilities, lifelong learning through multi modal platforms and prepares students to become successful professionals.
* To establish an industry institute Interaction to make students ready for the industry.
* To provide exposure to students on the latest hardware and software tools.
* To promote research-based projects/activities in the emerging areas of technology convergence.
* To encourage and enable students to not merely seek jobs from the industry but also to create new enterprises.
* To induce a spirit of nationalism which will enable the student to develop, understand India's challenges and to encourage them to develop effective solutions.
* To support the faculty to accelerate their learning curve to deliver excellent service to students.

# Vision & Mission of CSE(AI&ML)

## Vision of the CSE(AI&ML)

To be among the region's premier teaching and research Computer Science and Engineering departments producing globally competent and socially responsible graduates in the most conducive academic environment.

## Mission of the CSE(AI&ML)

* To provide faculty with state of the art facilities for continuous professional development and research, both in foundational aspects and of relevance to emerging computing trends.
* To impart skills that transform students to develop technical solutions for societal needs and inculcate entrepreneurial talents.
* To inculcate an ability in students to pursue the advancement of knowledge in various specializations of Computer Science and Engineering and make them industry-ready.
* To engage in collaborative research with academia and industry and generate adequate resources for research activities for seamless transfer of knowledge resulting in sponsored projects and consultancy.
* To cultivate responsibility through sharing of knowledge and innovative computing solutions that benefit the society-at-large.
* To collaborate with academia, industry and community to set high standards in academic excellence and in fulfilling societal responsibilities

# PROGRAM OUTCOMES (POs)

**PO1. Engineering Knowledge:** Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution ofcomplex engineering problems.

**PO2. Problem Analysis**: Identify formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences

**PO3. Design/Development of solutions:** Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

**PO4. Conduct Investigations of Complex problems:** Use research-based knowledge and research methods including design of experiments, analysis and interpretationof data, and synthesis of the information to provide valid conclusions.

**PO5. Modern Tool Usage:** Create select, and, apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.

**PO6. The Engineer and Society**: Apply reasoning informed by contextual knowledge to societal, health, safety. Legal und cultural issues and the consequent responsibilities relevant to professional engineering practice.

**PO7. Environment and Sustainability:** Understand the impact of the professional engineering solutions in societal and environmental contexts and demonstrate the knowledge of, and need for sustainable development.

**PO8. Ethics:** Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

**PO9. Individual and Team Work: :** Function effectively as an individual, and as a member or leader in diverse teams and in multidisciplinary settings.

**PO10. Communication:** Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions..

**PO11. Project Management and Finance:** Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

**PO12. Life-Long Learning:** Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

# PROGRAM SPECIFIC OUTCOMES (PSOs)

**PSO1:** An ability to analyze the requirements for tracking Amazon product prices and design a Python-based IT solution that includes web scraping and email alert mechanisms, contributing to enhanced user convenience and informed decision- making.

**PSO2**: Demonstrate expertise in technologies such as Python, web scraping (e.g., BeautifulSoup), email communication (SMTP), and automation, showcasing proficiency in using evolving tools and methodologies relevant to data-driven applications.

# PROGRAM EDUCATIONAL OBJECTIVES (PEOs)

**PEO1:** Graduates will have successful careers in computer related engineering fields or will be able to successfully pursue advanced higher education degrees.

**PEO2:** Graduates will try and provide solutions to challenging problems in their profession by applying computer engineering principles.

**PEO3:** Graduates will engage in life-long learning and professional development by rapidly adapting to the changing work environment.

**PEO4:** Graduates will communicate effectively, work collaboratively and exhibit high levels of professionalism and ethical responsibility.

# PROJECT OUTCOMES

**P1**: Efficiently track and analyze price data for Amazon products to identify price drops and trends accurately.

**P2:** Provide users with a seamless and intuitive web interface for managing their tracked products and setting up custom price alert preferences

**P3:** Ensure real-time responsiveness to price updates, promptly notifying users cha significant via changes email alerts.

**P4:** Implement a secure and reliable email notification system, enabling users to receive price alerts and updates anywhere with an active internet connection.

**MAPPING PROJECT OUTCOMES WITH PROGRAM OUTCOMES**

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **PO** | **PO1** | **PO2** | **PO3** | **PO4** | **PO5** | **PO6** | **PO7** | **PO8** | **PO9** | **PO10** | **PO11** | **PO12** |
| **P1** |  |  |  |  |  |  |  |  |  |  |  |  |
| **P2** |  |  |  |  |  |  |  |  |  |  |  |  |
| **P3** |  |  |  |  |  |  |  |  |  |  |  |  |
| **P4** |  |  |  |  |  |  |  |  |  |  |  |  |

L – LOW M –MEDIUM H– HIGH

## PROJECT OUTCOMES MAPPING WITH PROGRAM SPECIFIC OUTCOMES

|  |  |  |
| --- | --- | --- |
| **PSO** | **PSO1** | **PSO2** |
| **P1** |  |  |
| **P2** |  |  |
| **P3** |  |  |
| **P4** |  |  |

**PROJECT OUTCOMES MAPPING WITH PROGRAM EDUCATIONAL OBJECTIVES**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **PEO** | **PEO1** | **PEO2** | **PEO3** | **PEO4** |
| **P1** |  |  |  |  |
| **P2** |  |  |  |  |
| **P3** |  |  |  |  |
| **P4** |  |  |  |  |

# DECLARATION

I hereby declare that the results embodied in the dissertation entitled **“**Historical Facts And Trivia Chatbot” has been carried out by us together during the academic year 2024-25 as a partial fulfillment of the award of the B.Tech degree in Computer Science and Engineering from JNTUH. I have not submitted this report to any other university or organization for the award of any other degree.

**Student Name Roll no.**

**K VISHNU VARDHAN REDDY 22BD5A6609**

**AMULYA SUKRUTHA 21BD1A662E**

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I am also thankful to our Faculty Supervisor **Mrs. Lavanya Reddy**, for her/his valuable guidance and encouragement given to us throughout the project work.

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I sincerely thank my friends and family for their constant motivation during the project work.

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# ABSTRACT

This project focuses on the development of an interactive Historical Facts and Trivia Chatbot, designed to enhance learning through conversational AI. The chatbot engages users by providing random historical facts, answering queries related to historical events and figures, and offering trivia quizzes to test users' knowledge. Utilizing natural language processing (NLP) and simple conversational logic, the bot allows users to interact in a natural, conversational style, offering an engaging and educational experience.

The front end of the application is built using Flask, a lightweight Python web framework, which provides a simple yet effective interface for users to interact with the chatbot. Flask's flexibility makes it ideal for a dynamic, responsive front-end experience, while the chatbot logic resides on the backend, handling user inputs and generating appropriate responses. Historical data, including facts and trivia, are stored in a database, with future potential for integrating external APIs to expand the bot's knowledge base.

This project highlights the intersection of AI and web development in educational technology, demonstrating how conversational agents can be applied to foster interactive learning environments. Targeted at history enthusiasts, students, and educators, the chatbot makes historical knowledge more accessible and fun through instant fact-sharing and interactive quizzes.

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| --- | --- | --- | --- | --- |
| **LIST OF FIGURES** | | | | |
|  | **S.No** | **Name of Screenshot** | **Page No.** |  |
| **1.** | Use Case Diagram | 13 |
| **2.** | Activity Diagram | 14 |
| **3.** | User’s Home Page | 36 |
| **4.** | Facts Page | 37 |
|  | **5**. | Quiz Page | 38 |  |
|  | **6.** | Chatbot Page | 39 |  |

**CONTENTS**

DESCRIPTION PAGE

**CHAPTER -1** 1

1. **INTRODUCTION2-5**
   1. Background and Motivation 2
   2. Problem Statement 3
   3. Objectives 4
   4. Scope and Limitation 5

**CHAPTER – 2** 6

1. **LITERATURE SURVEY7-13**
   1. Relevant Research Papers and Projects 7
   2. Theoretical Framework 9
   3. Related Technologies and Tools 10
   4. UML Diagrams 12

**CHAPTER – 3** 14

1. **METHODOLOGY15-18**
   1. Description of Approach/Method Used 15
   2. Software & Hardware Requirements 17

**CHAPTER – 4** 19

1. **IMPLEMEMTATION20-34**
   1. Detailed Explaination of How Project Executed 20
   2. Code Structure and Architecture 23

**CHAPTER – 5** 35

1. **RESULTS 36-39**
   1. Presentation of Results 36

CONCLUSION 40

REFERENCES 41