**Week – 3 Development & Implementation**

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**Introduction**

The **Chanakya University Chatbot** is an interactive tool developed to assist students, faculty, and visitors in navigating the university campus. It offers quick access to location-based information, staff details, and common FAQs, making it easier for users to find directions and necessary information in real-time.

**Objectives**

* Provide instant information on campus locations and facilities.
* Help users identify staff members and departments.
* Guide new students and visitors with directions.
* Offer FAQs and example queries to improve user interaction.
* Ensure ease of use with simple commands and quick responses.

**Functional Description**

**Introduction**

The chatbot aims to simplify the process of finding information within the campus. Users can interact with it to get details about places, staff, and facilities without needing manual assistance.

**Implementation**

The chatbot is built using Python. It processes user queries by matching keywords against predefined data, enabling quick and accurate responses.

**Chatbot Interface**

Users enter their queries through a console interface. The chatbot processes these inputs and responds instantly with appropriate information.

**Database Integration**

Location and staff information are stored in Python dictionaries. This acts as a lightweight database, allowing easy updates and efficient retrieval of information.

**NLP Handling**

The chatbot detects keywords like “where is” or “who is” to interpret user queries. This basic NLP approach ensures the bot understands user intent and provides relevant responses.

**Campus Navigation**

The bot assists users by providing directions and descriptions of various campus locations. This helps students and visitors explore the campus with ease.

**FAQs Handling**

Users are provided with sample questions and help messages to guide them on how to interact with the chatbot and what kind of information they can request

**User Commands**

Supported commands include:

“Where is <location>?” to find places.

“Help” or “FAQ” to get guidance.

“Exit” to close the chatbot session.

**Technical Implementation**

* **Programming Language:** Python
* **Data Storage:** Python dictionaries for storing campus information
* **NLP Handling:** Keyword-based matching to understand queries
* **User Interface:** Console-based interaction
* **Scalability:** Easy to extend with new locations and staff data

**Deliverables**

* A prototype chatbot that answers FAQs and provides directions.
* A functional database with location details.
* Navigation support for guiding users across the campus.

**Features**

* User-friendly interface suitable for students and visitors.
* Fast and efficient responses through keyword-based processing.
* Easily expandable data structure for locations
* .
* Provides help messages and usage instructions.
* Supports real-time navigation assistance.

**Conclusion**

The Chanakya University Chatbot is a simple yet effective solution designed to help students, staff, and visitors access information quickly. With its intuitive interface and smart navigation support, the chatbot enhances campus usability and offers a seamless experience for users.