**CHANAKYA UNIVERSITY**

“Campus Navigator & questions answering Chat-bot”

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**1. Introduction:**Large university campuses with multiple buildings and departments can be difficult to navigate for new students, visitors, and even faculty. A Campus Navigation Chatbot addresses this by providing real-time, personalized assistance. By integrating an AI-powered conversational interface with navigation technologies like the Google Maps API, the chatbot acts as a dynamic digital guide, saving time and reducing confusion.

**2. Problem Statement:** At Chanakya University, students and visitors frequently struggle to find food courts, canteen,library,departments, and other facilities. Current solutions like big maps all around pointing you’re here and signs are not so much in detail or user-friendly. This lack of a system leads to wasted time and a poor first impression or experience. An intelligent, map-integrated chat-bot is needed to provide perfect user friendly navigation and answer common questions.

**3. Objectives:** To design and develop a chat-bot that helps students and visitors navigate the campus . To use the Google Maps API for real-time, location specific directions. To provide detailed information on departments, offices, and facilities through the conversational queries. To build a data accurate FAQ module covering topics like admissions block,courses, and events. To develop the system using technologies such as Python, lite database and a modern chat-bot (rasa/dialog flow) etc.

**4. Scope:**  
 Navigation assistance to departments, hostels, libraries, and cafeterias. Answering FAQs on admissions and campus facilities. Availability on web and mobile phones also. Integration with the Google Maps API.

Out of Scope:Detailed indoor navigation (e.g., specific room numbers within a building). Integration with external ride-hailing apps (Uber, Ola). Voice-enabled AI beyond a text-based interface.

**5. Requirements Collection:** Digital maps and layouts of the university. Details of all departments, offices, hostels, and other facilities. Information on academic schedules and events. A collection of frequently asked questions and answers for the chat-bot's knowledge.

**6. Literature Review** :

Existing university chat-bots often focus on administrative queries and lack navigation features. While navigation apps like Google Maps are powerful, they don't have the context for specific campus-related questions. A clear gap exists for a hybrid system that combines conversational FAQs with dedicated, university-specific location services.

1. **Tools & Technology Finalization:** Programming Language: Python.   
   Chatbot Framework: Rasa or Dialogflow.   
   Database: SQLite or MySQL.  
    Maps Integration: Google Maps API.   
   Deployment: Web or mobile application interface