**TELEGRAM BOT THAT PROVIDES STUDENTS WITH ACADEMIC RELATED INFROMATION IN COMPUTER SCIENCE DEPARTMENT**

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**1.1 BACKGROUND OF THE STUDY**

At the beginning of a new session, the department receives many admitted students and to convert this admission into enrolments, swift communication is crucial. Students may have questions ranging from courses offered, course credit load, lecturers and their courses. Students comes to computer science department without knowing the courses and lecturers and will need assistance to settle down in the school. With so many on-going registrations, the department can find it difficult to respond to every student even after orientation.

Apart from prospective students, returning students need to get certain information about recent development in the department.

The need for department inquiry system arises due to various reasons that include: the in-existence nature of departmental website, an outsider would not know where to search for a particular piece of information, difficult for the person outside college’s domain to extract information.

Telegram bots provides solution to this problem by providing all the important information they need to get comfortable in school. It also helps students navigate through the usual interface used by people every day on their smartphones. A telegram bot is an artificially intelligent software application used to conduct an automated online chat conversation with a user in natural language (human language such as English) via text.

Telegram bot recognize the user input as well as by using pattern matching, access information to provide a predefined acknowledgment. It is implemented using pattern comparing, in which the order of the sentence is recognized and a saved response pattern is acclimatize to the exclusive variables of the sentence. They cannot register and respond to complex questions, and are unable to perform compound activities. (M. Dahiya, 2017). Over duration of interactions, Telegram bots gather enormous data that provides helpful information about common concerns students face to make significant changes to its operation.

This proposed telegram bot is developed using a mobile-based application and implemented on telegram using the python request library, BotFather API, while Django(python)will serve as backend these are the modern language used in developing the system. The platform makes it easy to design and integrate a conversational user, the telegram bot uses a GUI (Graphic User Interface) integrated into a web app to provide answers to user’s query.

**1.2 STATEMENT OF THE PROBLEM**

In the lead up of starting a new academic year, applicants are buzzing with a lot of questions and it’s undoubtedly a busy time for departments responding to an influx of questions requiring fast responses. In past years, students and parents had to visit the college to enquire about details and other information about the college that is a lengthy and time-consuming process. This is also a hectic and resource wasting process for the departmental offices. To save time, energy and resources this can now be done over the internet with telegrambots.

**1.3 AIM AND OBJECTIVES OF THE STUDY**

To develop an application based on telegram bot, that aids students with academic related information and requests regarding the department.

**OBJECTIVES**

The objectives of this project are:

1. User data set will be generated from their registered telegram accounts.
2. A responsive GUI which replies users will be implement to stimulate a real person conversing.
3. In storing and retrieval of the collected dataset; Sqlite3 which is an open-source relational database technology will be employed. In providing answers to user queries BotFatherAPI, python request library and Django will be employed.
4. Vital testing will be carried out in ensuring the efficacy of the research work

**2.1 LITERATURE REVIEW**

Design of Telegram Bots for Campus Information Sharing. A recent study by Setiaji, H., & Paputungan, I. V. (2018). This study provides a Telegram bot concept to enhance campus information exchange. Webhooks are the communication technique employed. Webhooks can provide zero latency and handle numerous requests concurrently during Telegram bot conversation. This type of bot provides information in response to specified requests. The Telegram bot prototype demonstrates that, while Webhooks may give needed information, Webhooks configuration is more complicated and time-consuming.

Ahmadi, A., Setiawan, D., Suprayitno, S., & Hartoko, P. (2020) recently conducted research on Design of Academic Information System Based on Bot Telegram in Smart Campus Concept. The establishment of the Smart Campus idea is an aim for many educational institutions. Smart Campus is the notion of a smart campus to give optimum service to the entire academic community by effectively and efficiently monitoring and managing current resources. Smart Campus can also deliver relevant information to students or campus institutions at all times, including during unforeseen situations. It is recommended in this study to optimize the academic information system that is connected with the Telegram communication program. This Telegram application is free, lightweight, and multiplatform, with a somewhat extensive and better developed Bot API. Students receive real-time updates and may speak with the Telegram Bot, which is meant to offer all STTAL information. The admin can post course material to the Telegram Bot, which students can subsequently download. As a prototype, 11 commands are constructed in this study. This study was put to the test by executing all of the commands supplied. This Bot Telegram application is quite useful for study program personnel and instructors to communicate information to students, especially because utilizing it is relatively simple.

The Use of the Telegram Application as an Information-Sharing Tool by Alawadhi, S., & Dashti, M. (2021) a recent study on the use and acceptance of the Telegram application by sixth-grade Kuwaiti English language teachers as an information source and knowledge-sharing tool that allows users to easily find, store, and share useful learning information and improves their teaching-learning practices. To experimentally expose the results, a mixed method technique was used that includes data triangulation: observation, a survey, and a focus group. The findings demonstrated that the Telegram app was an effective source of textual and non-textual information, as well as an information-sharing tool that saved time, effort, and money while overcoming time and location constraints. The diverse information sets available on Telegram enabled the production of novel ideas, which boosted the efficacy of teaching approaches and expedited language acquisition. The findings of this study can help information experts collaborate with teachers to plan and design information material for Telegram that will support school curricula, enhance teaching practices, and build learners' information literacy abilities.

Rianto, R., Rahmatulloh, A., & Firmansah, T. A. (2019) recently conducted research on Telegram Bot Implementation in Academic Information Services with The Forward Chaining Method. Academic information is critical for students in helping academic activities, and every attempt has been made to improve academic services. The conventional method of Short Message Service (SMS) has been replaced by instant messaging programs that make the communication process more real-time due to the continual development of various mobile devices or smartphones. As a result, this project will attempt to employ technology in instant messaging as a way of academic service information delivery, with the expectation that academic material will be supplied more rapidly and up to date. Telegram is an instant messaging program that has several benefits over other instant messaging applications. The bot feature is the most popular and is being developed on Telegram, where a third party or user may design bot features based on user requirements. Thus, telegraph can assist in overcoming a variety of issues, such as academic information seeking issues. For this, I created a lecture information service application utilizing Telegram Bot. This information service application was created utilizing the Rational Unified Process (RUP) process architecture, the Forward Chaining technique, and the Python Telepot Framework for Telegram Bot API in order for the program to run via Telegram instant message. Facilitate communication and dissemination of academic information to professors, students, and the academic community by developing this application.

**3.1 PROPOSAL METHODOLOGY**

The research approach is a rigorous investigation like this to uncover new facts or information about the existing system. This study’s research technique comprises firsthand information from the department and the internet

**3.1.1 INTERVIEW**

The primary goal of utilizing interviews as a data-gathering strategy is to collect data in a comprehensive and intensive manner. The researcher met with the project coordinators from the department and obtained trustworthy information based on the questions provided by the researcher.

**3.1.2 DIRECT OBSERVATION**

This approach was used to collect information/data for this study by examining how the manual system was carried out, the method provides varying degrees of control over the context in which they are used, and the careful inspection revealed the obvious flaws in the present system.

**3.1.3 INTERNET**

Internet as a method of data collection will be employed, the internet will be used in sourcing information on regions that appears tough or perplexing in order to attain a workable result.

**3.1.4 CHOICE OF PROGRAMMING LANGUAGE**

This research work will be a mobile-based application and will be implemented on a relational database system (SQLite). The student telegram Bot will be developed using the python request library, BotFather API, while Django(python) will serve as backend these are the modern language used in developing the system.

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