



# A Literature Survey on College Space

<sup>1</sup>Srushti Kulkarni, <sup>2</sup>Harshil Patil, <sup>3</sup>Sakshi Dandane, <sup>4</sup>Harshada Garud, <sup>5</sup>Prof. Chetana Baviskar

<sup>1,2,3,4</sup> Student and <sup>5</sup> Asst. Professor ,  
Department of Computer Engineering,  
Alard College of Engineering and Management, Pune, India

**Abstract :** The World is moving towards digitization and so are the schools and Colleges. The sudden spread of corona all over the world forced many students and teachers to rapidly adapt to new methods of teaching, that is, the online mode of teaching. This resulted in many faculties and students facing problem to adapt to the new mode of teaching. To overcome this problem and to be ready for it in future we have developed a website, particularly for better and easier student teacher interaction. The proposed system is known as College Space. College Space is a one stop solution for teachers as well as students. It provides students with many different types of section which will help them in numerous ways. This proposed system will provide students with colleges updates , a strong alumni network, a list of companies which are hiring. It will also allow students to directly interact with faculties during especially during exams to solve their queries / doubts with the help of messaging app provided in the system. Chatbot is also been provided to converse queries and get the doubts resolved.

**Keywords :** AI enforced, database, socket.io ,chatbot etc.

## I. INTRODUCTION

The world is moving towards digitalization and so are the schools and colleges. the sudden spread of corona all over the world forced many students and teachers to rapidly adapt to new methods of teaching, that is, the online mode of teaching. this resulted in many faculties and students facing problem to adapt to the new mode of teaching. school and colleges have switched to new mode of online learning and due to this sudden shift many faculties and students are facing problem and therefore we provide with a solution which will help better interaction of students and teachers and will help students with study material and important college related information.[2] not only during the online mode, this proposed system will also be useful even if colleges function in offline mode as it will have many additional benefits like alumni network, list of companies etc. here the main aim is to help colleges with online chores , help them provide one to one online interaction between students and teachers, provide students with list of companies with hiring drive and provide them with study material. also there will a section for students with alumni network and give an insight on previous year projects build by the previous batches . the system will also be having the latest way of interaction using the technology that is chatbot for urgent enquires, queries, etc.[5] it will also consist of an application where faculty and students can converse with each other by sitting at there end. messaging app similar to WhatsApp will be build to help the college faculty and enrolled students in the institute [4].

## II. LITERATURE SURVEY

### 1. Online Survey using WhatsApp.

Inggar Tri Agustin, Novia Ratnasari, et.al., have proposed online survey using WhatsApp. This study aims to look at the Effectiveness of WhatsApp in increasing student interest in Digital System Subjects during the Covid-19 Pandemic. The result of this research shows a negative response. It can be seen from the results of the study that students prefer to have face-to-face learning than online learning[1].

### 2. Chatbot using python.

Achmad Ramaditya, Suci Rahmatia et.al., have proposed chatbot using python .The Chatbot application system is very important in the marketing field, especially for disseminating information directly and acceptable to many users at a time. This paper focused on using the WhatsApp application for the Chatbot system. People communicate with WhatsApp chatbot via the chat interface, like talking to a real person. It's a set of automated replies that simulates a human conversation on WhatsApp.. The Chatbot system is designed to run successfully on 15 contacts at a time. Chatbot server connection speed affects the speed of sending messages and checking every incoming message This is because Python program cannot read the message [2].

### 3. Chatbot using ML.

Vaishnavi Putnala, Hrushikesh Koundinya et.al., have proposed the idea of chatbot using ML. Users interact with systems more and more through voice assistants and chatbots. A chatbot is a computer program that can converse with humans using Artificial Intelligence in messaging platforms. Every time the chatbot gets input from the user, it saves input and response which helps chatbot with little initial knowledge to evolve using gathered responses. With increased responses, precision of the chatbot also gets increases. This project aimed to implement online chatbot system to assist users who access college website, using tools that expose Artificial Intelligence methods such as Natural Language Processing, allowing users to communicate with college chatbot using natural language input and to train chatbot using appropriate Machine Learning methods so it will be able to generate a response [3].

### 4. Use of Chatbot in e-education.

Gwendal Daniel, Jordi Cabot have proposed the idea of using chatbot as an aid in e education. Instant messaging platforms have been widely adopted as one of the main technologies to communicate and exchange information Nowadays, most of them provide built-in support for integrating chatbot applications, which are automated conversational agents capable of interacting with users of the platform. Chatbots have proven useful in many other contexts to automate tasks and improve the user experience, such as automated customer services, education and e-commerce[4].

### 5. WhatsApp Messaging using wiretap.

Rick Cents, Nhlen-An Le-Khac have worked on the idea of WhatsApp messages encryption via wiretapping. Today traditional communication methods, such as SMS or phone calls, are used less often and are replaced by the use of chat application. WhatsApp is one of the most popular chat application nowadays. The implementation of encryption makes WhatsApp more challenging for law enforcement agencies to identify when a suspect is sending or receiving messages via this chat app. In this paper, it is observed that the focus is on identifying when a suspect is receiving or sending messages using wiretap. data[5].

Table 1. refers to literature survey comparison table of the papers we have referred.

Sr. No	Paper title	Publish Year	Observation
1	Effectiveness of WhatsApp in Improving Student Learning Interests During the Covid-19 Pandemic	IEEE 2020	WhatsApp is very easy to use, most students use this application for learning or other purposes. WhatsApp also has several features that are more accessible for teachers and students to use to improve understanding. The result of this research shows a negative response. It can be seen from the results of the study that students prefer to have face to-face learning than online learning. Moreover, there are several obstacles experienced by students during the learning process using WhatsApp.
2	Implementation Chatbot WhatsApp using Python Programming for Broadcast and Reply Message Automatically.	IEEE 2020	This paper focused on using the WhatsApp application for the Chatbot system. The Chatbot system is designed to run successfully on 15 contacts at a time. Chatbot server connection speed affects the speed of sending messages and checking every incoming message. This is because Python program cannot read the message. This research can still be developed by adding a random message feature.
3	Smart College Chatbot Using ML And Python	IEEE 2021	Users interact with systems more and more through voice assistants and chatbots. A chatbot is a computer program that can converse with humans using Artificial Intelligence in messaging platforms. Nevertheless, gathering feedback from the potential user can be helpful in developing the college Chatbot system, ultimately servicing the user queries.
4	The Software Challenges of Building Smart Chatbots	IEEE 2021	Chatbots have proven useful in many other contexts to automate tasks and improve the user experience, such as automated customer services, education and e-commerce. Also they have become a key ability in IT hires in the near future.

5	Towards a new approach to identify WhatsApp messages	IEEE 2020	WhatsApp is one of the most popular chat application nowadays . In this paper , it is observed that the focus in on identifying when a suspect is receiving or sending messages using wiretap data. Challenges related to encryption..
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### III. MOTIVATION

The main purpose to build this website was to ease the interaction between students and teachers. Due to a rapid shift from offline to online method of teaching it was observed that many faculties and student were finding it difficult to cope up with this change and therefore we came up with this solution which is an easy way for students to adjust to the online mode which may also be useful in the future.[2] It will help them to focus more on studies as most of the time student tend to be using internet. So using the proposed system they will save a lot of time by not going offline for study related things. One stop solution that system gives will help them to focus on assignments, studies and other college related activities.

### IV. PROBLEM STATEMENT

Building a one stop web app for colleges or institutes where students and teachers can interact with each other with a secured and authenticate messaging App[1] .Users/students other than college/institutes can converse there queries ,doubt with the AI chat-bot[3]. The students will be provided with all college related materials such as syllabus year as well as branch wise. It will have an alumni section where they can get to know about previous happening in the college. The list of companies hiring every year, placements related talks, preparation and many other things will help students to be at there best. The secure and safe to use messaging app gives a good way to connect with the faculty sitting at own end. Also query solving is possible with the help of chatbot that is been build.

### V. METHODOLOGY

#### 1.System Architecture for College Space

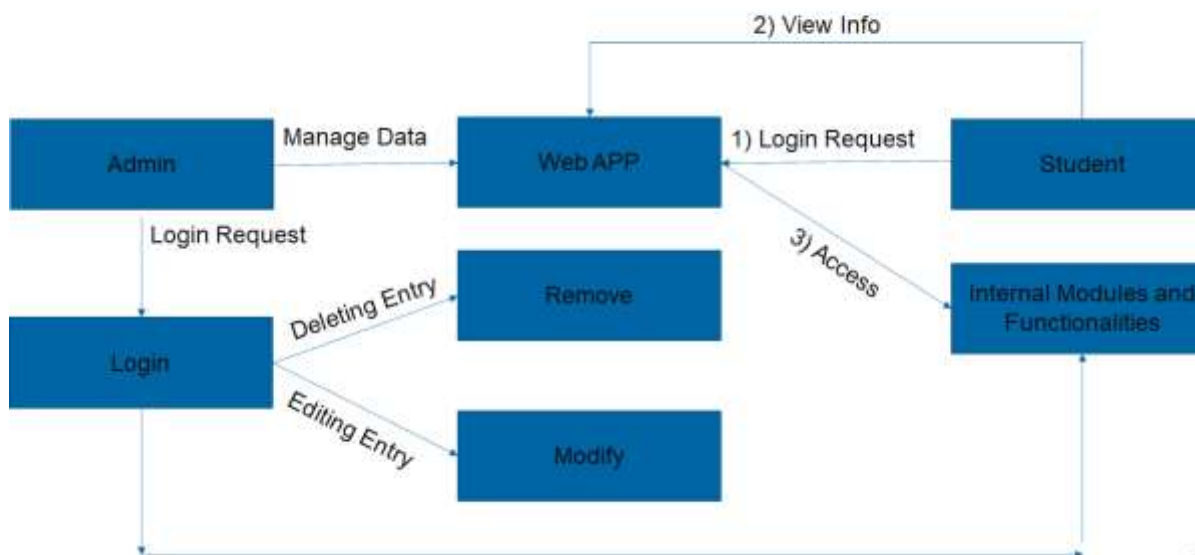


Figure 1 : System Architecture for College Space

The fig 1. refers to system architecture of the proposed system that is College Space .It will be having different modules. The modules will be created using HTML ,CSS , JavaScript and other frameworks of it. The very first module will be admin section then Module for students study material that includes Syllabus year as well as branch wise, Alumni section , list of companies that hires, recruitment related information and many more.

- Firstly, the admin section will be having a admin who is allowed to manage the data on the web page and the data which is updated by the admin is displayed to the students. Once the student login’s he or she can view information and then can also access the internal modules and functionalities. The admin can create the profiles for the faculties who can also remove or update content. Other than that even they will have access to internal modules and functionalities like the students will have. The data about the college updates, alumni section, hiring companies or syllabus will be entirely updated or deleted according to the teacher’s or admin’s wish and cannot be accessed by the students.

- Second Module will be an Chatbot . Chatbot is designed in such a way that it will solve most of the queries ,doubt related to institute or college. Students or anyone who wish to know more about the institute can converse questions and will get the answer to there query. Chabot is build in such a way that it can solve maximum number of questions been raised and clear individuals doubts.
- For all the enrolled students in the college will have an advantage to interact with there respective faculty member with the help of the messaging application that is been developed. The students can connect with teachers with the messaging feature as well as video calling feature provided in the proposed system.
- The messaging app is similar to WhatsApp. It will be build using ReactJS which is a JavaScript library. Students can connect to application with their google account id that is Gmail id. Google account gives a secure and safe logins to its users. All the data will be stored in firebase which is again a secure and easy to use application. Firebase is a database service provided by Google for secure database management for any individual or organization. Deployment of the system will be done on Heroku. Heroku is a platform where you can easily deploy your application.

## 2.Mathematical Model

System Description: Let S be the system, and it consist of followings:  $S = \{U, A, C, Sy, M, Ch\}$

where, U = College Updates

A = Alumni Section

C = Companies

Sy = Syllabus

M = Messaging

Ch = Chat-Bot

- Input: {L} where, L = Log in id and Password
- Process: {Log, ,Check, Upd ,Alm , Comp, Msg, Cb}

where, – Log: User logs in

– Check: Check user level and if admin/faculty allows additional functionalities which include updating the modules.

– Upd : Goes to updates section to get updates

– Alm : Get the alumni list and contact them through mail id for guidance

– Comp : Get list of hiring companies

– Msg: Select feature to directly contact faculties

– Cb : use chatbot fr=or minimal queries

- Success Conditions: Following are the Success cases of the system.

– the website lets you use modules correctly according to user level and allows modification if user other than student

- Failure Conditions: Following are failure cases – System Fails and crashes or allow anyone to update modules

- Mathematical Equation:  $-\{\{ ch\} \in \{U,A,C,S,M\} \in S\}$

## VI. Conclusion

The idea is to build an provide students and teachers with a simple yet dynamic web app which helps them with easy interactions. It will provide students with study material, project guidance (through alumni section) and job / internship opportunities .It will also help students to get familiar with online mode of teaching if required in future .The chatbot provided here will help outside to converse there queries related to institutes. The messaging app will benefit students by allowing them to interact with the faculty members and solve there study related doubts.

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