Online OPD Appointment Booking and Video Consultation

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Abstract: *Life is becoming too busy and if anyone wants to take the appointment with doctor thenhe/she has to go to in hospital, wait in queue to book appointment. In the situation like covid19 some people afraid to go in hospital. So, The main idea of this work is to provide ease and comfort to patients to book inclinc and video appointment with doctors and it also resolves the problems that the patients has to face while booking an appointment and this application also provides online video consultation feature so the doctors can easily consult their patient and give prescription to the patient. Patient who are afraid to go in hospital they can easily book video appointment with doctor and because of video meeting face to face communication is also possible. After booking appointment this application also generate the appointment slip so by carrying them patient can go to hospital and meet the doctor. The android application **DOCTORX** acts as a client whereas the doctor's details, patient's details and appointment details is stored and maintained in a firebase database*

Keywords: DOCTORX

I. INTRODUCTION

A Doctor Appointment System is a user-friendly digital platform that allows patients to schedule appointments with healthcare professionals quickly and efficiently. As healthcare continues to shift towards digital transformation, such systems have become essential tools for improving accessibility, reducing waiting times, and streamlining clinic operations.

The main goal of this system is to reduce waiting times, eliminate scheduling conflicts, and improve overall patient satisfaction. It allows patients to book or cancel appointments at their convenience, while doctors and clinic staff can easily manage their availability and appointment records. By automating the process, the system enhances the operational efficiency of clinics and hospitals, promotes better time management for doctors, and provides patients with timely access to medical services.

II. LITERATURE

This paper explores In hospital patient come with various disease for them Hospitals provide facilities like: Appointment booking, Consultation by Doctors on Diseases, Diagnosis for diseases, Providing treatment facility. Store the information about the Patients that come and generating bills. In hospital there are different jobs that need to be done in hospital by staff or Doctor. All these works are done on papers. User can control this with the help of technologies. Multiple technologies developed the application. The existing system is compatible for desktop, laptop and partially based on hardware, smart phone which work as different Systems on different module

The hospital's management system includes improved profitability, improved administration, and better patient care. The goal of this study is to create a digital management system that will boost the hospital's effectiveness and systems integration standards. It was able to produce a module that would provide some facilities, like booking doctors, booking lab test slots, pharmacy services, and getting health programs. This system consists of an admin handling part, which means admin can manage users, pharmacy systems, health program management, and

manage booking of doctor's appointments and lab tests. And through this system, the admin can generate multiple reports according to his need. A module that would manage the admission bills and pharmaceutical payments; and a module that could monitor the medicine inventory of the hospital pharmacy. Problem statement because hospitals are associated with ordinary people's lives and daily routines the manual handling of the record is time-consuming and highly prone to error.

III. METHODOLOGY

The Online OPD Appointment Booking and Video Consultation system is developed by first gathering requirements from patients and doctors to understand key needs like appointment scheduling, video consultations, and notifications. After designing the system architecture for both frontend and backend, appropriate technologies such as Android (Java/Kotlin) for mobile apps, MySQL for databases, and WebRTC or Twilio for video calls are selected. The development phase includes creating modules for user registration, doctor listing, appointment booking, secure video calling, and payment integration. After thorough testing (unit, integration, and user acceptance), the system is deployed on a cloud platform. Continuous monitoring, bug fixing, and feature enhancements ensure the system remains efficient, secure, and user-friendly.system. Next, the experimental design method is chosen, and the experiments are conducted to get the results. Response graphs and analysis of variance are then applied to validate the model, and final optimal conditions are identified. The two most important RSM actions out of all the subsequent processes are choosing dependent responses and evaluating independent elements.

IV. RESULTS
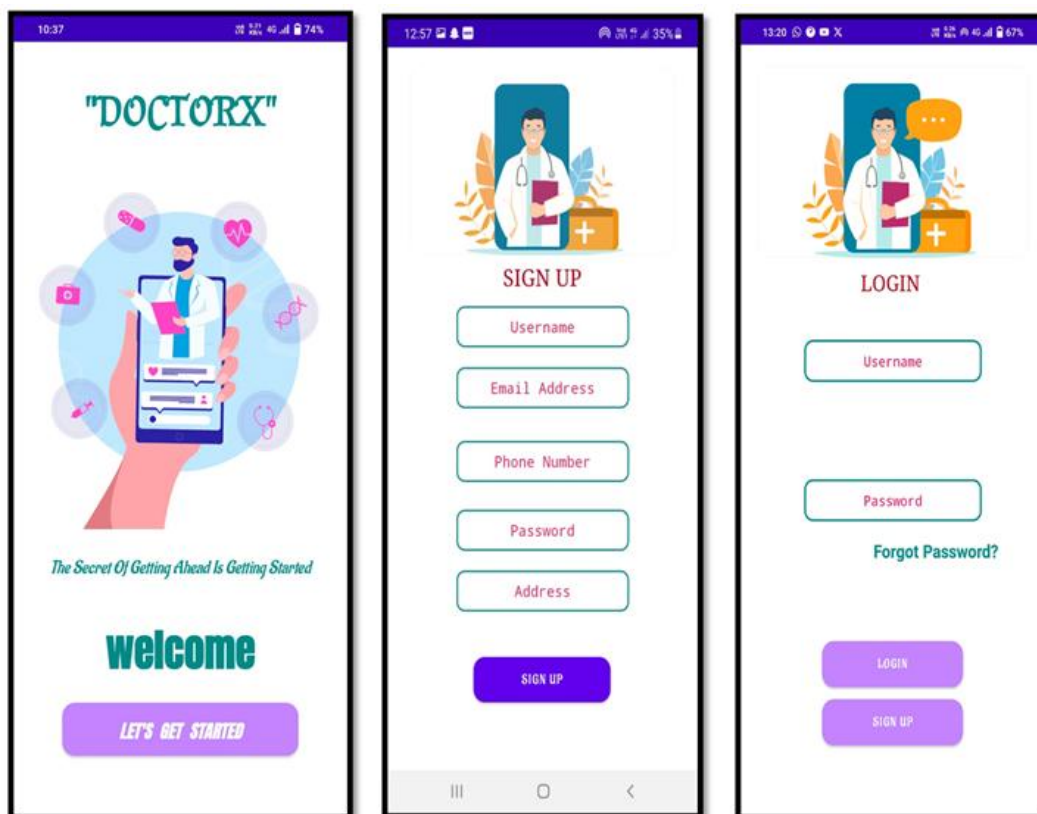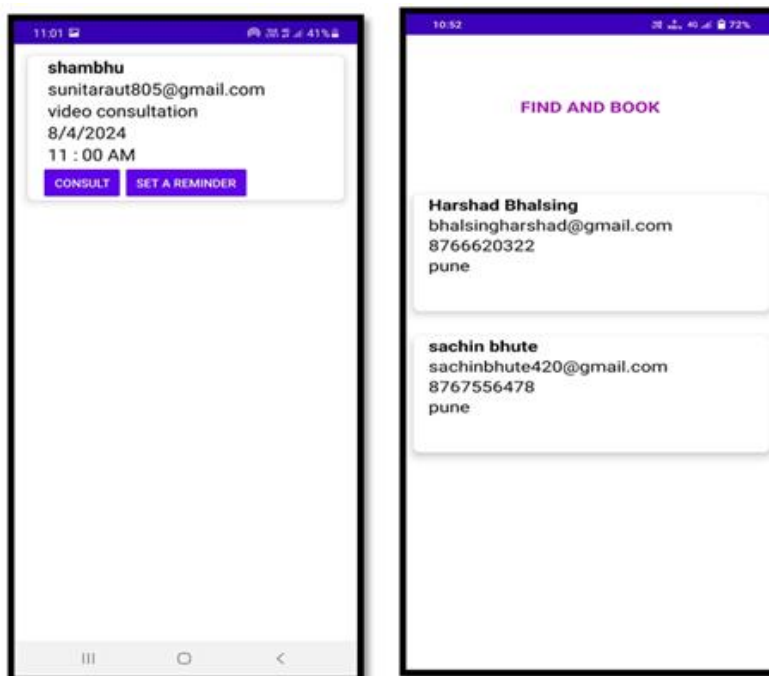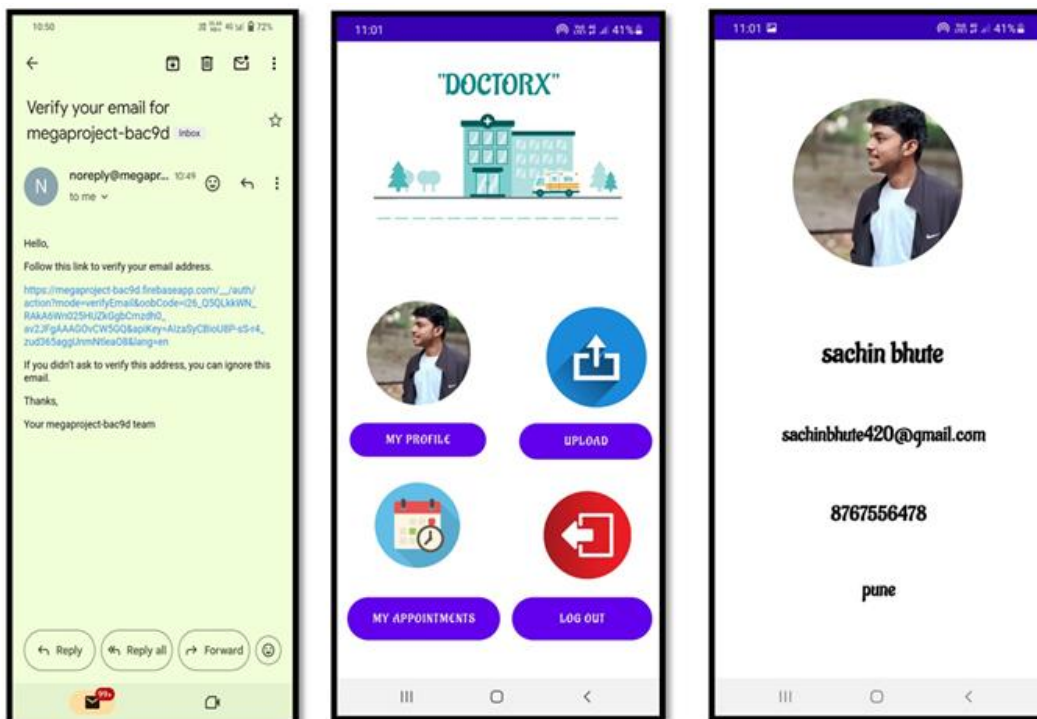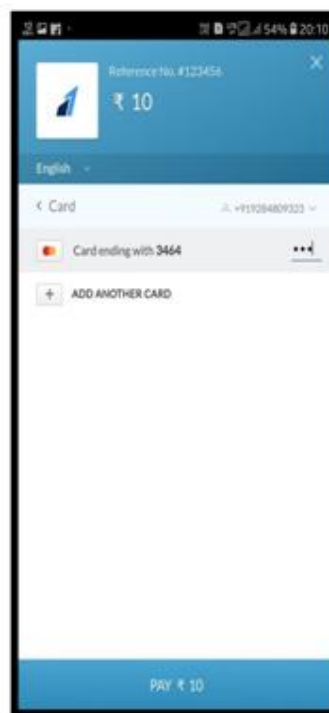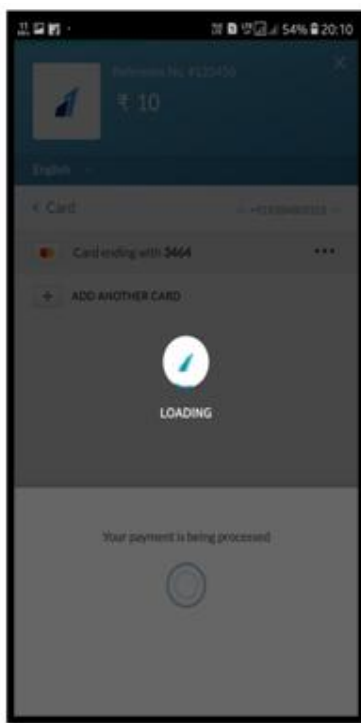
V. CONCLUSION

Thus, we have successfully developed the mobile application "DOCTORX" helping the patient to book the inclinic and video appointment with doctor by just one click from the mobile. We have added video consultation feature so that Patient can easily communicate with doctor through video meet and doctor can also give prescription to patient through video meet. So that there is no need to visit the hospital and wait in queue until the doctor is available because of "DOCTORX" application

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