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A Schedule Management for Healthcare during COVID 19

Sarita Priyadarshini Nayak[1], Sushant Jhingran[2]
[1]*MCA, Sharda University, Greater Noida, Delhi, India*
[2]*Asst. Professor, Sharda University, Greater Noida, Delhi, India*

Abstract: ***Healthcare is one of the predominant sectors among the service sector. Health care and hospital facility are continuously modified to cope up with modern requirement.Social distance is necessary for avoiding COVID 19. COVID 19 has affected the health sector drastically. The clinic and other health sector doesn't have enough space to accommodate carefully during COVID. So it is necessary to provide health facility without possible spreading of corona virus. The timing appointment is also necessary for patient avoiding the emergencies. Patients don't have to wait for ling hour in clinic. In this research work an online schedule management for healthcare sector is proposed. The online schedule management is obliging for easy admittance for patient and useful for healthcare individual for easy access. The strategy is verified taking numerous observations. The designed strategy is designed using PHP software.***
Keywords: COVID 19, Health Care, Service.

I. INTRODUCTION

Patients arerequiring assurance and comfort from the health sector. Health care is one of the greatest rising diligence in the humankind. Before the last days, health check activities were frequently communicated through call or by direct visiting. This proceduredesired the participation of persons so, the facility totake scheduled time was controlled to the accessibility of schedulers, telephonecall or theexistence of aindividual.In modern time, everyonerequire timeless and well-organizedhealth checkupastraditional schedule management system necessitates the physical appearance of persons and time-consuming waiting quoes have twisted a frustrating circumstances intended for the health organization. Therefore, it formeda necessitate for an incorporatedfitnessconcern that mightbringflawlesstrouble to outpatients and inpatients. The emergence of onlineappointment system offered timeless and efficient access to health care services.

Therefore, for hospitals and other medical societies, online appointment booking has a great importance and a subject of interest [1]. Booking appointment online has become a new trend in the past few years and isconsidered as one of the key processes in the healthcare industry. Bailey [2] considered scheduling system as a trade-off or a compromise between a doctor andpatient's waiting times. Patients who get late for the appointments or who fails to comebecomes the reason for the underutilization of a doctor's time. Idle time and underutilization of doctor's time are also resulted by gaps in the appointment times [3].Different researchers agreed that main patient dissatisfaction is caused by long waitingtimes. Cayirli [4]defined access time as the time between patients' request for the appointment and the time he is checked up. According to Veral, waiting time is the time between consultation and the scheduled time while neglecting the early arrival of a patient[4].

G. Kyambille and Khamisi Kalegele[5] the arrangement booking framework is a portable application. That incorporates the efficient for There will be no deficiency of time if the versatile based application is utilized. The versatile based application takes into consideration 24 hours for advantageous planning of patients. The tolerance can be shown up in explicit time for seeing the specialist Or maybe sitting tight for a more extended time. Adebayo Peter Idowu et .al[6] numerous patients will misfortune the medical checkups and it squander persistent time .presently in this advanced and driven society we can get medical checkup through internet booking framework. With this application you can pick specialist yourself in this application you can get insights concerning specialist and medical clinics.

With this patient can deal with their own arrangements. They will be reminded by a SMS/E-MAIL before their arrangement date. This sort of capacities will diminish the wastage of arrangements. In crisis cases we can book arrangements without any problem. It spares season of patient and specialist. Nazia S and EktaSarda [7] shows that online arrangement framework is a framework which a patient can without much of a stretch admittance to the site and book their arrangements .In this way the patient can give the extra data to the specialist when they shows up and giving the specialist time to set up the fundamental data .along these lines online arrangement framework can support the staffs and patients.

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The explanation behind creation the online arrangement planning is to help the patients and the regular checkups in a simpler manner. It endures the PC, access a site and makes an arrangement, than to go to the clinic and sit tight for a long time in queue.S. Sri Gowthem and K.P. Kaliyamurthie[8] brings that Patient enrollment framework in the majority of the medical care establishments is completed utilizing paper arrangements, and appearance of patients to medical services hangs tight the patients for quite a while in a line this happens when reservation is made in paper structure. Different researchers defined waiting /access time in different ways. Keen arrangement reservation framework for patient can be totally done through a web based planning programming. It insights concerning the medical clinic and patient data through a single site and gives a simple method to booking an arrangements as per the patient accommodation. Sonal G. Shelwanteet. al[9] This is a brilliant wellbeing medical checkup framework incorporates enlistment of patients.

A well-designed appointment system supposed to improve patients' satisfaction by reducing cost and time of clinics and hospitals especially in the busy lives we are leading today. With the growing population need for more efficient ways to access a medical treatment is also growing. Through an online appointment scheduling system, a user gets access to the doctor's online webpage and can make an appointment with online software.

Patient/user can also provide additional medical history in advance, giving adequate time to the doctor to prepare the necessary information for consultation.

In this way, online appointment scheduling systems are helping doctors and the patients and making thehealthcare delivery efficient.Nowadays there are many kinds of online appointment tools available in the markets which are easy to set up and not too much expensive. Online scheduling system offers valueadded services and lots of benefits to the doctors and patients. It makes the patientappreciated by eliminating the hassle of long waiting times. Online appointment systemsare also getting popular because of its low-cost availability.

II. FRAMEWORK OF ONLINE APPOINTMENT SYSTEM

The hospital appointment system includes the information regarding the patient and the doctor. The basic overview of the hospital appointment system is presented in Fig.1.

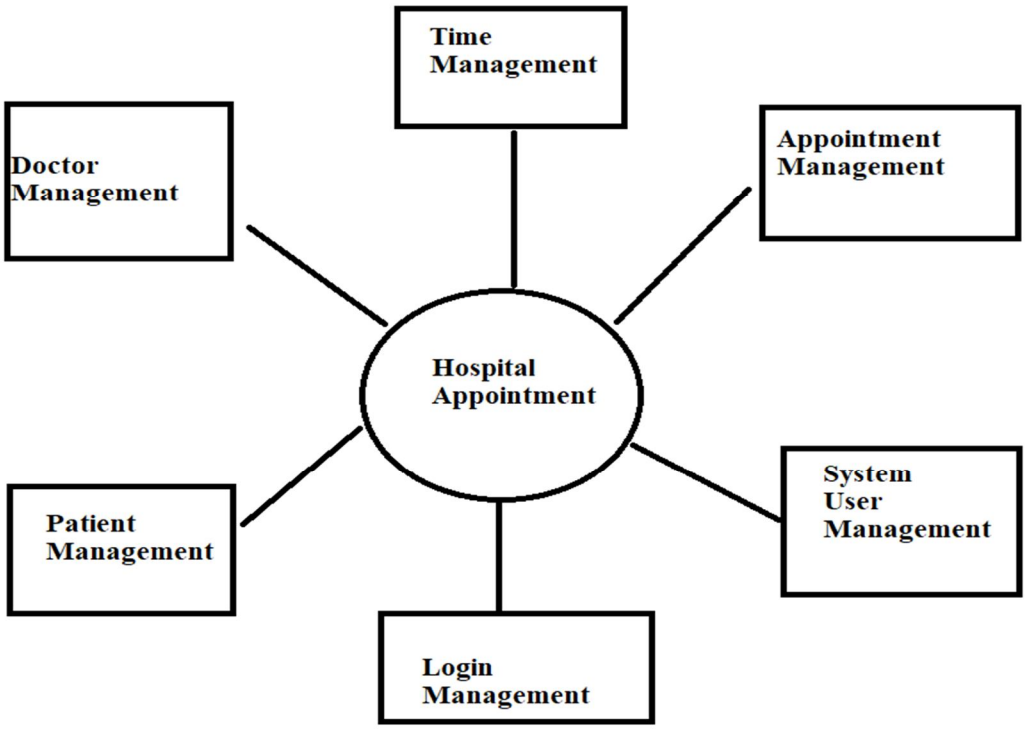

Fig.1. Hospital appointment system.

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The hospital appointment system gives the information about the following entities

A. Regarding the doctor
B. Regarding the appointment
C. Regarding the booking confirmation
D. Regarding the time slot
E. Regarding the patient

The admin is going to handle all the information regarding the patient and doctor. The admin have predominant role handling the authorization. This is an efficient system where the user can book the empty time slot but not allowed to book the time slot availed by other patient.

III. SYSTEM IMPLEMENTATION

The system is configured using PHP and SQL server. The various entities are designed keeping the data of patent, doctor and clinic information, which is regulated by the administrator. The followings figure shows the output of the system designed.

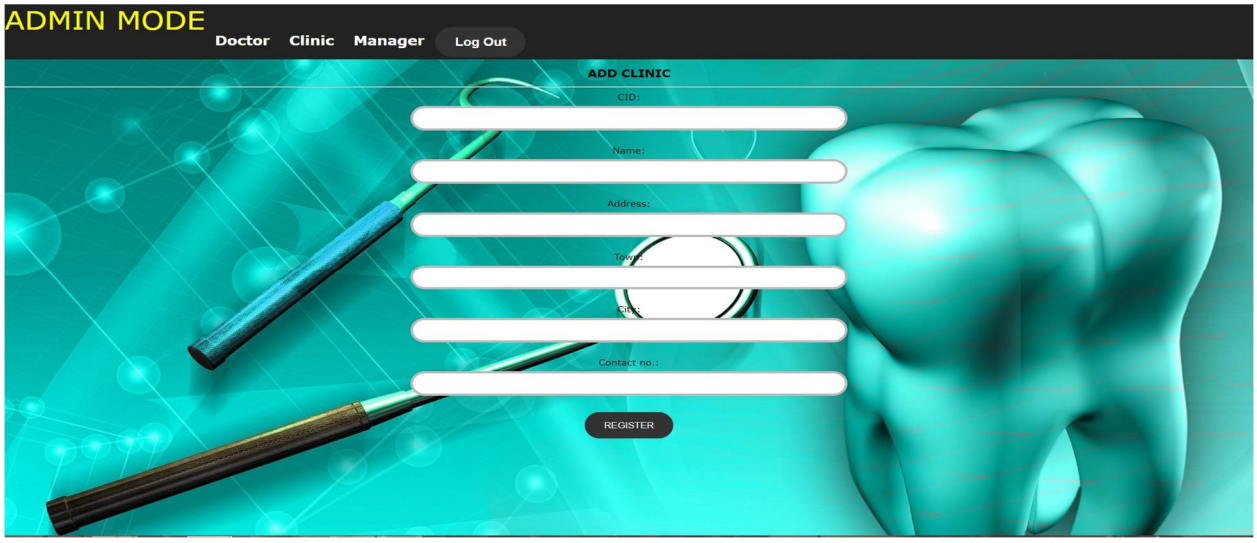

Fig.2. Admin module

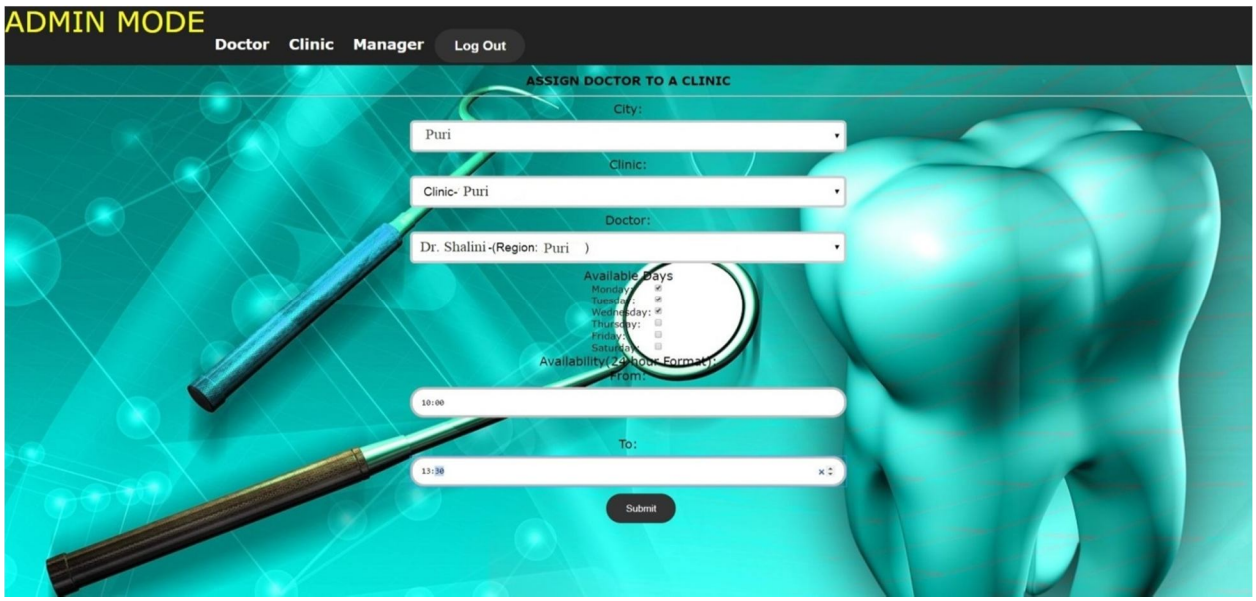

Fig.3. Admin entering clinic information and doctor information

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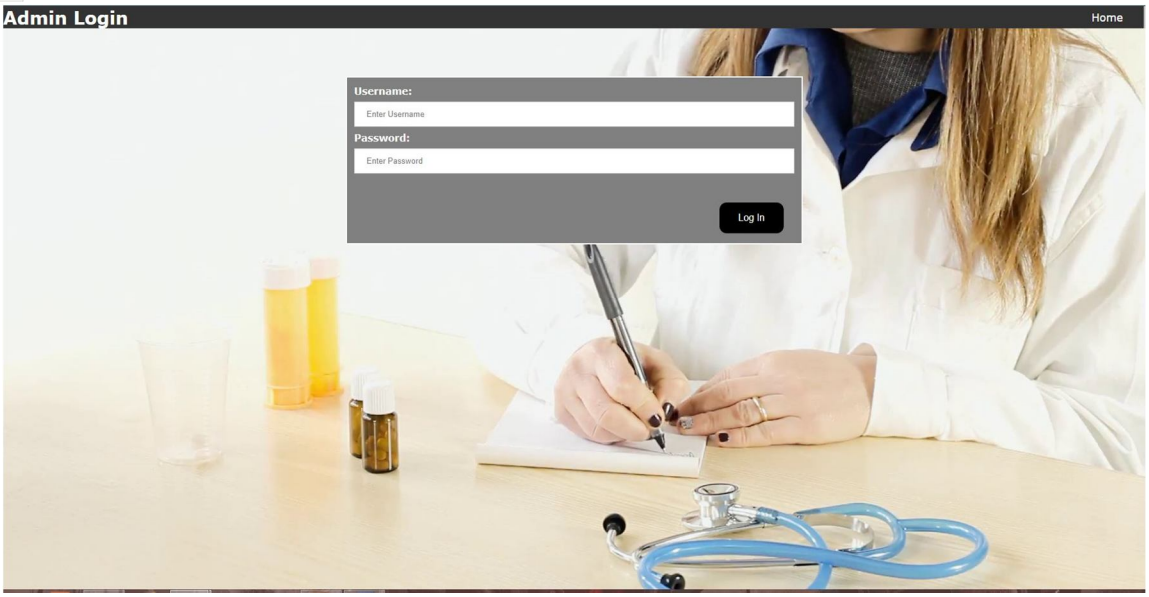

Fig.4. Admin login module

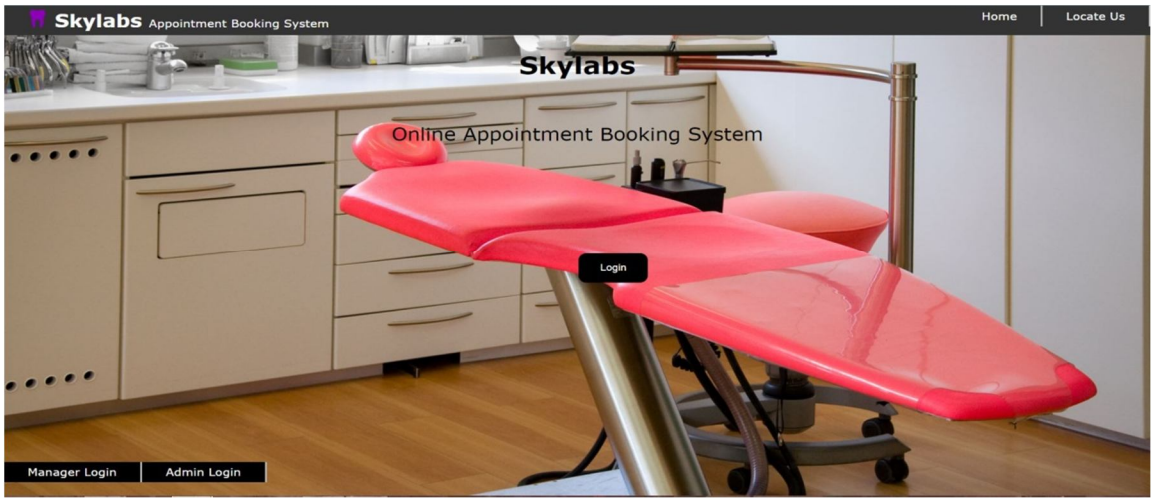

Fig.5. Appointment booking module

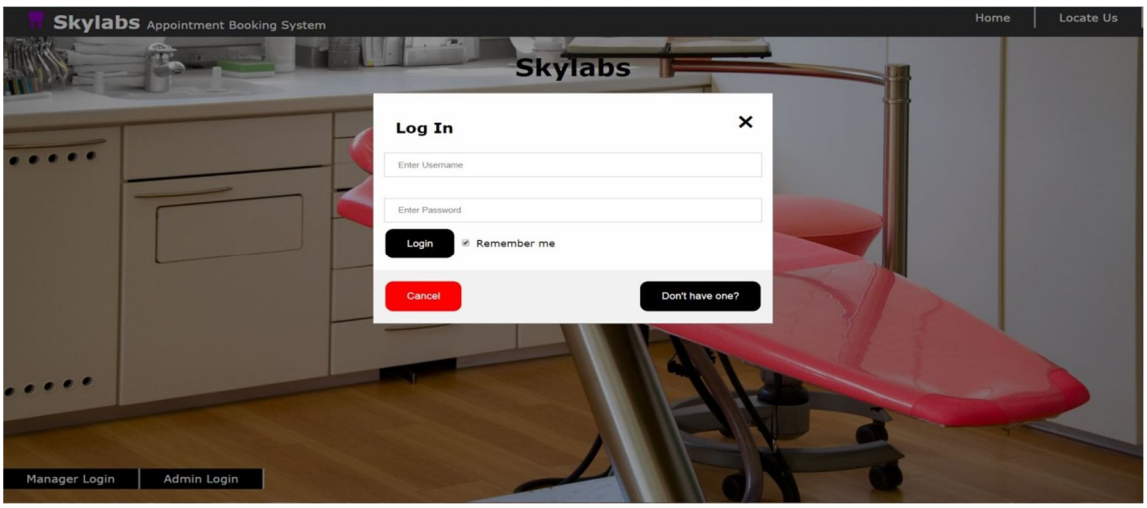

Fig.6. Patient booking module

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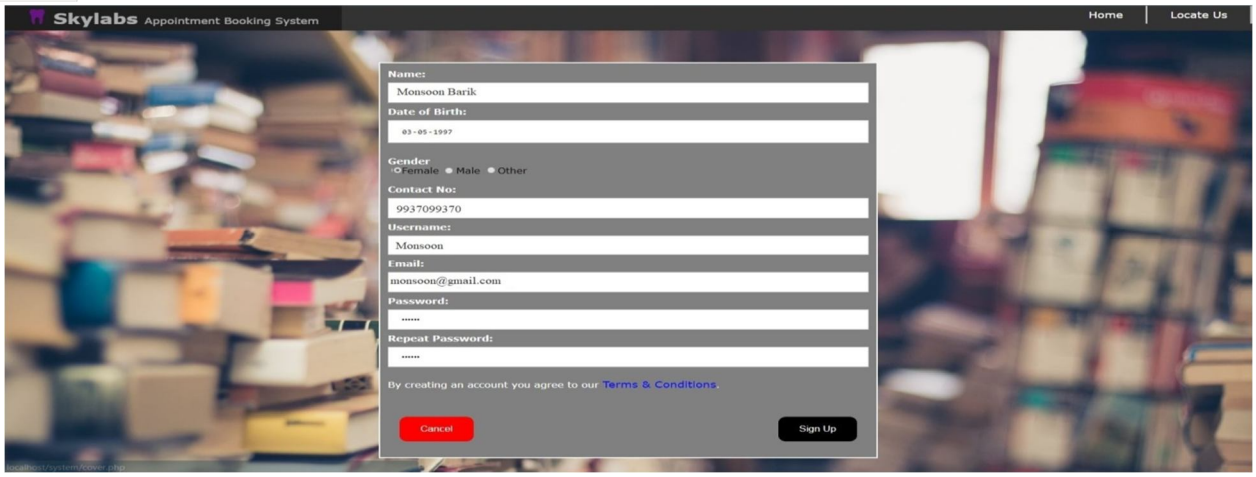

Fig.7. Patient registration

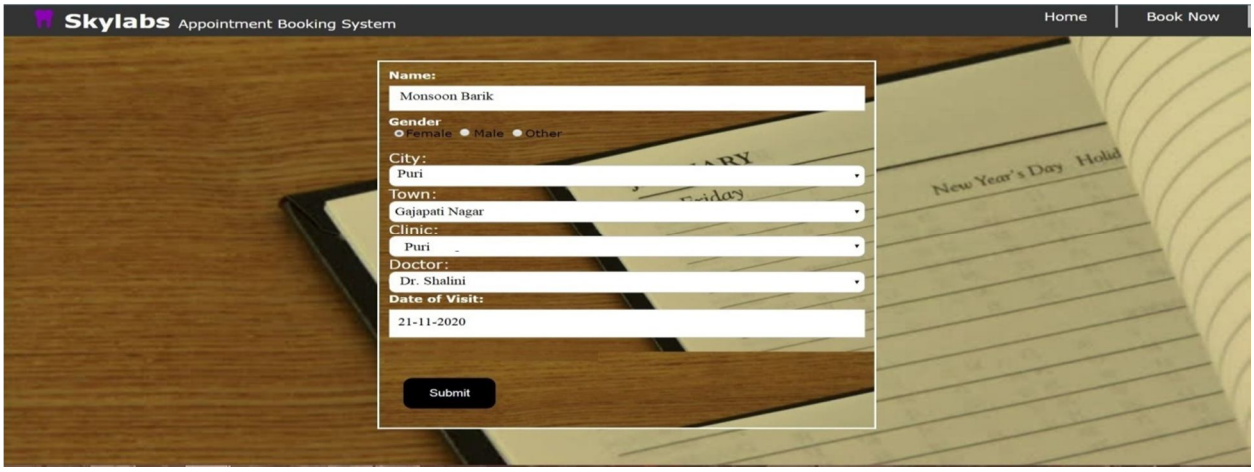

Fig.8. Booking information

Fig.9. Booking confirmation.

The Fig.2- Fig.9 shows the booking information of patient as well as the admin module. This system allows the patient to avoid quos and maintain social distancing as required by the COVID Guidelines. The system operated very satisfactorily with efficient. The administrator going to permit the time slot of the patient.

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IV. DISCUSSION ON HOSPITAL APPOINTMENT SYSTEM

Current proposal is a smart online appointment service that gives a convenient way to access a doctor's appointment digitally for pat ients or any person. This is a software program that, as per the user's preference or specifications, overcomes the problem of handlin g and scheduling appointments. The job is often rather tedious for the physician himself to physically delegate user appointments ac cording to their availability. It provides an efficient solution**,** This project therefore provides an efficient solution where users can view various possible reservation slots and pick the desired date and time. The room already booked will be labelled and will not be available for the defined period for anyone else. The online appointment of hospital system has several merits and fewer demerits. Table 1 explains the features of the hospital management system.

Table 1. Features of online hospital appointment system

Advantages	Disadvantages
This scheme assists reduction in waiting time.	Internet connection is essential
Patient can modify the time slot according to his convenient.	Database storage required is very high.

A. Hospital Appointment System Does Numerous Works Like

1) Preserve the restorative records of the patient
2) Maintain the contact points of interest of the patient
3) Keep track of the arrangement dates
4) Save the protections data for afterward reference
5) Tracking the charge payments.

B. The Points Of Interest Of Hospital Appointment Can Be Pinpointed To The Following

1) Time-saving Technology
2) Improved Effectiveness by dodging human errors
3) Reduces scope for Error
4) Data security and rectify information
5) Cost successful and effectively manageable
6) Improved quiet care made possible
7) Easy checking of supplies in inventory
8) Better Audit controls and strategy consistence.

V. CONCLUSION

The schedule management for health care is designed, providing online facility for the patient and hospital management. The system solves the issue of immense queuing and the possibility spreading. The resolution facilitate the patient as well as doctor by reducing the issue due to offline booking and queing. Online hospital management system assists the issues those are happening during traditional booking system. It is an innovative way during COVID- 19 situation for reducing the spread of disease.

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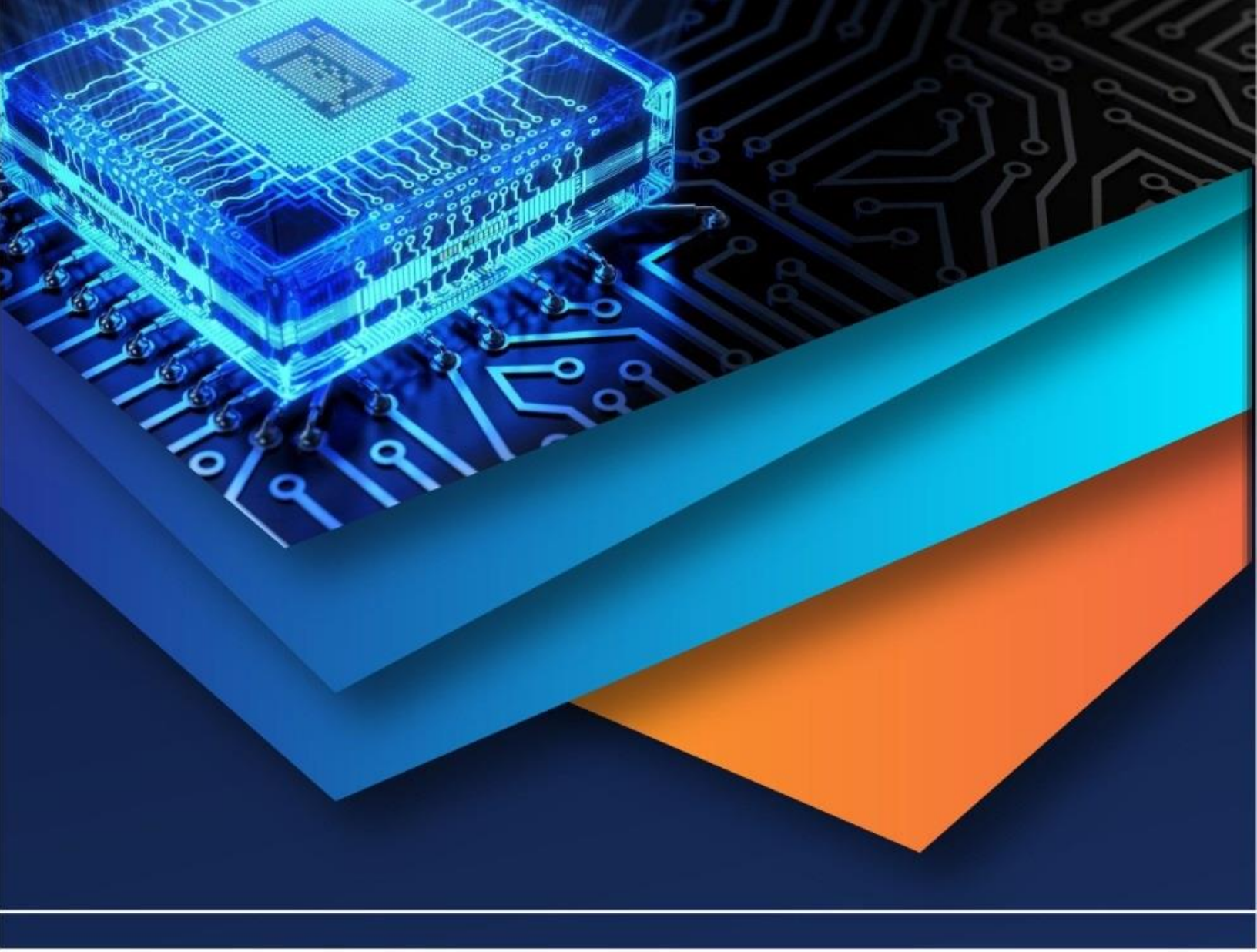

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