

Online Appointment Scheduling for Doctor or Hospital

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Abstract— This online hospital management offers for the reservation of appointment more efficient and convenient way for the patient. Our project favored by doctors save them substantial time for scheduling appointment and also saves the patient time as compare to getting physically appointment at hospital. Our project is web based application which is covering all aspects of management. This websites cover admin profile, doctor profile, patient profile, online appointment. The registered user browses through hospital or doctor specially information. The register user can choose and book appointment at flexible date and time. The admin and doctor can confirm or cancel reservation in this system, patient can register to the system by entering profile details, and they can login to the system by entering login credentials. The patient can take appointment after login. Even patient can check appointment details (approved and pending). This system increases new traffic, saves staff time and helps reduce cancellations. The admin is allowed to maintain and control the information of patient.

Keywords: Doctors, Patients, Online appointment, Doctor scheduling, hospital

I. INTRODUCTION

There is rapid change in the technologies in every field of our modern life. Computer plays an important role in almost all the fields. Computer is the symbol of fastness & accuracy. In other word, entirely system of business & trades & specially "Hospital Management" to be computerizes. Now a days computer is become a necessary thing of every fields.

The computer is used mainly to keep the record of patient and taking appointment with online process to help doctors and patient manage hospital process.

Aim of this project is to create doctor patient handling management system that will help doctors in their work and will also help patients to book doctor appointments and view medical progress. The system allows doctors to manage their booking slots online. Patients are allowed to book empty slots online and those slots are reserved in their name.

The system manages the appointment data for multiple doctors of various date and times. Each time a user visits a doctor his/her medical entry is stored in the database by doctor. Next time a user logs in he may view his/her entire medical history as and when needed. At the same time a doctor may view patient's previews medical history while the patient visits him.

We implement this system for better user experience. This system is very easy to access. Also for establish real time communication, using modern and updated technology. So, user can see the update without reload or refresh. This system will compatible with user device such as pc, laptop, tab & smart phone. So user can easily access the system anytime anywhere. This system is very simple & user friendly so, any user can use this system easily.

The current system was manual where data is written on different papers and transferred to the different departments, human errors were vulnerable since it was paper based and retrieval of files was time consuming as they had to manually locate patient some of which were even lost and thus finding such information was hard. Per the statistics carried 90% of the users were not contented with the system reason that is was not secure in terms of security and storage as it was prone to damages like loss of important information, worn out papers, outbreak of fire, The speed of recording and retrieval Patients information was average yet 10% were some ok with the system reason that the paper work can used for future reference.

The Online Doctor Appointment System offers a number of benefits to the user and can capture data, store, view, add and delete the records entered the data can also be posted information to the database.

II. MOTIVATION

There are many motivations for this master project:

- In hospital there is no facility of taking appointment at online so its provide taking appointment easily with comprises process and can take appointment from any where
- If any hospital may be contain this information but on paper so this is difficult to maintain any record for long time.
- And most important fact is we provide the feedback function in the project so the admin/doctor easily gets feedback of any patient that they need.
- The problem of taking appointment at hospital by travelling from village to urban area is solved

III. OBJECTIVE OF PROJECT

There are many objectives of this project:

- Registration of user.
- Registration of admin/doctor.
- It handling the information of patients.
- Enquiry page of hospitals.
- Take appointment in desire hospital.
- Give information to the patients about appointment confirmation.

IV. REQUIREMENT

During data collection, we investigated and found out how the current system operates, not only that but also tried out which problems are faced and how best they can be settled. The users described some of the basic requirements of the system this includes Search for Doctor, Register Patient, Update record, Doctor Information record, view doctor availability record.

Types of Requirements

A. Functional Requirements:-

- Functional requirement should describe all the required functionality or system services.
- The customer should provide statement of service. It should be clear how the system should react to particular inputs and how a particular system should behave in particular situation.
- Functional requirement are heavily dependent upon the type of software, expected users and the type of system where the software is used.
- Functional user requirements may be high-level statement of what the system should do but functional system requirement should describe the system services in detail.

B. Registration of Hospital Admin

- The system shall record Registration of Hospital Admin.
- The system shall record The Admin name, Hospital Email_id and phone number.
- The system shall record the patient name, phone number and
- Date of appointment.
- The system shall record the doctor name.
- The system shall record the appointments in database.

- The system shall record the expected check-in date and time.
- The system shall record the expected checkout date and time.

C. Appointment Management

- The system shall allow for the addition of information, regarding hospital and department.
- Admin can manage the appointment. The system shall allow for deletion of information, patient appointment.
- Patient can see appointment

Doctor Name	Doctor degree	fees	Read More	Delete	Update
vivek	mbbs	400	read more	delete	update
rohit	mbbs	500	read more	delete	update
vicky	mbbs	300	read more	delete	update
salman	mbbs	500	read more	delete	update

This Project is Desing And Develop By Deadly Developer

D. Non-Functional Requirements

- The Non-functional requirement defines system property and constraints.
- Various properties of a system can be: Reliability, response time, storage requirement.
- And constraint of a system can be: Input and output device capability, system representations etc.
- Processed requirements also may also specify programming language or development method.
- Non-functional requirement are more critical than functional requirements. If the non-functional requirements do not meet then the complete system is of no use.

Types of Non-Functional Requirement

A. Organizational Requirements:-

The requirement which is consequences of organizational policies and procedures come under this category. For instance: process standards used implementation requirements.

B. External Requirement:-

These requirements arise due to the factor that is external to the system and its development process. For instance: Interoperability requirements, legislative requirements.

C. User Requirement:-

The user requirement should describe functional and nonfunctional requirement such a way that they are understandable by system user who don't have detail technical knowledge. User requirement are define using

natural language, table and diagram because this are the representation that can be understood by all user.

D. System Requirement:-

System requirement are more detail specification of system function, services and constraints than user requirement they are intended to be a basic for designing the system may be incorporated into the system contract. For a complex software design it is necessary to give the entire requirement in detail.

Usually natural language is used to write system requirement specification and user requirements. System requirement should simply describe the external behavior of the system and its operational constraints. They should not be concerned with how the system should be designed or implemented. The system requirement can expressed using system models.

E. Performance Requirements:-

Performance requirements define acceptable response times for system functionality.

- The load time for user interface screens shall take no longer than five seconds.
- The log in information shall be verified within one minute.
- Queries shall return results within one minute.

V. APPLICATIONS & SCOPE:

A. Applications:-

- The ability to take appointment at desire hospital and at desired doctor.
- Advance booking of appointment is available within 5 days.
- User can select appointment time according to his preferences.
- Ability of cancelling appointment in any hard situation of doctor/patient/admin easily.

B. Scope:-

- It provide the searching facility based on various factor such as doctor, patient booking, doctor schedule.
- It tracks all information of appointment.
- Manage information of appointment.
- Show information and description of doctor and patient.
- It satisfies the user requirement.
- Be easy to understand by user and operator.
- Be easy to operate.
- The system generates type of information that can used for various purposes.

VI. CONCLUSION

As discussed in the previous chapters the main problem that we addressed was dealing with patient, doctor and hospital document. It is the above situation that above us to techniques of developing this Online Hospital Management System to be used the Patient, Doctor and Hospital to enable them to handle details on policies efficiently and effectively. The Project has implemented most of the objectives stipulated in earlier chapter. The Hospital Management System offers a number of benefits to the user and can capture data, store,

view, add and delete the records entered the data can also be posted information to the database.

REFERENCES

- [1] [1] Arthur Hylton III and Suresh Sankaran arayanan "Application of Intelligent Agents in Hospital Appointment Scheduling System", International Journal of Computer Theory and Engineering, Vol. 4, August 2012, pp. 625-630.
- [2] Deepti Ameta, Kalpana Mudaliar and Palak Patel "Medication Reminder And Healthcare – An Android Application", International Journal of Managing Public Sector Information and Communication Technologies (IJMP ICT) Vol. 6, June 2015, pp. 39-48.
- [3] Yeo Symey, Suresh Sankaran arayanan, Siti Nurafifah binti Sait "Application of Smart Technologies for Mobile Patient Appointment System", International Journal of Advanced Trends in Computer Science and Engineering, august 2013.
- [4] Jagannath Aghav, Smita Sonawane, and Himanshu Bhambhlani "Health Track: Health Monitoring and Prognosis System using Wearable Sensors", IEEE International Conference on Advances in Engineering & Technology Research 2014, pp. 1-5.
- [5] YoeSyMey and Suresh Sankaranarayanan "Near Field Communication based Patient Appointment", International Conference on Cloud and Ubiquitous Computing and Emerging Technologies, 2013, pp.98-103.
- [6] RashmiA.Nimbalkar and R.A. Fadnavis "Domain Specific Search of Nearest Hospital and Healthcare Management System", Recent Advances in Engineering and Computational Sciences (RAECS), 2014, pp.1-5.
- [7] A. Luschi, A. Belardinelli, L. Marzi, F. Frosini, R. Miniati and E. Iadanza "Careggi Smart Hospital: a mobile app for patients, citizens and healthcare staff", IEEE-EMBS International Conference on Biomedical and Health informatics (BHI), 2014, pp.125-128.
- [8] Choi, J. ; Biomed lab Co., Seoul, South Korea ; Kang, W.Y. ; Chung, J. ; Park, J.W. "Development Of An Online Database System For Remote Monitoring Of Artificial Heart Patient", Information Technology Applications in Biomedicine, 2003. 4th International IEEE EMBS Special Topic Conference, 24-26 April 2003
- [9] Prof. S. B. Choudhari, ChaitanyaKusurkar, RuchaSonje, ParagMahajan, Joanna Vaz "Android Application for Doctor's Appointment", International Journal of Innovative Research in Computer and Communication Engineering, January 2014
- [10] S.Gavaskar, A. Sumithra, A.Saranya "Health Portal-An Android Smarter Healthcare Application", International Journal of Research in Engineering and Technology, Sep-2013.
- [11] Frank Sposaro and Gary Tyson, "iFall: An android application for fall monitoring and response", 31st Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 1:6119–22, 2009.