শিক্ষা শিয়ে গড়বো দেশ   তথ্য-প্রযুক্তির বাংলাদেশ

Bangabandhu Sheikh Mujibur Rahman Digital University, Bangladesh

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Project Report

COURSE- CSE 202: Database Management System Sessional

Project Name: Hospital Management System

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"Hospital Management System"

Chapter 1: **Introduction**

• Introduction

Health of citizen is the wealth of Nation. Hospital Management database System is a computer base software system automate the hospital management system. It is designed to improve the quality and management in areas of clinical process analysis.

The Project Hospital Management Database System include the registration of patients, Doctors, Nurses, Receptionists and Rooms storing their detail into System by using database. The software has facility to give the unique id to Patient, Doctor, Nurse, Receptionist and room and store their details. Hospital Management Database System have User Friendly interface. This system also has the Queries option.

• Problem: Storage time accuracy efficiency

1. This system is manual.
2. The information is very difficult to retrieve for example to find the patient history.
3. Manually data entry has a chance of inaccuracy.
4. Manual data entry in inefficient
5. Wastage of time

• Solution

1. It will be the Computer base system
2. Data entry become more efficient
3. Reduction Of errors
4. No Wastage of time

Chapter 2: **Motivation**

The motivation for developing a Hospital Management System (HMS) with a Database Management System (DBMS) lies in optimizing healthcare operations. By streamlining administrative tasks, enhancing data accuracy, and promoting collaboration among healthcare providers, the system aims to improve patient care, ensure financial efficiency, and keep the hospital technologically advanced and compliant with regulations. The use of a DBMS ensures organized and reliable data management, contributing to a more efficient and patient-centric healthcare environment.

Chapter 3: **Related works**

As of my last knowledge update in January 2022, I don't have specific information on the most recent works or projects related to Hospital Management Systems integrated with Database Management Systems. However, I can suggest general areas where you might find up-to-date information on related works:

1. **Academic Journals:**
   - Explore recent issues of academic journals related to healthcare informatics, database systems, and software engineering. Journals such as the Journal of Medical Systems or the Journal of Healthcare Engineering may feature recent research in this area.
2. **Conference Proceedings:**
   - Look into proceedings from recent conferences on health informatics, database management, and software engineering. Conferences like the International Conference on Health Informatics (HEALTHINF) or the Healthcare Information and Management Systems Society (HIMSS) Annual Conference often showcase cutting-edge research.
3. **Online Databases:**
   - Utilize online databases like PubMed, IEEE Xplore, and ScienceDirect to search for recent articles, papers, and conference papers related to Hospital Management Systems and Database Management Systems.
4. **Open Source Projects:**
   - Explore GitHub and other repositories for open-source projects related to Hospital Management Systems. This can provide insights into the latest technologies and trends in this field.

5. **Industry Reports and Whitepapers:**
    - Check for industry reports and whitepapers published by healthcare IT companies, consulting firms, or technology providers. These documents often highlight current challenges, trends, and solutions in healthcare management systems.
6. **Professional Organizations:**
    - Visit the websites of professional organizations in healthcare informatics, such as the Healthcare Information and Management Systems Society (HIMSS) or the American Medical Informatics Association (AMIA), for updates on industry standards and best practices.
7. **News and Magazines:**
    - Stay informed about recent developments by reading news articles and magazines focused on healthcare technology. Websites like Healthcare IT News or Becker's Health IT & CIO Report often cover innovations in healthcare systems.
8. **Research Institutions and Universities:**
    - Check the research publications and projects from renowned institutions and universities that focus on healthcare informatics and database systems.
9. **Online Forums and Communities:**
    - Engage with online forums and communities where professionals and researchers discuss healthcare IT and database management. Platforms like ResearchGate or Stack Overflow may have relevant discussions.

Chapter 4: Objectives

The objectives of developing a Hospital Management System (HMS) with a Database Management System (DBMS) are to enhance operational efficiency, improve patient care through streamlined access to accurate medical information, ensure data accuracy and security, promote financial transparency, enable collaboration among healthcare providers, comply with regulations, leverage technological advancements, optimize resource utilization, provide a user-friendly interface, incorporate data analytics, support mobile integration, and design the system for scalability.
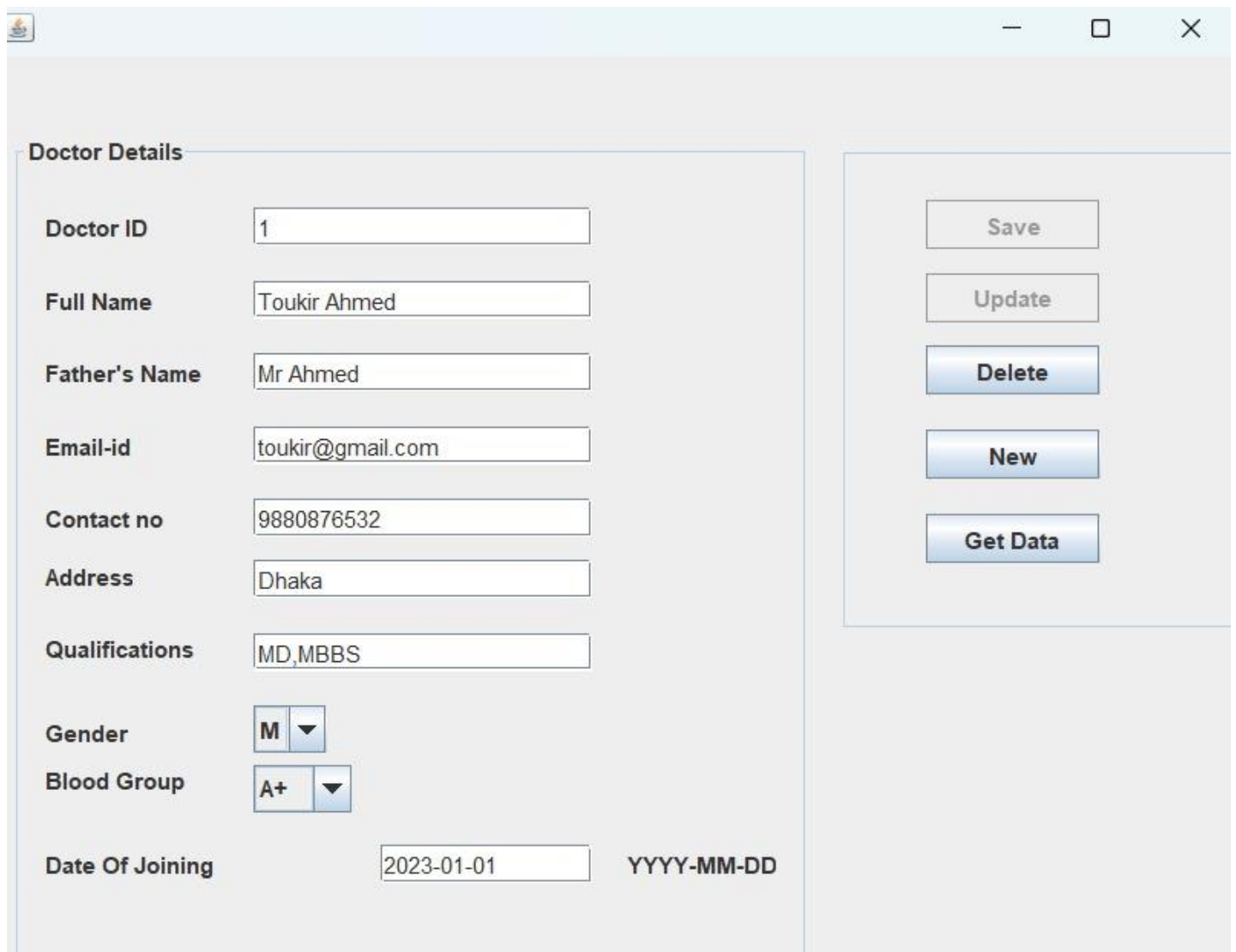
Chapter 5: Number of features and description

- **Patient Side Features:**

1. There is a seperate interface for patients. Patients have a seperate login.

2. Patients can book appointments.

3. Patients can give previous medical history.

4. Patients can view/update/cancel already booked appointments if necessary.

5. Cancelled appointments create free slots for other patients.

6. The system avoids clash of appointments with other patients. Each patient is therefore ensured his/her slot.

7. Patients are able to see complete diagnosis, prescriptions and medical history.

8. Patient medical history is only available to the doctor with whom the appointment is booked to ensure privacy.

Patient ID	Patient Name	Father Name	Address	Contact No	Email ID	Age	Gender	Blood Group	Remarks
1	Akash	P.K Agarwal	Beml layout	41162171	akash1997@gmail.com	18	M	B+	Mild fever
2	Shankar Kumar	Rohan Kumar	#205,ITPL road,Bangalore-5.	8095678932	shanks@gmail.com	20	M	B+	Patient admitted with severe.
3	Sakib	Rakib	#105,Jyothi Nivas,Kundanah	8095678456	sakib@gmail.com	25	F	AB+	fractured knee
12	ajay	rajesh	basvanagar layout	41162191	ajay@gmail.com	18	M	O+	Vommiting
2101019	Mumith Chy	Mumiths Father	Sylhet	516516161	mumith@gmail.com	20	M	O+	Feaver

Patient Discharge Info

Patient ID	12 >
Patient Name	ajay
Gender	M
Blood Group	O+
Disease	Fever
Admit Date	2015-01-20 (YYYY-MM-DD)
Room No.	2
Doctor ID	1
Doctor Name	Toukir Ahmed
Discharge Date	(YYYY-MM-DD)
Remarks	

New
Save
Delete
Update
Get Data

Patient Info

Patient ID	12 >
Patient Name	ajay
Gender	M
Blood Group	O+
Disease	Fever
Admit Date	2015-01-20 (YYYY-MM-DD)
Room No.	2
Doctor ID	1
Doctor Name	Toukir Ahmed
Discharge Date	2015-01-20 (YYYY-MM-DD)

New
Save
Delete
Update
GetData

Patient ID	Patient Na...	Service C...
1	Akash	500
2101019	Mumith Chy	700
3	Sakib	20000

Payment Details

Room Charges	2500	No. Of Days	0	Total Room Charges	0
Service Charges		Billing Date	(YYYY-MM-DD)
Payment Mode	▼		
Payment Mode Details			
Total Charges		Bill No:	

- **Doctor Side Features:**
  1. There is a seperate interface for doctors. Doctors have a seperate login.

  2. The system takes into consideration doctor schedules and does not allow appointments when a doctor is already busy or has a break.

  3. Doctors are able to access patient history and profile, and add to patient history.

  4. Doctors are able to give diagnosis and prescriptions.

  5. Doctors are able to modify diagnosis and prescriptions.

Chapter 6: **Conclusion**

In summary, the Hospital Management System (HMS) with Database Management System (DBMS) is a comprehensive solution designed to streamline healthcare administration. With features ranging from patient registration to financial management and security measures, the system aims to enhance operational efficiency, improve patient care, ensure data accuracy, and comply with regulations. The user-friendly interface, mobile integration, and scalability contribute to a modern, interconnected, and patient-centric healthcare environment. This integrated system represents a significant advancement in healthcare management, aligning with the goals of efficiency, security, and improved patient outcomes.