Ethereum Health Care

CSE 311 DATABASE MANAGEMENT SYSTEMS

Section: 8
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PROJECT PROPOSAL

Ethereum Health Care Management Systems

GitHub repository: https://github.com/AhmedShahan/CSE311_Ethereum_Health_Care

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Introduction

Nowadays, the medical industry is one of the prominent sectors with a manual system for managing and maintaining critical information. Current medical systems require numerous paper forms, with data stories spread throughout the medical management infrastructure. However, manually sorting out all information and managing all data is tough since all of this data must be maintained on paper and can be lost at any time. Furthermore, manually adding, removing, or altering data is time-consuming and challenging.

It's quite challenging to merge all the medical history of a patient. In the same way, A patient might faces difficulties while searching for a doctor also, it's a big issue to make appointments. Ethereum Health Care ensures maximum flexibility to take over that kind of issue.

Project Description

Ethereum Health Care tries to tackle several problems and make it easy to update data. There will also be a few administrative areas where all medical information (doctors and patients) will be preserved and handled, and a few sections for doctors and patients to manage their information and other essential data. For example, if a doctor changes or moves their schedule, it will take some time to search the doctor's information and then update it again in a new paper form, which will waste time overall. However, this sort of problem can be fixed within a few seconds using this application. Furthermore, there is a considerable risk of losing data while working manually, but there is no risk of losing data when working with software because the data is safely stored in the database.

The actual purpose of this project is to computerize the front office Management of Patient and Doctor management systems to develop user-friendly, simple, fast and cost-effective software. It deals with patient and doctor information collection, basic ideas about the test and imaging, and a brief overview of the doctors. Multiple security features are always our priority, which is also our challenge to ensure satisfactory security systems.

Module

Major Module	Sub Module
Admin Log	
Administration Log	Sign in as an Administrator
	Register Doctor, Doctor Details, Deleting Doctor's profile
	Register Patient, Patient Details, Update Patient Information.
Doctor	Sign in as a doctor
Patient	Sign in Sign up
Notice Board	This section is open for all. After successfully login from the Admin Log. Anyone can send their queries from this section.
Search your doctor	Anyone can search their particular doctor using multiple filatures from this section.
Test and Imaging	Current cost of Test & Imaging can be visible from this section.

Functional features

❖ To prevent all types of local users from accessing this application, in the beginning, there is an "Admin Log" where selected people can log in using their username and password.

❖ After logging into this application, there are Module pages. This is the Hub module. All the authorized users can overview this module.

❖ The first module is Administration. In this section, there again needs a username and password for accessing the Administration section. Reminder! This username and password are not the admin username and password.

❖ After successful login into the Administration module, several core functionalities are visible: Registering a doctor, removing a doctor's details, registering a patient, and updating patient details. Along with all these major operations, there is also some other functionality like whenever anyone asks any question, all the questions are stored in this section, and only this Administration authorized persons can answer these questions. A valid authorized person also can add another person as an administrator.

❖ From the Hub module, there is a Major module called Doctor. To access this section, we again need a valid username and password. This section will be accessible only if you are a registered doctor. After successfully logging in to the Doctor module, a doctor will find several features like updating their details, Hours of appointment, appointment fee, accessing the patient's medical history etc.

❖ An authorized user also can be treated as a patient. After going to this section, a patient finds two options—either Login or Signup. If the patient is already logged into this application using proper validations, they can easily sign up. Otherwise, they need to sign in to this application. After signing accurately, a patient will be exposed to multiple features like seeing their details, updating details and finding doctors according to their symptoms. Patients can send appointment requests to the Doctor's ID.

❖ Some non-major modules include Search your Doctor, FAQ, and Test and Imaging. These three modules are open for all. Anyone can search out a doctor of some specific filter, see the present status or the cost of all kinds of tests & Imaging which are available and last, if there is any query, it can be asked by the FAQ section.
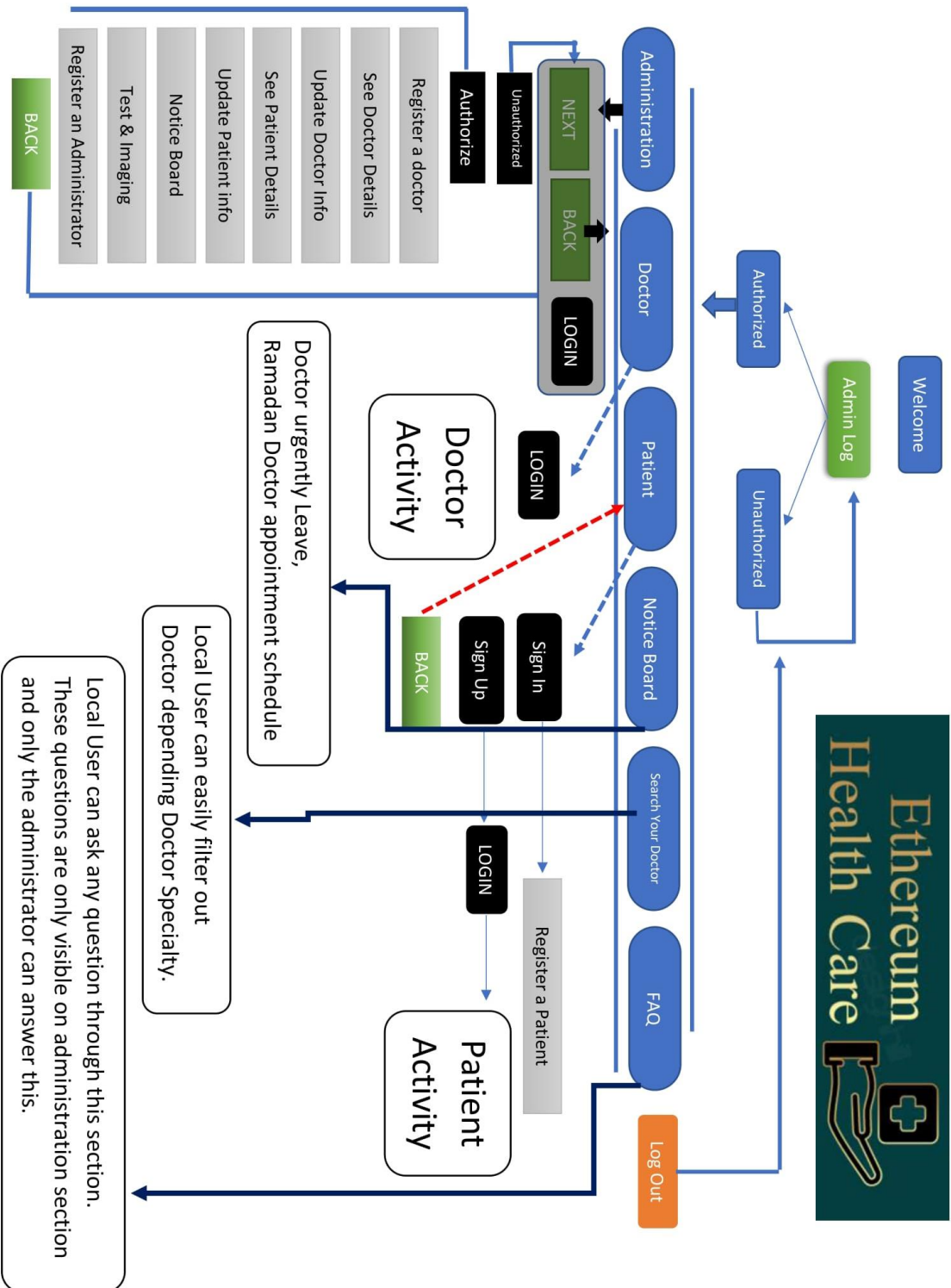
VISUAL REPRESENTATION OF ETHEREUM HEALTH CARE

Ethereum Health Care

Administration
- Register an Administrator
- Test & Imaging
- Notice Board
- Update Patient info
- See Patient Details
- Update Doctor Info
- See Doctor Details
- Register a doctor
- Authorize
- Unauthorized
- NEXT
- BACK
- LOGIN
- BACK

Doctor
- LOGIN
- Doctor Activity

Doctor urgently Leave, Ramadan Doctor appointment schedule

Patient
- Sign Up
- Sign In
- BACK
- Notice Board
- Search Your Doctor
- Register a Patient
- FAQ
- LOGIN
- Patient Activity

Local User can easily filter out Doctor depending Doctor Specialty.

Local User can ask any question through this section. These questions are only visible on administration section and only the administrator can answer this.

- Welcome
- Admin Log
- Authorized
- Unauthorized
- Log Out

Entity Relationship (ER) Diagram
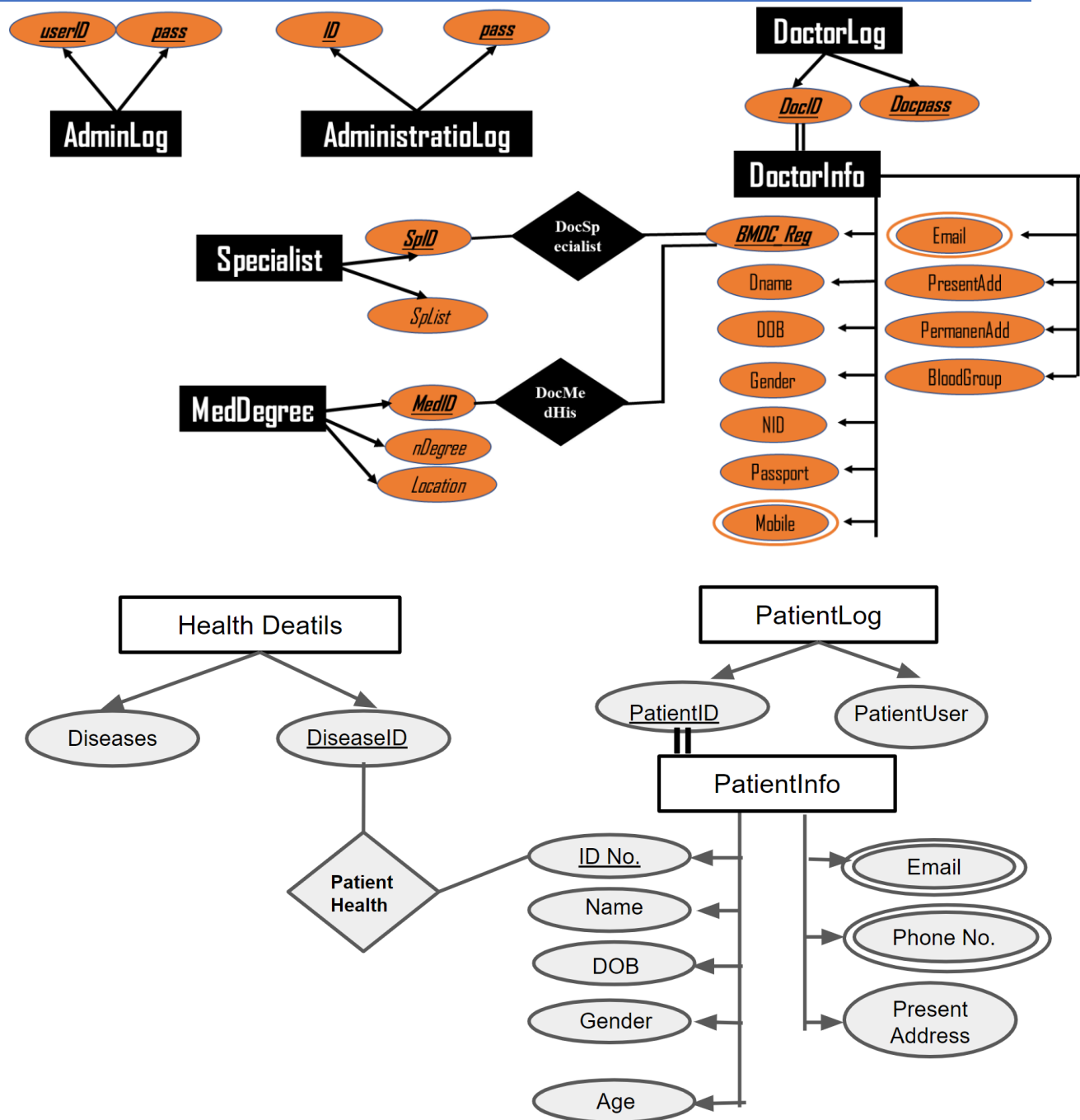
User Interfaces (UI) Diagram

Figure 1: Welcome Page
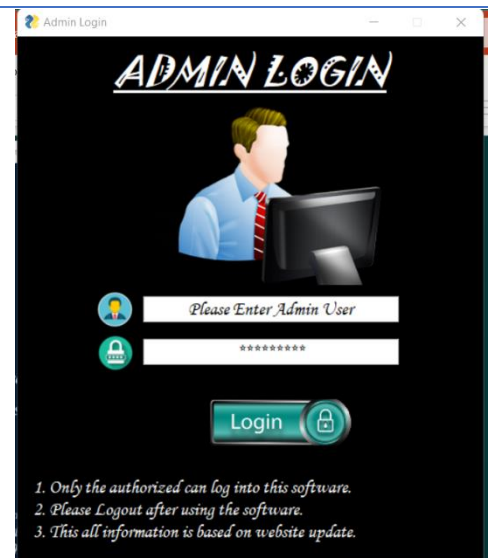
Figure 2: User Login
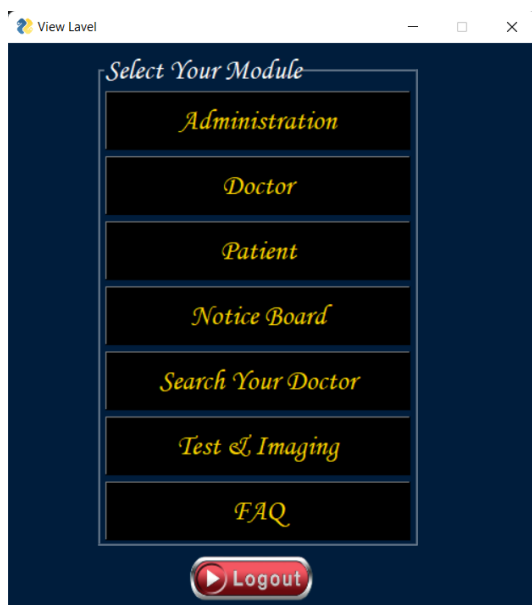
Figure 3: Module

Figure 4: Administration Login

Figure 5: Inside the Administration Login

Figure 6: Doctor Login

Figure 7: Inside the Doctor Registration Part

Tools & Recourses

Hardware	Software
❖ Processor (minimum core i3)	➢ Windows 11, Windows 10
❖ RAM (2 GB minimum)	➢ SQL Server (XAMPP)
❖ Graphics card (Integrated Intel Graphics)	➢ Python IDE
	➢ Code Editor (VS Code/PyCharm)
	➢ API for SMS
	➢ Django

Python Library
PySimpleGui: For the base framework of the Applications Install in your terminal pip install PySimpleGUI
MYSQL-Connector: To connect my application with my database Engine Install in your terminal pip install mysql-connector-python