seeking X-ray, ultrasound, or ECG services, with use cases encompassing record management for creating and updating patient records, generating unique hash codes using Secure Hash Algorithm (SHA-256) for authenticity, scheduling for managing appointments efficiently, and document management to store and organize records by date, service type, and associated doctors, facilitating easy access and retrieval, all within the system boundary that defines the scope of clinic operations focused on enhancing efficiency, patient care, and data security.

USER STORIES

User Story			
User Story Number	**As a <type of User/persona>**	**I want to <goal/objective>**	**So that <reason/result>**
1.	**Proprietor**	Have a system that will help us in our work.	We can provide better healthcare and results for the patients.
2.	**Sonographer**	Incorporate the patient's image to the document result.	It will be easy to identify and authenticate the patients.
3.	**Associated Doctor**	To easily access the documents and examinations and also see the records of patients assigned to me.	It will be easier to edit my findings and also see my patients' records.
4.	**Clinic Doctor**	Have a patient profile for each patient to	Can easily see the past examination of each

USE CASE DIAGRAM

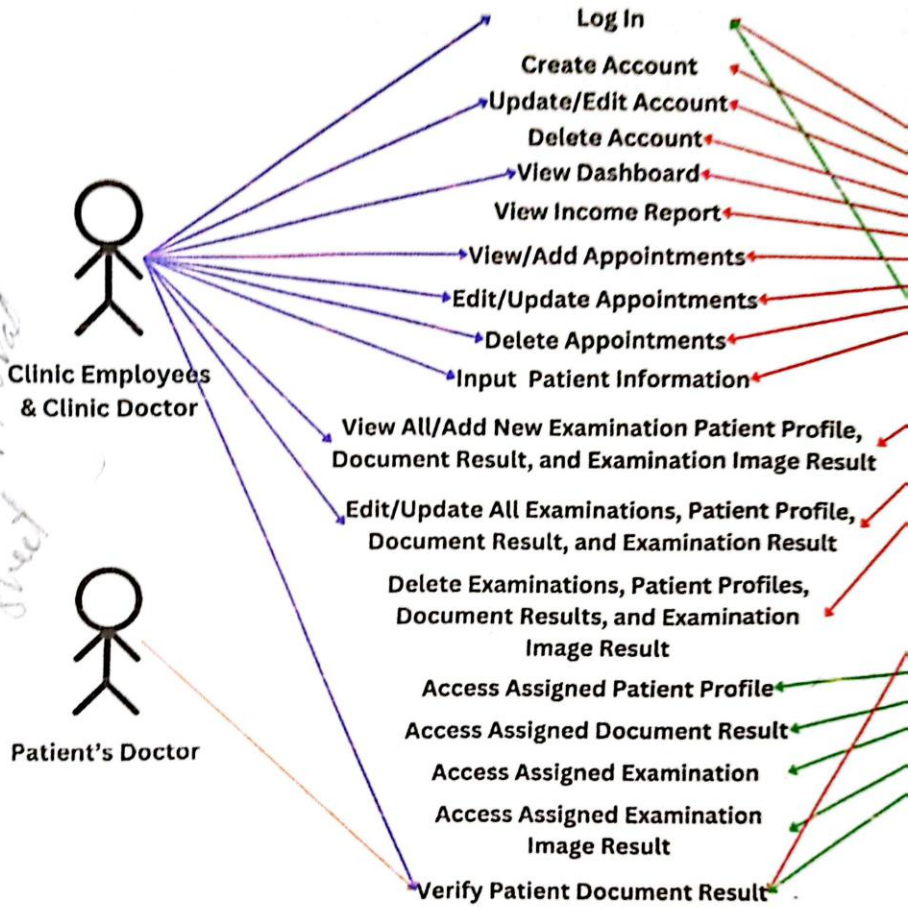


Figure 4.3: Use Case Diagram of the CureHealth Medical C

Figure 4.3 showcases the Use Case Diagram of the Cu Web-Based System. The Employees & Clinic Doctor, whicl Desk/Proprietor, Radiologist, Radiology Technologist, Sonog would be able to view the dashboard, and view/add and edit/upda profile, examination, document result, and upload examina Proprietor will have another account which is the admin accoun all the features of the system. The Proprietor Admin account is

Admin Dashboard

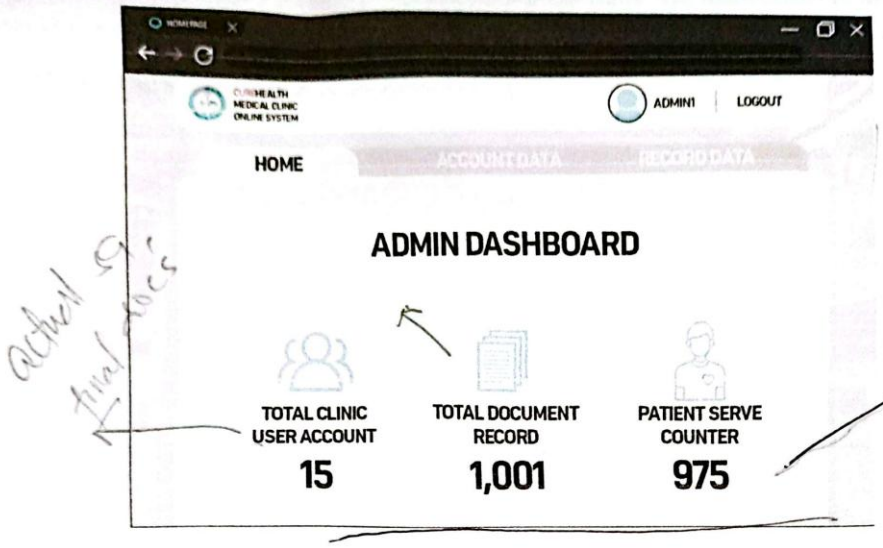


Figure 7.2: Admin Page

This is the admin dashboard, admins of the system would be able to see the total user of the system, document records, and patient served.

Home Page

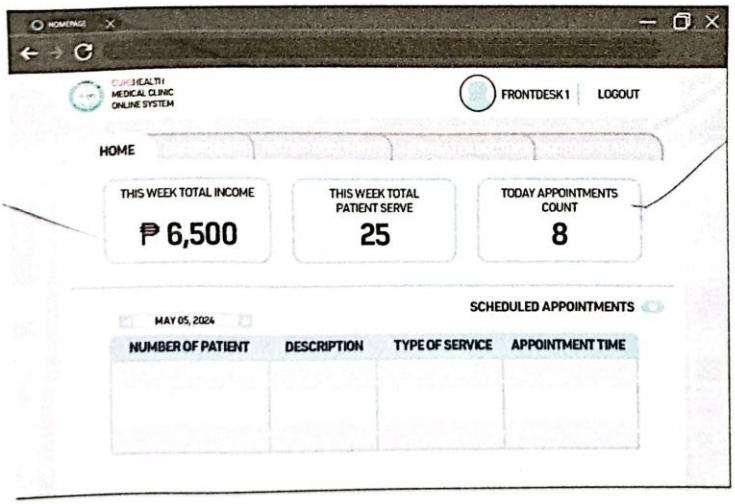


Figure 7.3: Home Page

The proponents implemented robust security measures to safeguard respondent data against unauthorized access, disclosure, alteration, or destruction. This includes using firewalls, intrusion detection systems, and with the implementation of Secure Hash Algorithm (SHA). Secure Hash Algorithm will be used for document result authentication and encrypting patient profiles. SHA will also be used for the user's password for improved security and encryption of passwords. The proponents will implement strict access control and only employees of CureHealth Medical Clinic and associated doctors will be the user of the system, this is to ensure that only authorized individuals will be able to access the system's data and individuals that are not associated with the clinic will not be able to access the system. By implementing these measures, CureHealth Medical Clinic can effectively manage the data privacy of each patient and ensure that their sensitive information is handled with the utmost care and protection.

ETHICAL CONSIDERATIONS

Conflict of Interest Statement

To ensure the integrity and impartiality of our research, we will rigorously identify, disclose, and manage any potential conflicts of interest involving the research team, the study sponsor, or the study site. Specifically:

1. **Financial Conflicts:** Any financial relationships or arrangements that could influence the research, such as funding from the study sponsor, personal investments, or consultancies, will be disclosed. This includes any direct or indirect financial benefits that may arise from the study's outcomes.
2. **Familial Relationships:** Any familial ties between the proponents, study participants, sponsor representatives, or individuals at the study site will be documented and reviewed to assess their potential impact on research decisions or outcomes.
3. **Proprietary Interests:** Ownership of intellectual property rights related to the study topic, tools, or methodologies will be declared, along with any royalties or benefits that may result from the study.

CONCEPTUAL FRAMEWORK

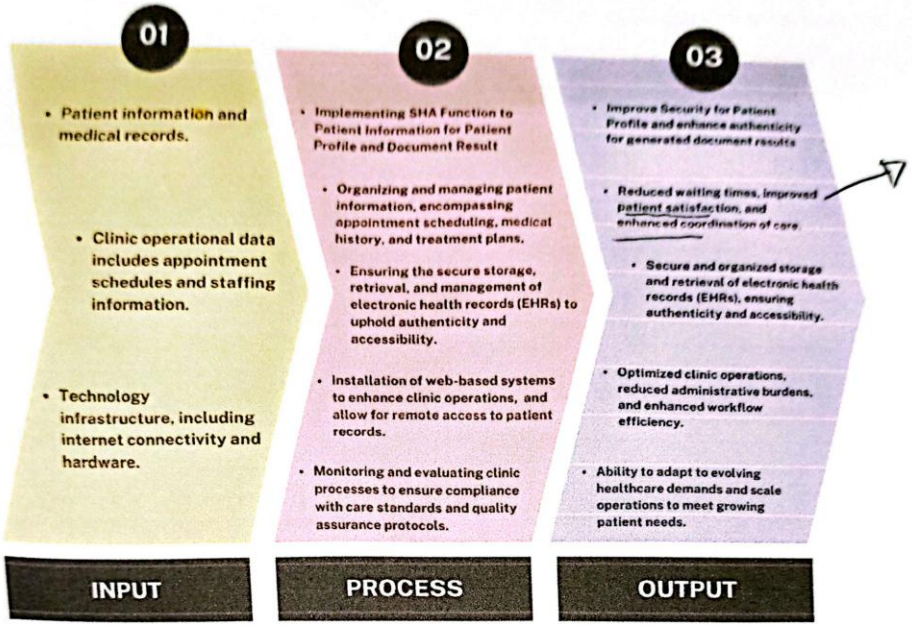


Figure 4.2: Conceptual Framework of CureHealth Medical Clinic

The incorporation of web-based systems within X-ray and ultrasound clinics involves a comprehensive process that encompasses various inputs, processes, and outputs to optimize clinic operations and enhance patient care. At the input stage, Patient profile and medical records, alongside clinic operational data such as appointment schedules and staffing information, provide essential contextual information for efficient clinic management. Patient Information is also important, with the implementation of the Secure Hash Algorithm, a patient's ID will be generated with SHA function. Moreover, the underlying technology infrastructure, comprising internet connectivity and hardware resources, forms the foundational framework for the implementation of web-based systems.

Moving on to the process stage, several key processes are undertaken to leverage these inputs effectively. Firstly, every patient will have a Patient Profile and the Patient ID will serve as the key for the SHA function in which the process will be applied to all

To address these conflicts, the following measures will be implemented:

- **Disclosure:** All potential conflicts will be transparently reported in study documentation and publications.
- **Independent Oversight:** An external advisory board or ethics committee will be established to oversee critical aspects of the study and ensure unbiased decision-making.
- **Segregation of Roles:** Individuals with identified conflicts will be excluded from decisions where their impartiality could be compromised.
- **Regular Review:** Conflicts of interest will be periodically reviewed throughout the study to identify and manage new risks as they arise.

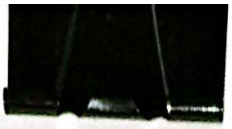
By committing to these specific actions, we aim to uphold the highest ethical standards, ensuring the credibility of our research and maintaining the trust of all stakeholders.

Privacy and confidentiality IDS

The capstone project emphasizes robust security measures to safeguard participant information. This includes using firewalls, intrusion detection systems, and the Secure Hash Algorithm (SHA) for encrypting patient profiles and passwords. The system will implement strict access controls, allowing only authorized personnel from CureHealth Medical Clinic to access sensitive data, thereby ensuring the privacy and confidentiality of participant information.

Informed Consent Process

The participants of this study are the employees of CureHealth Medical Clinic. They will participate by testing the system that will create and provide conclusions on how they feel about the system. The study will not be collecting any personal data of the participants. Ensuring informed consent is a paramount ethical consideration. The proponents will uphold the rights and welfare of our participants by providing them with comprehensive information about the study and obtaining their voluntary consent to participate. This involves clearly explaining the purpose, procedures, risks, and benefits of the research in a language and format that participants can understand. The proponents



Web-Based Information Management System using Secure Hash Algorithm for CureHealth Medical Clinic

A Capstone Project Proposal Presented to the
Faculty of the College of Sciences,
Palawan State University

In Partial Fulfillment of
the requirements for the Degree
Bachelor of Science in Information Technology

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SHA -3 | SHA-512

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