

WAH4H: WAH for Hospitals

WAH4H INFIRMARY
AYANG PAGAMUTAN



MEET THE TEAM

Pseudoers



**Jhon Lloyd
Nicolas**

2nd Year College -
Bachelor of Science in
Computer Science -
Specializing in Software
and Systems



**Elijah Josh
Quibin**

2nd Year College -
Bachelor of Science in
Computer Science -
Specializing in Software
and Systems



**John Kenneth
Jajurie**

2nd Year College -
Bachelor of Science in
Computer Science -
Specializing in Software
and Systems



**Mariyah Vanna
Monique
Chavez**

2nd Year College -
Bachelor of Science in
Computer Science -
Specializing in Software
and Systems



PBL Adviser

Sir Jose Eugenio Quesada



WIRELESS ACCESS FOR HEALTH (WAH)



A Non-profit NGO



Focuses on public, primary, and rural healthcare facilities



Largest digital health public-private partnership in the Philippines



Collaborates with Local Government Units (LGUs)



Started in 2009 (foreign-funded e-health project in 4 Tarlac municipalities)

Legalized in 2013 registered with:



SEC (Securities and Exchange Commission)



BIR(Bureau of Internal Revenue)



DTI (Department of Trade and Industry)

Certifications:



DOH (Department of Health)



PhilHealth

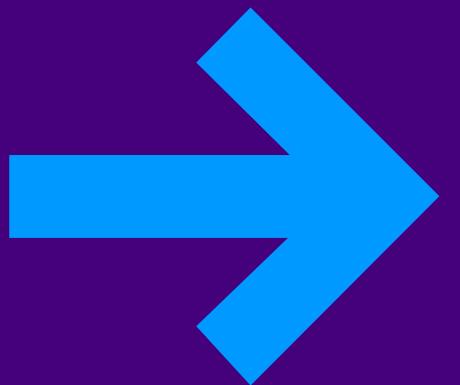


NPC(National Privacy Commission)

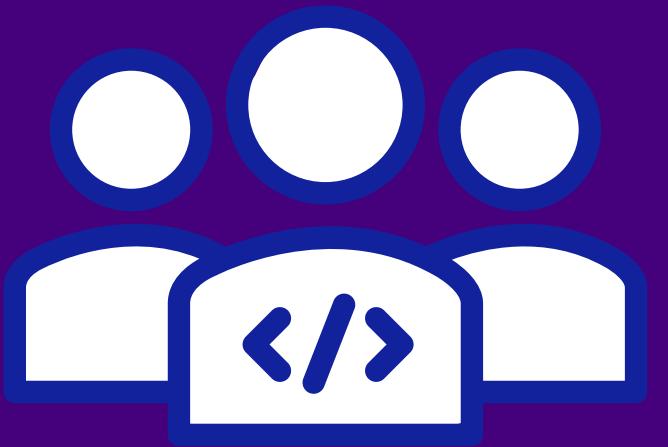
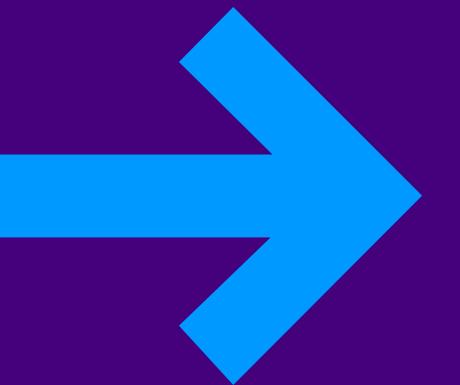
Client Hierarchy



Cuyapo Infirmary
Stakeholder



Wireless Access for Health
Client



Pseudoers
Developers

vision

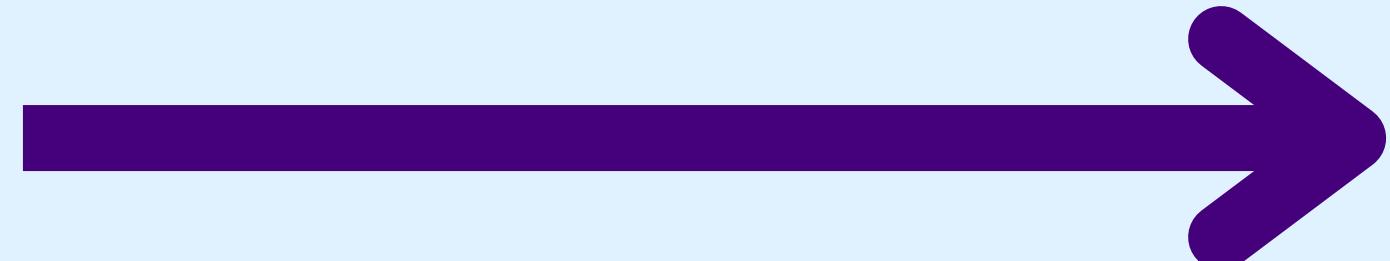
To empower partner LGUs and health facilities through effective use of digital health technology and generation and sharing of quality electronic data for universal usability towards self-reliance.

To be a trailblazing digital health organization working with partners to create innovative technology and service solutions for healthier and happier communities.

mission

STATEMENT OF THE PROBLEM

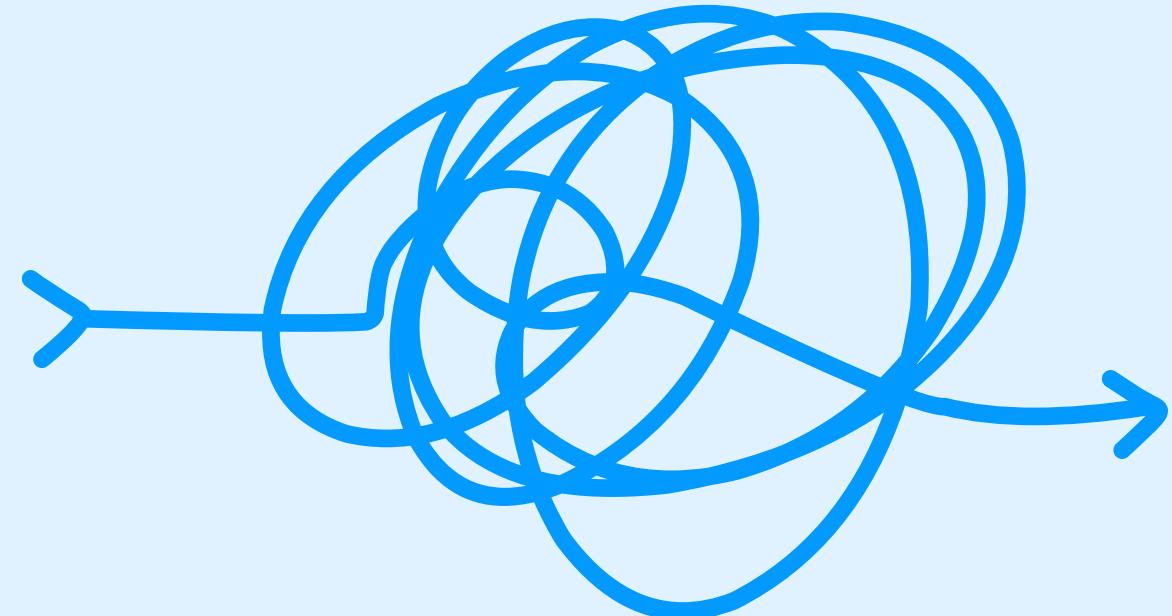
Many small hospitals in the Philippines still use manual systems, leading to delays, errors, and inefficiencies.



STATEMENT OF THE PROBLEM

Existing Hospital Information Management Systems (HIMS) are often:

- ~~Too expensive~~
- Too complex
- Not suited to the actual workflows of small hospitals



COMLOGIK - HIMS

Dashboard Registration/Accommodation Form

Patient's Information Other Information Vital Signs / Other Info / Px Diet HMO/Company Patient(s) w/ Incomplete LOA No.

ALLERGIC REACTION

Old Patient Confidential
 Indigent Reg. Complete

Case No. Auto Generated
Admission No. 19001649 Monthly Adm. #

Patient Detected with Pending Account

PENDING ACCOUNTS DETECTED!!!

Name: BRLNGUTR, MQRLONC TRTYT

Date Admitted: 10/16/2018 04:00 AM

Date Discharged: 11/11/2018 07:06 AM

Date Issued: 08/31/2018

Balance:

Hospital Bill : 8,221.45

Prof. Fee : 100.00

Admit Patient Deny Admission

New Edit Save Preview Request Charges Refresh Close

Select Hide

Patient List

Patient Type: IPD OPD All Top: 25 Admitted ER Patients Only

Last Name First Name Middle Name Case no.

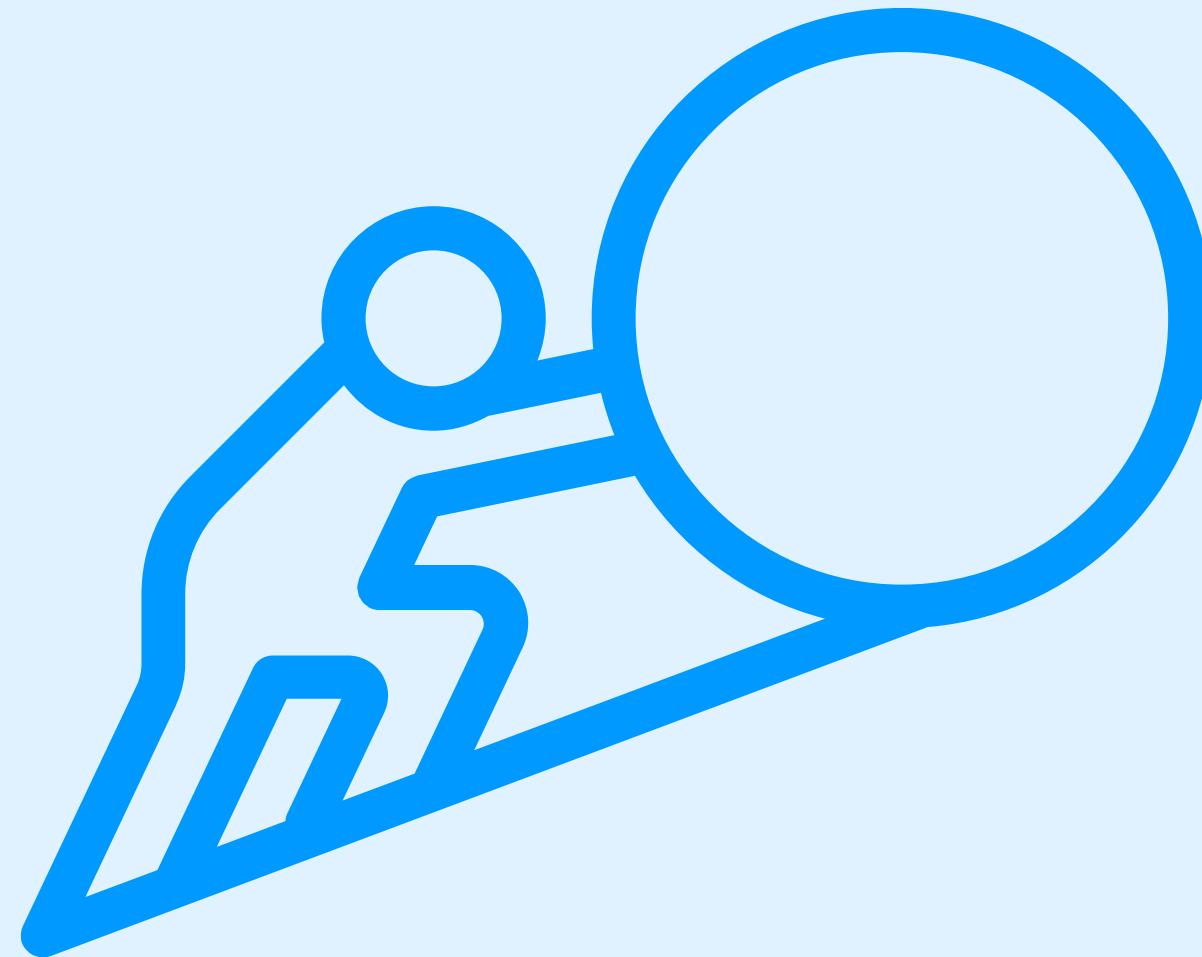
Type Here

- May Go Home - Suspended Account

| Last Name | First Name | Middle Name | Address |
|-----------|--------------|--------------|-----------------|
| A | A | A | 123 APLAYA ... |
| AA | AA | AA | street SAN A... |
| AAA | AAA | AAA | CITY OF DIG... |
| AAAA | AAAA | AAAA | CITY OF DIG... |
| AAAAA | AAAAA | AAAAA | CITY OF DIG... |
| B | B | B | CITY OF DIG... |
| BB | BB | BB | CITY OF DIG... |
| BBB | BBB | BBB | CITY OF DIG... |
| BBBB | BBBB | BBBB | CITY OF DIG... |
| BBBBB | BBBBB | BBBBB | CITY OF DIG... |
| BLBO | BB GWRL | | |
| BLDUXN | QUQQN CNN | DYLT CRUZ | |
| BLDXN | FCRCH GQM... | DYLT VKCT... | PNP VILLAGE ... |
| BLDXN | GQMMC | D | |
| BLGTXSLN | QSUCRO | | |
| BLLLONTS | SQGUNDW... | RTMOS | ABELLA SUB... |
| BLLLONT | CCSH | | |
| BLLLONT | DCYLWNDC | LTRYDY | CITY OF DIG... |
| BLLLONT | NWCOLQ K... | ROCTBO | CITY OF DIG... |

STATEMENT OF THE PROBLEM

- ★ Hospitals struggle to meet DOH and PhilHealth reporting standards, which are critical under the Universal Health Care (UHC) Act.



Universal Health Care

The logo for Universal Health Care features a dark blue rounded rectangle with the text "Universal Health Care" at the top. Below it are three circular icons: one with a white cross and colorful stylized human figures (blue, red, yellow), another with a hospital building labeled "RHU" (Regional Hospital Unit), and a third with a female doctor wearing a white coat and stethoscope. Below each icon is a corresponding tagline in Filipino.

- Lahat ng Pilipino Sagot ng PHILHEALTH
- Accessible kahit saang sulok ng bansa
- Mas Maraming Health Professionals

PAIN POINTS



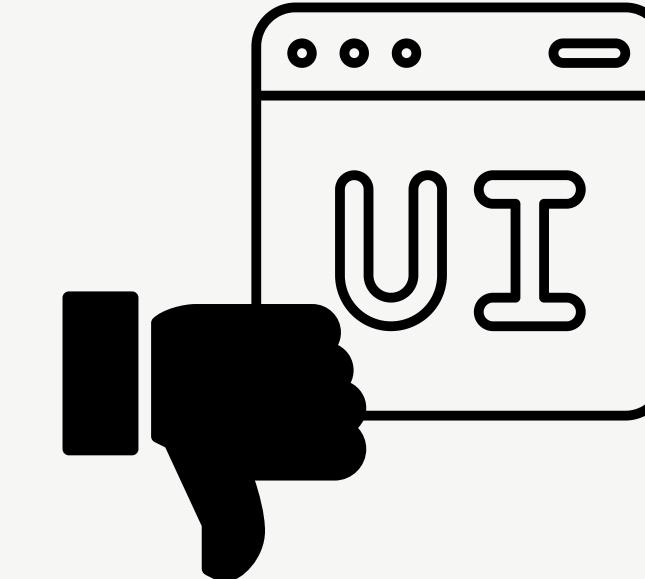
MISMATCH BETWEEN SYSTEM PRICING AND RURAL BUDGETS

Existing Hospital Information Systems are too expensive for small hospitals with limited funding.



HIGH MAINTENANCE COSTS LEAD TO SYSTEM ABANDONMENT

Many systems require costly upkeep, forcing hospitals to fall back on traditional, manual methods.



POOR UI/UX DESIGN LIMITS USABILITY

Complex interfaces make it difficult for staff—especially those with limited tech skills—to navigate the system efficiently.



MANUAL PROCESSES SLOW OPERATIONS AND CAUSE ERRORS

Paper-based workflows delay hospital functions and increase the likelihood of human error.

WAH4H: WAH for Hospitals Sneak Peek





IN COMMUNITY HOSPITALS

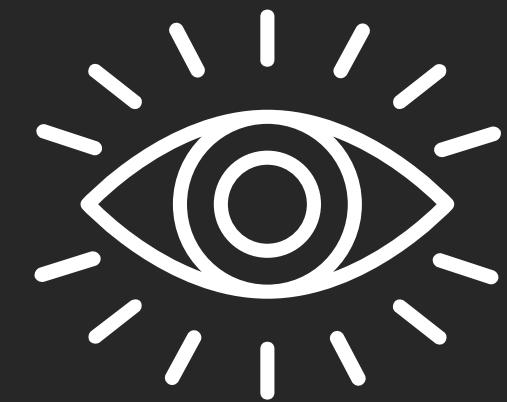


WHAT IS WAH4H?

– IS A PROPOSED MODULAR, CLOUD-BASED HOSPITAL INFORMATION SYSTEM (HIS) DEVELOPED FOR SMALL TO MID-SIZED HOSPITALS IN THE PHILIPPINES, PARTICULARLY THOSE MANAGED BY LOCAL GOVERNMENT UNITS (LGUS).

- It will be developed in partnership with [Wireless Access for Health \(WAH\)](#) and will be piloted in [Cuyapo Infirmary](#).
- The system will digitize critical workflows like patient registration, billing, PhilHealth e-claims, inventory, and DOH reporting.
- WAH4H will be built using [Frappe Framework](#), [React](#), and [Supabase](#), with a focus on usability, affordability, and government compliance.





Our Vision

Accessible Digital Tools for LGU Hospitals

We envision a future where **Philippine LGU-run hospitals have access to a cost-effective, easy-to-use HIS** that helps improve service delivery and regulatory compliance.

A Scalable Foundation for Public Healthcare

WAH4Hospital will **serve as a scalable digital foundation for public health centers**, enabling them to move beyond paper-based workflows.

Supporting National Health and Global Goals

This project aligns with national efforts under the **Universal Health Care (UHC) Act** and contributes to **Sustainable Development Goals (SDG 3: Good Health and Well-being & SDG 9: Industry, Innovation and Infrastructure)**.

Empowering Healthcare Workers at the Frontline

Ultimately, it aims to **empower local health workers to provide better care with less administrative burden**.

OUR OBJECTIVES



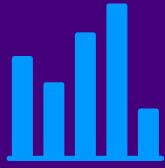
Develop a cost-effective, customizable Hospital Information System (HIS) to improve workflows in Philippine community hospitals, especially in patient registration, billing, and government reporting.



Design and build core modules of the system, including patient registration, monitoring, and internal dashboards, to help reduce manual work and improve hospital processes.



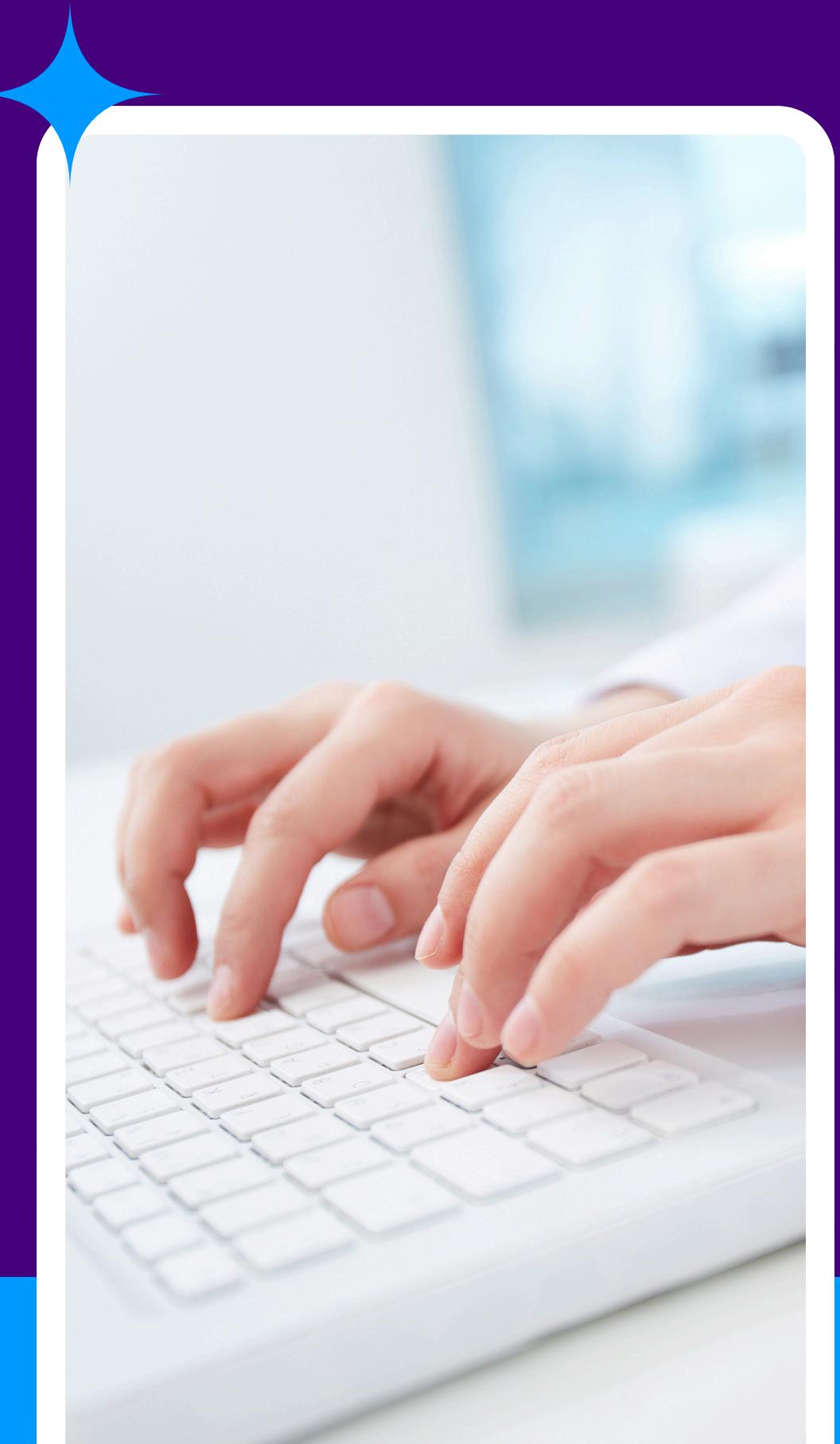
Integrate an existing, validated e-Claims module into the proposed system to support accurate and streamlined PhilHealth claim processing.



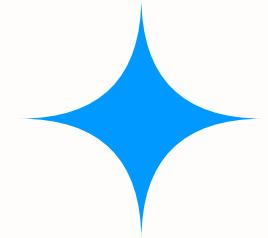
Create reporting tools and dashboards that follow government-required formats to automate report generation and make the system easier for administrative staff to use.



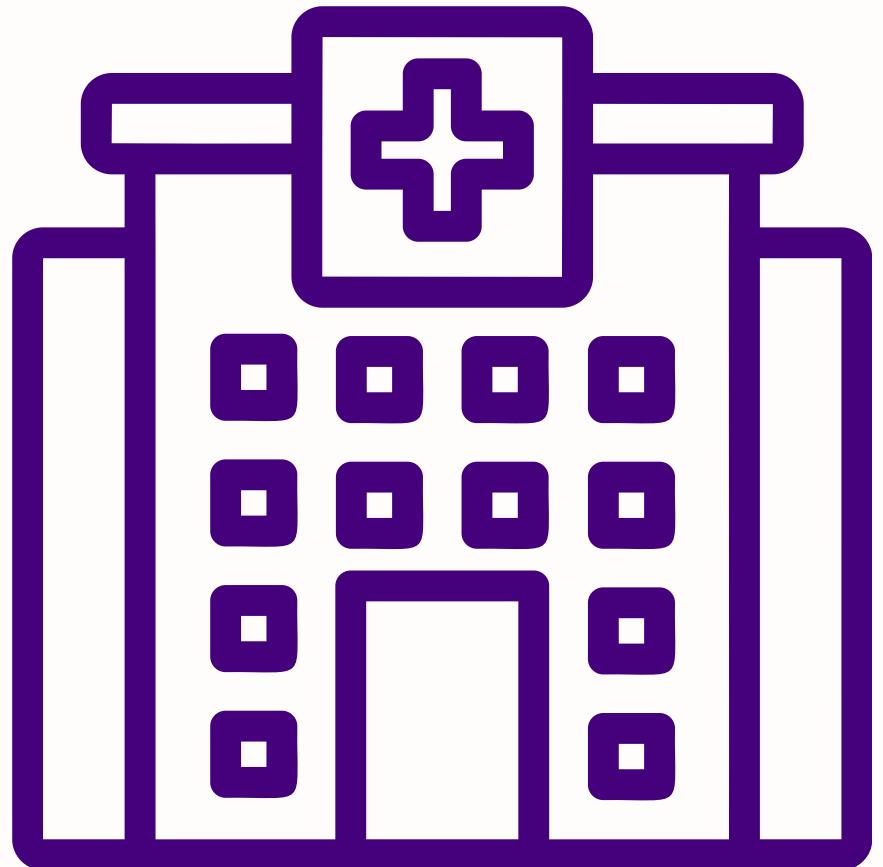
Create DOH-compliant reporting tools and dashboards to automate report generation and improve usability for administrative staff



WHAT WILL WAH4H INCLUDE?



TARGET USERS



Public hospitals and rural health units managed by Local Government Units (LGUs)



Doctors, nurses, billing officers, and records staff responsible for patient care and documentation

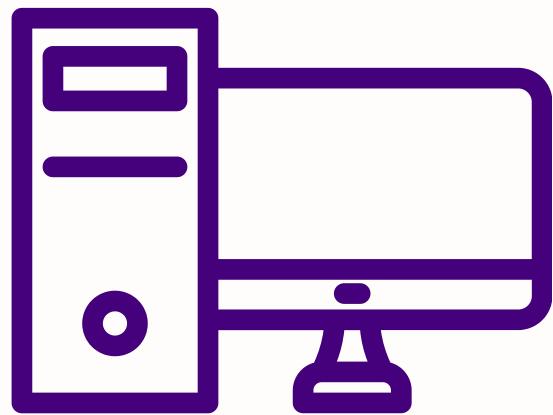


Admin and compliance officers involved in DOH and PhilHealth reporting

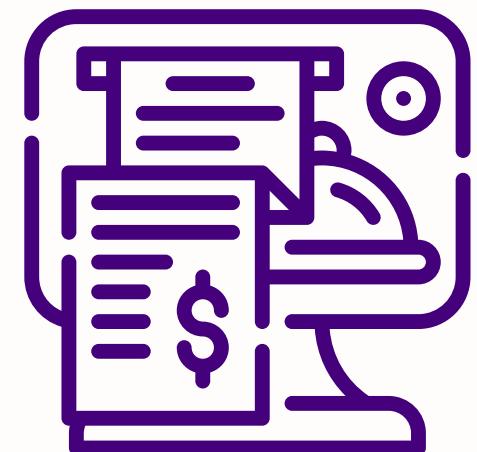
WHAT WILL WAH4H INCLUDE?



IN SCOPE (PLANNED FEATURES FOR V1.0)



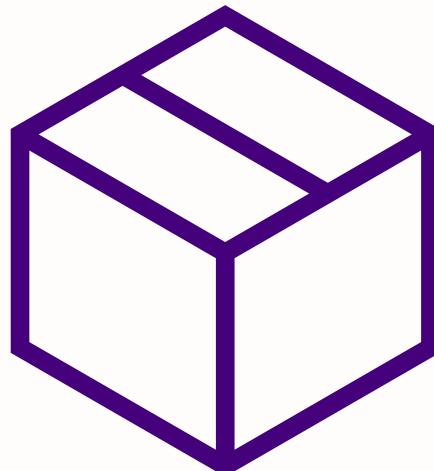
Digital patient registration and record management for admitted patients



Electronic billing workflows and printable clearance documentation



DOH/FHSIS-compliant reporting tools (e.g., morbidity, patient demographics)



Inventory for medicine management



Modular and role-based user interface, tailored to each staff member's responsibilities



Pilot deployment in Cuyapo Infirmary for usability and performance evaluation

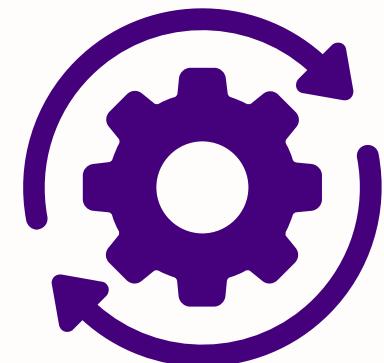
WHAT WILL WAH4H NOT INCLUDE?



OUT OF SCOPE (NOT INCLUDED IN V1.0)



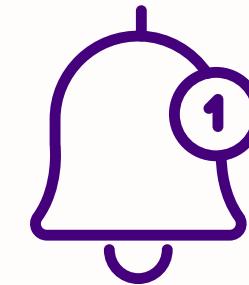
Clinical Decision Support Systems (CDSS)
(The system is designed only for administrative and reporting support)



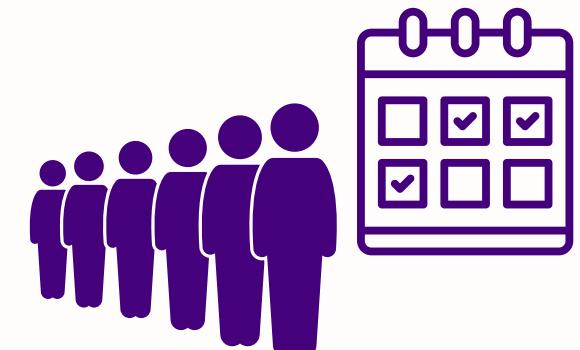
Resolution of institutional or workflow inefficiencies
(WAH4H is a supportive tool, not a process overhaul)



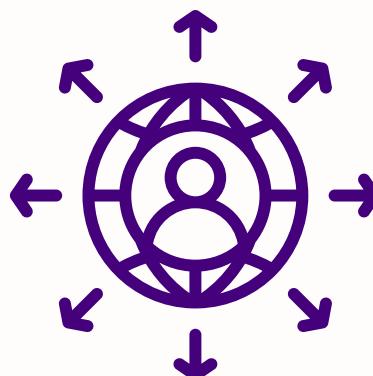
Mobile apps for patients or physicians



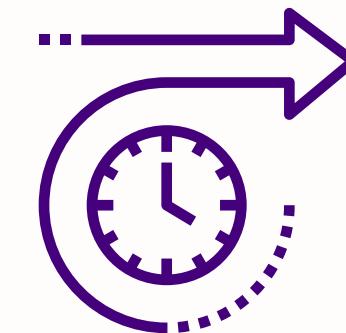
Health alerts, SMS reminders, or follow-up notifications



Appointment queuing or scheduling systems

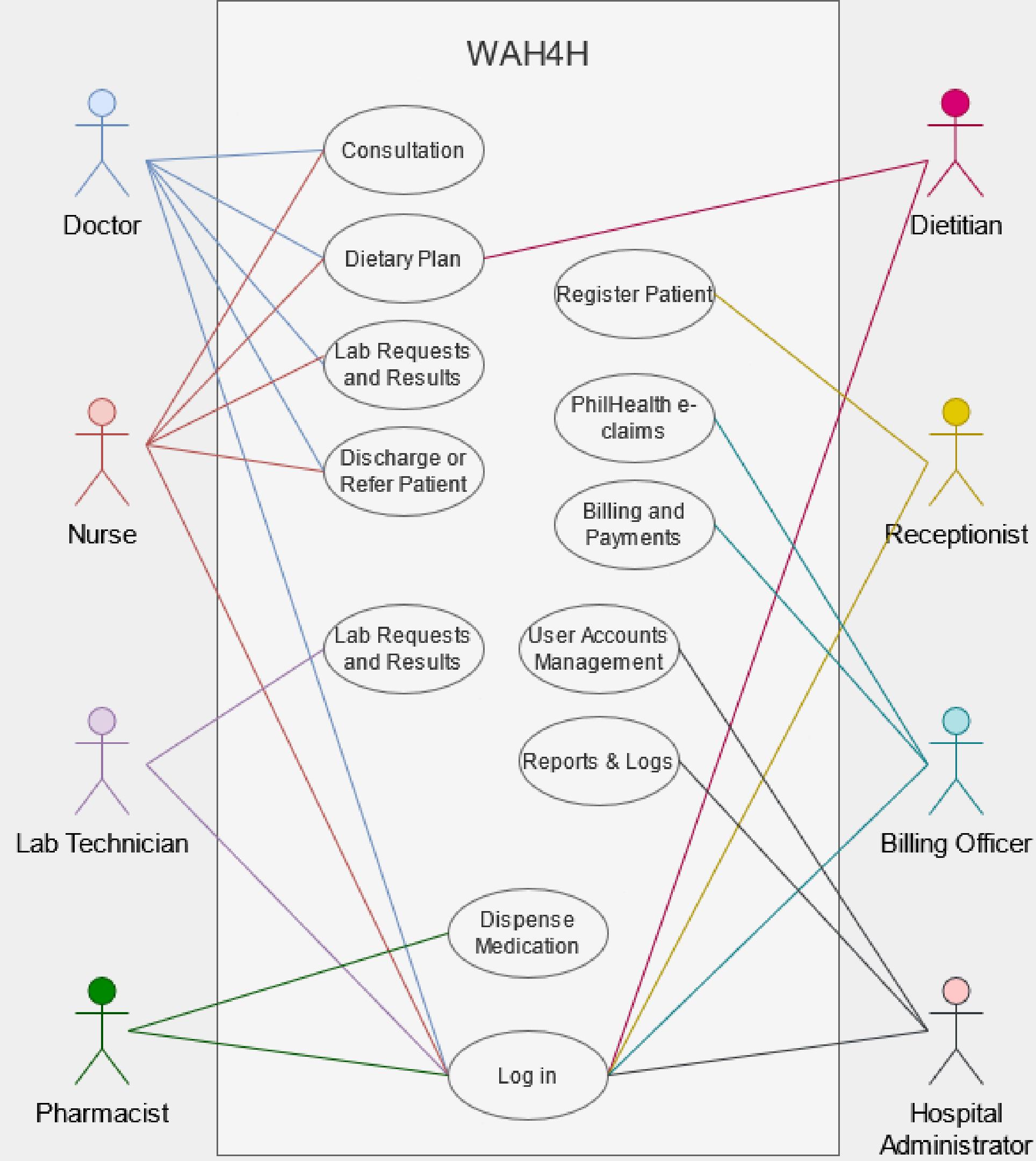


Integration with external health systems (e.g., national health exchanges or other hospitals)



Evaluation of long-term impact or full-scale rollouts beyond the pilot phase

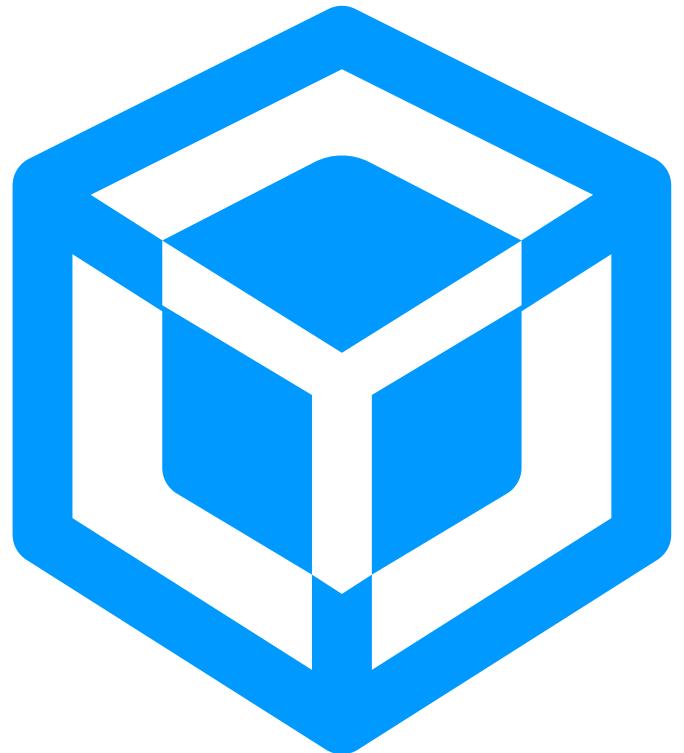
USE CASE DIAGRAM



PROJECT FEASIBILITY



OPERATIONAL FEASIBILITY



Modules



Training



Pilot Implementation

PROJECT FEASIBILITY



ECONOMIC FEASIBILITY



Development Cost



Revenue Model

PROJECT FEASIBILITY



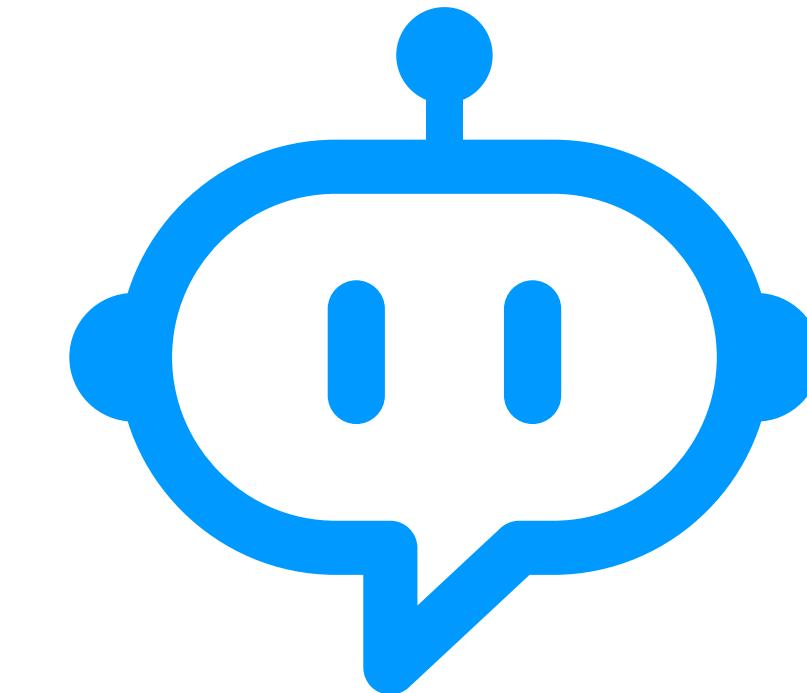
TECHNICAL FEASIBILITY



Frontend



Backend



A.I. Implementation

PROJECT FEASIBILITY



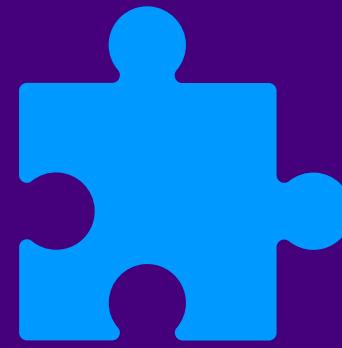
SCHEDULE FEASIBILITY

| | |
|-------------------------|--|
| Data Gathering | April 29, 2025 - June 7, 2025 |
| Development | June 7, 2025 - September 29, 2025 |
| Integration and Testing | September 29, 2025 - November 29, 2025 |
| Deployment | November 29, 2025 - January 7, 2026 |

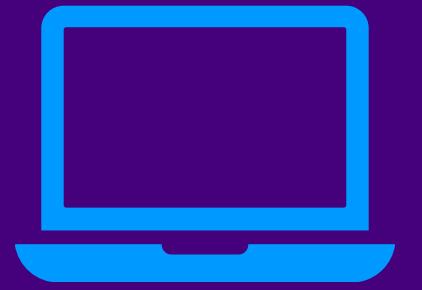
TECHNICAL BACKGROUND



MAIN IDEA



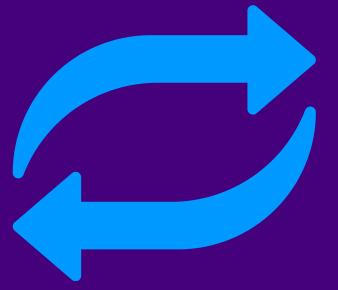
Scalable and low-cost design, tailored for facilities with limited resources



Built with modern tools to ensure easy deployment and maintenance



Designed to be intuitive and user-friendly for non-technical hospital staff



Supports offline functionality with automatic sync when internet is restored

TECHNICAL BACKGROUND



TECHNOLOGIES TO BE USED

Software Stack

- **Backend:** Frappe Framework
- **Frontend:** React (UI) + Node.js (build tools)
- **Database & Auth:** Supabase for real-time syncing, cloud storage, and authentication

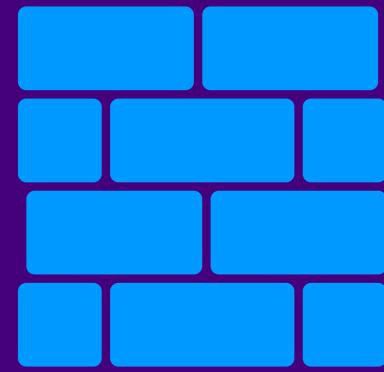
Hardware Requirements

- **CPU:** Dual-core or better (Intel i3, Ryzen 3, etc.)
- **RAM:** 4 GB (8 GB recommended)
- **Storage:** 128 GB HDD/SSD (cloud-based, so minimal local storage needed)
- **Connectivity:**
 - Min: 10 Mbps internet
 - Rec: 20 Mbps for multiple users
- **Other:** UPS, backup storage, and secure router/firewall

TECHNICAL BACKGROUND



KEY DESIGN FEATURES



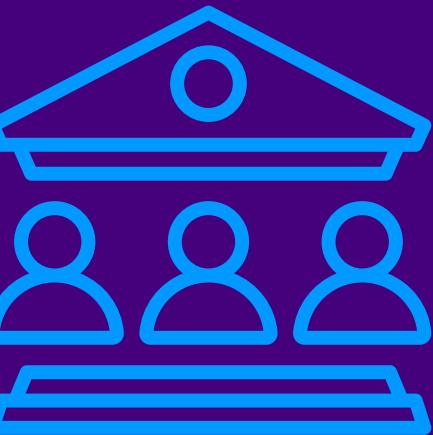
Modular Architecture

Modules include patient registration, billing, inventory, e-claims, staff management, and reporting



Role-Based Access Control (RBAC)

Users only see and use what they're authorized for, enhancing security and usability



Built-in Government Compliance

- Pre-configured DOH reporting templates
- XML support for PhilHealth e-claims submission



Peopleware

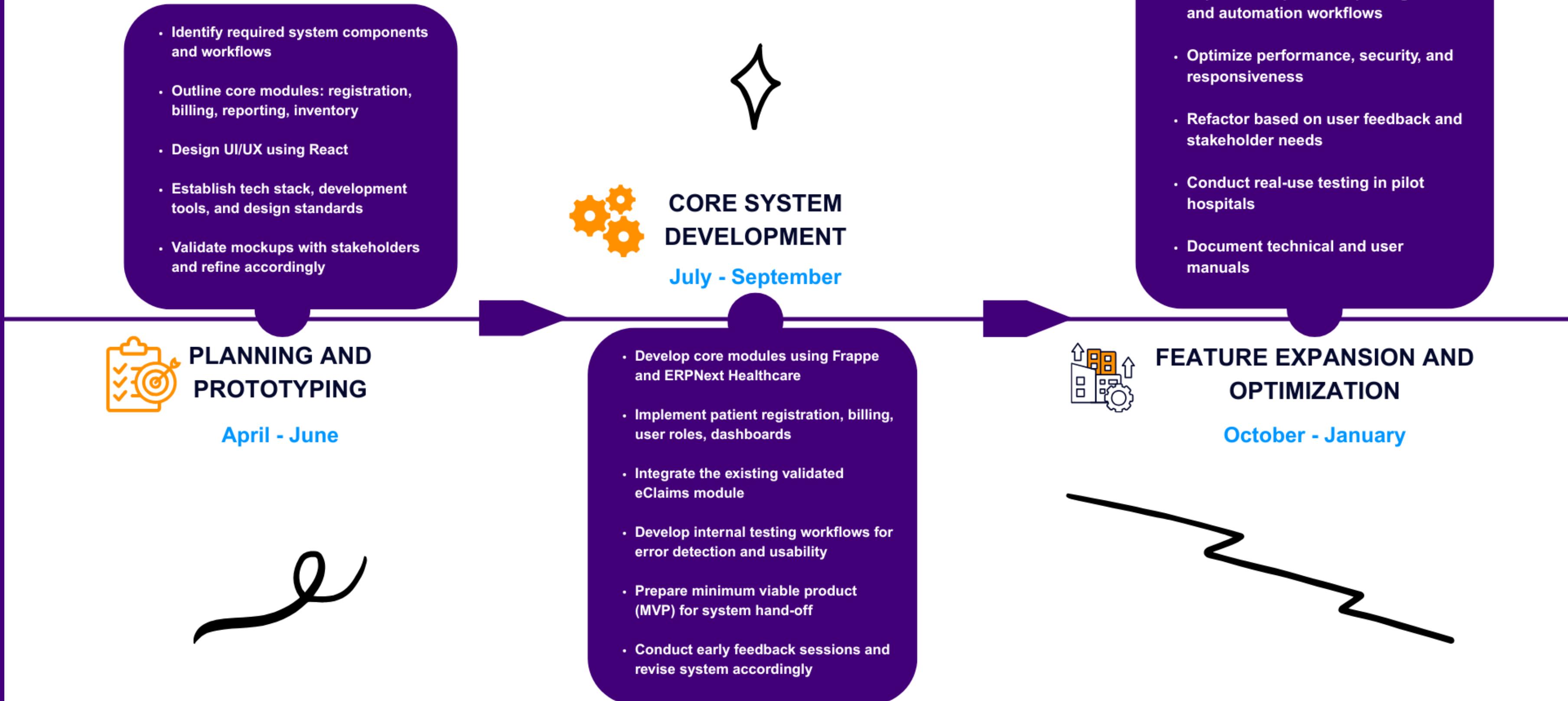
Project team includes hospital staff, developers, testers, mentors, and key stakeholders

WAH4H Demo

[https://wah4hospitals-clinic-hub-
68-8gjl.vercel.app/](https://wah4hospitals-clinic-hub-68-8gjl.vercel.app/)



PRODUCT ROADMAP



WAH4H: WAH for Hospitals

WAH4H INFIRMARY
AYANG PAGAMUTAN

