STARKEYCONNECT

A Mobile Companion App for Remote Viewing of Patient Data

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INTRODUCTION

DESCRIPTION

The primary purpose of StarkeyConnect is to allow authorized users to view patient records without the need to open a laptop or access the full system. It securely fetches patient data from the shared database used by the web system, making it easier for healthcare personnel to retrieve vital information anytime, anywhere.

IMPORTANCE

Starkey Connect plays a vital role in transforming how field health workers and program coordinators interact with patient information in real-time. Traditionally, access to medical records was restricted to desktop-based systems, limiting staff mobility and creating delays in patient service, especially during outreach missions. This mobile application bridges that gap by equipping health workers with portable access to the system's critical data.

OBJECTIVE

Starkey Connect aims to provide mobile access to essential patient data to support the day-to-day operations of Starkey Hearing Foundation staff. It seeks to improve efficiency by allowing health workers to retrieve and review records in the field, communicate with patients via SMS, and operate based on user roles with filtered access. The app also ensures adherence to privacy regulations while enhancing organizational productivity through timely, secure access to information.

OVERVIEW

MAIN FEATURES

ACCESS & AUTHENTICATION

Role-Based Access Control (RBAC)

↳ Admins, City Coordinators, Supply Managers, and other users have permissions based on their roles.

Secure Login System

↳ Only authorized staff can access the system using encrypted credentials.

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MAIN FEATURES

PATIENT MANAGEMENT

View Patient List

↳ Staff can browse through patient profiles sorted by location or other filters.

Detailed Patient Profile View

↳ Includes full name, contact number, address, screening history, medical notes, and hearing aid information.

Barangay & City Filters

↳ Staff can filter patients based on their geographic location for easier data access.

MAIN FEATURES

COMMUNICATION

Bulk SMS Notification System

↳ Staff can send messages to patients grouped by location (e.g., all patients in a city or barangay).

Message Logs

↳ A record of sent messages is available for tracking communication activities.

MAIN FEATURES

LOGS & MONITORING

User Activity Logs

↳ Tracks actions such as login/logout, SMS sending, and patient viewing for accountability.

Screening History Tracking

↳ Shows patient screening outcomes (e.g., "Needs Hearing Aid", "Not Priority", "Fitted", etc.).

MAIN FEATURES

PRIVACY & SECURITY

Hashed Password Storage

↳ No passwords are stored in plain text.

No Chat Logging

↳ The chatbot (if implemented) is stateless and doesn't store any conversations.

Access Restriction by Jurisdiction

↳ City Coordinators can only see patients in their assigned area.

Compliance with Data Privacy Standards

↳ Designed in alignment with the Philippine Data Privacy Act.

MAIN FEATURES

MOBILE EXPERIENCE

Clean and Simple UI

↳ Optimized for mobile devices with clear navigation and a dark theme.

Read-Only Patient Records

↳ Editing is restricted to the web app, preventing accidental or unauthorized changes in the field.

Error/Exception Handling

↳ Graceful fallback for poor connectivity or failed SMS delivery (e.g., retry logic).

TARGET USERS AND PLATFORM

StarkeyConnect is designed for City Coordinators, Supply Managers, healthcare administrators, and local health workers affiliated with the Starkey Hearing Foundation. These users access patient data and operational tools based on their roles. The app runs as a cross-platform mobile application built with Flutter, supporting Android 9.0 and above. It offers read-only access for verified staff, while full editing and administrative features are available through a secure web-based system developed using PHP and MySQL.

ISO 25010

DESCRIPTION

ISO 25010 is an international standard that defines a quality model for evaluating software systems. It outlines eight key characteristics—such as functionality, reliability, usability, efficiency, maintainability, portability, compatibility, and security—that help assess the overall quality of a software product. This standard ensures that the software meets user needs, performs effectively, and can be maintained and adapted over time.

PURPOSE

The purpose of ISO 25010 is to provide a standardized framework for evaluating and improving the quality of software systems. It helps developers, testers, and stakeholders ensure that a software product meets user expectations, is reliable and secure, and performs well under various conditions. By following this model, teams can create higher-quality, user-centered applications that are easier to maintain and adapt.

ISO 25010

QUALITY MODEL

FUNCTIONAL SUITABILITY

Starkey Connect meets its intended purpose by allowing authorized staff to view patient profiles, medical histories, and screening data accurately. Features like role-based access and SMS notifications fulfill the app’s health information delivery goals.

PERFORMANCE EFFICIENCY

The app is optimized for mobile use, loading key screens quickly and efficiently under normal network conditions. Data is fetched asynchronously, ensuring responsiveness even when working with large patient records.

COMPATIBILITY

Starkey Connect is compatible with Android , designed to run smoothly on devices with at least 2GB RAM and Android 9 or higher. It also integrates with the existing web-based health management system via a shared RESTful API.

USABILITY

The user interface is intuitive and streamlined, with clear navigation, readable fonts, and context-based actions. The mobile layout simplifies access to essential patient data without overwhelming the user.

RELIABILITY

The system handles network failures gracefully, and activity logs ensure every action is traceable. Features like usage agreement enforcement and login-based access reduce misuse and improve stability during extended use.

SECURITY

User passwords are securely hashed, and no patient chat logs are stored to protect sensitive data. Access is role-restricted, ensuring staff can only view the data they are authorized to handle, aligning with data privacy regulations.

MAINTAINABILITY

The app is built with modular code and follows best practices in Flutter, making it easy to update and fix. Clear changelogs and regular versioning support ongoing improvement and quick debugging.

PORTABILITY

Starkey Connect can be deployed across various mobile devices without platform-specific customization. It is also prepared for future expansion or migration if necessary, thanks to its API-based architecture.

MOBILE APP DEMO

THANK YOU:)