

NEU Clinic App - Student Health Management System (SHMS) Documentation

Overview

The **NEU Clinic App** is a student health management system designed to streamline the tracking of student health records, doctor visits, vaccinations, X-ray results, and physical exams. The system ensures compliance with school health policies while improving communication between students, parents, medical staff, and administrators.

Features & Functionality

User Roles & Access Control

The system includes different user roles, each with specific permissions to ensure data security and appropriate access.

Super Admin

- Full control over the system.
- Manage all users and assign roles.
- View and manage all student health records.
- Generate reports and analytics.
- Configure system settings.

Admin

- Manage student records and health data.
- Oversee vaccinations, X-ray results, and physical exams.
- Generate reports and send notifications.
- Lock or unlock student enrollment based on document submissions.

Doctor

- View and update assigned student health records.
- Add diagnoses and prescriptions.
- Review vaccination and physical exam records.
- Generate individual health reports.

Nurse

- View and update student health records.
- Add X-ray results and physical exam details.
- Send reminders for vaccinations and health checkups.

- Monitor student health compliance.
- Generate QR codes for student registration and appointment scheduling.

Student

- Access personal health records.
- Check vaccination and exam due dates.
- Download health reports.
- Submit X-ray and physical exam records (if required).
- Receive and use QR codes for clinic access and appointments.

QR Code-Based System

To enhance security and streamline processes, the system incorporates **QR code functionality** for multiple purposes:

1. Account Registration

- **Request an Account** – Students request an account from the staff (online or onsite).
- **QR Code Generation** – Approved students receive a unique QR code linked to their profile.
- **Secure Account Creation** – Students scan the QR code to create their online account.
- **Health Record Access** – The QR code can also be used for quick check-ins at the clinic.

2. Appointment Scheduling & Check-In

- When an appointment is scheduled, a unique QR code is generated for that specific schedule (not for each individual user).
- All students who booked for that specific time slot receive the same QR code.
- The QR code contains details such as **date, time, and designated room**.
- Staff members decide when to send the QR codes before the appointment (e.g., one week prior or at a later date).
- On the day of the appointment, scanning the QR code grants students access to their **assigned consultation room** (e.g., Room 101 for 8:00 AM - 8:30 AM).
- **Each appointment has a different QR code**, ensuring security and proper scheduling.
- QR codes expire after the scheduled appointment time to prevent reuse.
- **Student Identity Validation:** After scanning the QR code, students are redirected to a sign-in verification page where they must log in to confirm their identity before accessing their assigned room.

3. Appointment Types

Different types of appointments can be scheduled based on the student's needs:

- **Type A:** X-ray appointments.

- **Type B:** Health record submission or review.
- **Type C:** Doctor consultations.
- **Type D:** Vaccination appointments.
- Additional appointment types can be defined by staff as needed.

Each appointment type is assigned its own unique schedule and corresponding QR code.

Dashboard & Key Modules

Upon logging in, users access a dashboard customized to their role, with key features including:

- **Appointments** – Schedule or view doctor visits.
- **X-ray/Physical Exam Submission** – Upload required medical documents.
- **Health Records** – View personal or assigned student health data.
- **Doctor Visits** – Review diagnoses and prescriptions.
- **Physical Exam Results** – Track exam details (height, weight, blood pressure, etc.).
- **X-ray Results** – View results with submission dates.
- **Notifications** – Receive alerts for health-related updates.
- **Settings** – Manage user preferences and security settings.

Health Record Management

- Securely store and manage student health records.
- Generate downloadable health reports.

Vaccination Tracking

- Maintain vaccination records, including administered and upcoming schedules.
- Automated reminders for required vaccinations.

Doctor Visits & Medical History

- Log doctor visits, diagnoses, and prescriptions.
- Provide detailed medical history for reference.

X-Ray & Physical Exams

- Record and store X-ray and physical exam details.
- Send reminders for required submissions.

Automated Notifications & Alerts

- Email notifications for upcoming vaccinations and exams.
- Alerts for abnormal health results to inform parents.
- Appointment reminders, including QR codes for clinic access.

Security & Compliance

- **QR-Based Authentication** – Ensures only authorized students can create accounts and access appointments.
- **Role-Based Access Control** – Limits user permissions according to their role.
- **Data Encryption** – Protects sensitive student health records.
- **Secure Authentication** – Enforces strong login mechanisms to prevent unauthorized access.

Emergency Response Feature

- Students or staff can trigger an emergency alert.
- Real-time notifications are sent to clinic staff with student details.
- Ensures timely medical assistance.