**ASIFALI(520358)**

**Remote Health Monitoring System (AlertSystem)**

This is a Java-based healthcare system for remote monitoring, alerts, and communication. It integrates modules for emergency alerts, panic buttons, reminders, chat, and video consultations. The main entry point is the AlertSystem class.

**Project Structure**

src/

└── main/

└── java/

├── alertsystem/

│ └── AlertSystem.java <-- Main class

├── chatserver/

│ └── ChatServer.java

├── clientside/

│ └── Client.java

├── emailnotifier/

│ └── EmailNotification.java

├── emergencyalertsystem/

│ ├── CustomDate.java

│ └── EmergencyAlert.java

├── exceptionhandler/

│ └── RpmsException.java

├── notifier/

│ ├── Notifiable.java

│ └── NotificationService.java

├── panicbuttonsystem/

│ └── PanicButton.java

├── reminderservice/

│ └── Reminder.java

├── smsnotifier/

│ └── SmsNotification.java

└── videoconsultation/

└── VideoCall.java

**Prerequisites**

* **Java JDK 17+**
* **IntelliJ IDEA** (Community or Ultimate)
* **Maven** (integrated in IntelliJ)
* Internet connection (for downloading dependencies)
* Environment variables for credentials:
  + HOSPITAL\_EMERGENCY\_EMAIL: Emergency contact email
  + HOSPITAL\_EMERGENCY\_NUMBER: Emergency contact phone
  + EMAIL\_USERNAME: SMTP email address
  + EMAIL\_PASSWORD: SMTP email password (e.g., Gmail App Password)

**How to Run the Project in IntelliJ**

1. **Clone or Download the Project**
   * Open IntelliJ and go to **File > Open**.
   * Select the project folder (the root containing pom.xml).
2. **Wait for Maven to Load**
   * IntelliJ will automatically import dependencies from pom.xml.
   * Click **"Load Maven Project"** in the Maven tool window if needed.
3. **Set Project SDK**
   * Go to **File > Project Structure > Project**.
   * Set Project SDK to Java 17 or higher.
4. **Configure Environment Variables**
   * Go to **Run > Edit Configurations**.
   * Add environment variables under **Environment variables**:

HOSPITAL\_EMERGENCY\_EMAIL=anwermohammadi809@gmail.com;HOSPITAL\_EMERGENCY\_NUMBER=+92336578289;EMAIL\_USERNAME=your-email;EMAIL\_PASSWORD=your-password

1. **Locate Main Class**
   * Navigate to src/main/java/alertsystem/AlertSystem.java.
2. **Run the Application**
   * Right-click on AlertSystem.java.
   * Click **Run 'AlertSystem.main()'**.

**Notes**

* Ensure all modules compile without errors. Check package names (e.g., notifier, smsnotifier) for consistency.
* The EmailNotification module requires valid SMTP credentials. Use a Gmail App Password for EMAIL\_PASSWORD if using Gmail.
* The SmsNotification module is console-based; for production, integrate a real SMS service (e.g., Twilio).
* The VideoCall module generates dummy URLs; for production, integrate Zoom/Google Meet APIs.
* Logging uses java.util.logging for all operations.

**Dependencies (in pom.xml)**

<dependencies>

<dependency>

<groupId>com.sun.mail</groupId>

<artifactId>jakarta.mail</artifactId>

<version>2.0.1</version>

</dependency>

<!-- Optional: Twilio for SMS (uncomment for production) -->

<!--

<dependency>

<groupId>com.twilio.sdk</groupId>

<artifactId>twilio</artifactId>

<version>9.2.0</version>

</dependency>

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</dependencies>

**License**

This project is for educational/demo purposes. Use at your own discretion