## Overview

The Online Contact Management System is a web-based application designed to help users efficiently manage their contacts. It provides endpoints for adding, retrieving, updating, and deleting user information. The system uses an H2 Database for data storage and incorporates logging features.

## Features

1. **User Management:**
   * **POST /api/v1/users:** Add a new user with details such as name, phone number, and email.
   * **GET /api/v1/users/{id}:** Retrieve user details based on the provided user ID.
   * **PUT /api/v1/users/{id}:** Update user information (name, phone number, email) for a specific user.
   * **DELETE /api/v1/users/{id}:** Delete a user record by user ID.
2. **Data Storage:**
   * The system utilizes the **H2 Database** to store user information securely.
3. **Logging:**
   * To track user interactions and system events, we recommend using **slf4j** (Simple Logging Facade for Java) or **AOP** (Aspect-Oriented Programming) for logging purposes.
   * Log information related to user creation and modification events.

## Getting Started

1. **Prerequisites:**
   * Ensure you have Java and Maven installed.
   * Set up your development environment.
2. **Installation:**
   * Clone this repository.
   * Build the project using Maven: mvn clean install.
3. **Configuration:**
   * Configure the H2 Database connection properties (e.g., URL, username, password) in the application properties file.
4. **Running the Application:**
   * Start the Spring Boot application.
   * Access the API endpoints via a web browser or API client (e.g., Postman).

## Usage

1. **Adding a User:**
   * Send a POST request to /api/v1/users with user details (name, phone number, email).
   * Example request body:
2. **Retrieving User Details:**
   * Send a GET request to /api/v1/users/{id} with the user ID.
   * Example: /api/v1/users/1
3. **Updating User Information:**
   * Send a PUT request to /api/v1/users/{id} with the updated user details.
   * Example request body:
4. **Deleting a User:**
   * Send a DELETE request to /api/v1/users/{id} to delete the user with the specified ID.