```
<?php
session start();
include 'db connect.php';
if (!isset($ SESSION['user id'])) {
    header("Location: login.php");
    exit();
$user_id = $_SESSION['user_id'];
$success_message = "";
$error message = "";
$show_timer = false;
$timer_end_time = 0;
$show doctor alert = false;
$doctor_message = "";
// Define normal ranges for vital signs
$normal ranges = [
    'blood_sugar' => [70, 140], // mg/dL
    'blood_pressure_systolic' => [90, 120], // mmHg
    'blood_pressure_diastolic' => [60, 80], // mmHg
    'oxygen_level' => [95, 100], // %
    'heart_rate' => [60, 100] // bpm
];
// Check if stop timer button was pressed
if (isset($_POST['stop_timer'])) {
    unset($_SESSION['abnormal_reading'], $_SESSION['timer_start'],
$_SESSION['timer_end']);
    $show_timer = false;
    $success_message = "Timer has been stopped.";
// Check if a timer needs to start for abnormal readings
else if (isset($_SESSION['abnormal_reading']) && $_SESSION['abnormal_reading']
=== true) {
    $show_timer = true;
    if (!isset($_SESSION['timer_start']) && isset($_POST['start_timer'])) {
        $_SESSION['timer_start'] = time();
        $_SESSION['timer_end'] = time() + 60; // 1 minute
    if (isset($ SESSION['timer start'])) {
        $timer_end_time = $_SESSION['timer_end'];
        if (time() >= $_SESSION['timer end']) {
            $show timer = false;
            unset($_SESSION['timer_start'], $_SESSION['timer_end']);
            // Keep abnormal_reading flag for comparison with next reading
```

```
// Handling vital sign submission
if ($ SERVER["REQUEST METHOD"] == "POST" && isset($ POST['submit vital'])) {
    $vital type = $ POST["vital type"];
    $value = $_POST["value"];
    if (empty($vital_type) || empty($value)) {
        $error_message = "All fields are required.";
    } else {
        $column map = [
            "blood sugar" => "blood sugar",
            "blood pressure systolic" => "blood pressure systolic",
            "blood pressure diastolic" => "blood pressure diastolic",
            "oxygen level" => "oxygen level",
            "heart_rate" => "heart_rate"
        ];
        if (!isset($column map[$vital type])) {
            $error_message = "Invalid vital type!";
        } else {
            $column = $column_map[$vital_type];
            $sql = "INSERT INTO vital_signs (user_id, $column, recorded_at)
VALUES (?, ?, NOW())";
            $stmt = $conn->prepare($sq1);
            $stmt->bind_param("id", $user_id, $value);
            if ($stmt->execute()) {
                $success_message = "Vital sign recorded successfully!";
                // Check if reading is abnormal
                $is_abnormal = false;
                if ($vital_type == 'blood_sugar' && ($value <</pre>
$normal_ranges['blood_sugar'][0] || $value >
$normal_ranges['blood_sugar'][1])) {
                    $is abnormal = true;
                } else if ($vital_type == 'blood_pressure_systolic' && ($value)
< $normal_ranges['blood_pressure_systolic'][0] || $value >
$normal ranges['blood pressure systolic'][1])) {
                    $is abnormal = true;
                } else if ($vital_type == 'blood_pressure_diastolic' &&
($value < $normal_ranges['blood_pressure_diastolic'][0] || $value >
$normal_ranges['blood_pressure_diastolic'][1])) {
                    $is abnormal = true;
```

```
} else if ($vital_type == 'oxygen_level' && $value <</pre>
$normal_ranges['oxygen_level'][0]) {
                    $is abnormal = true;
                } else if ($vital_type == 'heart_rate' && ($value <</pre>
$normal ranges['heart rate'][0] || $value > $normal ranges['heart rate'][1]))
                    $is abnormal = true;
                // Check if this is a follow-up reading after a previous
abnormal reading
                if (isset($ SESSION['abnormal reading'])) {
                    if ($is_abnormal) {
                        // Second abnormal reading - show doctor consultation
alert
                        $show_doctor_alert = true;
                        $doctor_message = "You have multiple abnormal
readings. Please consult a doctor as soon as possible.";
                    } else {
                        // Second reading is normal
                        $success_message .= " Your reading has returned to
normal range.";
                    // Clear abnormal reading flags
                    unset($_SESSION['abnormal_reading']);
                else if ($is_abnormal) {
                    // This is the first abnormal reading
                    $_SESSION['abnormal_reading'] = true;
                    $show_timer = true;
            } else {
                $error_message = "Error: " . $stmt->error;
            $stmt->close();
// Fetch user's last 10 readings
$sql = "SELECT *, DATE_FORMAT(recorded_at, '%M %d, %Y %h:%i %p') AS
formatted time
        FROM vital_signs WHERE user_id = ? ORDER BY recorded_at DESC LIMIT
10";
$stmt = $conn->prepare($sql);
$stmt->bind_param("i", $user_id);
$stmt->execute();
$readings = $stmt->get result()->fetch all(MYSQLI ASSOC);
```

```
$stmt->close();
$conn->close();
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Health Monitoring Dashboard</title>
    <link rel="stylesheet"</pre>
href="https://cdn.jsdelivr.net/npm/bootstrap@5.3.0/dist/css/bootstrap.min.css"
    <link rel="stylesheet" href="https://cdnjs.cloudflare.com/ajax/libs/font-</pre>
awesome/6.0.0/css/all.min.css">
    <style>
        :root {
            --normal-color: rgb(62, 237, 43);
            --abnormal-color: #dc3545;
        body {
            font-family: 'Arial', sans-serif;
            background-color: #f8f9fa;
            margin: 0;
            padding: 0;
            display: flex;
        .container {
            max-width: 1200px;
            margin: 0 auto;
            padding: 20px;
        h1, h2, h3, h4, h5, h6 {
            color: #333;
            border-bottom: 2px solid var(--normal-color);
            padding-bottom: 10px;
            margin-bottom: 20px;
        .alert {
            border-radius: 8px;
            margin-bottom: 20px;
        }
```

```
.readings-scroll {
    display: flex;
    overflow-x: auto;
    gap: 15px;
    padding: 10px 0;
    margin-bottom: 20px;
.reading-card {
    min-width: 200px;
    background-color: white;
    border-radius: 8px;
    padding: 15px;
    box-shadow: 0 2px 5px rgba(0,0,0,0.1);
    border-left: 4px solid var(--normal-color);
.abnormal-card {
    border-left: 4px solid var(--abnormal-color);
.vital-value {
    font-weight: bold;
   font-size: 1.1em;
.normal {
    color: var(--normal-color);
.abnormal {
    color: var(--abnormal-color);
   font-weight: bold;
.abnormal-icon {
    animation: pulse 1s infinite;
   margin-left: 5px;
.vital-date {
    font-size: 0.8em;
    color: #666;
    margin-top: 10px;
table th {
   background-color: #f1f1f1;
```

```
table td {
            vertical-align: middle;
        .timer-container {
            background: linear-gradient(to right, rgba(62, 237, 43, 0.1),
rgba(62, 237, 43, 0.2));
            border-radius: 10px;
            padding: 20px;
            margin-bottom: 20px;
            box-shadow: 0 3px 10px rgba(0,0,0,0.1);
            border: 1px solid rgba(62, 237, 43, 0.3);
        .timer-title {
            font-size: 1.2em;
            font-weight: bold;
            margin-bottom: 10px;
            color: #333;
        #countdown {
            font-size: 2.5em;
            font-weight: bold;
            text-align: center;
            margin: 15px 0;
            color: #333;
        .timer-text {
            text-align: center;
            margin-bottom: 15px;
        .timer-buttons {
            display: flex;
            gap: 10px;
            justify-content: center;
        .btn-stop {
            background-color: #dc3545;
            color: white;
        .btn-stop:hover {
```

```
background-color: #c82333;
    color: white;
.doctor-alert {
    background-color: #ffebee;
    border: 2px solid #dc3545;
    border-radius: 10px;
    padding: 20px;
    margin-bottom: 20px;
    box-shadow: 0 4px 12px rgba(220, 53, 69, 0.2);
    animation: pulse 2s infinite;
.doctor-alert-title {
    display: flex;
    align-items: center;
    font-size: 1.4em;
    font-weight: bold;
    color: #dc3545;
   margin-bottom: 15px;
.doctor-alert-title i {
    margin-right: 10px;
   font-size: 1.5em;
.doctor-alert-message {
    font-size: 1.1em;
    color: #333;
@keyframes pulse {
    0% { opacity: 1; }
    50% { opacity: 0.7; }
   100% { opacity: 1; }
.btn-primary {
    background-color: var(--normal-color);
    border-color: var(--normal-color);
    color: #333;
    font-weight: bold;
.btn-primary:hover {
   background-color: rgb(42, 217, 23);
```

```
border-color: rgb(42, 217, 23);
            color: #333;
        /* Sidebar Styles */
        .sidebar {
            width: 250px;
            height: 100vh;
            background: linear-gradient(180deg, rgb(23, 205, 44) 0%, rgb(73,
174, 93) 100%);
            color: white;
            position: fixed;
            padding-top: 20px;
            box-shadow: 4px 0 10px rgba(0, 0, 0, 0.1);
        .sidebar h2 {
            text-align: center;
            margin-bottom: 20px;
        .sidebar ul {
            list-style: none;
            padding: 0;
        .sidebar ul li {
            padding: 15px 20px;
        .sidebar ul li a {
            color: white;
            text-decoration: none;
            display: flex;
            align-items: center;
            font-size: 16px;
        .sidebar ul li a i {
            margin-right: 10px;
        .sidebar ul li:hover {
            background: rgba(255, 255, 255, 0.1);
        /* Main Content Styles */
        .main-content {
```

```
margin-left: 250px;
            padding: 20px;
           width: calc(100% - 250px);
   </style>
</head>
<body>
   <div class="sidebar">
        <h2>TeleCare+</h2>
       <l
            <1i>>
                <a href="dashboard.php">
                    <i class="fas fa-home"></i></i>
                    Dashboard
                </a>
            <1i>>
                <a href="vital_signs.php">
                    <i class="fas fa-heartbeat"></i></i>
                    Vital Signs
                </a>
            <1i>>
                <a href="appointments.php">
                    <i class="fas fa-calendar-check"></i></i>
                    Appointments
                </a>
            <1i>>
                <a href="health_records.php">
                    <i class="fas fa-file-medical"></i></i>
                    Health Records
                </a>
            <1i>>
                <a href="medications.php">
                    <i class="fas fa-pills"></i></i>
                    Medications
                </a>
            <
                <a href="doctor_consultation.php">
                    <i class="fas fa-user-md"></i></i>
                    Doctor Consultation
               </a>
            <
```

```
<a href="profile.php">
                <i class="fas fa-user"></i></i>
                Profile
            </a>
        <1i>>
            <a href="settings.php">
                <i class="fas fa-cog"></i></i></or>
                Settings
        <1i>>
            <a href="logout.php">
                <i class="fas fa-sign-out-alt"></i>
                Logout
            </a>
        </div>
<!-- Main Content -->
<div class="main-content">
    <h1 class="mt-4 mb-4">Health Monitoring Dashboard</h1>
   <?php if (!empty($success_message)): ?>
        <div class="alert alert-success">
            <?= $success_message ?>
        </div>
    <?php endif; ?>
    <?php if (!empty($error_message)): ?>
        <div class="alert alert-danger">
            <?= $error_message ?>
        </div>
   <?php endif; ?>
   <?php if ($show_doctor_alert): ?>
        <div class="doctor-alert">
            <div class="doctor-alert-title">
                <i class="fas fa-user-md"></i> Medical Attention Required
            </div>
            <div class="doctor-alert-message">
                <?= $doctor_message ?>
            </div>
        </div>
    <?php endif; ?>
   <?php if ($show timer): ?>
```

```
<div class="timer-container">
                <?php if (!isset($ SESSION['timer start'])): ?>
                    <div class="timer-title text-center text-danger">
                        <i class="fas fa-exclamation-triangle me-2"></i>
                        Abnormal Reading Detected
                    Please start the timer and take another reading in 1
minute.
                    <div class="timer-buttons">
                        <form method="POST">
                            <button type="submit" name="start_timer"</pre>
class="btn btn-primary">
                                <i class="fas fa-clock me-2"></i>Start 1-
Minute Timer
                            </button>
                        </form>
                        <form method="POST">
                            <button type="submit" name="stop_timer" class="btn</pre>
btn-stop">
                                <i class="fas fa-times me-2"></i>Cancel
                            </button>
                        </form>
                    </div>
                <?php else: ?>
                    <div class="timer-title">
                        <i class="fas fa-clock me-2"></i></i>
                        Follow-up Reading Timer
                    </div>
                    <div id="countdown">00:01:00</div>
                    Please take another reading when the
timer reaches zero.
                    <div class="timer-buttons">
                        <form method="POST">
                            <button type="submit" name="stop_timer" class="btn</pre>
btn-stop">
                                <i class="fas fa-stop-circle me-2"></i>Stop
Timer
                            </button>
                        </form>
                    </div>
                <?php endif; ?>
            </div>
        <?php endif; ?>
        <?php if (!empty($readings)): ?>
            <h4>Recent Readings</h4>
            <div class="readings-scroll">
                <?php foreach (array_slice($readings, 0, 5) as $reading): ?>
```

```
<?php
                     $has abnormal = false;
                     if (($reading['blood sugar'] !== null &&
($reading['blood_sugar'] < $normal_ranges['blood_sugar'][0] ||</pre>
$reading['blood sugar'] > $normal ranges['blood sugar'][1])) ||
                         ($reading['blood_pressure_systolic'] !== null &&
($reading['blood_pressure_systolic'] <</pre>
$normal_ranges['blood_pressure_systolic'][0] ||
$reading['blood_pressure_systolic'] >
$normal_ranges['blood_pressure_systolic'][1])) ||
                         ($reading['blood_pressure_diastolic'] !== null &&
($reading['blood pressure diastolic'] <
$normal_ranges['blood_pressure_diastolic'][0] ||
$reading['blood_pressure_diastolic'] >
$normal ranges['blood pressure diastolic'][1])) ||
                         ($reading['oxygen level'] !== null &&
$reading['oxygen_level'] < $normal_ranges['oxygen_level'][0]) ||</pre>
                         ($reading['heart_rate'] !== null &&
($reading['heart_rate'] < $normal_ranges['heart_rate'][0] |
$reading['heart_rate'] > $normal_ranges['heart_rate'][1]))) {
                         $has_abnormal = true;
                     <div class="reading-card <?= $has_abnormal ? 'abnormal-</pre>
card' : '' ?>">
                         <?php if ($reading['blood_sugar'] !== null): ?>
                             <?php $is_abnormal = ($reading['blood_sugar'] <</pre>
$normal_ranges['blood_sugar'][0] || $reading['blood_sugar'] >
$normal_ranges['blood_sugar'][1]); ?>
                             <div class="mb-2">
                                 <div>Blood Sugar</div>
                                 <div class="vital-value <?= $is abnormal ?</pre>
'abnormal' : 'normal' ?>">
                                     <?= $reading['blood_sugar'] ?> mg/dL
                                     <?php if ($is_abnormal): ?>
                                          <i class="fas fa-exclamation-circle</pre>
abnormal-icon"></i>
                                     <?php endif; ?>
                                 </div>
                             </div>
                         <?php endif; ?>
                         <?php if ($reading['blood_pressure_systolic'] !==</pre>
null): ?>
                             <?php $is_abnormal =
($reading['blood_pressure_systolic'] <</pre>
$normal_ranges['blood_pressure_systolic'][0] ||
```

```
$reading['blood_pressure_systolic'] >
$normal ranges['blood pressure systolic'][1]); ?>
                              <div class="mb-2">
                                  <div>BP (Systolic)</div>
                                  <div class="vital-value <?= $is abnormal ?</pre>
'abnormal' : 'normal' ?>">
                                      <?= $reading['blood_pressure_systolic'] ?>
mmHg
                                      <?php if ($is abnormal): ?>
                                          <i class="fas fa-exclamation-circle</pre>
abnormal-icon"></i>
                                      <?php endif; ?>
                                  </div>
                         <?php endif; ?>
                         <?php if ($reading['blood_pressure_diastolic'] !==</pre>
null): ?>
                              <?php $is abnormal =</pre>
($reading['blood pressure diastolic'] <
$normal_ranges['blood_pressure_diastolic'][0] ||
$reading['blood_pressure_diastolic'] >
$normal_ranges['blood_pressure_diastolic'][1]); ?>
                             <div class="mb-2">
                                  <div>BP (Diastolic)</div>
                                  <div class="vital-value <?= $is_abnormal ?</pre>
'abnormal' : 'normal' ?>">
                                      <?= $reading['blood_pressure_diastolic']</pre>
?> mmHg
                                      <?php if ($is_abnormal): ?>
                                          <i class="fas fa-exclamation-circle</pre>
abnormal-icon"></i>
                                      <?php endif; ?>
                                  </div>
                              </div>
                         <?php endif; ?>
                         <?php if ($reading['oxygen_level'] !== null): ?>
                              <?php $is_abnormal = ($reading['oxygen_level'] <</pre>
$normal_ranges['oxygen_level'][0]); ?>
                              <div class="mb-2">
                                  <div>Oxygen Level</div>
                                  <div class="vital-value <?= $is_abnormal ?</pre>
'abnormal' : 'normal' ?>">
                                      <?= $reading['oxygen_level'] ?>%
                                      <?php if ($is_abnormal): ?>
                                          <i class="fas fa-exclamation-circle</pre>
abnormal-icon"></i>
```

```
<?php endif; ?>
                                 </div>
                             </div>
                        <?php endif; ?>
                        <?php if ($reading['heart_rate'] !== null): ?>
                             <?php $is_abnormal = ($reading['heart_rate'] <</pre>
$normal_ranges['heart_rate'][0] || $reading['heart_rate'] >
$normal_ranges['heart_rate'][1]); ?>
                             <div class="mb-2">
                                 <div>Heart Rate</div>
                                 <div class="vital-value <?= $is abnormal ?</pre>
'abnormal' : 'normal' ?>">
                                     <?= $reading['heart_rate'] ?> bpm
                                     <?php if ($is abnormal): ?>
                                         <i class="fas fa-exclamation-circle</pre>
abnormal-icon"></i>
                                     <?php endif; ?>
                                 </div>
                             </div>
                        <?php endif; ?>
                        <div class="vital-date">
                            <i class="far fa-calendar-alt me-1"></i> <?=</pre>
$reading['formatted_time'] ?>
                        </div>
                    </div>
                <?php endforeach; ?>
            </div>
        <?php endif; ?>
        <form method="POST" class="mb-4 p-3 bg-light rounded">
            <h4 class="mb-3" style="border-bottom: none;">Record New Vital
Sign</h4>
            <div class="mb-3">
                <label class="form-label">Select Vital Sign:</label>
                <select name="vital_type" class="form-select">
                    <option value="blood_sugar">Blood Sugar</option>
                    <option value="blood_pressure_systolic">Blood Pressure
(Systolic)</option>
                    <option value="blood_pressure_diastolic">Blood Pressure
(Diastolic)</option>
                    <option value="oxygen_level">Oxygen Level</option>
                    <option value="heart_rate">Heart Rate</option>
                </select>
            </div>
            <div class="mb-3">
                <label class="form-label">Value:</label>
```

```
<input type="number" name="value" class="form-control"</pre>
step="0.1" placeholder="Enter value" required>
          </div>
          <button type="submit" name="submit_vital" class="btn btn-</pre>
primary">Submit</button>
       </form>
       <h4>Vital Signs History</h4>
       <div class="table-responsive">
          <thead>
                 Date & Time
                     Blood Sugar
                     BP (Systolic)
                     BP (Diastolic)
                     Oxygen
                     Heart Rate
                 </thead>
              <?php foreach ($readings as $reading): ?>
                     <?= $reading['formatted_time'] ?>
                        <?php $is_abnormal = ($reading['blood_sugar'] !==</pre>
null &&
                                           ($reading['blood_sugar'] <</pre>
$normal_ranges['blood_sugar'][0] ||
                                            $reading['blood_sugar'] >
$normal_ranges['blood_sugar'][1])); ?>
                         ($reading['blood_sugar'] !== null ? 'normal' : '') ?>">
                            <?php if ($reading['blood_sugar'] !== null):</pre>
                                <?= $reading['blood_sugar'] ?> mg/dL
                                <?php if ($is_abnormal): ?>
                                   <i class="fas fa-exclamation-circle</pre>
abnormal-icon"></i>
                                <?php endif; ?>
                            <?php else: ?>
                            <?php endif; ?>
                         <?php $is_abnormal =</pre>
($reading['blood_pressure_systolic'] !== null &&
```

```
($reading['blood_pressure_sys
tolic'] < $normal ranges['blood pressure systolic'][0] ||
                                               $reading['blood pressure sys
tolic'] > $normal_ranges['blood_pressure_systolic'][1])); ?>
                          ($reading['blood_pressure_systolic'] !== null ? 'normal' : '') ?>">
                              <?php if ($reading['blood_pressure_systolic']</pre>
!== null): ?>
                                  <?= $reading['blood pressure systolic'] ?>
mmHg
                                  <?php if ($is_abnormal): ?>
                                      <i class="fas fa-exclamation-circle</pre>
abnormal-icon"></i>
                                  <?php endif; ?>
                              <?php else: ?>
                              <?php endif; ?>
                          <?php $is abnormal =</pre>
($reading['blood_pressure_diastolic'] !== null &&
                                              ($reading['blood pressure dia
stolic'] < $normal_ranges['blood_pressure_diastolic'][0] ||</pre>
                                               $reading['blood_pressure_dia
stolic'] > $normal_ranges['blood_pressure_diastolic'][1])); ?>
                          ($reading['blood_pressure_diastolic'] !== null ? 'normal' : '') ?>">
                              <?php if ($reading['blood_pressure_diastolic']</pre>
!== null): ?>
                                  <?= $reading['blood_pressure_diastolic']</pre>
?> mmHg
                                 <?php if ($is_abnormal): ?>
                                      <i class="fas fa-exclamation-circle</pre>
abnormal-icon"></i>
                                  <?php endif; ?>
                              <?php else: ?>
                              <?php endif; ?>
                          <?php $is_abnormal = ($reading['oxygen_level'] !==</pre>
null &&
                                              $reading['oxygen_level'] <</pre>
$normal_ranges['oxygen_level'][0]); ?>
                          ($reading['oxygen_level'] !== null ? 'normal' : '') ?>">
                              <?php if ($reading['oxygen_level'] !== null):</pre>
```

```
<?= $reading['oxygen_level'] ?>%
                                  <?php if ($is abnormal): ?>
                                      <i class="fas fa-exclamation-circle</pre>
abnormal-icon"></i>
                                  <?php endif; ?>
                              <?php else: ?>
                              <?php endif; ?>
                          <?php $is_abnormal = ($reading['heart_rate'] !==</pre>
null &&
                                               ($reading['heart_rate'] <
$normal_ranges['heart_rate'][0] ||
                                                $reading['heart rate'] >
$normal ranges['heart rate'][1])); ?>
                          ($reading['heart_rate'] !== null ? 'normal' : '') ?>">
                              <?php if ($reading['heart_rate'] !== null): ?>
                                  <?= $reading['heart_rate'] ?> bpm
                                  <?php if ($is_abnormal): ?>
                                      <i class="fas fa-exclamation-circle</pre>
abnormal-icon"></i>
                                  <?php endif; ?>
                              <?php else: ?>
                              <?php endif; ?>
                           <?php endforeach; ?>
               </div>
       <div class="mt-4">
           <a href="logout.php" class="btn btn-danger">Logout</a>
       </div>
   </div>
   <script>
       <?php if (isset($_SESSION['timer_start'])): ?>
       // Timer functionality
       let timerEnd = <?= $timer_end_time ?>;
       function updateCountdown() {
           let now = Math.floor(Date.now() / 1000);
           let diff = timerEnd - now;
```

```
if (diff > 0) {
                let hours = Math.floor(diff / 3600);
               let minutes = Math.floor((diff % 3600) / 60);
                let seconds = diff % 60;
                document.getElementById('countdown').textContent =
                    (hours < 10 ? "0" + hours : hours) + ":" +
                    (minutes < 10 ? "0" + minutes : minutes) + ":" +
                    (seconds < 10 ? "0" + seconds : seconds);
                setTimeout(updateCountdown, 1000);
           } else {
                document.getElementById('countdown').textContent = "00:00:00";
                alert("Time to take your follow-up reading!");
       updateCountdown();
       <?php endif; ?>
   </script>
</body>
</html>
```