

ΠΑΡΑΡΤΗΜΑ

- Περιγραφή: Τα παρακάτω αρχεία δομούν το γραφικό περιβάλλον της ιντερνετικής εφαρμογής στα επίπεδα εισαγωγής/διαγραφής δεδομένων, αρχικοποίησης βάσης και για την εκτέλεση των SQL ερωτημάτων.

Αρχείο 1 : index.php

```
<!DOCTYPE html>
<html lang="en">
  <?php
    // include ('connection_local.php');
    // $db = connecting();
    include ('connection.php');
    $db_conn = connection();

    if(isset($_GET['status']) == 'exists'){
      echo '
      <script>alert("Entry Already exists. Try another one.");</script>';
      header('Location: index.php');
    }
  ?>
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Μετρήσεις Κινητών Συσκευών Χρηστών</title>
  <link rel="stylesheet" type="text/css" href="static/style.css">
  <link rel="icon" type="image/x-icon" href="media/sensor.png">
</head>
<body>

  <!-- The sidebar -->
  <div class="sidebar">
    <a class="active menu-text" href="index.php">DATABASE INITIALIZATION</a>
    <a class="menu-text" href="users.php">USERS</a>

    <div class="dropdown">
      <a class="menu-text" href="sensors.php">SENSORS</a>
      <!-- The dropdown content -->
      <div class="dropdown-content">
```

```

        <a class="menu-text active"
href="magnetometer_sensor.php">Magnetometer</a>
        <a class="menu-text" href="accelerometer_sensor.php">Accelerometer</a>
        <a class="menu-text" href="geolocation_sensor.php">Geolocation</a>
        <a class="menu-text" href="gyroscope_sensor.php">Gyroscope</a>
        <a class="menu-text" href="step-counter_sensor.php">Step-counter</a>
        <a class="menu-text" href="barometer_sensor.php">Barometer</a>
        <a class="menu-text" href="proximity_sensor.php">Proximity</a>
    </div>
</div>
    <a class="menu-text" href="queries.php">QUERIES</a>
</div>
<!-- Page content -->
<div class="content">
    <form action="database_init.php" method="post">
        <button type="submit" name="submit">DATABASE INITIALIASATION</button><!--
DATABASE INITIALIASATION -->
    </form>
</div>
</body>
</html>

```

Αρχείο 2 : accelerometer_sensor.php

```

<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Μετρήσεις Κινητών Συσκευών Χρηστών</title>
    <link rel="stylesheet" type="text/css" href="static/style.css">
    <link rel="icon" type="image/x-icon" href="media/sensor.png">
</head>
<body>

<!-- The sidebar -->
<div class="sidebar">
    <a class="menu-text" href="index.php">DATABASE INITIALIZATION</a>
    <a class="menu-text" href="users.php">USERS</a>
    <div class="dropdown">
        <a class="menu-text active" href="sensors.php">SENSORS</a>
    <!-- The dropdown content -->

```

```

<div class="dropdown-content">

    <a class="menu-text" href="magnetometer_sensor.php">Magnetometer</a>
    <a class="menu-text active"
href="accelerometer_sensor.php">Accelerometer</a>
    <a class="menu-text" href="geolocation_sensor.php">Geolocation</a>
    <a class="menu-text" href="gyroscope_sensor.php">Gyroscope</a>
    <a class="menu-text" href="step-counter_sensor.php">Step-counter</a>
    <a class="menu-text" href="barometer_sensor.php">Barometer</a>
    <a class="menu-text" href="proximity_sensor.php">Proximity</a>

</div>
</div>
<a class="menu-text" href="queries.php">QUERIES</a>
</div>
<!-- Page content -->
<div class="content">
<form action="accelerometer/insert.php" method="post">
    <table>
        <tr>
            <th>Field</th>
            <th>Value</th>
        </tr>
        <tr>
            <td>UserId:</td>
            <td><input type="text" name="userid" required></td>
        </tr>

        <tr>
            <td>Accelerometer_x:</td>
            <td><input type="text" name="accelerometer_x"
step="0.0000000000000001" required></td>
        </tr>
        <tr>
            <td>Accelerometer_y:</td>
            <td><input type="text" name="accelerometer_y"
step="0.0000000000000001" required></td>
        </tr>
        <tr>
            <td>Accelerometer_z:</td>
            <td><input type="text" name="accelerometer_z"
step="0.0000000000000001" required></td>
        </tr>
        <tr>
            <td>Time Stamp(Unix Epoch):</td>
            <td><input type="text" name="time stamp" required></td>

```

```

        </tr>
    </table>
    <input type="submit" value="Insert Record">
</form>
<form action="accelerometer/delete.php" method="post">
    <table>
        <tr>
            <th>Field</th>
            <th>Value</th>
        </tr>
        <tr>
            <td>UserId:</td>
            <td><input type="text" name="userid" required></td>
        </tr>
        <tr>
            <td>Accelerometer_x:</td>
            <td><input type="text" name="accelerometer_x"
step="0.0000000000000001" required></td>
        </tr>
        <tr>
            <td>Accelerometer_y:</td>
            <td><input type="text" name="accelerometer_y"
step="0.0000000000000001" required></td>
        </tr>
        <tr>
            <td>Accelerometer_z:</td>
            <td><input type="text" name="accelerometer_z"
step="0.0000000000000001" required></td>
        </tr>
        <tr>
            <td>Time Stamp(Unix Epoch):</td>
            <td><input type="text" name="time stamp" required></td>
        </tr>
    </table>
    <input type="submit" value="Delete Record">
</form>
</div>

</body>
</html>

```

Αρχείο 3 : barometer_sensor.php

```
<!DOCTYPE html>
```

```

<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Μετρήσεις Κινητών Συσκευών Χρηστών</title>
  <link rel="stylesheet" type="text/css" href="static/style.css">
  <link rel="icon" type="image/x-icon" href="media/sensor.png">
</head>
<body>

<!-- The sidebar -->
<div class="sidebar">
  <a class="menu-text" href="index.php">DATABASE INITIALIZATION</a>
  <a class="menu-text" href="users.php">USERS</a>
  <div class="dropdown">
    <a class="menu-text active" href="sensors.php">SENSORS</a>
    <!-- The dropdown content -->
    <div class="dropdown-content">
      <a class="menu-text" href="magnetometer_sensor.php">Magnetometer</a>
      <a class="menu-text" href="accelerometer_sensor.php">Accelerometer</a>
      <a class="menu-text" href="geolocation_sensor.php">Geolocation</a>
      <a class="menu-text" href="gyroscope_sensor.php">Gyroscope</a>
      <a class="menu-text" href="step-counter_sensor.php">Step-counter</a>
      <a class="menu-text active" href="barometer_sensor.php">Barometer</a>
      <a class="menu-text" href="proximity_sensor.php">Proximity</a>
    </div>
  </div>
  <a class="menu-text" href="queries.php">QUERIES</a>
</div>
<!-- Page content -->
<div class="content">
<form action="barometer/insert.php" method="post">
  <table>
    <tr>
      <th>Field</th>
      <th>Value</th>
    </tr>
    <tr>
      <td>UserId:</td>
      <td><input type="text" name="userid" required></td>
    </tr>
    <tr>
      <td>Pressure:</td>
      <td><input type="number" name="pressure" required></td>
    </tr>
  </table>

```

```

        <tr>
            <td>Time_stamp(Unix Epoch):</td>
            <td><input type="number" name="timestamp" required></td>
        </tr>
    </table>
    <input type="submit" value="Insert Record">
</form>
<form action="barometer/delete.php" method="post">
    <table>
        <tr>
            <th>Field</th>
            <th>Value</th>
        </tr>
        <tr>
            <td>Userid:</td>
            <td><input type="text" name="userid" required></td>
        </tr>
        <tr>
            <td>Pressure:</td>
            <td><input type="number" name="pressure" required></td>
        </tr>
        <tr>
            <td>Time_stamp(Unix Epoch):</td>
            <td><input type="number" name="timestamp" required></td>
        </tr>
    </table>
    <input type="submit" value="Delete Record">
</form>
</div>

</body>
</html>

```

Αρχείο 4 : geolocation_sensor.php

```

<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Μετρήσεις Κινητών Συσκευών Χρηστών</title>
    <link rel="stylesheet" type="text/css" href="static/style.css">
    <link rel="icon" type="image/x-icon" href="media/sensor.png">

```

```

</head>
<body>

<!-- The sidebar -->
<div class="sidebar">
  <a class="menu-text" href="index.php">DATABASE INITIALIZATION</a>
  <a class="menu-text" href="users.php">USERS</a>
  <div class="dropdown">
    <a class="menu-text active" href="sensors.php">SENSORS</a>
    <!-- The dropdown content -->
    <div class="dropdown-content">

      <a class="menu-text" href="magnetometer_sensor.php">Magnetometer</a>
      <a class="menu-text" href="accelerometer_sensor.php">Accelerometer</a>
      <a class="menu-text active" href="geolocation_sensor.php">Geolocation</a>
      <a class="menu-text" href="gyroscope_sensor.php">Gyroscope</a>
      <a class="menu-text" href="step-counter_sensor.php">Step-counter</a>
      <a class="menu-text" href="barometer_sensor.php">Barometer</a>
      <a class="menu-text" href="proximity_sensor.php">Proximity</a>

    </div>
  </div>
  <a class="menu-text" href="queries.php">QUERIES</a>
</div>
<!-- Page content -->
<div class="content">
<form action="geolocation/insert.php" method="post">
  <table>
    <tr>
      <th>Field</th>
      <th>Value</th>
    </tr>
    <tr>
      <td>UserId:</td>
      <td><input type="text" name="userid" required></td>
    </tr>
    <tr>
      <td>Longitude:</td>
      <td><input type="number" name="longitude" step="0.0000000000000001"
required></td>
    </tr>
    <tr>
      <td>Latitude:</td>
      <td><input type="number" name="latitude" step="0.0000000000000001"
required></td>
    </tr>
  </table>

```

```

        <tr>
            <td>Altitude:</td>
            <td><input type="number" name="altitude" step="0.0000000000000001"
required></td>
        </tr>
        <tr>
            <td>Time_stamp(Unix Epoch):</td>
            <td><input type="text" name="time_stamp" required></td>
        </tr>
    </table>
    <input type="submit" value="Insert Record">
</form>
<form action="geolocation/delete.php" method="post">
    <table>
        <tr>
            <th>Field</th>
            <th>Value</th>
        </tr>
        <tr>
            <td>UserId:</td>
            <td><input type="text" name="userid" required></td>
        </tr>
        <tr>
            <td>Longitude:</td>
            <td><input type="number" name="longitude" step="0.0000000000000001"
required></td>
        </tr>
        <tr>
            <td>Latitude:</td>
            <td><input type="number" name="latitude" step="0.0000000000000001"
required></td>
        </tr>
        <tr>
            <td>Altitude:</td>
            <td><input type="number" name="altitude" step="0.0000000000000001"
required></td>
        </tr>
        <tr>
            <td>Time_stamp(Unix Epoch):</td>
            <td><input type="text" name="time_stamp" required></td>
        </tr>
    </table>
    <input type="submit" value="Delete Record">
</form>
</div>

```



```
</body>
</html>
```

Αρχείο 5 : gyroscope_sensor.php

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Μετρήσεις Κινητών Συσκευών Χρηστών</title>
  <link rel="stylesheet" type="text/css" href="static/style.css">
  <link rel="icon" type="image/x-icon" href="media/sensor.png">
</head>
<body>

<!-- The sidebar -->
<div class="sidebar">
  <a class="menu-text" href="index.php">DATABASE INITIALIZATION</a>
  <a class="menu-text" href="users.php">USERS</a>
  <div class="dropdown">
    <a class="menu-text active" href="sensors.php">SENSORS</a>
    <!-- The dropdown content -->
    <div class="dropdown-content">

      <a class="menu-text" href="magnetometer_sensor.php">Magnetometer</a>
      <a class="menu-text" href="accelerometer_sensor.php">Accelerometer</a>
      <a class="menu-text" href="geolocation_sensor.php">Geolocation</a>
      <a class="menu-text active" href="gyroscope_sensor.php">Gyroscope</a>
      <a class="menu-text" href="step-counter_sensor.php">Step-counter</a>
      <a class="menu-text" href="barometer_sensor.php">Barometer</a>
      <a class="menu-text" href="proximity_sensor.php">Proximity</a>

    </div>
  </div>
  <a class="menu-text" href="queries.php">QUERIES</a>
</div>

<!-- Page content -->
<div class="content">
<form action="gyroscope/insert.php" method="post">
  <table>
    <tr>
```

```

        <th>Field</th>
        <th>Value</th>
    </tr>
    <tr>
        <td>UserId:</td>
        <td><input type="text" name="userid" required></td>
    </tr>
    <tr>
        <td>gyroscope_x:</td>
        <td><input type="number" name="gyroscope_x"
step="0.0000000000000001" required></td>
    </tr>
    <tr>
        <td>gyroscope_y:</td>
        <td><input type="number" name="gyroscope_y"
step="0.0000000000000001" required></td>
    </tr>
    <tr>
        <td>gyroscope_z:</td>
        <td><input type="number" name="gyroscope_z"
step="0.0000000000000001" required></td>
    </tr>
    <tr>
        <td>Time_Stamp(Unix Epoch):</td>
        <td><input type="number" name="time_stamp" required></td>
    </tr>
</table>
<input type="submit" value="Insert Record">
</form>

```

```

<form action="gyroscope/delete.php" method="post">
    <table>
        <tr>
            <th>Field</th>
            <th>Value</th>
        </tr>
        <tr>
            <td>UserId:</td>
            <td><input type="text" name="userid" required></td>
        </tr>
        <tr>
            <td>gyroscope_x:</td>
            <td><input type="number" name="gyroscope_x"
step="0.0000000000000001" required></td>
        </tr>
    </table>

```

```

        <tr>
            <td>gyroscope_y:</td>
            <td><input type="number" name="gyroscope_y"
step="0.0000000000000001" required></td>
        </tr>
        <tr>
            <td>gyroscope_z:</td>
            <td><input type="number" name="gyroscope_z"
step="0.0000000000000001" required></td>
        </tr>
        <tr>
            <td>Time_Stamp(Unix Epoch):</td>
            <td><input type="number" name="time_stamp" required></td>
        </tr>
    </table>
    <input type="submit" value="Delete Record">
</form>
</div>

</body>
</html>

```

Αρχείο 6 : g magnetometer_sensor.php

```

<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Μετρήσεις Κινητών Συσκευών Χρηστών</title>
    <link rel="stylesheet" type="text/css" href="static/style.css">
    <link rel="icon" type="image/x-icon" href="media/sensor.png">
</head>
<body>

<!-- The sidebar -->
<div class="sidebar">
    <a class="menu-text" href="index.php">DATABASE INITIALIZATION</a>
    <a class="menu-text" href="users.php">USERS</a>
    <div class="dropdown">
        <a class="menu-text active" href="sensors.php">SENSORS</a>
    <!-- The dropdown content -->
    <div class="dropdown-content">

```

```
        <a class="menu-text active"
href="magnetometer_sensor.php">Magnetometer</a>
        <a class="menu-text" href="accelerometer_sensor.php">Accelerometer</a>
        <a class="menu-text" href="geolocation_sensor.php">Geolocation</a>
        <a class="menu-text" href="gyroscope_sensor.php">Gyroscope</a>
        <a class="menu-text" href="step-counter_sensor.php">Step-counter</a>
        <a class="menu-text" href="barometer_sensor.php">Barometer</a>
        <a class="menu-text" href="proximity_sensor.php">Proximity</a>
    </div>
</div>
    <a class="menu-text" href="queries.php">QUERIES</a>
</div>
```

```
<!-- Page content -->
<div class="content">
<form action="magnetometer/insert.php" method="post">
    <table>
        <tr>
            <th>Field</th>
            <th>Value</th>
        </tr>
        <tr>
            <td>UserId:</td>
            <td><input type="text" name="userid" required></td>
        </tr>
        <tr>
            <td>Magnetometer_x:</td>
            <td><input type="number" name="magnetometer_x"
step="0.0000000000000001" required></td>
        </tr>
        <tr>
            <td>Magnetometer_y:</td>
            <td><input type="number" name="magnetometer_y"
step="0.0000000000000001" required></td>
        </tr>
        <tr>
            <td>Magnetometer_z:</td>
            <td><input type="number" name="magnetometer_z"
step="0.0000000000000001" required></td>
        </tr>
        <tr>
            <td>Time_Stamp(Unix Epoch):</td>
            <td><input type="number" name="time_stamp" step="0.0000000000000001"
required></td>
        </tr>
    </table>
</div>
```

```

        </table>
        <input type="submit" value="Insert Record">
    </form>
    <div>
        <form action="magnetometer/delete.php" method="post">
            <table>
                <tr>
                    <th>Field</th>
                    <th>Value</th>
                </tr>
                <tr>
                    <td>UserId:</td>
                    <td><input type="text" name="userid" required></td>
                </tr>
                <tr>
                    <td>Magnetometer_x:</td>
                    <td><input type="number" name="magnetometer_x"
step="0.0000000000000001" required></td>
                </tr>
                <tr>
                    <td>Magnetometer_y:</td>
                    <td><input type="number" name="magnetometer_y"
step="0.0000000000000001" required></td>
                </tr>
                <tr>
                    <td>Magnetometer_z:</td>
                    <td><input type="number" name="magnetometer_z"
step="0.0000000000000001" required></td>
                </tr>
                <tr>
                    <td>Time_Stamp(Unix Epoch):</td>
                    <td><input type="number" name="time_stamp" required></td>
                </tr>
            </table>
            <input type="submit" value="Delete Record">
        </form>
    </div>

</body>
</html>

```

Αρχείο 7 : proximity_sensor.php

```
<!DOCTYPE html>
```

```

<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Μετρήσεις Κινητών Συσκευών Χρηστών</title>
  <link rel="stylesheet" type="text/css" href="static/style.css">
  <link rel="icon" type="image/x-icon" href="media/sensor.png">
</head>
<body>

<!-- The sidebar -->
<div class="sidebar">
  <a class="menu-text" href="index.php">DATABASE INITIALIZATION</a>
  <a class="menu-text" href="users.php">USERS</a>
  <div class="dropdown">
    <a class="menu-text active" href="sensors.php">SENSORS</a>
    <!-- The dropdown content -->
    <div class="dropdown-content">

      <a class="menu-text" href="magnetometer_sensor.php">Magnetometer</a>
      <a class="menu-text" href="accelerometer_sensor.php">Accelerometer</a>
      <a class="menu-text" href="geolocation_sensor.php">Geolocation</a>
      <a class="menu-text" href="gyroscope_sensor.php">Gyroscope</a>
      <a class="menu-text" href="step-counter_sensor.php">Step-counter</a>
      <a class="menu-text" href="barometer_sensor.php">Barometer</a>
      <a class="menu-text active" href="proximity_sensor.php">Proximity</a>

    </div>
  </div>
  <a class="menu-text" href="queries.php">QUERIES</a>
</div>

```

```

<!-- Page content -->
<div class="content">
<form action="proximity/insert.php" method="post">
  <table>
    <tr>
      <th>Field</th>
      <th>Value</th>
    </tr>
    <tr>
      <td>Userid:</td>
      <td><input type="text" name="userid" required></td>
    </tr>
    <tr>
      <td>Proximity:</td>

```

```

        <td><input type="text" name="proximity" required></td>
    </tr>
    <tr>
        <td>Time_stamp(Unix Epoch):</td>
        <td><input type="number" name="timestamp" required></td>
    </tr>
</table>
<input type="submit" value="Insert Record">
</form>

```

```

<form action="proximity/delete.php" method="post">
    <table>
        <tr>
            <th>Field</th>
            <th>Value</th>
        </tr>
        <tr>
            <td>Userid:</td>
            <td><input type="text" name="userid" required></td>
        </tr>
        <tr>
            <td>Proximity:</td>
            <td><input type="text" name="proximity" required></td>
        </tr>
        <tr>
            <td>Time_stamp(Unix Epoch):</td>
            <td><input type="number" name="timestamp" required></td>
        </tr>
    </table>
    <input type="submit" value="Delete Record">
</form>
</div>

</body>
</html>

```

Αρχείο 8 : step-counter_sensor.php

```

<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Μετρήσεις Κινητών Συσκευών Χρηστών</title>

```

```

    <link rel="stylesheet" type="text/css" href="static/style.css">
    <link rel="icon" type="image/x-icon" href="media/sensor.png">
</head>
<body>

<!-- The sidebar -->
<div class="sidebar">
    <a class="menu-text" href="index.php">DATABASE INITIALIZATION</a>
    <a class="menu-text" href="users.php">USERS</a>
    <div class="dropdown">
        <a class="menu-text active" href="sensors.php">SENSORS</a>
        <!-- The dropdown content -->
        <div class="dropdown-content">

            <a class="menu-text" href="magnetometer_sensor.php">Magnetometer</a>
            <a class="menu-text" href="accelerometer_sensor.php">Accelerometer</a>
            <a class="menu-text" href="geolocation_sensor.php">Geolocation</a>
            <a class="menu-text" href="gyroscope_sensor.php">Gyroscope</a>
            <a class="menu-text active" href="step-counter_sensor.php">Step-
counter</a>
            <a class="menu-text" href="barometer_sensor.php">Barometer</a>
            <a class="menu-text" href="proximity_sensor.php">Proximity</a>
        </div>
    </div>
    <a class="menu-text" href="queries.php">QUERIES</a>
</div>

```

```

<!-- Page content -->
<div class="content">
<form action="step-counter/insert.php" method="post">
    <table>
        <tr>
            <th>Field</th>
            <th>Value</th>
        </tr>
        <tr>
            <td>Userid:</td>
            <td><input type="text" name="userid" required></td>
        </tr>
        <tr>
            <td>Footsteps:</td>
            <td><input type="number" name="footsteps" required></td>
        </tr>
        <tr>
            <td>Time_Stamp(Unix Epoch):</td>

```



```

        <td><input type="number" name="timestamp" required></td>
    </tr>
</table>
<input type="submit" value="Insert Record">
</form>

```

```

<form action="step-counter/delete.php" method="post">
    <table>
        <tr>
            <th>Field</th>
            <th>Value</th>
        </tr>
        <tr>
            <td>Userid:</td>
            <td><input type="text" name="userid" required></td>
        </tr>
        <tr>
            <td>Footsteps:</td>
            <td><input type="number" name="footsteps" required></td>
        </tr>
        <tr>
            <td>Time_Stamp(Unix Epoch):</td>
            <td><input type="number" name="timestamp" required></td>
        </tr>
    </table>
    <input type="submit" value="Delete Record">
</form>
</div>

</body>
</html>

```

Αρχείο 9 : users.php

```

<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Μετρήσεις Κινητών Συσκευών Χρηστών</title>
    <link rel="stylesheet" type="text/css" href="static/style.css">
    <link rel="icon" type="image/x-icon" href="media/sensor.png">
</head>
<body>

<!-- The sidebar -->

```

```
<div class="sidebar">
  <a class="menu-text" href="index.php">DATABASE INITIALIZATION</a>
  <a class="active menu-text" href="users.php">USERS</a>
  <div class="dropdown">
    <a class="menu-text" href="sensors.php">SENSORS</a>
    <!-- The dropdown content -->
    <div class="dropdown-content">
      <a class="menu-text active"
href="magnetometer_sensor.php">Magnetometer</a>
      <a class="menu-text" href="accelerometer_sensor.php">Accelerometer</a>
      <a class="menu-text" href="geolocation_sensor.php">Geolocation</a>
      <a class="menu-text" href="gyroscope_sensor.php">Gyroscope</a>
      <a class="menu-text" href="step-counter_sensor.php">Step-counter</a>
      <a class="menu-text" href="barometer_sensor.php">Barometer</a>
      <a class="menu-text" href="proximity_sensor.php">Proximity</a>
    </div>
  </div>
  <a class="menu-text" href="queries.php">QUERIES</a>
</div>
```

```
<!-- Page content -->
<div class="content">
<form action="users/insert.php" method="post">
  <table>
    <tr>
      <th>Field</th>
      <th>Value</th>
    </tr>
    <tr>
      <td>Username:</td>
      <td><input type="text" name="username" required></td>
    </tr>
    <tr>
      <td>UserId:</td>
      <td><input type="text" name="userid" required></td>
    </tr>
    <tr>
      <td>Password:</td>
      <td><input type="password" name="password" required></td>
    </tr>
    <tr>
      <td>Email:</td>
      <td><input type="email" name="email" required></td>
    </tr>
    <tr>
```

```
        <td>First Name:</td>
        <td><input type="text" name="first_name" required></td>
    </tr>
    <tr>
        <td>Surname:</td>
        <td><input type="text" name="surname" required></td>
    </tr>
</table>
<input type="submit" value="Insert Record">
</form>
```

```
<form action="users/delete.php" method="post">
    <table>
        <tr>
            <th>Field</th>
            <th>Value</th>
        </tr>
        <tr>
            <td>Username:</td>
            <td><input type="text" name="username" required></td>
        </tr>
        <tr>
            <td>UserId:</td>
            <td><input type="text" name="userid" required></td>
        </tr>
        <tr>
            <td>Password:</td>
            <td><input type="password" name="password" required></td>
        </tr>
        <tr>
            <td>Email:</td>
            <td><input type="email" name="email" required></td>
        </tr>
        <tr>
            <td>First Name:</td>
            <td><input type="text" name="first_name" required></td>
        </tr>
        <tr>
            <td>Surname:</td>
            <td><input type="text" name="surname" required></td>
        </tr>
    </table>
    <input type="submit" value="Delete Record">
</form>
</div>
```

```
</body>
</html>
```

Αρχείο 10 : sensors.php

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Μετρήσεις Κινητών Συσκευών Χρηστών</title>
  <link rel="stylesheet" type="text/css" href="static/style.css">
  <link rel="icon" type="image/x-icon" href="media/sensor.png">
</head>
<body>

<!-- The sidebar -->
<div class="sidebar">
  <a class="menu-text" href="index.php">DATABASE INITIALIZATION</a>
  <a class="menu-text" href="users.php">USERS</a>
  <div class="dropdown">
    <a class="menu-text active" href="sensors.php">SENSORS</a>
    <!-- The dropdown content -->
    <div class="dropdown-content">

      <a class="menu-text" href="magnetometer_sensor.php">Magnetometer</a>
      <a class="menu-text" href="accelerometer_sensor.php">Accelerometer</a>
      <a class="menu-text" href="geolocation_sensor.php">Geolocation</a>
      <a class="menu-text" href="gyroscope_sensor.php">Gyroscope</a>
      <a class="menu-text" href="step-counter_sensor.php">Step-counter</a>
      <a class="menu-text" href="barometer_sensor.php">Barometer</a>
      <a class="menu-text" href="proximity_sensor.php">Proximity</a>

    </div>
  </div>
  <a class="menu-text" href="queries.php">QUERIES</a>
</div>

<!-- Page content -->
<div class="content">
  <h1 class="menu-text">Select the Desired Sensor<br></h1>
</div>

</body>
</html>
```

- **Περιγραφή:** Το παρακάτω αρχείο είναι υπεύθυνο για την αρχικοποίηση της Βάσης Δεδομένων.

Αρχείο : database_init.php

```
<?php
include ('copy.php');
include ('connection.php');
function FinalRelations_create($db_conn){
    // **CREATE FINAL TABLES **
    // Σχέση Users
    $sql1 =
    "CREATE TABLE IF NOT EXISTS Users
    (id SERIAL PRIMARY KEY NOT NULL,
    userid VARCHAR(40),
    username VARCHAR(40),
    password VARCHAR(40),
    email VARCHAR(40),
    first_name VARCHAR(40),
    surname VARCHAR(40))";
    // Σχέση Magnetometer
    $sql2 =
    "CREATE TABLE IF NOT EXISTS Magnetometer
    (id SERIAL PRIMARY KEY NOT NULL,
    userid VARCHAR(40),
    magnetometer_x DOUBLE PRECISION,
    magnetometer_y DOUBLE PRECISION,
    magnetometer_z DOUBLE PRECISION,
    time_stamp timestamp)";

    // Σχέση Accelerometer
    $sql3 =
    "CREATE TABLE IF NOT EXISTS Accelerometer
    (id SERIAL PRIMARY KEY NOT NULL,
    userid VARCHAR(40),
    accelerometer_x DOUBLE PRECISION,
    accelerometer_y DOUBLE PRECISION,
```

```
accelerometer_z DOUBLE PRECISION,  
time_stamp timestamp);
```

```
// Σχέση Geolocation
```

```
$sql4 =  
"CREATE TABLE IF NOT EXISTS Geolocation  
(id SERIAL PRIMARY KEY NOT NULL,  
userid VARCHAR(40),  
longitude DOUBLE PRECISION,  
latitude DOUBLE PRECISION,  
altitude DOUBLE PRECISION,  
time_stamp timestamp);
```

```
// Σχέση Gyroscope
```

```
$sql5 =  
"CREATE TABLE IF NOT EXISTS Gyroscope  
(id SERIAL PRIMARY KEY NOT NULL,  
userid VARCHAR(40),  
gyroscope_x DOUBLE PRECISION,  
gyroscope_y DOUBLE PRECISION,  
gyroscope_z DOUBLE PRECISION,  
time_stamp timestamp);
```

```
// Σχέση Step_counter
```

```
$sql6 =  
"CREATE TABLE IF NOT EXISTS Step_counter  
(id SERIAL PRIMARY KEY NOT NULL,  
userid VARCHAR(40),  
footsteps INT,  
time_stamp timestamp);
```

```
// Σχέση Proximity
```

```
$sql7 =  
"CREATE TABLE IF NOT EXISTS Proximity  
(id SERIAL PRIMARY KEY NOT NULL,  
userid VARCHAR(40),  
proximity_boolean BOOLEAN,  
time_stamp timestamp);
```

```
// Σχέση Barometer
```

```
$sql8 =  
"CREATE TABLE IF NOT EXISTS Barometer  
(id SERIAL PRIMARY KEY NOT NULL,  
userid VARCHAR(40),  
atm DOUBLE PRECISION,
```

```

time_stamp timestamp)";
// Συσχέτιση Magnetometer - Users
$sql9 =
"CREATE TABLE IF NOT EXISTS Magnetometer_measurement
( id_Users INTEGER,
  id_Magnetometer INTEGER,
  FOREIGN KEY (id_Users) REFERENCES Users(id),
  FOREIGN KEY (id_Magnetometer) REFERENCES Magnetometer(id));
// Συσχέτιση Accelerometer - Users
$sql10 =
"CREATE TABLE IF NOT EXISTS Accelerometer_measurement
( id_Users INTEGER,
  id_Accelerometer INTEGER,
  FOREIGN KEY (id_Users) REFERENCES Users(id),
  FOREIGN KEY (id_Accelerometer) REFERENCES Accelerometer(id));
// Συσχέτιση Geolocation - Users
$sql11 =
"CREATE TABLE IF NOT EXISTS Geolocation_measurement
( id_Users INTEGER,
  id_Geolocation INTEGER,
  FOREIGN KEY (id_Users) REFERENCES Users(id),
  FOREIGN KEY (id_Geolocation) REFERENCES Geolocation(id));
// Συσχέτιση Gyroscope - Users
$sql12 =
"CREATE TABLE IF NOT EXISTS Gyroscope_measurement
( id_Users INTEGER,
  id_Gyroscope INTEGER,
  FOREIGN KEY (id_Users) REFERENCES Users(id),
  FOREIGN KEY (id_Gyroscope) REFERENCES Gyroscope(id));
// Συσχέτιση Step-counter - Users
$sql13 =
"CREATE TABLE IF NOT EXISTS Step_counter_measurement
( id_Users INTEGER,
  id_Step_counter INTEGER,
  FOREIGN KEY (id_Users) REFERENCES Users(id),
  FOREIGN KEY (id_Step_counter) REFERENCES Step_counter(id));

// Συσχέτιση Proximity - Users
$sql14 =
"CREATE TABLE IF NOT EXISTS Proximity_measurement
( id_Users INTEGER,
  id_Proximity INTEGER,
  FOREIGN KEY (id_Users) REFERENCES Users(id),
  FOREIGN KEY (id_Proximity) REFERENCES Proximity(id));
// Συσχέτιση Barometer - Users

```

```

$sql15 =
"CREATE TABLE IF NOT EXISTS Barometer_measurement
(id_Users INTEGER,
 id_Barometer INTEGER,
 FOREIGN KEY (id_Users) REFERENCES Users(id),
 FOREIGN KEY (id_Barometer) REFERENCES Barometer(id));
/**Execution** of SQL queries
$relations =
array($sql1,$sql2,$sql3,$sql4,$sql5,$sql6,$sql7,$sql8,$sql9,$sql11,$sql10,$sql12,
$sql13,$sql14,$sql15);
for($i=0;$i<count($relations);$i++){
    $ret = pg_query($db_conn, $relations[$i]);
    echo "".$relations[$i];
    if(!$ret) {
        echo pg_last_error($db_conn);
    } else {
        // echo "Table created successfully\n";
    }
}
}

function TmpRelations_create($db_conn)
{
    // **CREATE TEMPORARY TABLES**
    // Σχέση Users_tmp
    $sqltmp1 =
    "CREATE TABLE IF NOT EXISTS Users_tmp
    ( userid VARCHAR(40),
      email VARCHAR(40),
      username VARCHAR(30),
      password VARCHAR(40),
      surname VARCHAR(40),
      first_name VARCHAR(40));

    // Σχέση Geolocation_tmp
    $sqltmp2 =
    "CREATE TABLE IF NOT EXISTS Geolocation_tmp
    ( userid VARCHAR(40),
      time_stamp INT,
      latitude DOUBLE PRECISION,
      longitude DOUBLE PRECISION,
      altitude DOUBLE PRECISION );

    // Σχέση sensors_tmp
    $sqltmp3 =
    "CREATE TABLE IF NOT EXISTS sensors_tmp

```



```

(userid VARCHAR(40),
time_stamp INT,
pressure      DOUBLE PRECISION,
acceleration_x DOUBLE PRECISION,
acceleration_y DOUBLE PRECISION,
acceleration_z DOUBLE PRECISION,
gyroscope_x   DOUBLE PRECISION,
gyroscope_y   DOUBLE PRECISION,
gyroscope_z   DOUBLE PRECISION,
magnetometer_x DOUBLE PRECISION,
magnetometer_y DOUBLE PRECISION,
magnetometer_z DOUBLE PRECISION,
proximity     BOOLEAN,
steps         INT)";
/**Execution** of SQL queries
$tmpRelations = array($sqltmp1,$sqltmp2,$sqltmp3);
for($i=0;$i<count($tmpRelations);$i++){
    $ret = pg_query($db_conn, $tmpRelations[$i]);
    if(!$ret) {
        echo pg_last_error($db_conn);
    } else {
        // echo "Table created successfully\n";
    }
}
copyRecordstoTmpTables($db_conn);
}
function Relations_init($db_conn){
    // **INSERT QUERIES FOR RELATIONS**
    $sqlinsert1 = "INSERT INTO Users (userid, username, password, email,
first_name, surname)
                SELECT userid,username, password, email, first_name, surname
                FROM Users_tmp";
    $sqlinsert2 = "INSERT INTO Geolocation (userid,
longitude,latitude,altitude,time_stamp)
                SELECT userid, longitude, latitude, altitude,
TO_TIMESTAMP(time_stamp)::TIMESTAMP
                FROM Geolocation_tmp";
    $sqlinsert3 = "INSERT INTO Magnetometer (userid,
magnetometer_x,magnetometer_y,magnetometer_z,time_stamp)
                SELECT userid,
magnetometer_x,magnetometer_y,magnetometer_z,TO_TIMESTAMP(time_stamp)::TIMESTAMP
                FROM sensors_tmp";
    $sqlinsert4 = "INSERT INTO Accelerometer (userid,
accelerometer_x,accelerometer_y,accelerometer_z,time_stamp)

```

```

        SELECT userid,
acceleration_x,acceleration_y,acceleration_z,TO_TIMESTAMP(time_stamp)::TIMESTAMP
        FROM sensors_tmp";
    $sqlinsert5 = "INSERT INTO Gyroscope (userid,
gyroscope_x,gyroscope_y,gyroscope_z,time_stamp)
        SELECT userid,
gyroscope_x,gyroscope_y,gyroscope_z,TO_TIMESTAMP(time_stamp)::TIMESTAMP
        FROM sensors_tmp";
    $sqlinsert6 = "INSERT INTO Step_counter (userid,footsteps,time_stamp)
        SELECT userid,steps,TO_TIMESTAMP(time_stamp)::TIMESTAMP
        FROM sensors_tmp";

    $sqlinsert7 = "INSERT INTO Proximity (userid,proximity_boolean,time_stamp)
        SELECT userid,proximity,TO_TIMESTAMP(time_stamp)::TIMESTAMP
        FROM sensors_tmp";
    $sqlinsert8 = "INSERT INTO Barometer (userid,atm,time_stamp)
        SELECT userid,pressure,TO_TIMESTAMP(time_stamp)::TIMESTAMP
        FROM sensors_tmp";
    $sqldrop1 = "DROP TABLE sensors_tmp";
    $sqldrop2 = "DROP TABLE Users_tmp";
    $sqldrop3 = "DROP TABLE Geolocation_tmp";
    /**Execution** of SQL queries
    $droptmptables = array($sqldrop1,$sqldrop2,$sqldrop3);
    $relationload =
array($sqlinsert1,$sqlinsert2,$sqlinsert3,$sqlinsert4,$sqlinsert5,$sqlinsert6,$sq
linsert7,$sqlinsert8);
    for($i=0;$i<count($relationload);$i++){
        $ret = pg_query($db_conn, $relationload[$i]);
        if(!$ret) {
            echo pg_last_error($db_conn);
        } else {
            //echo "Table created successfully\n";
        }
    }
    for($i=0;$i<count($droptmptables);$i++){
        $ret = pg_query($db_conn, $droptmptables[$i]);
        if(!$ret) {
            echo pg_last_error($db_conn);
        } else {
            //echo "Table created successfully\n";
        }
    }
}
function correlation_init($db_conn){
    // Extracts the corresponding id measurements(sensors) by userid

```

```

$idpairs1 = "SELECT Users.id AS id_u, Magnetometer.id AS id_m
            FROM Users, Magnetometer
            WHERE Users.userid = Magnetometer.userid";

$idpairs2 = "SELECT Users.id AS id_u, Barometer.id AS id_m
            FROM Users, Barometer
            WHERE Users.userid = Barometer.userid";
$idpairs3 = "SELECT Users.id AS id_u, Accelerometer.id AS id_m
            FROM Users, Accelerometer
            WHERE Users.userid = Accelerometer.userid";
$idpairs4 = "SELECT Users.id AS id_u, Proximity.id AS id_m
            FROM Users, Proximity
            WHERE Users.userid = Proximity.userid";
$idpairs5 = "SELECT Users.id AS id_u, Step_counter.id AS id_m
            FROM Users, Step_counter
            WHERE Users.userid = Step_counter.userid";
$idpairs6 = "SELECT Users.id AS id_u, Geolocation.id AS id_m
            FROM Users, Geolocation
            WHERE Users.userid = Geolocation.userid";
$idpairs7 = "SELECT Users.id AS id_u, Gyroscope.id AS id_m
            FROM Users, Gyroscope
            WHERE Users.userid = Gyroscope.userid";

$correlationsrecs =
array($idpairs1,$idpairs2,$idpairs3,$idpairs4,$idpairs5,$idpairs6,$idpairs7);

for($i=0;$i<count($correlationsrecs);$i++){
$result = pg_query($db_conn, $correlationsrecs[$i]);
if(!$result) {
    echo pg_last_error($db_conn);
} else {
    //echo "Table created successfully\n";
}
// Fetch the result row
while ($row = pg_fetch_assoc($result)){
    $id_Users = $row['id_u'];
    $id_Measurement = $row['id_m'];
    // Check if values are not empty
    if (!empty($id_Users) && !empty($id_Measurement)) {
        $insertMeasurement1 = "INSERT INTO Magnetometer_measurement
(id_Users,id_Magnetometer)
                                VALUES ($id_Users, $id_Measurement)";

        $insertMeasurement2 = "INSERT INTO Barometer_measurement
(id_Users,id_Barometer)
                                VALUES ($id_Users, $id_Measurement)";
    }
}

```

```

$insertMeasurement3 = "INSERT INTO Accelerometer_measurement
(id_Users,id_Accelerometer)
VALUES ($id_Users, $id_Measurement)";
$insertMeasurement4 = "INSERT INTO Proximity_measurement
(id_Users,id_Proximity)
VALUES ($id_Users, $id_Measurement)";
$insertMeasurement5 = "INSERT INTO Step_counter_measurement
(id_Users,id_Step_counter)
VALUES ($id_Users, $id_Measurement)";
$insertMeasurement6 = "INSERT INTO Geolocation_measurement
(id_Users,id_Geolocation)
VALUES ($id_Users, $id_Measurement)";
$insertMeasurement7 = "INSERT INTO Gyroscope_measurement
(id_Users,id_Gyroscope)
VALUES ($id_Users, $id_Measurement)";

$correlationsrecsins =
array($insertMeasurement1,$insertMeasurement2,$insertMeasurement3,$insertMeasurement4,$insertMeasurement5,$insertMeasurement6,$insertMeasurement7);
$insertResult = pg_query($db_conn, $correlationsrecsins[$i]);
if (!$insertResult) {
    echo pg_last_error($db_conn);
} else {
    //echo "Data inserted into Magnetometer_measurement successfully\n";
}
} else {
    // Handle empty values if needed
}
}
}
}

set_time_limit(100);
$db_conn = connection();
FinalRelations_create($db_conn);
TmpRelations_create($db_conn);
Relations_init($db_conn);
correlation_init($db_conn);
pg_close($dbConn);
// Redirect to the main page (index.php)
header("Location: index.php");
exit();
?>

```

- **Περιγραφή:** Το παρακάτω αρχείο είναι υπεύθυνο για εισάγει τα δεδομένα απο τα .csv αρχεία στις προσωρινές σχέσεις.

Αρχείο : copy.php

```
<?php
function copyRecordstoTmpTables($db_conn)
{
    // Array of Temporary Tables names
    $tableNames = array('sensors_tmp','Geolocation_tmp','Users_tmp');
    // Relative Path directing to the corresponding .csv files
    $csvFilePaths = array('/home/Data/2023-24/sensorsF.csv','/home/Data/2023-
24/coordinatesF.csv','/home/Data/2023-24/users.csv');
    // Connecting errors checking
    if (!$db_conn) {
        die("Connection failed: " . pg_last_error());
    }

    for($i = 0;$i<count($csvFilePaths);$i++){
        // Read the CSV file into an array
        $rows = file($csvFilePaths[$i], FILE_IGNORE_NEW_LINES);
        // Skip the header row if present
        array_shift($rows);
        // Copying .csv files records inside the Temporary table
        pg_copy_from($db_conn, $tableNames[$i], $rows, ",", "");
    }
}
?>
```

- **Περιγραφή:** Το παρακάτω αρχείο είναι υπεύθυνο για την σύνδεση με την βάση δεδομένων

Αρχείο : connection.php

```
<?php
function connection(){
    $conn = pg_connect("host=localhost dbname=db1u14 user=db1u14
password=ste4nV84");
    return $conn;
}
?>
```

- **Περιγραφή:** Τα παρακάτω αρχεία είναι υπεύθυνα για την λειτουργηκότητα της ιντερνετικής σελίδας.

Αρχεία εισαγωγής/διαγραφής στην σχέση Users:

Αρχείο : insert.php

```
<?php
// Check if the form was submitted
if ($_SERVER["REQUEST_METHOD"] == "POST") {
    // Retrieve variables from the form
    $userId = $_POST["userid"];
    $username = $_POST["username"];
    $email = $_POST["email"];
    $password = $_POST["password"];
    $first_name = $_POST["first_name"];
    $surname = $_POST["surname"];
    // Now you can use these variables as needed
    // For example, you can insert them into a database

    // Example database connection and insertion (replace with your actual
    database logic)
    $dbConn = pg_connect("host=localhost dbname=db1u14 user=db1u14
password=ste4nV84");

    //Checking if the current ^ insertion is allready inside the Table
    //If this is the case then we ask the user to give input again
    $sql = 'SELECT * FROM Users';

    $rets = pg_query($dbConn, $sql);
    if(!$rets) {
        echo pg_last_error($dbConn);
        exit;
    }

    $cnt = 0; //Counting the fields that are the same with the fields of another
insertion
    //If all the fields are the same, then we ask the user to give input
again
    while($row = pg_fetch_row($rets)) {

        if($row[1] == $userId)
            $cnt++;

        if($row[2] == $username)
            $cnt++;

        if($row[4] == $email)
```

```

        $cnt++;

        if($cnt > 0) //Found a similar insertion
            break;
        // echo "This Insertion already exists! \n";
    }//while

    // if There is no other similar insertion then we add it to the Table
    if($cnt == 0) {
        $query = "INSERT INTO Users (userid, username, email,
password,first_name,surname)
                VALUES ('$userId', '$username', '$email', '$password',
'$first_name','$surname')";

        $result = pg_query($dbConn, $query);
        if ($result) {
            // echo "Record inserted successfully";
        } else {
            // echo "Error inserting record: " . pg_last_error($dbConn);
        }

        // Close the database connection
        pg_close($dbConn);
        header("Location: ../users.php");
        exit;
    }
    else
    {
        echo "This record compromises the functional dependencies";
    }

}
?>

```

Αρχείο : delete.php

```

<?php
// delete.php

// Check if the form was submitted
if ($_SERVER["REQUEST_METHOD"] == "POST") {
    // Retrieve form values
    $userId = $_POST["userid"];
    $username = $_POST["username"];
    $email = $_POST["email"];
    $password = $_POST["password"];
    $first_name = $_POST["first_name"];

```

```

$surname = $_POST["surname"];

// Example database connection (replace with your actual connection code)
$dbConn = pg_connect("host=localhost dbname=db1u14 user=db1u14
password=ste4nV84");

// $user_id = 0;
// $measure_id = 0;
/**DELETE the correlations between the records that corresponds to the given
userid**
$reccor = "SELECT Users.id, Accelerometer.id FROM Users, Accelerometer WHERE
Users.userid = Accelerometer.userid AND Users.userid = '$userId'";
//$delreccord = "DELETE FROM Accelerometer_measurement WHERE id_Users =
".$user_id."AND id_Accelerometer = ".$measure_id."";

$reccor2 = "SELECT Users.id, Magnetometer.id FROM Users, Magnetometer WHERE
Users.userid = Magnetometer.userid AND Users.userid = '$userId'";
//$delreccord2 = "DELETE FROM Magnetometer_measurement WHERE id_Users =
".$user_id."AND id_Magnetometer = ".$measure_id."";

$reccor3 = "SELECT Users.id, Geolocation.id FROM Users, Geolocation WHERE
Users.userid = Geolocation.userid AND Users.userid = '$userId'";
// $delreccord3 = "DELETE FROM Geolocation_measurement WHERE id_Users =
".$user_id."AND id_Geolocation = ".$measure_id."";

$reccor4 = "SELECT Users.id, Gyroscope.id FROM Users, Gyroscope WHERE
Users.userid = Gyroscope.userid AND Users.userid = '$userId'";
// $delreccord4 = "DELETE FROM Gyroscope_measurement WHERE id_Users =
".$user_id."AND id_Gyroscope = ".$measure_id."";

$reccor5 = "SELECT Users.id, Step_counter.id FROM Users, Step_counter WHERE
Users.userid = Step_counter.userid AND Users.userid = '$userId'";
// $delreccord5 = "DELETE FROM Step_counter_measurement WHERE id_Users =
".$user_id."AND id_Step_counter = ".$measure_id."";

$reccor6 = "SELECT Users.id, Proximity.id FROM Users, Proximity WHERE
Users.userid = Proximity.userid AND Users.userid = '$userId'";
//$delreccord6 = "DELETE FROM Proximity_measurement WHERE id_Users =
".$user_id."AND id_Proximity = ".$measure_id."";

$reccor7 = "SELECT Users.id, Barometer.id FROM Users, Barometer WHERE
Users.userid = Barometer.userid AND Users.userid = '$userId'";
// $delreccord7 = "DELETE FROM Barometer_measurement WHERE id_Users =
".$user_id."AND id_Barometer = ".$measure_id."";

```



```

    $relation =
array($reccor,$reccor2,$reccor3,$reccor4,$reccor5,$reccor6,$reccor7);
    for($i=0;$i<count($relation);$i++){
        $ret = pg_query($dbConn, $relation[$i]);
        while($row = pg_fetch_row($ret)) {
            $user_id = $row[0];
            $measure_id = $row[1];
            $delreccord = "DELETE FROM Accelerometer_measurement WHERE id_Users =
".$user_id."AND id_Accelerometer = ".$measure_id."";
            $delreccord2 = "DELETE FROM Magnetometer_measurement WHERE id_Users =
".$user_id."AND id_Magnetometer = ".$measure_id."";
            $delreccord3 = "DELETE FROM Geolocation_measurement WHERE id_Users =
".$user_id."AND id_Geolocation = ".$measure_id."";
            $delreccord4 = "DELETE FROM Gyroscope_measurement WHERE id_Users =
".$user_id."AND id_Gyroscope = ".$measure_id."";
            $delreccord5 = "DELETE FROM Step_counter_measurement WHERE id_Users =
".$user_id."AND id_Step_counter = ".$measure_id."";
            $delreccord6 = "DELETE FROM Proximity_measurement WHERE id_Users =
".$user_id."AND id_Proximity = ".$measure_id."";
            $delreccord7 = "DELETE FROM Barometer_measurement WHERE id_Users =
".$user_id."AND id_Barometer = ".$measure_id."";

```

```

echo "" . $user_id."<br>".$measure_id.""."<br>";

```

```

switch ($relation[$i]){

    case $reccor:
        $cor =pg_query($dbConn, $delreccord);
        if(!$cor) {
            echo pg_last_error($dbConn);
        } else {
            echo "Successful deletion\n";
        }
        break;

    case $reccor2:
        $cor =pg_query($dbConn, $delreccord2);
        if(!$cor) {
            echo pg_last_error($dbConn);
        } else {
            echo "Successful deletion\n";
        }
        break;

```

```
case $reccor3:
    $cor =pg_query($dbConn, $delreccord3);
    if(!$cor) {
        echo pg_last_error($dbConn);
    } else {
        echo "Succesful deletion\n";
    }
    break;
```

```
case $reccor4:
    $cor =pg_query($dbConn, $delreccord4);
    if(!$cor) {
        echo pg_last_error($dbConn);
    } else {
        echo "Succesful deletion\n";
    }
    break;
```

```
case $reccor5:
    $cor =pg_query($dbConn, $delreccord5);
    if(!$cor) {
        echo pg_last_error($dbConn);
    } else {
        echo "Succesful deletion\n";
    }
    break;
```

```
case $reccor6:
    $cor =pg_query($dbConn, $delreccord6);
    if(!$cor) {
        echo pg_last_error($dbConn);
    } else {
        echo "Succesful deletion\n";
    }
    break;
```

```
case $reccor7:
    $cor =pg_query($dbConn, $delreccord7);
    if(!$cor) {
        echo pg_last_error($dbConn);
    } else {
        echo "Succesful deletion\n";
    }
    break;
```

```

    }
    if(!$ret) {
        echo pg_last_error($dbConn);
    } else {
        echo "Table created successfully\n";
    }
}
}

```

```

// **DELETE the records of the final tables the records that correspond to
the given userid**

```

```

$query = "DELETE FROM Users
        WHERE userid = '$userId'
        AND username = '$username'
        AND email = '$email'
        AND password = '$password'
        AND first_name = '$first_name'
        AND surname = '$surname'";

```

```

$query2 = "DELETE FROM Magnetometer
        WHERE userid = '$userId'";

```

```

$query3 = "DELETE FROM Accelerometer
        WHERE userid = '$userId'";

```

```

$query4 = "DELETE FROM Geolocation
        WHERE userid = '$userId'";

```

```

$query5 = "DELETE FROM Gyroscope
        WHERE userid = '$userId'";

```

```

$query6 = "DELETE FROM Step_counter
        WHERE userid = '$userId'";

```

```

$query7 = "DELETE FROM Proximity
        WHERE userid = '$userId'";

```

```

$query8 = "DELETE FROM Barometer

```

```
WHERE userid = '$userId';
```

```
/**Execution** of SQL queries
$relations =
array($query,$query2,$query3,$query4,$query5,$query6,$query7,$query8);
for($i=0;$i<count($relations);$i++){
    $ret = pg_query($dbConn, $relations[$i]);
    echo "".$relations[$i];
    if(!$ret) {
        echo pg_last_error($dbConn);
    } else {
        echo "Table created successfully\n";
    }
}

// Close the database connection
pg_close($dbConn);
header("Location: ../users.php");
exit;
}
?>
```

Αρχεία εισαγωγής/διαγραφής στην σχέση Step_counter:

Αρχείο : insert.php

```
<?php
// insert.php

// Check if the form was submitted
if ($_SERVER["REQUEST_METHOD"] == "POST") {
    // Retrieve variables from the form
    $userId = $_POST["userid"];
    $footsteps = $_POST["footsteps"];
    $timestamp = $_POST["timestamp"];

    // Now you can use these variables as needed
    // For example, you can insert them into a database

    // Example database connection and insertion (replace with your actual
    database logic)
```

```
$dbConn = pg_connect("host=localhost dbname=db1u14 user=db1u14  
password=ste4nV84");
```

```
/**MULTITUDE**  
//Before we add the record inside the Desired sensor Table we must ensure  
that the given userId exists inside Users Table for multitude reasons  
$multitude = "SELECT * FROM Users WHERE userid = '$userId'";
```

```
$ret = pg_query($dbConn, $multitude);  
if(!$ret) {  
echo pg_last_error($dbConn);  
exit;  
}
```

```
$multitudecnt = 0; //Counting the fields that are the same with the fields of  
another insertion
```

```
//If all the fields are the same, then we ask the user to give input  
again
```

```
while($row = pg_fetch_row($ret)) {  
$multitudecnt++;  
}
```

```
$sql = 'SELECT *  
FROM Steps_counter';
```

```
if($multitude > 0){  
$rets = pg_query($dbConn, $sql);  
if(!$rets) {  
echo pg_last_error($dbConn);  
exit;  
}  
}
```

```
$duplicate = false;  
$cnt = 0; //Counting the fields that are the same with the fields of another  
insertion  
//If all the fields are the same, then we ask the user to give input again  
while($row = pg_fetch_row($rets)) {
```

```
if($row[1] == $userId)  
{  
$cnt++;  
}
```

```
if($row[2] == $footsteps)
```

```

{
    $cnt++;
}

if(strtotime($row[3]) == $timestamp)
{
    $cnt++;
}

if($cnt == 3) //Found a similar insertion
{
    // echo "This Insertion already exists! \n";
    break;
}
else
{
    $cnt = 0; //Reset for each repetition
}

} //while

if($cnt == 0) // if There is no other similar insertion then we add it to the
Table
{
    $query = "INSERT INTO Step_counter (userid, footsteps, time_stamp)
              VALUES ('$userId', $footsteps,
TO_TIMESTAMP($timestamp)::TIMESTAMP))";

    $result = pg_query($dbConn, $query);

    if ($result) {
        echo "Record inserted successfully";
    } else {
        echo "Error inserting record: " . pg_last_error($dbConn);
    }

    /**UPDATING THE CORRESPONDING CORRELATION**
    $Idpairs = "SELECT Users.id AS id_u, Step_counter.id AS id_m
    FROM Users, Step_counter
    WHERE Users.userid = Step_counter.userid AND Users.userid = '$userid' AND
    Step_counter.userid = '$userid'";

    $result = pg_query($db_conn, $Idpairs);

```

```

    if(!$result) {
        echo pg_last_error($db_conn);
    } else {
        //echo "Table created successfully\n";
    }
}

// Fetch the result row
while ($row = pg_fetch_assoc($result)){
    $id_Users = $row['id_u'];
    $id_Measurement = $row['id_m'];

    // Check if values are not empty
    if (!empty($id_Users) && !empty($id_Measurement)) {
        $insertMeasurement = "INSERT INTO Step_counter_measurement
(id_Users,id_Step_counter)
VALUES ($id_Users, $id_Measurement)";

        $insertResult = pg_query($db_conn, $insertMeasurement);

        if (!$insertResult) {
            echo pg_last_error($db_conn);
        } else {
            //echo "Data inserted into Magnetometer_measurement successfully\n";
        }
    }
}

// Close the database connection
pg_close($dbConn);
header("Location: ../step-counter_sensor.php");
exit;
}
else
{
    echo "This record compromises the functional dependencies";
}
} //multitude
else
{
    echo "No user with that userId";
}
}
?>

```

Αρχείο : delete.php

```
<?php
// delete.php

// Check if the form was submitted
if ($_SERVER["REQUEST_METHOD"] == "POST") {
    // Retrieve form values
    $userId = $_POST["userid"];
    $footsteps = $_POST["footsteps"];
    $timestamp = $_POST["timestamp"];

    // Example database connection (replace with your actual connection code)
    $dbConn = pg_connect("host=localhost dbname=db1u14 user=db1u14
password=ste4nV84");

    $reccor = "SELECT Users.id, Step_counter.id FROM Users, Step_counter WHERE
Users.userid = Step_counter.userid AND Users.userid = '$userId'";

    $ret = pg_query($dbConn, $reccor);
    while($row = pg_fetch_row($ret)) {
        $user_id = $row[0];
        $measure_id = $row[1];
        $delreccord = "DELETE FROM Step_counter_measurement WHERE id_Users =
".$user_id."AND id_Step_counter =".$measure_id."";

        $cor =pg_query($dbConn, $delreccord);
        if(!$cor) {
            echo pg_last_error($dbConn);
        } else {
            echo "Succesful deletion\n";
        }
    }

    // Construct the DELETE statement
    $query = "DELETE FROM Steps_counter
WHERE userid = '$userId'
AND proximity_boolean = '$footsteps'
AND gyroscope_y = TO_TIMESTAMP($timestamp)::TIMESTAMP)";

    // Execute the DELETE statement
    $result = pg_query($dbConn, $query);

    if ($result) {
        echo "Records deleted successfully";
    } else {
```



```

        echo "Error deleting records: " . pg_last_error($dbConn);
    }

    // Close the database connection
    pg_close($dbConn);
    header("Location: ../step-counter_sensor.php");
    exit;
}
?>

```

```

<?php
// insert.php

// Check if the form was submitted
if ($_SERVER["REQUEST_METHOD"] == "POST") {
    // Retrieve variables from the form
    $userId = $_POST["userid"];
    $proximity_boolean = $_POST["proximity"];
    $timestamp = $_POST["timestamp"];

    // Now you can use these variables as needed
    // For example, you can insert them into a database

    // Example database connection and insertion (replace with your actual
    database logic)
    $dbConn = pg_connect("host=localhost dbname=db1u14 user=db1u14
    password=ste4nV84");

    /**MULTITUDE**
    //Before we add the record inside the Desired sensor Table we must ensure
    that the given userId exists inside Users Table for multitude reasons
    $multitude = "SELECT * FROM Users WHERE userid = '$userId'";

    $ret = pg_query($dbConn, $multitude);
    if(!$ret) {
        echo pg_last_error($dbConn);
        exit;
    }

```

```
    $multitudecnt = 0; //Counting the fields that are the same with the fields of
another insertion
    //If all the fields are the same, then we ask the user to give input
again
```

```
    while($row = pg_fetch_row($ret)) {
        $multitudecnt++;
    }
```

```
    $sql = 'SELECT *
FROM Proximity';
```

```
if($multitude > 0){
    $rets = pg_query($dbConn, $sql);
    if(!$rets) {
        echo pg_last_error($dbConn);
        exit;
    }
```

```
$duplicate = false;
$cnt = 0; //Counting the fields that are the same with the fields of another
insertion
    //If all the fields are the same, then we ask the user to give input again
while($row = pg_fetch_row($rets)) {
```

```
    if($row[1] == $userId)
    {
        $cnt++;
    }
```

```
    if($row[2] == $proximity_boolean)
    {
        $cnt++;
    }
```

```
    if(strtotime($row[3]) == $timestamp)
    {
        $cnt++;
    }
```

```
if($cnt == 3) //Found a similar insertion
{
    // echo "This Insertion already exists! \n";
```

```

        break;
    }
    else
    {
        $cnt = 0; //Reset for each repetition
    }
}

} //while

if($cnt == 0) // if There is no other similar insertion then we add it to the
Table
{
    $query = "INSERT INTO Proximity (userid, proximity_boolean, time_stamp)
        VALUES ('$userid', '$proximity_boolean',
TO_TIMESTAMP($timeStamp)::TIMESTAMP))";

    $result = pg_query($dbConn, $query);

    if ($result) {
        echo "Record inserted successfully";
    } else {
        echo "Error inserting record: " . pg_last_error($dbConn);
    }
}

/**UPDATING THE CORRESPONDING CORRELATION**
$Idpairs = "SELECT Users.id AS id_u, Proximity.id AS id_m
FROM Users, Proximity
WHERE Users.userid = Proximity.userid AND Users.userid = '$userid' AND
Proximity.userid = '$userid'";

$result = pg_query($db_conn, $Idpairs);
if(!$result) {
    echo pg_last_error($db_conn);
} else {
    //echo "Table created successfully\n";
}

// Fetch the result row
while ($row = pg_fetch_assoc($result)){
    $id_Users = $row['id_u'];
    $id_Measurement = $row['id_m'];

```

```

        // Check if values are not empty
        if (!empty($id_Users) && !empty($id_Measurement)) {
            $insertMeasurement = "INSERT INTO Proximity_measurement
(id_Users,id_Proximity)
                                VALUES ($id_Users, $id_Measurement)";

            $insertResult = pg_query($db_conn, $insertMeasurement);

            if (!$insertResult) {
                echo pg_last_error($db_conn);
            } else {
                //echo "Data inserted into Magnetometer_measurement successfully\n";
            }
        }
    }

    // Close the database connection
    pg_close($dbConn);
    header("Locaiton: ../proximity_sensor.php");
    exit;
}
else
{
    echo "This record compromises the functional dependencies";
}
} //multitude
else
{
    echo "No user with that userId";
}
}
?>

```

Αρχείο : delete.php

```

<?php
// delete.php

// Check if the form was submitted
if ($_SERVER["REQUEST_METHOD"] == "POST") {
    // Retrieve form values
    $userId = $_POST["userid"];
    $proximity_boolean = $_POST["proximity"];
    $timestamp = $_POST["timestamp"];
}
}
?>

```

```
// Example database connection (replace with your actual connection code)
$dbConn = pg_connect("host=localhost dbname=db1u14 user=db1u14
password=ste4nV84");
```

```
$reccor = "SELECT Users.id, Proximity.id FROM Users, Proximity WHERE
Users.userid = Proximity.userid AND Users.userid = '$userId'";
```

```
$ret = pg_query($dbConn, $reccor);
while($row = pg_fetch_row($ret)) {
    $user_id = $row[0];
    $measure_id = $row[1];
    $delreccord = "DELETE FROM Proximity_measurement WHERE id_Users =
".$user_id."AND id_Proximity =".$measure_id."";
```

```
    $cor = pg_query($dbConn, $delreccord);
    if(!$cor) {
        echo pg_last_error($dbConn);
    } else {
        echo "Succesful deletion\n";
    }
}
```

```
// Construct the DELETE statement
$query = "DELETE FROM Proximity
        WHERE userid = '$userId'
        AND proximity_boolean = '$proximity_boolean'
        AND gyroscope_y = TO_TIMESTAMP($timeStamp)::TIMESTAMP";
```

```
// Execute the DELETE statement
$result = pg_query($dbConn, $query);
```

```
if ($result) {
    echo "Records deleted successfully";
} else {
    echo "Error deleting records: " . pg_last_error($dbConn);
}
```

```
// Close the database connection
pg_close($dbConn);
header("Location: ../proximity_sensor.php");
exit;
```

```
}
?>
```

Αρχεία εισαγωγής/διαγραφής στην σχέση Magnetometer

Αρχείο : insert.php

```
<?php
// insert.php

// Check if the form was submitted
if ($_SERVER["REQUEST_METHOD"] == "POST") {
    // Retrieve variables from the form
    $userId = $_POST["userid"];
    $magnetometerX = $_POST["magnetometer_x"];
    $magnetometerY = $_POST["magnetometer_y"];
    $magnetometerZ = $_POST["magnetometer_z"];
    $timeStamp = $_POST["time_stamp"];

    // Now you can use these variables as needed
    // For example, you can insert them into a database

    // Example database connection and insertion (replace with your actual
    database logic)
    $dbConn = pg_connect("host=localhost dbname=your_database user=your_user
    password=your_password");

    //Before we add the record inside the Desired sensor Table we must ensure that
    the given userId exists inside Users Table for multitude reasons
    $multitude = "SELECT * FROM Users WHERE userid = '$userId'";

    $ret = pg_query($dbConn, $multitude);
    if(!$ret) {
        echo pg_last_error($dbConn);
        exit;
    }

    $multitudecnt = 0; //Counting the fields that are the same with the fields of
    another insertion
    //If all the fields are the same, then we ask the user to give input again
    while($row = pg_fetch_row($ret)) {
        $multitudecnt++;
    }

    $sql = 'SELECT *
    FROM Magnetometer';
```

```

if($multitude > 0){
$rets = pg_query($dbConn, $sql);
if(!$rets) {
echo pg_last_error($dbConn);
exit;
}
}

$duplicate = false;
$cnt = 0; //Counting the fields that are the same with the fields of another
insertion
    //If all the fields are the same, then we ask the user to give input again
while($row = pg_fetch_row($rets)) {

    if($row[1] == $userId)
    {
        $cnt++;
    }

    if($row[2] == $magnetometerX)
    {
        $cnt++;
    }

    if($row[3] == $magnetometerY)
    {
        $cnt++;
    }

    if($row[4] == $magnetometerZ)
    {
        $cnt++;
    }

    if(strtotime($row[5]) == $timestamp)
    {
        $cnt++;
    }

    if($cnt == 5) //Found a similar insertion
    {
        // echo "This Insertion already exists! \n";
        break;
    }
}

```

```

else
{
    $cnt = 0; //Reset for each repetition
}

} //while

if($cnt == 0) // if There is no other similar insertion then we add it to the
Table
{
    $query = "INSERT INTO Magnetometer (userid, magnetometer_x, magnetometer_y,
magnetometer_z, time_stamp)
            VALUES ('$userId', CAST('$magnetometerX'AS double precision),
CAST('$magnetometerY'AS double precision), CAST('$magnetometerZ'AS double
precision), TO_TIMESTAMP($timeStamp)::TIMESTAMP))";

    $result = pg_query($dbConn, $query);

    if ($result) {
        echo "Record inserted successfully";
    } else {
        echo "Error inserting record: " . pg_last_error($dbConn);
    }

    /**UPDATING THE CORRESPONDING CORRELATION**
    $Idpairs = "SELECT Users.id AS id_u, Magnetometer.id AS id_m
    FROM Users, Magnetometer
    WHERE Users.userid = Magnetometer.userid AND Users.usersid = '$userid' AND
Magnetometer.userid = '$userid'";

    $result = pg_query($db_conn, $Idpairs);
    if(!$result) {
        echo pg_last_error($db_conn);
    } else {
        //echo "Table created successfully\n";
    }

    // Fetch the result row
    while ($row = pg_fetch_assoc($result)){
        $id_Users = $row['id_u'];
        $id_Measurement = $row['id_m'];

```



```

        // Check if values are not empty
        if (!empty($id_Users) && !empty($id_Measurement)) {
            $insertMeasurement = "INSERT INTO Magnetometer_measurement
(id_Users,id_Magnetometer)
                                VALUES ($id_Users, $id_Measurement)";

            $insertResult = pg_query($db_conn, $insertMeasurement);

            if (!$insertResult) {
                echo pg_last_error($db_conn);
            } else {
                //echo "Data inserted into Magnetometer_measurement successfully\n";
            }
        }
    }
}

// Close the database connection
pg_close($dbConn);
header("Location: ../magnetometer_sensor.php");
exit;
}
else
{
    echo "This record compromises the functional dependencies";
}
} //multitude
else
{
    echo "No user with that userId";
}
}
?>

```

Αρχείο : delete.php

```

<?php
// delete.php

// Check if the form was submitted
if ($_SERVER["REQUEST_METHOD"] == "POST") {
    // Retrieve form values
    $userId = $_POST["userid"];
    $magnetometerX = $_POST["magnetometer_x"];
    $magnetometerY = $_POST["magnetometer_y"];
}
}
?>

```

```

$magnetometerZ = $_POST["magnetometer_z"];
$timeStamp = $_POST["time_stamp"];

// Example database connection (replace with your actual connection code)
$dbConn = pg_connect("host=localhost dbname=your_database user=your_user
password=your_password");

$reccor = "SELECT Users.id, Magnetometer.id FROM Users, Magnetometer WHERE
Users.userid = Magnetometer.userid AND Users.userid = '$userId'";

$ret = pg_query($dbConn, $reccor);
while($row = pg_fetch_row($ret)) {
    $user_id = $row[0];
    $measure_id = $row[1];
    $delreccord = "DELETE FROM Magnetometer_measurement WHERE id_Users =
".$user_id."AND id_Magnetometer = ".$measure_id."";

    $cor = pg_query($dbConn, $delreccord);
    if(!$cor) {
        echo pg_last_error($dbConn);
    } else {
        echo "Successful deletion\n";
    }
}

// Construct the DELETE statement
$query = "DELETE FROM Magnetometer
        WHERE userid = '$userId'
        AND magnetometer_x = CAST('$magnetometerX'AS double precision)
        AND magnetometer_y = CAST('$magnetometerY'AS double precision)
        AND magnetometer_z = CAST('$magnetometerZ'AS double precision)
        AND time_stamp = TO_TIMESTAMP($timeStamp)::TIMESTAMP)";

// Execute the DELETE statement
$result = pg_query($dbConn, $query);

if ($result) {
    echo "Records deleted successfully";
} else {
    echo "Error deleting records: " . pg_last_error($dbConn);
}

// Close the database connection
pg_close($dbConn);
header("Location: ../magnetometer_sensor.php");

```

```
    exit;
}
?>
```

Αρχεία εισαγωγής/διαγραφής στην σχέση Gyroscope:

Αρχείο : insert.php

```
<?php
// insert.php

// Check if the form was submitted
if ($_SERVER["REQUEST_METHOD"] == "POST") {
    // Retrieve variables from the form
    $userId = $_POST["userid"];
    $gyroscopeX = $_POST["gyroscope_x"];
    $gyroscopeY = $_POST["gyroscope_y"];
    $gyroscopeZ = $_POST["gyroscope_z"];
    $timeStamp = $_POST["time_stamp"];

    // Now you can use these variables as needed
    // For example, you can insert them into a database

    // Example database connection and insertion (replace with your actual
    database logic)
    $dbConn = pg_connect("host=localhost dbname=db1u14 user=db1u14
    password=ste4nV84");

    /**MULTITUDE**
    //Before we add the record inside the Desired sensor Table we must ensure
    that the given userId exists inside Users Table for multitude reasons
    $multitude = "SELECT * FROM Users WHERE userid = '$userId'";

    $ret = pg_query($dbConn, $multitude);
    if(!$ret) {
        echo pg_last_error($dbConn);
        exit;
    }

    $multitudecnt = 0; //Counting the fields that are the same with the fields of
    another insertion
    //If all the fields are the same, then we ask the user to give input
    again
    while($row = pg_fetch_row($ret)) {
        $multitudecnt++;
    }
}
```

```
}
```

```
$sql = 'SELECT *
FROM Gyroscope';

if($multitude > 0){
$rets = pg_query($dbConn, $sql);
if(!$rets) {
echo pg_last_error($dbConn);
exit;
}

$duplicate = false;
$cnt = 0; //Counting the fields that are the same with the fields of another
insertion
//If all the fields are the same, then we ask the user to give input
again
while($row = pg_fetch_row($rets)) {

    if($row[1] == $userId)
    {
        $cnt++;
    }

    if($row[2] == $gyroscopeX)
    {
        $cnt++;
    }

    if($row[3] == $gyroscopeY)
    {
        $cnt++;
    }

    if($row[4] == $gyroscopeZ)
    {
        $cnt++;
    }

    if(strtotime($row[5]) == $timeStamp)
    {
        $cnt++;
    }
}
```

```

if($cnt == 5) //Found a similar insertion
{
    // echo "This Insertion already exists! \n";
    break;
}
else
{
    $cnt = 0; //Reset for each repetition
}

} //while

if($cnt == 0) // if There is no other similar insertion then we add it to the
Table
{
    $query = "INSERT INTO Gyroscope (userid, gyroscope_x, gyroscope_y,
gyroscope_z, time_stamp)
            VALUES ('$userid', CAST('$gyroscopeX'AS double precision),
CAST('$gyroscopeY'AS double precision), CAST('$gyroscopeZ'AS double precision),
TO_TIMESTAMP($timeStamp)::TIMESTAMP))";

    $result = pg_query($dbConn, $query);

    if ($result) {
        // echo "Record inserted successfully";
    } else {
        // echo "Error inserting record: " . pg_last_error($dbConn);
    }

    /**UPDATING THE CORRESPONDING CORRELATION**
    $Idpairs = "SELECT Users.id AS id_u, Gyroscope.id AS id_m
    FROM Users, Gyroscope
    WHERE Users.userid = Gyroscope.userid AND Users.usersid = '$userid' AND
    Gyroscope.userid = '$userid'";

    $result = pg_query($db_conn, $Idpairs);
    if(!$result) {
        echo pg_last_error($db_conn);
    } else {
        //echo "Table created successfully\n";
    }

```

```

// Fetch the result row
while ($row = pg_fetch_assoc($result)){
    $id_Users = $row['id_u'];
    $id_Measurement = $row['id_m'];

    // Check if values are not empty
    if (!empty($id_Users) && !empty($id_Measurement)) {
        $insertMeasurement = "INSERT INTO Gyroscope_measurement
(id_Users,id_Gyroscope)
            VALUES ($id_Users, $id_Measurement)";

        $insertResult = pg_query($db_conn, $insertMeasurement);

        if (!$insertResult) {
            echo pg_last_error($db_conn);
        } else {
            //echo "Data inserted into Magnetometer_measurement successfully\n";
        }
    }
}

}
else
{
    echo "This record compromises the functional dependencies";
}
} //multitude
else
{
    echo "No user with that userId";
}

// Close the database connection
pg_close($dbConn);
header("Location: ../gyroscope_sensor.php");
exit;
}
?>

```

Αρχείο : delete.php

```

<?php
// delete.php

// Check if the form was submitted
if ($_SERVER["REQUEST_METHOD"] == "POST") {
    // Retrieve form values

```

```

$userId = $_POST["userid"];
$gyroscopeX = $_POST["gyroscope_x"];
$gyroscopeY = $_POST["gyroscope_y"];
$gyroscopeZ = $_POST["gyroscope_z"];
$timeStamp = $_POST["time_stamp"];

// Example database connection (replace with your actual connection code)
$dbConn = pg_connect("host=localhost dbname=db1u14 user=db1u14
password=ste4nV84");

$reccor = "SELECT Users.id, Gyroscope.id FROM Users, Gyroscope WHERE
Users.userid = Gyroscope.userid AND Users.userid = '$userId'";

$ret = pg_query($dbConn, $reccor);
while($row = pg_fetch_row($ret)) {
    $user_id = $row[0];
    $measure_id = $row[1];
    $delreccord = "DELETE FROM Gyroscope_measurement WHERE id_Users =
".$user_id."AND id_Gyroscope = ".$measure_id."";

    $cor = pg_query($dbConn, $delreccord);
    if(!$cor) {
        echo pg_last_error($dbConn);
    } else {
        echo "Successful deletion\n";
    }
}

// Construct the DELETE statement
$query = "DELETE FROM Gyroscope
WHERE userid = '$userId'
AND gyroscope_x = CAST('$gyroscopeX'AS double precision)
AND gyroscope_y = CAST('$gyroscopeY'AS double precision)
AND gyroscope_z = CAST('$gyroscopeZ'AS double precision)
AND time_stamp = TO_TIMESTAMP($timeStamp)::TIMESTAMP";

// Execute the DELETE statement
$result = pg_query($dbConn, $query);

if ($result) {
    echo "Records deleted successfully";
} else {
    echo "Error deleting records: " . pg_last_error($dbConn);
}

```

```

        // Close the database connection
        pg_close($dbConn);
        header("Location: ../gyroscope_sensor.php");
        exit;
    }
?>

```

Αρχεία εισαγωγής/διαγραφής στην σχέση Geolocation:

Αρχείο : insert.php

```

<?php
// insert.php

// Check if the form was submitted
if ($_SERVER["REQUEST_METHOD"] == "POST") {
    // Retrieve variables from the form
    $userId = $_POST["userid"];
    $longitude = $_POST["longitude"];
    $altitude = $_POST["altitude"];
    $latitude = $_POST["latitude"];
    $timestamp = $_POST["time_stamp"];

    // Now you can use these variables as needed
    // For example, you can insert them into a database

    // Example database connection and insertion (replace with your actual
    database logic)
    $dbConn = pg_connect("host=localhost dbname=db1u14 user=db1u14
password=ste4nV84");

    /**MULTITUDE**
    //Before we add the record inside the Desired sensor Table we must ensure
    that the given userId exists inside Users Table for multitude reasons
    $multitude = "SELECT * FROM Users WHERE userid = '$userId'";

    $ret = pg_query($dbConn, $multitude);
    if(!$ret) {
        echo pg_last_error($dbConn);
        exit;
    }

```



```
    $multitudecnt = 0; //Counting the fields that are the same with the fields of
another insertion
    //If all the fields are the same, then we ask the user to give input
again
```

```
    while($row = pg_fetch_row($ret)) {
        $multitudecnt++;
    }
```

```
$sql = 'SELECT *
FROM Geolocation';
```

```
if($multitude > 0){
    $rets = pg_query($dbConn, $sql);
    if(!$rets) {
        echo pg_last_error($dbConn);
        exit;
    }

    $duplicate = false;
    $cnt = 0; //Counting the fields that are the same with the fields of another
insertion
    //If all the fields are the same, then we ask the user to give input
again
```

```
    while($row = pg_fetch_row($rets)) {
```

```
        if($row[1] == $userId)
        {
            $cnt++;
        }
```

```
        if($row[2] == $longitude)
        {
            $cnt++;
        }
```

```
        if($row[3] == $latitude)
        {
            $cnt++;
        }
```

```
        if($row[4] == $altitude)
        {
```

```

        $cnt++;
    }

    if(strtotime($row[5]) == $timestamp)
    {
        $cnt++;
    }

    if($cnt == 5) //Found a similar insertion
    {
        // echo "This Insertion already exists! \n";
        break;
    }
    else
    {
        $cnt = 0; //Reset for each repetition
    }

} //while

if($cnt == 0) // if There is no other similar insertion then we add it to the
Table
{
    $query = "INSERT INTO Geolocation
(userid,longitude,altitude,latitude,time_stamp)
VALUES ('$userId', CAST('$longitude' AS double
precision),CAST('$altitude' AS double precision),CAST('$latitude' AS double
precision), TO_TIMESTAMP($timeStamp)::TIMESTAMP)";

    $result = pg_query($dbConn, $query);

    if ($result) {
        echo "Record inserted successfully";
    } else {
        echo "Error inserting record: " . pg_last_error($dbConn);
    }

    /**UPDATING THE CORRESPONDING CORRELATION**
    $Idpairs = "SELECT Users.id AS id_u, Geolocation.id AS id_m
FROM Users, Geolocation
WHERE Users.userid = Geolocation.userid AND Users.usersid = '$userid' AND
Geolocation.userid = '$userid'";

```

```

$result = pg_query($db_conn, $Idpairs);
if(!$result) {
    echo pg_last_error($db_conn);
} else {
    //echo "Table created successfully\n";
}

// Fetch the result row
while ($row = pg_fetch_assoc($result)){
    $id_Users = $row['id_u'];
    $id_Measurement = $row['id_m'];

    // Check if values are not empty
    if (!empty($id_Users) && !empty($id_Measurement)) {
        $insertMeasurement = "INSERT INTO Geolocation_measurement
(id_Users,id_Geolocation)
VALUES ($id_Users, $id_Measurement)";

        $insertResult = pg_query($db_conn, $insertMeasurement);

        if (!$insertResult) {
            echo pg_last_error($db_conn);
        } else {
            //echo "Data inserted into Magnetometer_measurement successfully\n";
        }
    }
}

// Close the database connection
pg_close($dbConn);
header("Locaiotn: ../geolocation_sensor.php");
exit;
}
else
{
    echo "This record compromises the functional dependencies";
}
}
else
{
    echo "No user with that userId";
}

```

```
}  
}  
?>
```

Αρχείο : delete.php

```
<?php  
// delete.php  
  
// Check if the form was submitted  
if ($_SERVER["REQUEST_METHOD"] == "POST") {  
    // Retrieve form values  
    $userId = $_POST["userid"];  
    $longitude = $_POST["longitude"];  
    $altitude = $_POST["altitude"];  
    $latitude = $_POST["latitude"];  
    $timestamp = $_POST["time_stamp"];  
  
    // Example database connection (replace with your actual connection code)  
    $dbConn = pg_connect("host=localhost dbname=db1u14 user=db1u14  
password=ste4nV84");  
  
    $reccor = "SELECT Users.id, Geolocation.id FROM Users, Geolocation WHERE  
Users.userid = Geolocation.userid AND Users.userid = '$userId'";  
  
    $ret = pg_query($dbConn, $reccor);  
    while($row = pg_fetch_row($ret)) {  
        $user_id = $row[0];  
        $measure_id = $row[1];  
        $delreccord = "DELETE FROM Geolocation_measurement WHERE id_Users =  
".$user_id."AND id_Geolocation = ".$measure_id."";  
  
        $cor = pg_query($dbConn, $delreccord);  
        if(!$cor) {  
            echo pg_last_error($dbConn);  
        } else {  
            echo "Successful deletion\n";  
        }  
    }  
}  
  
// Construct the DELETE statement  
$query = "DELETE FROM Geolocation  
WHERE userid = '$userId'  
AND longitude = $longitude  
AND latitude = $latitude  
AND altitude = $altitude
```

```

        AND time_stamp = TO_TIMESTAMP($timeStamp)::TIMESTAMP)";

// Execute the DELETE statement
$result = pg_query($dbConn, $query);

if ($result) {
    echo "Records deleted successfully";
} else {
    echo "Error deleting records: " . pg_last_error($dbConn);
}

// Close the database connection
pg_close($dbConn);
header("Location: ../geolocation_sensor.php");
exit;
}
?>

```

Αρχεία εισαγωγής/διαγραφής στην σχέση Barometer:

Αρχείο : insert.php

```

<?php
// insert.php

// Check if the form was submitted
if ($_SERVER["REQUEST_METHOD"] == "POST") {
    // Retrieve variables from the form
    $userId = $_POST["userid"];
    $pressure = $_POST["pressure"];
    $timestamp = $_POST["time_stamp"];

    // Now you can use these variables as needed
    // For example, you can insert them into a database

    // Example database connection and insertion (replace with your actual
    database logic)
    $dbConn = pg_connect("host=localhost dbname=db1u14 user=db1u14
password=ste4nV84");

```

```

//Before we add the record inside the Desired sensor Table we must ensure that
the given userId exists inside Users Table for multitude reasons
$multitude = "SELECT * FROM Users WHERE userid = '$userId'";

$ret = pg_query($dbConn, $multitude);
if(!$ret) {
echo pg_last_error($dbConn);
exit;
}

$multitudecnt = 0; //Counting the fields that are the same with the fields of
another insertion
//If all the fields are the same, then we ask the user to give input again
while($row = pg_fetch_row($ret)) {
    $multitudecnt++;
}

$sql = 'SELECT *
        FROM Barometer';

if($multitude > 0){
$rets = pg_query($dbConn, $sql);
if(!$rets) {
echo pg_last_error($dbConn);
exit;
}

$duplicate = false;
$cnt = 0; //Counting the fields that are the same with the fields of another
insertion
//If all the fields are the same, then we ask the user to give input again
while($row = pg_fetch_row($rets)) {

    if($row[1] == $userId)
    {
        $cnt++;
    }

    if($row[2] == $pressure)
    {
        $cnt++;
    }

    if(strtotime($row[3]) == $timestamp)

```

```

    {
        $cnt++;
    }

if($cnt == 3) //Found a similar insertion
{
    // echo "This Insertion already exists! \n";
    break;
}
else
{
    $cnt = 0; //Reset for each repetition
}

} //while

if($cnt == 0) // if There is no other similar insertion then we add it to the
Table
{
    $query = "INSERT INTO Barometer (userid, pressure, time_stamp)
            VALUES ('$userId', $pressure,
            TO_TIMESTAMP($timeStamp)::TIMESTAMP))";

    $result = pg_query($dbConn, $query);

    if ($result) {
        echo "Record inserted successfully";
    } else {
        echo "Error inserting record: " . pg_last_error($dbConn);
    }

    /**UPDATING THE CORRESPONDING CORRELATION**
    $Idpairs = "SELECT Users.id AS id_u, Barometer.id AS id_m
    FROM Users, Barometer
    WHERE Users.userid = Barometer.userid AND Users.usersid = '$userid' AND
    Barometer.userid = '$userid'";

    $result = pg_query($db_conn, $Idpairs);
    if(!$result) {
        echo pg_last_error($db_conn);
    } else {

```

```

//echo "Table created successfully\n";
}

// Fetch the result row
while ($row = pg_fetch_assoc($result)){
    $id_Users = $row['id_u'];
    $id_Measurement = $row['id_m'];

    // Check if values are not empty
    if (!empty($id_Users) && !empty($id_Measurement)) {
        $insertMeasurement = "INSERT INTO Barometer_measurement (id_Users,id_Barometer)
                               VALUES ($id_Users, $id_Measurement)";

        $insertResult = pg_query($db_conn, $insertMeasurement);

        if (!$insertResult) {
            echo pg_last_error($db_conn);
        } else {
            //echo "Data inserted into Magnetometer_measurement successfully\n";
        }
    }
}

// Close the database connection
pg_close($dbConn);
header("Location: ../barometer_sensor.php");
exit;
}
else
{
    echo "This record compromises the functional dependencies";
}
}
else
{
    echo "No user with that userId";
}
}
?>

```

Αρχείο : delete.php

```

<?php
// delete.php

// Check if the form was submitted

```



```

if ($_SERVER["REQUEST_METHOD"] == "POST") {
    // Retrieve form values
    $userId = $_POST["userid"];
    $pressure = $_POST["pressure"];
    $timestamp = $_POST["time_stamp"];

    // Example database connection (replace with your actual connection code)
    $dbConn = pg_connect("host=localhost dbname=db1u14 user=db1u14
password=ste4nV84");

    $reccor = "SELECT Users.id, Barometer.id FROM Users, Barometer WHERE
Users.userid = Barometer.userid AND Users.userid = '$userId'";

    $ret = pg_query($dbConn, $reccor);
    while($row = pg_fetch_row($ret)) {
        $user_id = $row[0];
        $measure_id = $row[1];
        $delreccord = "DELETE FROM Barometer_measurement WHERE id_Users =
".$user_id."AND id_Barometer = ".$measure_id."";

        $cor = pg_query($dbConn, $delreccord);
        if(!$cor) {
            echo pg_last_error($dbConn);
        } else {
            echo "Successful deletion\n";
        }
    }

    // Construct the DELETE statement
    $query = "DELETE FROM Barometer
WHERE userid = '$userId'
AND pressure = $pressure
AND time_stamp = TO_TIMESTAMP($timestamp)::TIMESTAMP" ;

    // Execute the DELETE statement
    $result = pg_query($dbConn, $query);

    if ($result) {
        echo "Records deleted successfully";
    } else {
        echo "Error deleting records: " . pg_last_error($dbConn);
    }

    // Close the database connection
    pg_close($dbConn);
}

```

```

    header("Location: ../barometer_sensor.php");
    exit;
}
?>

```

Αρχεία εισαγωγής/διαγραφής στην σχέση Accelerometer:

Αρχείο : insert.php

```

<?php
// insert.php

// Check if the form was submitted
if ($_SERVER["REQUEST_METHOD"] == "POST") {
    // Retrieve variables from the form
    $userId = $_POST["userid"];
    $accelerometerX = $_POST["accelerometer_x"];
    $accelerometerY = $_POST["accelerometer_y"];
    $accelerometerZ = $_POST["accelerometer_z"];
    $timeStamp = $_POST["time_stamp"];

    // Now you can use these variables as needed
    // For example, you can insert them into a database
    // echo "". $userId;
    // Example database connection and insertion (replace with your actual
    database logic)
    $dbConn = pg_connect("host=localhost dbname=db1u14 user=db1u14
password=ste4nV84");

    //Before we add the record inside the Desired sensor Table we must ensure
    that the given userId exists inside Users Table for multitude reasons
    $multitude = "SELECT * FROM Users WHERE userid = '$userId'";

    $ret = pg_query($dbConn, $multitude);
    if(!$ret) {
        echo pg_last_error($dbConn);
        exit;
    }

    $multitudecnt = 0; //Counting the fields that are the same with the fields of
    another insertion
    //If all the fields are the same, then we ask the user to give input
    again
    if($row = pg_fetch_row($ret)) {
        $multitudecnt++;
    }
}

```

```
        //echo "<tr><td>" . $row[1] ;
    }
}
```

```
$sql = 'SELECT *
        FROM Accelerometer';
```

```
if($multitudecnt > 0){
    $rets = pg_query($dbConn, $sql);
    if(!$rets) {
        echo pg_last_error($dbConn);
        exit;
    }

    $duplicate = false;
    $cnt = 0; //Counting the fields that are the same with the fields of another
insertion
    //If all the fields are the same, then we ask the user to give input
again
    while($row = pg_fetch_row($rets)) {

        if($row[1] == $userId)
        {
            $cnt++;
        }

        if($row[2] == $accelerometerX)
        {
            $cnt++;
        }

        if($row[3] == $accelerometerY)
        {
            $cnt++;
        }

        if($row[4] == $accelerometerZ)
        {
            $cnt++;
        }

        if(strtotime($row[5]) == $timeStamp)
        {
            $cnt++;
        }
    }
}
```

```

if($cnt == 5) //Found a similar insertion
{
    // echo "This Insertion already exists! \n";
    break;
}
else
{
    $cnt = 0; //Reset for each repetition
}

} //while

if($cnt == 0) // if There is no other similar insertion then we add it to the
Table
{
    echo "".$cnt;

    $query = "INSERT INTO Accelerometer (userid, accelerometer_x,
accelerometer_y, accelerometer_z, time_stamp)
            VALUES ('$userId', CAST('$accelerometerX' AS double precision),
CAST('$accelerometerY' AS double precision), CAST('$accelerometerZ' AS double
precision), TO_TIMESTAMP($timeStamp)::TIMESTAMP)";

    $result = pg_query($dbConn, $query);

    if ($result) {
        echo "Record inserted successfully";
    } else {
        echo "Error inserting record: " . pg_last_error($dbConn);
    }

    /**UPDATING THE CORRESPONDING CORRELATION**
    $Idpairs = "SELECT Users.id AS id_u, Accelerometer.id AS id_m
            FROM Users, Accelerometer
            WHERE Users.userid = Accelerometer.userid AND Users.userid =
'$userId' AND Accelerometer.userid = '$userId'";

    $result = pg_query($dbConn, $Idpairs);
    if(!$result) {
        echo pg_last_error($dbConn);
    } else {

```

```

        //echo "Table created successfully\n";
    }

    // Fetch the result row
    while ($row = pg_fetch_assoc($result)){
        $id_Users = $row['id_u'];
        $id_Measurement = $row['id_m'];

        // Check if values are not empty
        if (!empty($id_Users) && !empty($id_Measurement)) {
            $insertMeasurement = "INSERT INTO Accelerometer_measurement
(id_Users,id_Accelerometer)
                                VALUES ($id_Users, $id_Measurement)";

            $insertResult = pg_query($dbConn, $insertMeasurement);

            if (!$insertResult) {
                echo pg_last_error($dbConn);
            } else {
                //echo "Data inserted into Magnetometer_measurement successfully\n";
            }
        }
    }
}

// Close the database connection
pg_close($dbConn);
// header("Location: ../accelerometer_sensor.php");
exit;
}
else
{
    echo "This record compromises the functional dependencies";
}

} //if multitude
else
{
    echo "No user with that userId";
}
}
?>

```

Αρχείο : delete.php

```

<?php
// delete.php

```

```

// Check if the form was submitted
if ($_SERVER["REQUEST_METHOD"] == "POST") {
    // Retrieve form values
    $userId = $_POST["userid"];
    $accelerometerX = $_POST["accelerometer_x"];
    $accelerometerY = $_POST["accelerometer_y"];
    $accelerometerZ = $_POST["accelerometer_z"];
    $timeStamp = $_POST["time_stamp"];

    // Example database connection (replace with your actual connection code)
    $dbConn = pg_connect("host=localhost dbname=db1u14 user=db1u14
password=ste4nV84");

    $reccor = "SELECT Users.id, Accelerometer.id FROM Users, Accelerometer WHERE
Users.userid = Accelerometer.userid AND Users.userid = '$userId'";

    $ret = pg_query($dbConn, $reccor);
    while($row = pg_fetch_row($ret)) {
        $user_id = $row[0];
        $measure_id = $row[1];
        $delreccord = "DELETE FROM Accelerometer_measurement WHERE id_Users =
".$user_id."AND id_Accelerometer = ".$measure_id."";

        $cor = pg_query($dbConn, $delreccord);
        if(!$cor) {
            echo pg_last_error($dbConn);
        } else {
            echo "Succesful deletion\n";
        }
    }
}

// Construct the DELETE statement
$query = "DELETE FROM Accelerometer
WHERE userid = '$userId'
AND accelerometer_x = CAST('$accelerometerX' AS double precision)
AND accelerometer_y = CAST('$accelerometerY' AS double precision)
AND accelerometer_z = CAST('$accelerometerZ' AS double precision)
AND timestamp = TO_TIMESTAMP($timeStamp)::TIMESTAMP";

// Execute the DELETE statement

```

```

$result = pg_query($dbConn, $query);

if ($result) {
    echo "Records deleted successfully";
} else {
    echo "Error deleting records: " . pg_last_error($dbConn);
}

// Close the database connection
pg_close($dbConn);
header("accelerometer_sensor.php");
}
?>

```

Αρχείο για το CSS style:

Αρχείο : style.css

```

/* general container */
.background-container {
    background-color: black;
    color: white; /* Set text color to white or another contrasting color */
    padding: 20px; /* Adjust padding as needed */
}

/* The side navigation menu (used: universally)*/

.sidebar {
margin: 0;
padding: 0;
width: 200px;
background-color: #f1f1f1;
position: fixed;
height: 100%;
overflow: auto;
}

/* Sidebar links */
.sidebar a {
display: block;
color: black;
padding: 16px;
text-decoration: none;

```

```

}
/* Active/current link */
.sidebar a.active {
background-color: #04AA6D;
color: white;
}

/* Links on mouse-over */
.sidebar a:hover:not(.active) {
background-color: #555;
color: white;
}

/* Page content. The value of the margin-left property should match the value of
the sidebar's width property */
div.content {
margin-left: 200px;
padding: 1px 16px;
height: 1000px;
}

.menu-text{
font-family: 'Impact';
}

/*Hoverable Dropdown*/
/* Style for the dropdown container */
/* Style for the dropdown container */
.dropdown {
position: relative;
display: inline-block;
}

/* Style for the dropdown content (hidden by default) */
.dropdown-content {
display: none;
position: absolute;
background-color: #f9f9f9;
min-width: 160px;
box-shadow: 0 8px 16px rgba(0, 0, 0, 0.2);
z-index: 1;
}

```



```
/* Style for the dropdown links */
```

```
.dropdown-content a {  
color: black;  
padding: 12px 16px;  
display: block;  
text-decoration: none;  
}
```

```
/* Change color on hover */
```

```
.dropdown-content a:hover {  
background-color: #ddd;  
}
```

```
/* Show the dropdown content when hovering over the dropdown container */
```

```
.dropdown:hover .dropdown-content {  
display: block;  
}
```

```
/* Index.php CONTENTS */
```

```
/*Index.php BUTTON for the DATABASES INITIALISATION */
```

```
.content {  
display: flex;  
justify-content: center;  
align-items: center;  
flex-grow: 1;  
transition: background-color 0.3s ease;  
max-height: 100vh;  
}
```

```
.content button {  
padding: 15px 20px;  
font-size: 16px;  
color: white;  
background-color: #04AA6D;  
}
```

```
.content button:active {  
background-color: #555; /* Change to the desired background color when pressed */  
}
```

```
/* sensors.php CONTENTS */
```

```
/*In this part it takes place the users functionality for Insertion/Deletion*/
```

```
table {  
border-collapse: collapse;
```

```
width: 50%;
margin: 20px auto;
}
```

```
table, th, td {
border: 1px solid black;
padding: 10px;
}
```

```
form {
text-align: center;
margin: 20px auto;
}
```

```
/* Table Stylish */
```

```
th {
background-color: #04AA6D;
}
```

```
/* RESPONSIVENESS */
```

```
/* On screens that are less than 700px wide, make the sidebar into a topbar */
@media screen and (max-width: 700px) {
.sidebar {
width: 100%;
height: auto;
position: relative;
}
.sidebar a {float: left;}
div.content {margin-left: 0;}
}
```

```
/* On screens that are less than 400px, display the bar vertically, instead of
horizontally */
@media screen and (max-width: 400px) {
.sidebar a {
text-align: center;
float: none;
}
}
```

