PHP MySQL CRUD Application

This is a simple CRUD (Create, Read, Update, Delete) application built with PHP and MySQL. It uses PHP's built-in server for easy setup.

Project Structure

```
/crud-app
├── config-db.php
├── index.php
├── create.php
├── read.php
├── update.php
├── delete.php
```

Setup Instructions

Step 1: Configure the Database

1. Create a file named `config-db.php` in the project directory:

```php
<?php
$host = '127.0.0.1';
$user = 'root'; // Replace with your MySQL username
$password = ''; // Replace with your MySQL password
$database = 'crud_db';

$conn = new mysqli($host, $user, $password, $database);

if ($conn->connect_error) {
    die("Connection failed: " . $conn->connect_error);
}
?>
```

Step 2: Create the Database and Table

Run the following SQL commands in your MySQL terminal:

```
CREATE DATABASE crud_db;
USE crud_db;


CREATE TABLE users (
    id INT AUTO_INCREMENT PRIMARY KEY,
    name VARCHAR(100) NOT NULL,
    email VARCHAR(100) UNIQUE NOT NULL
);
```

Step 3: Create Records (Create)

1. Create a file named create.php:

```php
<?php
require 'config-db.php';

if ($_SERVER['REQUEST_METHOD'] == 'POST') {
    $name = $_POST['name'];
    $email = $_POST['email'];

    $stmt = $conn->prepare("INSERT INTO users (name, email) VALUES (?, ?)");
    $stmt->bind_param("ss", $name, $email);

    if ($stmt->execute()) {
        echo "User added successfully!";
    } else {
        echo "Error: " . $stmt->error;
    }

    $stmt->close();
}
?>

<form method="POST">
    <input type="text" name="name" placeholder="Name" required>
    <input type="email" name="email" placeholder="Email" required>
    <button type="submit">Add User</button>
</form>
```

2. Run the built-in PHP server:

```
php -S localhost:8000
```

3. Visit <u>http://localhost:8000/create.php (http://localhost:8000/create.php)</u> to add a user.

Step 4: Read Records (Read)

1. Create a file named `read.php`:

```php
<?php
require 'config-db.php';

$result = $conn->query("SELECT * FROM users");

if ($result->num_rows > 0) {
    echo "<table border='1'>
            <tr>
                <th>ID</th>
                <th>Name</th>
                <th>Email</th>
            </tr>";
    while ($row = $result->fetch_assoc()) {
        echo "<tr>
                <td>{$row['id']}</td>
                <td>{$row['name']}</td>
                <td>{$row['email']}</td>
            </tr>";
    }
    echo "</table>";
} else {
    echo "No users found.";
}
?>
```

2. Visit <u>http://localhost:8000/read.php (http://localhost:8000/read.php)</u> to view the list of users.

Step 5: Update Records (Update)

1. Create a file named `update.php`:

```php
<?php
require 'config-db.php';

if (isset($_GET['id'])) {
    $id = $_GET['id'];

    if ($_SERVER['REQUEST_METHOD'] == 'POST') {
        $name = $_POST['name'];
        $email = $_POST['email'];

        $stmt = $conn->prepare("UPDATE users SET name = ?, email = ? WHERE id = ?");
        $stmt->bind_param("ssi", $name, $email, $id);

        if ($stmt->execute()) {
            echo "User updated successfully!";
        } else {
            echo "Error: " . $stmt->error;
        }

        $stmt->close();
    }

    $result = $conn->query("SELECT * FROM users WHERE id = $id");
    $user = $result->fetch_assoc();
    ?>
    <form method="POST">
        <input type="text" name="name" value="<?= $user['name'] ?>" required>
        <input type="email" name="email" value="<?= $user['email'] ?>" required>
        <button type="submit">Update User</button>
    </form>
    <?php
} else {
    echo "No user ID provided.";
}
?>
```

2. Visit http://localhost:8000/update.php?id=1 (http://localhost:8000/update.php?id=1) (replace `1` with the actual user ID) to update a user.

Step 6: Delete Records (Delete)

1. Create a file named `delete.php`:

```php
<?php
require 'config-db.php';

if (isset($_GET['id'])) {
    $id = $_GET['id'];


    $stmt = $conn->prepare("DELETE FROM users WHERE id = ?");
    $stmt->bind_param("i", $id);


    if ($stmt->execute()) {
        echo "User deleted successfully!";
    } else {
        echo "Error: " . $stmt->error;
    }


    $stmt->close();
} else {
    echo "No user ID provided.";
}
?>
```

2. Visit http://localhost:8000/delete.php?id=1 (http://localhost:8000/delete.php?id=1) (replace `1` with the actual user ID) to delete a user.

Step 7: Navigation

1. Create a file named `index.php`:

```php
<a href="create.php">Create User</a> |
<a href="read.php">View Users</a> |
<a href="update.php">Update User</a> |
<a href="delete.php">Delete User</a>
```

Happy coding!