Bahria University
Discovering Knowledge

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Department of Computer Science
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ASSIGNMENT No. 3

Complex Computing Problem

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Introduction:

The expense tracker web application is a powerful tool designed to assist individuals in efficiently managing their finances in this fast-paced world, debt monitoring is becoming more and more important to maintain financial stability and make informed financial decisions. This web application provides an efficient solution using HTML, CSS, JavaScript, PHP and Laravel technologies to provide users with a smooth and intuitive spending experience.

With this budget, users can track their expenses in food, accommodation, transportation, entertainment and many other areas. It goes beyond simple spending by tracking different payment methods such as cash, credit/debit cards, and other transactions.

By recording expenditures on a daily, weekly or monthly basis, users can understand their spending and patterns.

Additionally, Spending Tracker allows users to create detailed reports that show their spending by category, payment method and time. These reports provide an overview of their financial activities, facilitating better spending and informed decision making.

Login and Registration System:

Our expense tracker web application features a secure and user-friendly login and registration system. Users can create an account with essential details, and we implement validation checks to ensure data accuracy. User authentication utilizes industry-standard security measures, including password hashing. With session management, users can seamlessly log in and navigate the application. Our focus on security ensures the protection and privacy of user data.

Expense Categories:

Expense Categories in our expense tracker web application enable users to organize their expenses effectively. Users can create custom categories such as food, housing, transportation, entertainment, and more. This categorization feature allows users to track and analyze their spending habits in a structured manner. By assigning expenses to specific categories, users gain insights into their major areas of expenditure. With the ability to manage and customize expense categories, our application provides a flexible and personalized expense tracking experience.

Payment Methods:

Our expense tracker web application supports a wide range of payment methods, ensuring comprehensive tracking of expenses. Users can easily record expenses made through various payment options such as cash, credit/debit cards, and other digital payment methods. This flexibility allows users to accurately monitor their spending habits across different payment platforms. By categorizing expenses based on the payment method used, users gain a clear understanding of their preferred spending channels and can make informed decisions about their financial transactions.

Expense Tracking:

Expense tracking is a fundamental feature of our expense tracker web application. Users can effortlessly record their expenses, including the date, amount, category, and payment method. This allows for a comprehensive overview of spending habits and patterns. With the ability to track expenses on a daily, weekly, or monthly basis, users gain valuable insights into their financial activities over time. The application enables users to add, edit, and delete expenses, ensuring accurate and up-to-date records. With efficient expense tracking, users can make informed financial decisions and effectively manage their budgets.

Reports Generation:

Our expense tracker web application offers strong reports generation capabilities, empowering users with valuable financial insights. Users can generate reports summarizing their spending by category, payment method, or time period. These reports provide a comprehensive overview of their financial activities, helping them analyze their expenditure patterns and make informed budgeting decisions. With the ability to visualize spending trends and identify areas of focus, users can effectively manage their finances and track progress towards their financial goals. The reports generated by our application serve as a valuable tool for financial planning and decision-making.

Code:

View:

Home:

```
<!DOCTYPE html>
<html>
<head>
   <title>Expense Tracker</title>
   <link rel="stylesheet"
href="https://stackpath.bootstrapcdn.com/bootstrap/4.5.2/css/bootstrap.min.css">
</head>
<body>

<!-- Navbar -->
<nav class="navbar navbar-expand navbar-dark bg-dark">
   <a class="navbar-brand" href="#">Expense Tracker</a>
   <ul class="navbar-nav ml-auto">
      <li class="nav-item"><a class="nav-link" href="/home">Home</a></li>
      <li class="nav-item"><a class="nav-link" href="/login">Login</a></li>
      <li class="nav-item"><a class="nav-link" href="/register">Register</a></li>
   </ul>
</nav>

<!-- Main Content -->
```

```
<div class="container mt-5">
  <div class="row">
    <div class="col-md-8">
      <h1>Welcome to Expense Tracker</h1>
      <p>"Take control of your financial well-being and gain peace of mind by managing your expenses efficiently with our powerful expense tracking system. Our user-friendly software allows you to easily track and categorize your expenditures, analyze your spending patterns, and create detailed reports. With our advanced tools and intuitive dashboard, you can stay organized, make informed financial decisions, and achieve your savings goals. Join our satisfied clients who have experienced the benefits of effective expense management."</p>
    </div>
    <div class="col-md-4">
      <div class="card">
        <div class="card-body">
          <h5 class="card-title">Register</h5>
          <p class="card-text">Create an account to get started.</p>
          <a href="/register" class="btn btn-primary">Register</a>
        </div>
      </div>
      <div class="card mt-3">
        <div class="card-body">
          <h5 class="card-title">Sign In</h5>
          <p class="card-text">Already have an account? Sign in here.</p>
          <a href="login" class="btn btn-primary">Sign In</a>
        </div>
      </div>
    </div>
  </div>
</div>

<!-- Expense Tracking Image -->
<div class="container-fluid">
<img style="margin-left:13%; width:50%"src="{{ asset('img/expensetracking.PNG') }}" alt="Expense Tracking Image">
</div>

<!-- Services -->
<div class="container mt-5">
  <h2>Our Services</h2>
  <p>Manage your expenses with ease using our advanced features:</p>
  <div class="row">
    <div class="col-md-4">
      <h4>Time Frame Graphs</h4>
      <p>Visualize your expenses over different time frames for better analysis.</p>
    </div>
    <div class="col-md-4">
      <h4>Report Generation</h4>
      <p>Generate detailed reports to track your spending patterns and trends.</p>
```

```
      </div>
      <div class="col-md-4">
        <h4>Categories</h4>
        <p>Organize your expenses into categories to understand your spending habits.</p>
      </div>
    </div>
</div>

<!-- Clients -->
<div class="container mt-5">
    <h2>Our Clients</h2>
    <p>Join our growing list of satisfied clients:</p>
    <div class="row">
      <div class="col-md-4">
      <img style="height;30%; width:90%" src="{{ asset('img/client 1.PNG') }}" alt="Expense Tracking
Image">
    </div>
      <div class="col-md-4">
      <img style="height;30%; width:90%" src="{{ asset('img/client 2.PNG') }}" alt="Expense Tracking
Image">
     </div>
      <div class="col-md-4">
      <img style="height;20%; width:90%" src="{{ asset('img/client 3.PNG') }}" alt="Expense Tracking
Image">
    </div>
    </div>
</div>

</body>
</html>
```

About:

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Registration</title>
  <link rel="stylesheet"
href="https://stackpath.bootstrapcdn.com/bootstrap/4.5.2/css/bootstrap.min.css">
</head>
<body>
<!-- Navbar -->
<nav class="navbar navbar-expand navbar-dark bg-dark">
    <a class="navbar-brand" href="#">Expense Tracker</a>
    <ul class="navbar-nav ml-auto">
```

```
      <li class="nav-item"><a class="nav-link" href="/home">Home</a></li>
      <li class="nav-item"><a class="nav-link" href="/login">Login</a></li>
      <li class="nav-item"><a class="nav-link" href="/register">Register</a></li>
   </ul>
</nav>
<p>Solution must be designed by applying the following attributes/characteristics
</p>
<p>
Attribute Problem Solving description
</p>
<p>
Depth of analysis required  Requires PHP storm, Dreamweaver, Phpmyadmin, Laravel, etc
</p>
<p>
used to develop web application
</p>
<p>
Depth of knowledge required Conceptual programming fundamentals knowledge would
</p>
<p>
be needed tosolve this well-defined computing problem.
</p>

<h1>Objective</h1>

<p>The purpose of this assignment is to apply what you learnt about the client side and server- side
scripting to create an expense tracker web application.
Scenario
</p>
<p>
An expense tracker can track any expenses that involve the exchange of money, whether it is cash or
electronic payment. It provides a convenient way to record and categorize expenses, allowing users to
monitor their spending patterns, set budgets, and gain insights into their financial habits.
Consider the above scenario and develop a web application by applying the web engineering concepts
on the following features:
</p>
<p>
• Categorization: An expense tracker can categorize expenses into different categories,
</p>
<p>
such as food, housing, transportation, entertainment, and more.
</p>
<p>
• Payment type: An expense tracker can track expenses made with various payment methods, including
cash, credit/debit cards.
</p>
<p>
• Frequency: An expense tracker can track expenses that occur daily, weekly or monthly.
```

• Reporting: An expense tracker can generate reports that summarize spending by category, payment method, or time period.

• Analyze and apply the best security solution to develop this tracker.
Task

Develop an Expense Tracker web application while considering the above features by applying the appropriate PHP concepts of client-side and server-side scripting.

<h1>
Assumptions
</h1>

The following are assumptions that must be considered.

• As inflation is increasing day by day it is very important to control expenses so this cost-effective solution is designed at the student's level which can be utilized by anyone who faces difficulty managing their personal or business expenses.

• Another assumption is to help people become more aware of their spending habits, which can lead to increased financial literacy.

<h1>Deliverables
</h1>
An Expense Tracker web application that will manage users' expenses while applying the security solution.
Note: Above mentioned deliverables must be provided in one file with a title and table of content in soft and hard copies both.

</body>

Add:

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Add New Expense</title>
  <link rel="stylesheet"
href="https://stackpath.bootstrapcdn.com/bootstrap/4.5.2/css/bootstrap.min.css">
  <style>
    .sidebar {
```

```
      background-color: #f8f9fa;
      padding: 20px;
      height: 100vh;
    }
    .sidebar h3 {
      margin-bottom: 30px;
    }
    .sidebar ul {
      list-style: none;
      padding: 0;
    }
    .sidebar li {
      margin-bottom: 10px;
    }
    .sidebar a {
      text-decoration: none;
      color: #333;
      font-weight: bold;
    }
    .sidebar a:hover {
      color: #007bff;
    }
    .main-content {
      padding: 20px;
    }
    .graph-container {
      width: 70%;
      float: left;
    }
    .report-container {
      width: 30%;
      float: right;
    }
    .report-container textarea {
      height: 200px;
    }
  </style>
</head>
<body>
 <!-- Navbar -->
 <nav class="navbar navbar-expand navbar-dark bg-dark">
  <a class="navbar-brand" href="#">Expense Tracker</a>
  <ul class="navbar-nav ml-auto">
    <li class="nav-item"><a class="nav-link" href="/home">Home</a></li>
    @php
      $userId = session('id');
      $loggedIn = !is_null($userId);
    @endphp
```

```
   @if ($loggedIn)
    @php
          $user = \App\Models\User::find($userId);
    @endphp
    <li class="nav-item"><span class="nav-link">Logged in as {{ $user->name }}</span></li>
    <li class="nav-item">
    <form id="logoutForm" action="{{ route('logout') }}" method="POST">
  @csrf
  <a class="nav-link" href="#" onclick="event.preventDefault();
document.getElementById('logoutForm').submit();">Logout</a>
</form>

    </li>
   @else
    <li class="nav-item"><a class="nav-link" href="/login">Login</a></li>
    <li class="nav-item"><a class="nav-link" href="/register">Register</a></li>
   @endif
  </ul>
</nav>
  <div class="container-fluid">
   <div class="row">
   <div class="col-lg-2 sidebar">
     <h3>Expense Tracker</h3>
     <ul class="nav flex-column">
      <li class="nav-item">
       <a class="nav-link active" href="/dashboard">Dashboard</a>
      </li>
      <li class="nav-item">
       <a class="nav-link" href="add">Add New</a>
      </li>
      <li class="nav-item">
       <a class="nav-link" href="/setting">Settings</a>
      </li>
     </ul>
    </div>
    <div class="col-lg-10 main-content">
     <h2>Add New Expense</h2>
     <form action="{{ route('productadd') }}" method="POST">
      @csrf
      <div class="form-group">
       <label for="product-name">Product Name</label>
       <input type="text" name="productname" id="product-name" class="form-control" required>
      </div>
      <div class="form-group">
       <label for="product-price">Product Price</label>
       <input type="number" name="productprice" id="product-price" class="form-control" required>
      </div>
      <div class="form-group">
```

```
          <label for="product-type">Payment Type</label>
          <select name="paymenttype" id="paymenttype" class="form-control" required>
            <option value="CreditCard">Credit Card</option>
            <option value="Cash">Cash</option>
            <option value="Crypto">Crypto</option>
          </select>
        </div>
        <div class="form-group">
          <label for="product-category">Product Category</label>
          <input type="text" name="productcategory" id="product-category" class="form-control"
required>
        </div>
        <button type="submit" class="btn btn-primary">Add Expense</button>
      </form>
    </div>
  </div>
 </div>
</body>
</html>
```

Dashboard:

```
<!DOCTYPE html>
<html lang="en">
<head>
 <meta charset="UTF-8">
 <meta name="viewport" content="width=device-width, initial-scale=1.0">
 <title>Expense Tracker - Dashboard</title>
 <link rel="stylesheet"
href="https://stackpath.bootstrapcdn.com/bootstrap/4.5.2/css/bootstrap.min.css">
 <style>
  .sidebar {
   background-color: #f8f9fa;
   padding: 20px;
   height: 100vh;
  }
  .sidebar h3 {
   margin-bottom: 30px;
  }
  .sidebar ul {
   list-style: none;
   padding: 0;
  }
  .sidebar li {
   margin-bottom: 10px;
  }
  .sidebar a {
   text-decoration: none;
   color: #333;
```

```
    font-weight: bold;
   }
   .sidebar a:hover {
    color: #007bff;
   }
   .main-content {
    padding: 20px;
   }
   .report-container {
    width: 100%;
   }
   .report-container h2 {
    margin-bottom: 20px;
   }
   .timeframe-buttons {
    margin-top: 20px;
   }
   #expenseTable th,
   #expenseTable td {
    padding: 10px;
   }
   #expenseTable thead {
    background-color: #f8f9fa;
   }
   #expenseTable tbody tr:nth-child(even) {
    background-color: #f8f9fa;
   }
   #expenseTable tbody td {
    border-bottom: 1px solid #dee2e6;
   }
  </style>
</head>
<body>

  <!-- Navbar -->
  <nav class="navbar navbar-expand navbar-dark bg-dark">
  <a class="navbar-brand" href="#">Expense Tracker</a>
  <ul class="navbar-nav ml-auto">
    <li class="nav-item"><a class="nav-link" href="/home">Home</a></li>
    @php
     $userId = session('id');
     $loggedIn = !is_null($userId);
    @endphp
    @if ($loggedIn)
     @php
      $user = \App\Models\User::find($userId);
     @endphp
     <li class="nav-item"><span class="nav-link">Logged in as {{ $user->name }}</span></li>
```

```
    <li class="nav-item">
    <form id="logoutForm" action="{{ route('logout') }}" method="POST">
  @csrf
  <a class="nav-link" href="#" onclick="event.preventDefault();
document.getElementById('logoutForm').submit();">Logout</a>
</form>

    </li>
   @else
    <li class="nav-item"><a class="nav-link" href="/login">Login</a></li>
    <li class="nav-item"><a class="nav-link" href="/register">Register</a></li>
   @endif
  </ul>
</nav>


  <div class="container-fluid">
   <div class="row">
    <div class="col-lg-2 sidebar">
     <h3>Expense Tracker</h3>
     <ul class="nav flex-column">
      <li class="nav-item">
       <a class="nav-link active" href="/dashboard">Dashboard</a>
      </li>
      <li class="nav-item">
       <a class="nav-link" href="/add">Add New</a>
      </li>
      <li class="nav-item">
       <a class="nav-link" href="/setting">Settings</a>
      </li>
     </ul>
    </div>
    <div class="col-lg-10 main-content">
     <div class="report-container">
      <h2>Expense Report</h2>
      <div class="timeframe-buttons">
       <button type="button" class="btn btn-primary"
onclick="generateReport('weekly')">Weekly</button>
       <button type="button" class="btn btn-primary"
onclick="generateReport('monthly')">Monthly</button>
       <button type="button" class="btn btn-primary" onclick="generateReport('daily')">Daily</button>
      </div>
      <table id="expenseTable" class="table table-striped">
       <thead>

       </thead>
       <tbody id="expenseTableBody">
        <!-- Expenses will be dynamically populated here -->
```

```
        </tbody>
       </table>
      </div>
    </div>
  </div>
</div>

<script src="https://code.jquery.com/jquery-3.5.1.min.js"></script>
<script src="https://stackpath.bootstrapcdn.com/bootstrap/4.5.2/js/bootstrap.min.js"></script>
<script>
// Function to generate the report based on the selected timeframe
function generateReport(timeframe) {
  // Get the report elements
  var reportElement = $('#expenseTableBody');

  // Show loading message
  reportElement.html('<tr><td colspan="2">Generating report...</td></tr>');

  // Send an AJAX request to the server
  $.ajax({
    url: '/generate-report',
    method: 'GET',
    data: { timeframe: timeframe },
    success: function (response) {
      // Update the report with the received data
      reportElement.html(response.reportData);
    },
    error: function () {
      // Show error message if the request fails
      reportElement.html('<tr><td colspan="2">Failed to generate report.</td></tr>');
    }
  });
}

$(document).ready(function () {
  // Attach click event listeners to the buttons
  $('#weekly').click(function () {
    generateReport('weekly');
  });

  $('#monthly').click(function () {
    generateReport('monthly');
  });

  $('#daily').click(function () {
    generateReport('daily');
  });
});
```

```
</script>

</body>
</html>
```

Login:

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Login</title>
  <link rel="stylesheet"
href="https://stackpath.bootstrapcdn.com/bootstrap/4.5.2/css/bootstrap.min.css">
</head>
<body>

<!-- Navbar -->
<nav class="navbar navbar-expand navbar-dark bg-dark">
   <a class="navbar-brand" href="#">Expense Tracker</a>
   <ul class="navbar-nav ml-auto">
      <li class="nav-item"><a class="nav-link" href="/home">Home</a></li>
      <li class="nav-item"><a class="nav-link" href="/login">Login</a></li>
      <li class="nav-item"><a class="nav-link" href="/register">Register</a></li>
   </ul>
</nav>
  <div class="container">
   <div class="row justify-content-center">
    <div class="col-lg-6 col-md-8 col-sm-10">
      <div class="card mt-5">
        <div class="card-header">
          <h3 class="text-center">Login</h3>
        </div>
        <div class="card-body">
          <form action="/login2" method="POST">
            @csrf
            <div class="form-group">
              <label for="username">Username</label>
              <input type="text" name="username" id="username" class="form-control" required>
            </div>
            <div class="form-group">
              <label for="password">Password</label>
              <input type="password" name="password" id="password" class="form-control" required>
            </div>
            <div class="text-center">
```

```
            <button type="submit" class="btn btn-primary">Login</button>
          </div>
        </form>
      </div>
      <div class="card-footer text-center">
        Don't have an account? <a href="/register">Register here</a>
      </div>
    </div>
  </div>
 </div>
</body>
</html>
```

Register:

```
<!DOCTYPE html>
<html lang="en">
<head>
 <meta charset="UTF-8">
 <meta name="viewport" content="width=device-width, initial-scale=1.0">
 <title>Registration</title>
 <link rel="stylesheet"
href="https://stackpath.bootstrapcdn.com/bootstrap/4.5.2/css/bootstrap.min.css">
</head>
<body>

<!-- Navbar -->
<nav class="navbar navbar-expand navbar-dark bg-dark">
  <a class="navbar-brand" href="#">Expense Tracker</a>
  <ul class="navbar-nav ml-auto">
    <li class="nav-item"><a class="nav-link" href="/home">Home</a></li>
    <li class="nav-item"><a class="nav-link" href="/login">Login</a></li>
    <li class="nav-item"><a class="nav-link" href="/register">Register</a></li>
  </ul>
</nav>
 <div class="container">
  <div class="row justify-content-center">
   <div class="col-lg-6 col-md-8 col-sm-10">
    <div class="card mt-5">
     <div class="card-header">
      <h3 class="text-center">Registration</h3>
     </div>
     <div class="card-body">
      <form action="/register2" method="POST">
      @csrf
       <div class="form-group">
```

```
            <label for="name">Name</label>
            <input type="text" name="name" id="name" class="form-control" required>
          </div>
          <div class="form-group">
            <label for="email">Email</label>
            <input type="email" name="email" id="email" class="form-control" required>
          </div>
          <div class="form-group">
            <label for="password">Password</label>
            <input type="password" name="password" id="password" class="form-control" required>
          </div>
          <div class="text-center">
            <button type="submit" class="btn btn-primary">Register</button>
          </div>
        </form>
      </div>
      <div class="card-footer text-center">
        Already have an account? <a href="/login">Login here</a>
      </div>
    </div>
  </div>
 </div>
</body>
</html>
```

Models:

Product:

```
<?php

namespace App\Models;

use Illuminate\Database\Eloquent\Factories\HasFactory;
use Illuminate\Database\Eloquent\Model;

class product extends Model
{
   use HasFactory;
}
```

User:

```
<?php
```

```
namespace App\Models;

use Illuminate\Database\Eloquent\Factories\HasFactory;
use Illuminate\Database\Eloquent\Model;

class user extends Model
{
   use HasFactory;
}
```

Controller:

Controller:

```
<?php

namespace App\Http\Controllers;

use Illuminate\Foundation\Auth\Access\AuthorizesRequests;
use Illuminate\Foundation\Bus\DispatchesJobs;
use Illuminate\Foundation\Validation\ValidatesRequests;
use Illuminate\Routing\Controller as BaseController;

class Controller extends BaseController
{
   use AuthorizesRequests, DispatchesJobs, ValidatesRequests;
}
```

Home Controller:

```
<?php

namespace App\Http\Controllers;

use Illuminate\Http\Request;
use App\Models\Product;
use Illuminate\Support\Facades\Hash;

use App\Models\User;
use Carbon\Carbon;
use Illuminate\Support\Facades\Auth;
use Illuminate\Support\Facades\DB;
class HomeController extends Controller
{
   public function index()
   {
```

```
    return view('home');
}
public function index2()
{
    return view('home');
}
public function about()
{
    return view('about');
}
public function add()
{
    return view('add');
}
public function dashboard()
{
    return view('dashboard');
}

public function register()
{
    return view('register');
}
public function setting()
{
    return view('setting');
}
public function login()
{
    return view('login');
}

public function register2(Request $req)
{
    $user = new User;
    $user->timestamps = false;
    $user->name = $req->input('name');
    $user->email = $req->input('email');
    $user->password = Hash::make($req->input('password')); // Hash the password
    $user->save();
    return redirect('home');
}
public function login2(Request $req)
{
    $username = $req->input('username');
    $password = $req->input('password');

    $user = User::where('name', $username)->first();
```

```
    if ($user && Hash::check($password, $user->password)) { // Check if the hashed password matches
        $userId = $user->id; // Store the user ID in a variable

        // Store the user ID in the session
        $req->session()->put('id', $userId);

        return redirect('dashboard');
    }

    return "Invalid username or password.";
}

public function productadd(Request $req)
{
    $userId = $req->session()->get('id'); // Retrieve the user ID from the session

    $data = new Product;
    $data->timestamps = false;
    $data->userid = $userId;
    $data->name = $req->input('productname');
    $data->price = $req->input('productprice');
    $data->paymenttype = $req->input('paymenttype');
    $data->category = $req->input('productcategory');
    $data->save();

    return redirect('add');
}



public function setExpenseLimit(Request $request)
{
    // Check if user ID exists in the session
    if (!$request->session()->has('id')) {
        return response()->json(['message' => 'User not authenticated.']);
    }

    $userId = $request->session()->get('id');
    $expenseLimit = $request->input('expenseLimit');

    // Store the expense limit in the database for the user
    // Example: DB::table('users')->where('id', $userId)->update(['expense_limit' => $expenseLimit]);

    // Calculate the total expenses for the current month
    $startDate = now()->startOfMonth()->format('Y-m-d H:i:s');
    $endDate = now()->endOfMonth()->format('Y-m-d H:i:s');
    $totalExpenses = DB::table('products')
```

```
            ->where('userid', $userId)
            ->whereRaw("DATE(`date`) BETWEEN '$startDate' AND '$endDate'")
            ->sum('price');

        $message = $totalExpenses > $expenseLimit ? 'Maximum limit reached!' : 'Maximum limit not
reached!';
        $messageColor = $totalExpenses > $expenseLimit ? 'red' : 'green';

        return response()->json(['message' => $message, 'color' => $messageColor]);
    }



public function generateReport(Request $request)
{
   $timeframe = $request->query('timeframe');
   $userId = $request->session()->get('id');

   // Calculate the start and end dates based on the selected timeframe
   $startDate = null;
   $endDate = null;

   if ($timeframe === 'daily') {
      $startDate = Carbon::now()->startOfDay();
      $endDate = Carbon::now()->endOfDay();
   } elseif ($timeframe === 'weekly') {
      $startDate = Carbon::now()->startOfWeek();
      $endDate = Carbon::now()->endOfWeek();
   } elseif ($timeframe === 'monthly') {
      $startDate = Carbon::now()->startOfMonth();
      $endDate = Carbon::now()->endOfMonth();
   }

   // Retrieve the categories and expenses from the database based on the user ID and timeframe
   $categories = DB::table('products')
      ->where('userid', $userId)
      ->whereBetween('date', [$startDate, $endDate])
      ->select('category')
      ->distinct()
      ->get();

   $expenses = DB::table('products')
      ->where('userid', $userId)
      ->whereBetween('date', [$startDate, $endDate])
      ->select('category', 'name', 'price')
      ->get();

   // Group the expenses by category
```

```
    $groupedExpenses = $expenses->groupBy('category');

    // Generate the report HTML
    $reportData = '<table>';
    $reportData .= '<thead><tr><th>Category</th><th>Product</th><th>Price</th></tr></thead>';
    $reportData .= '<tbody>';

    $grandTotal = 0;

    foreach ($categories as $category) {
        $reportData .= '<tr><td colspan="3"><strong>' . $category->category . '</strong></td></tr>';

        if ($groupedExpenses->has($category->category)) {
            $categoryExpenses = $groupedExpenses[$category->category];

            foreach ($categoryExpenses as $expense) {
                $reportData .= '<tr>';
                $reportData .= '<td></td>';
                $reportData .= '<td>' . $expense->name . '</td>';
                $reportData .= '<td>' . $expense->price . '</td>';
                $reportData .= '</tr>';
            }

            // Calculate the total expenses for the current category
            $categoryTotal = $categoryExpenses->sum('price');
            $reportData .= '<tr><td colspan="2"><strong>Total</strong></td><td>' . $categoryTotal .
'</td></tr>';

            // Add the category total to the grand total
            $grandTotal += $categoryTotal;
        }
    }

    // Add the grand total row
    $reportData .= '<tr><td colspan="2"><strong>Grand Total</strong></td><td>' . $grandTotal .
'</td></tr>';

    $reportData .= '</tbody>';
    $reportData .= '</table>';

    // Return the response with the report data
    return response()->json(['reportData' => $reportData]);
}


public function logout(Request $request)
    {
        $request->session()->forget('id'); // Remove the 'id' from the session
```

```
        $request->session()->regenerate(); // Regenerate the session ID

        return redirect('/home'); // Redirect to the home page or any desired page
    }

}
```

Database:

```
-- phpMyAdmin SQL Dump
-- version 5.2.1
-- https://www.phpmyadmin.net/
--
-- Host: 127.0.0.1
-- Generation Time: Jun 13, 2023 at 09:13 PM
-- Server version: 10.4.28-MariaDB
-- PHP Version: 8.0.28

SET SQL_MODE = "NO_AUTO_VALUE_ON_ZERO";
START TRANSACTION;
SET time_zone = "+00:00";

/*!40101 SET @OLD_CHARACTER_SET_CLIENT=@@CHARACTER_SET_CLIENT */;
/*!40101 SET @OLD_CHARACTER_SET_RESULTS=@@CHARACTER_SET_RESULTS */;
/*!40101 SET @OLD_COLLATION_CONNECTION=@@COLLATION_CONNECTION */;
/*!40101 SET NAMES utf8mb4 */;

--
-- Database: `expensetracker`
--

-- --------------------------------------------------------

--
-- Table structure for table `products`
--

CREATE TABLE `products` (
  `productid` int(11) NOT NULL,
  `userid` int(11) NOT NULL,
  `name` varchar(30) NOT NULL,
  `price` int(11) NOT NULL,
  `paymenttype` text NOT NULL,
  `category` text DEFAULT NULL,
  `date` date DEFAULT current_timestamp()
) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4 COLLATE=utf8mb4_general_ci;

-- --------------------------------------------------------
```

```
--
-- Table structure for table `users`
--

CREATE TABLE `users` (
  `id` int(11) NOT NULL,
  `name` varchar(30) NOT NULL,
  `email` text DEFAULT NULL,
  `password` text NOT NULL
) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4 COLLATE=utf8mb4_general_ci;

--
-- Dumping data for table `users`
--

INSERT INTO `users` (`id`, `name`, `email`, `password`) VALUES
(7, 'Ali Gauhar', 'aligauhar@gmail.com',
'$2y$10$1O1C995cSn2dBByBsY1HFO/fCHmcPczUyiCBH6zF5RFFp1RS2wL2e');

--
-- Indexes for dumped tables
--

--
-- Indexes for table `products`
--
ALTER TABLE `products`
  ADD PRIMARY KEY (`productid`);

--
-- Indexes for table `users`
--
ALTER TABLE `users`
  ADD PRIMARY KEY (`id`);

--
-- AUTO_INCREMENT for dumped tables
--

--
-- AUTO_INCREMENT for table `products`
--
ALTER TABLE `products`
  MODIFY `productid` int(11) NOT NULL AUTO_INCREMENT, AUTO_INCREMENT=6;

--
-- AUTO_INCREMENT for table `users`
--
```

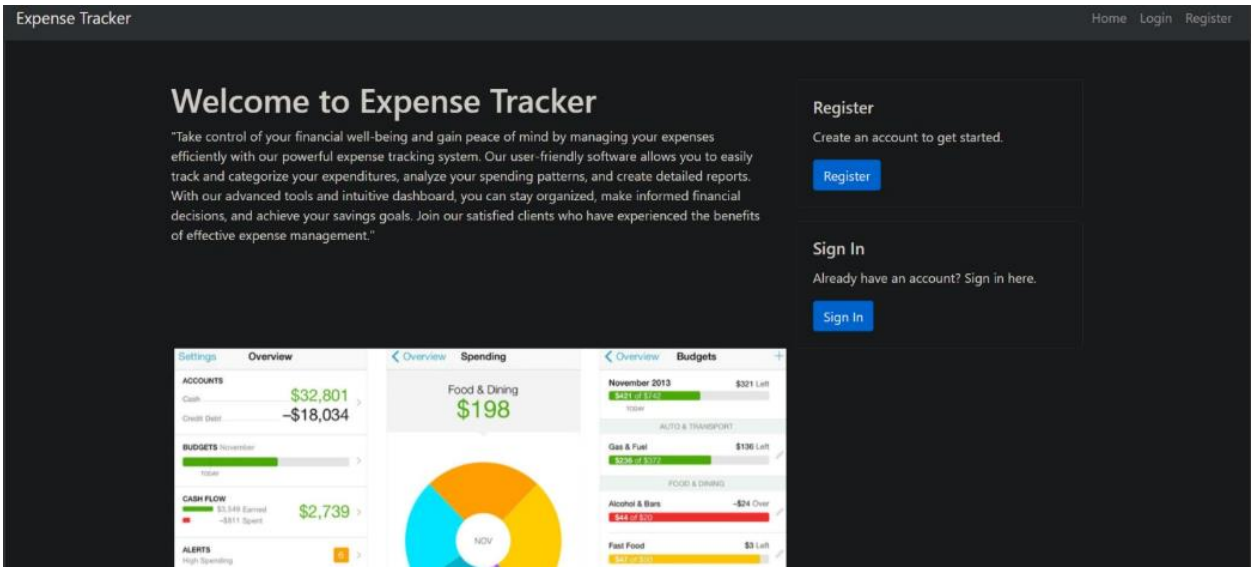
```
ALTER TABLE `users`
  MODIFY `id` int(11) NOT NULL AUTO_INCREMENT, AUTO_INCREMENT=8;
COMMIT;

/*!40101 SET CHARACTER_SET_CLIENT=@OLD_CHARACTER_SET_CLIENT */;
/*!40101 SET CHARACTER_SET_RESULTS=@OLD_CHARACTER_SET_RESULTS */;
/*!40101 SET COLLATION_CONNECTION=@OLD_COLLATION_CONNECTION */;
```

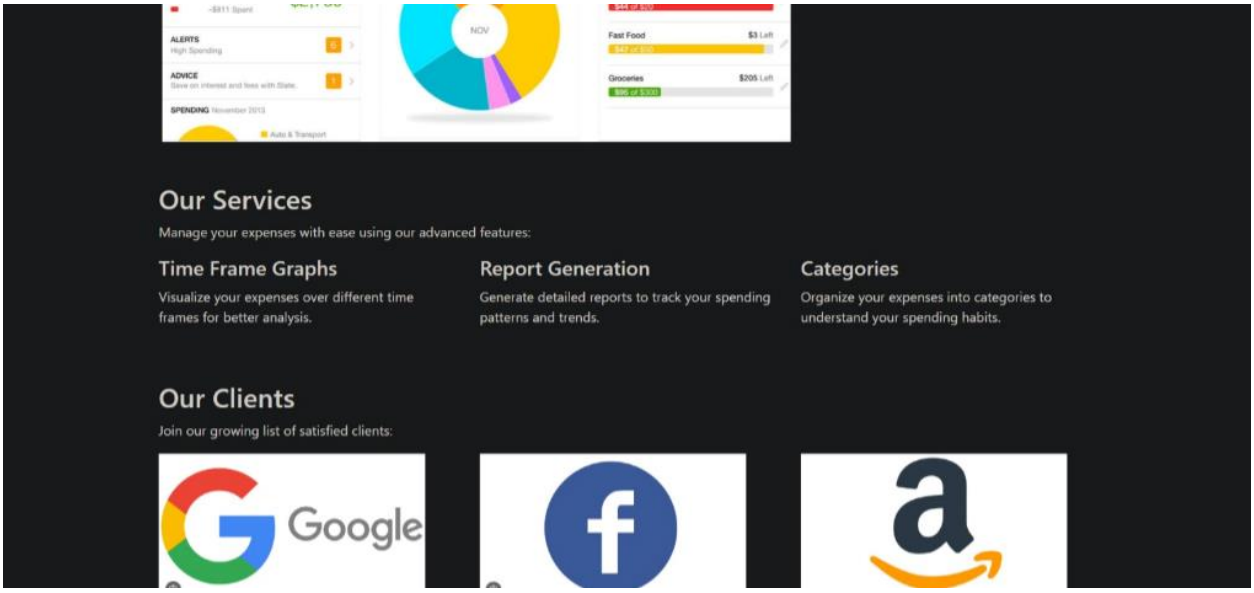
Routes:

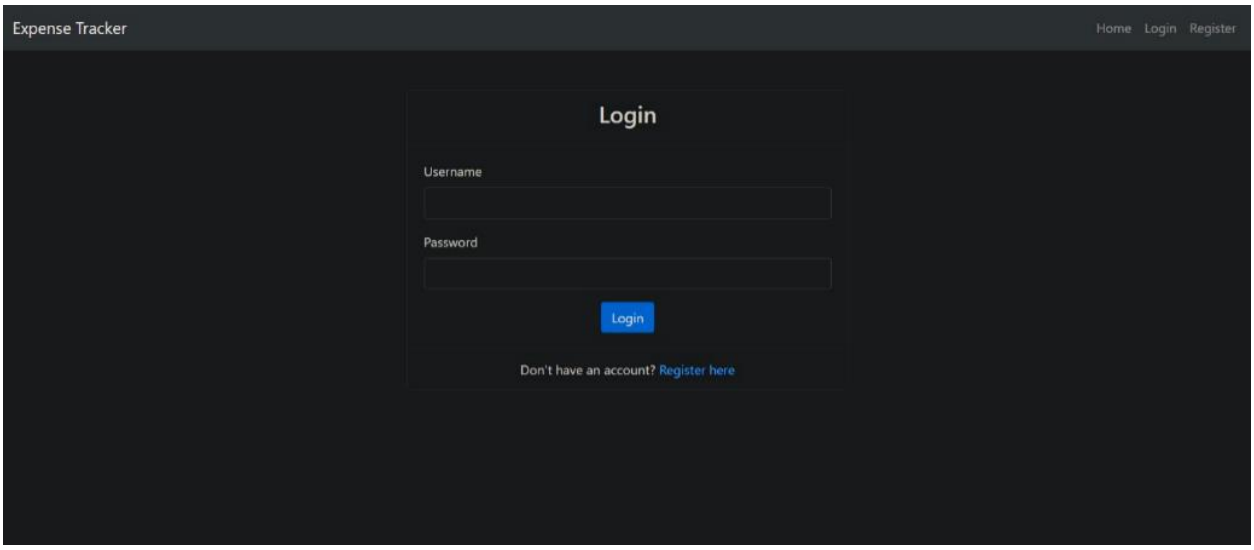
```
<?php

use App\Http\Controllers\HomeController;

use Illuminate\Support\Facades\Route;


Route::get('/', [HomeController::class, 'index']);

Route::get('/home', [HomeController::class, 'index2']);

Route::get('/about', [HomeController::class, 'about']);

Route::get('/add', [HomeController::class, 'add']);

Route::get('/dashboard', [HomeController::class, 'dashboard']);


Route::get('/login', [HomeController::class, 'login'])->name('login');

Route::post('/login2', [HomeController::class, 'login2']);


Route::get('/register', [HomeController::class, 'register']);

Route::post('/register2', [HomeController::class, 'register2']);

Route::get('/setting', [HomeController::class, 'setting']);


Route::post('/productadd', [HomeController::class, 'productadd'])->name('productadd');


Route::post('/setExpenseLimit', [HomeController::class, 'setExpenseLimit'])->name('setExpenseLimit');


Route::get('/generate-report', [HomeController::class, 'generateReport']);
```

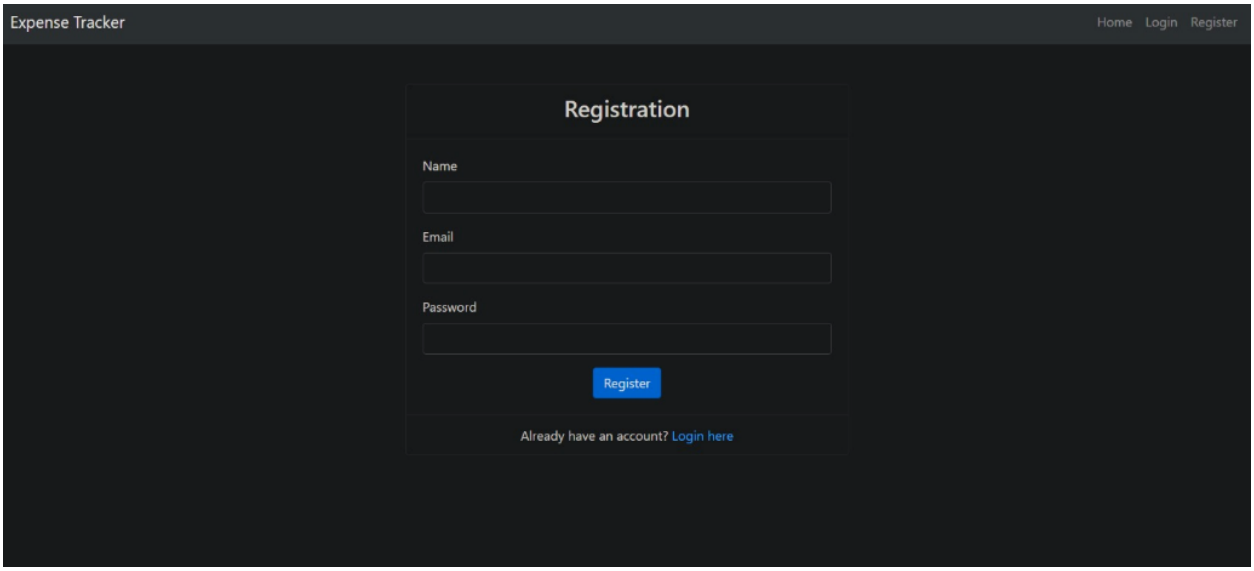
Route::post('/logout', [HomeController::class, 'logout'])->name('logout');

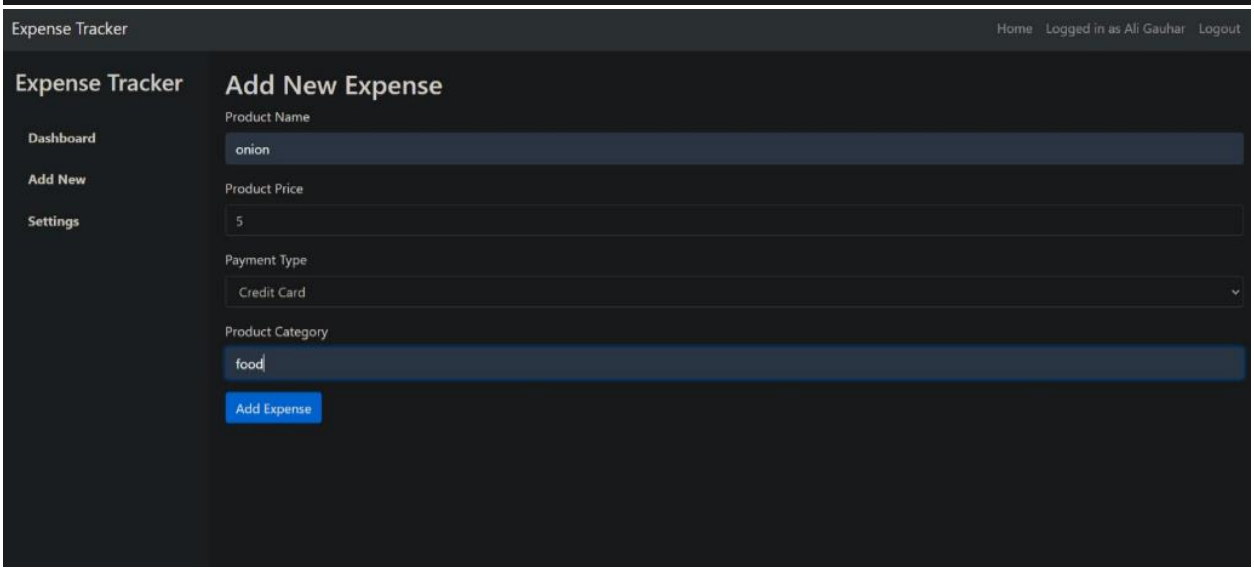
Screenshots:

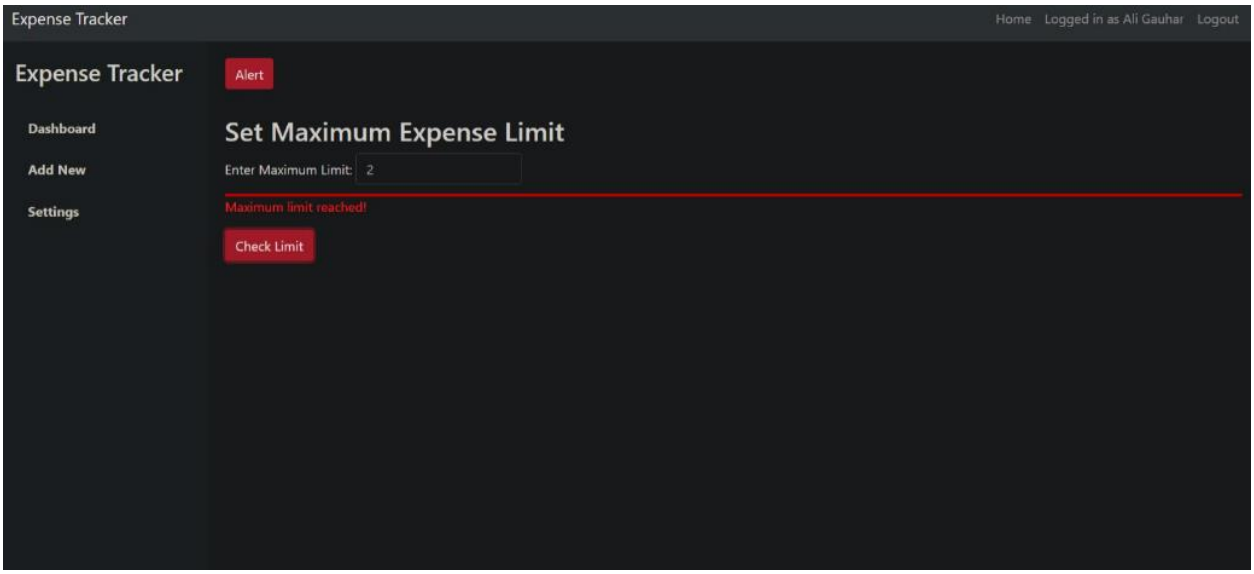


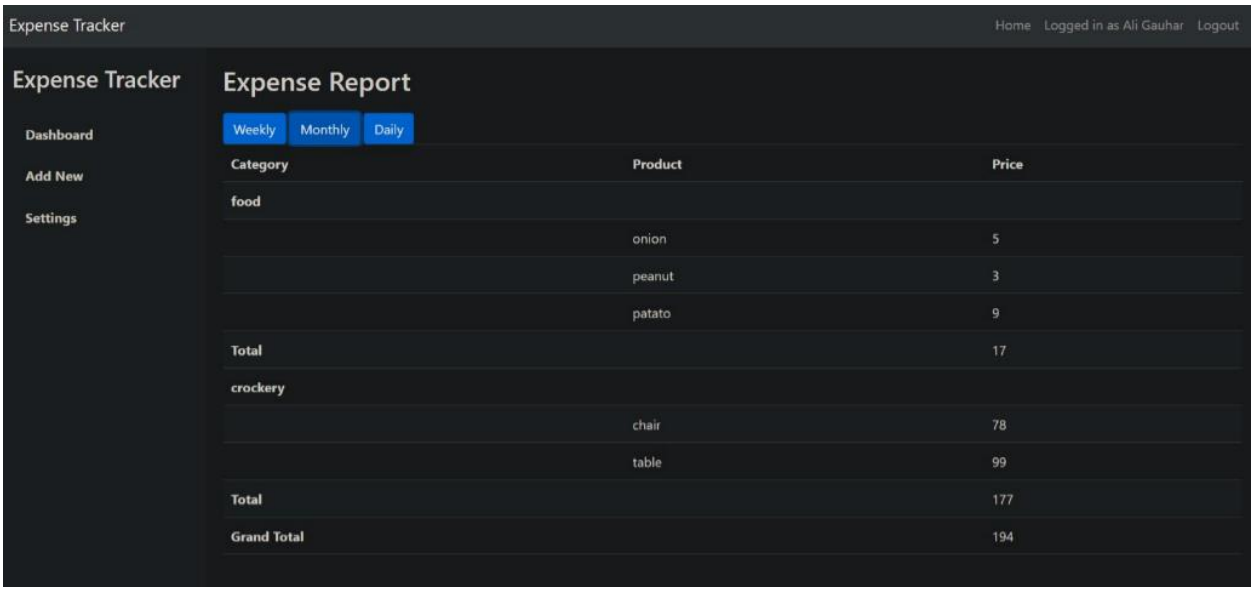



Expense Tracker
Home Login Register
Login
Username
Password
Login
Don't have an account? Register here

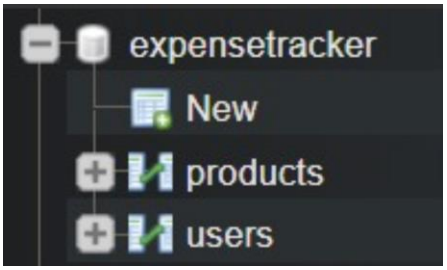

Expense Tracker
Home Login Register
Registration
Name
Email
Password
Register
Already have an account? Login here


Expense Tracker
Home Logged in as Ali Gauhar Logout
Expense Tracker
Dashboard
Add New
Settings
Add New Expense
Product Name
onion
Product Price
5
Payment Type
Credit Card
Product Category
food
Add Expense





	productid	userid	name	price	paymenttype	category	date
Edit Copy Delete	6	7	onion	5	CreditCard	food	2023-06-14
Edit Copy Delete	7	7	peanut	3	CreditCard	food	2023-06-14
Edit Copy Delete	8	7	patato	9	CreditCard	food	2023-06-14
Edit Copy Delete	9	7	chair	78	CreditCard	crockery	2023-06-14
Edit Copy Delete	10	7	table	99	CreditCard	crockery	2023-06-14
Edit Copy Delete	11	8	onion	5	Cash	food	2023-06-14
Edit Copy Delete	12	8	chair	20	CreditCard	crockery	2023-06-14
Edit Copy Delete	13	8	wall paper	120	CreditCard	crockery	2023-06-14



	id	name	email	password
Edit Copy Delete	7	Ali Gauhar	aligauharrrrag@gmail.com	$2y$10$1O1C995cSn2dBByBsY1HFO/fCHmcPczUyiCBH6zF5RF...
Edit Copy Delete	8	Naeem Khan	naeem@gmail.com	$2y$10$pr13YN71zbhub1nlMD4.pu91oorYKW122X31Ys4TvHS...
Edit Copy Delete	9	saad Iqbal	Sad123@gmail.com	$2y$10$tX8qox7VD88XGSGAA784dOAk1PDWUO0d5YMfaUP6s9d...

Conclusion:

In conclusion, our expense tracker web application provides individuals with a powerful tool to effectively manage their expenses, gain valuable financial insights, and enhance their financial well-being. With features such as a secure login and registration system, expense categorization, payment method tracking, expense tracking, and comprehensive reports generation, users can easily monitor their spending habits, make informed financial decisions, and maintain financial stability. The application's user-friendly interface and robust security measures make it a reliable and efficient solution for managing personal finances.