CODING AND SOLUTIONING

base_template.html

```
<!DOCTYPE html>
<html lang="en">
<head>
    <!-- Required meta tags -->
    <meta charset="utf-8">
    <meta http-equiv="X-UA-Compatible" content="IE=edge">
    <meta name="viewport" content="width=device-width, initial-scale=1">

    <!-- Bootstrap CSS -->
    <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.0.2/dist/css/bootstrap.min.css" rel="stylesheet" integrity="sha384-
EVSTQN3/azprG1Anm3QDgpJLIm9Nao0Yz1ztcQTwFspd3yD65VohhpuuCOmLASjC"  crossorigin="anonymous">

    <!-- bootstrap for the cards -->
    <link rel="stylesheet" href="https://cdn.jsdelivr.net/npm/bootstrap@4.0.0/dist/css/bootstrap.min.css" integrity="sha384-
Gn5384xqQ1aoWXA+058RXPxPg6fy4IWvTNh0E263XmFcJlSAwiGgFAW/dAiS6JXm"  crossorigin="anonymous">

    <script src="https://cdn.jsdelivr.net/npm/bootstrap@5.0.2/dist/js/bootstrap.bundle.min.js" integrity="sha384-
MrcW6ZMFYlzcLA8Nl+NtUVF0sA7MsXsP1UyJoMp4YLEuNSfAP+JcXn/tWtIaxVXM"  crossorigin="anonymous"></script>

    {% block title %}
        <title>Base Template</title>
    {% endblock title %}
</head>
<body>
    <div class="container-fluid">
        <div class="row flex-nowrap">
            <div class="col-auto col-md-3 col-xl-2 px-sm-2 px-0" style="background-color: #B2D3C2">
                <div class="d-flex flex-column align-items-center align-items-sm-start px-3 pt-2 min-vh-100" style="color:black">
                    <p class="d-flex align-items-center pb-3 mb-md-0 me-md-auto text-white text-decoration-none">
                         <span class="fs-5 d-none d-sm-inline" style="color:black; font-weight: bold;">Personal Expense Tracker</span>
                        <img src="https://s3.jp-tok.cloud-object-storage.appdomain.cloud/personalexpensetrackercapd/piggybank.png"
style="width:50px;height: 50px;">
                    </p>
                    <ul class="nav nav-pills flex-column mb-sm-auto mb-0 align-items-center align-items-sm-start" id="menu">
                        <li class="nav-item mt-2" style="background-color: {{'#00AD83' if highlight == 'dashboard'}}; height: 50px; width: 150px;
border-radius: 5px;">
```

```
                    <a href="dashboard" class="nav-link align-middle px-0" style="color:black;">
                        <img src="https://s3.jp-tok.cloud-object-storage.appdomain.cloud/personalexpensetrackercapd/house-outline.svg"
style="width:20px;height:20px;margin-left: 5px;">
                        <span class="ms-1 d-none d-sm-inline">Home</span>
                    </a>
                </li>

                <li class="nav-item mt-2" style="background-color: {{'#00AD83' if highlight == 'addexpense'}};">
                    <a href="addexpense" class="nav-link px-0 align-middle" style="color:black;">
                        <img src="https://s3.jp-tok.cloud-object-storage.appdomain.cloud/personalexpensetrackercapd/pay-15.png"
style="width:20px;height:20px;margin-left: 5px;">
                        <span class="ms-1 d-none d-sm-inline">Add Expense</span>
                    </a>
                </li>

                <li class="nav-item mt-2" style="background-color: {{'#00AD83' if highlight == 'recurringexpense'}};">
                    <a href="recurringexpense" class="nav-link px-0 align-middle" style="color:black;">
                        <img src="https://s3.jp-tok.cloud-object-storage.appdomain.cloud/personalexpensetrackercapd/pay-15.png"
style="width:20px;height:20px;margin-left: 5px;">
                        <span class="ms-1 d-none d-sm-inline">Initiate a recurring expense</span>
                    </a>
                </li>

                <!-- <li class="nav-item mt-2" style="background-color: {{'#00AD83' if highlight == 'modifyexpense'}};">
                    <a href="modifyexpense" class="nav-link px-0 align-middle" style="color:black;">
                        <img src="https://s3.jp-tok.cloud-object-storage.appdomain.cloud/personalexpensetrackercapd/edit_icon.svg"
style="width:20px;height:20px;margin-left: 5px;">
                        <span class="ms-1 d-none d-sm-inline">Modify Expense</span>
                    </a>
                </li> -->

                <li class="nav-item mt-2" style="background-color: {{'#00AD83' if highlight == 'viewrecurring'}};">
                    <a href="viewrecurring" class="nav-link px-0 align-middle" style="color:black;">
                        <img src="https://s3.jp-tok.cloud-object-storage.appdomain.cloud/personalexpensetrackercapd/graph.png"
style="width:20px;height:20px;margin-left: 5px;">
                        <span class="ms-1 d-none d-sm-inline">View recurring expenses</span>
                    </a>
                </li>

                <li class="nav-item mt-2" style="background-color: {{'#00AD83' if highlight == 'analysis'}};">
                    <a href="analysis" class="nav-link px-0 align-middle" style="color:black;">
                        <img src="https://s3.jp-tok.cloud-object-storage.appdomain.cloud/personalexpensetrackercapd/graph.png"
style="width:20px;height:20px;margin-left: 5px;">
```

```
                                <span class="ms-1 d-none d-sm-inline">View Analysis</span>
                            </a>
                        </li>

                        <li class="nav-item mt-2" style="background-color: {{'#00AD83' if highlight == 'rewards'}};">
                            <a href="rewards" class="nav-link px-0 align-middle" style="color:black;">
                                <img src="https://s3.jp-tok.cloud-object-storage.appdomain.cloud/personalexpensetrackercapd/reward.png"
style="width:20px;height:20px;margin-left: 5px;">
                                <span class="ms-1 d-none d-sm-inline">Rewards & Goals</span>
                            </a>
                        </li>

                        <li class="nav-item mt-2" style="background-color: {{'#00AD83' if highlight == 'addcategory'}};">
                            <a href="addcategory" class="nav-link px-0 align-middle" style="color:black;">
                                <img src="https://s3.jp-tok.cloud-object-storage.appdomain.cloud/personalexpensetrackercapd/category_add.webp"
style="width:20px;height:20px;margin-left: 5px;">
                                <span class="ms-1 d-none d-sm-inline">Create category</span>
                            </a>
                        </li>

                        <li class="nav-item mt-2" style="background-color: {{'#00AD83' if highlight == 'setmonthlylimit'}};">
                            <a href="setmonthlylimit" class="nav-link px-0 align-middle" style="color:black;">
                                <img src="https://s3.jp-tok.cloud-object-storage.appdomain.cloud/personalexpensetrackercapd/category_add.webp"
style="width:20px;height:20px;margin-left: 5px;">
                                <span class="ms-1 d-none d-sm-inline">Set Monthly Limit</span>
                            </a>
                        </li>
                    </ul>

                    <ul class="nav nav-pills flex-column mb-sm-auto mb-0 align-items-center align-items-sm-end" id="menu">
                        <li class="nav-item mt-2">
                            <a href="logout" class="nav-link px-0 align-middle" style="color:black;">
                                <img src="https://s3.jp-tok.cloud-object-storage.appdomain.cloud/personalexpensetrackercapd/log-out.png"
style="width:20px;height:20px;margin-left: 5px;">
                                <span class="ms-1 d-none d-sm-inline">Log Out</span>
                            </a>
                        </li>
                    </ul>


                </div>
            </div>
            {% block content %}
```

```
                <h1>This needs to be overriden</h1>
            {% endblock content %}
        </div>
    </div>

    {% block script %}
    <script></script>
    {% endblock script %}
</body>
</html>
```

addcategory.html

```
{% extends 'base_template.html' %}

{% block title %}
<title>Add  Category</title>
{% endblock title %}

{% set highlight = 'addcategory' %}

{% block content %}
<div class="col py-3" style="background-color:#00AD83">
    <h3 style="color:white; text-align: center;">Add category</h3>
    <div class="container mt-3" style="width: 600px;">
        <div class="card shadow-lg bg-white rounded">
            <form action="/addcategory" method="POST">
                <div class="card-header" style="text-align: center;">
                    <span style="display:inline-flex"><h4>New Category</h4><img src="https://s3.jp-tok.cloud-object-
storage.appdomain.cloud/personalexpensetrackercapd/category_add.webp" style=" margin-left:10px; width:30px; height:30px"></span>
                    <span style="display:inline-flex"><h5>Include a category called 'recurring' if you want to use recurring expenses</h5></span>

                </div>
                <div   class="card-body">
                        <div class="mb-3">
                        <label for="category" class="form-label">Category Name: </label>
                        <input  type="text"  class="form-control"  name="category"  id="category"></input>
                        </div>
                        <div class="mb-3">
                        <label for="description" class="form-label">Description of Category: </label>
                        <input type="text" class="form-control" name="description" id="description"></input>
                        </div>
                </div>
                <div class="card-footer text-muted" style="text-align:center">
                    <button type="submit" style="background-color:#00AD83; border-color:#00AD83; border-radius:5px;">Add category</button>
                </div>
            </form>
        </div>
    </div>
</div>
{% endblock content %}
```

addexpense.html

```
{% extends 'base_template.html' %}

{% block title %}
<title>Add Expense</title>
{% endblock title %}

{% set highlight = 'addexpense' %}

{% block content %}
<div class="col py-3" style="background-color:#00AD83">
    <h3 style="color:white; text-align: center;">Add expense</h3>
    <div class="container mt-3" style="width: 600px;">
        <div class="card shadow-lg bg-white rounded">
            <form  action="/addexpense"  method="POST">
                <div class="card-header" style="text-align: center;">
                    <span style="display:inline-flex"><h4>Expense Made</h4><img src="https://s3.jp-tok.cloud-object-storage.appdomain.cloud/personalexpensetrackercapd/pay-15.png"  style="  margin-left:10px; width:30px;  height:30px"></span>
                </div>
                <div class="card-body">
                    <div class="mb-3">
                        <label for="amountspent" class="form-label">Amount Spent: (Rs) </label>
                        <input  type="number" class="form-control"  name="amountspent"  id="amountspent"  placeholder="100.00"  required>
                    </div>
                    <div class="mb-3">
                        <label for="expensecategory" class="form-label">Expense Category: </label>
                        <select name="category" id="category" class="form-control" placeholder="Select a category" required>
                            <option value="">Select a category</option>
                            {% for cat in categories %}
                                <option value="{{ cat[0] }}">{{ cat[1] }}</option>
                            {% endfor %}
                        </select>
                    </div>
                    <div class="mb-3">
                        <label for="date" class="form-label">Date of Expense: </label>
                        <input type="date" class="form-control" name="date" id="date" required></input>
                    </div>
                    <div class="mb-3">
                        <label for="description" class="form-label">Description of Expense: </label>
                        <input type="text" class="form-control" name="description" id="description"></input>
                    </div>
                    <div class="mb-3">
                        <label for="group" class="form-label">Group(if needed): </label>
                        <div title="New group" style="float:right" value="Create group" onclick="addGroup()">ADD GROUP</div>
                        <br/>

                        <select name="group" id="group" class="form-control">
                            <option value="">Select existing group</option>
                            {% for group in groups %}
                                <option value="{{ group[0] }}">{{ group[1] }}</option>
                            {% endfor %}
                        </select>
                    </div>
                </div>
                <div class="card-footer text-muted" style="text-align:center">
                    <button type="submit" value="submit" style="background-color:#00AD83; border-color:#00AD83; border-radius:5px;">Submit Expense</button>
                </div>
            </form>
        </div>
    </div>
</div>
{% endblock content %}


{% block script %}
<script>
    function addGroup(e) {
        //    e.preventDefault();
        group = window.prompt('Enter group name: ')
    console.log('PROMPT WINDOW SHOWN'+group);

    const formData = new FormData();
    formData.append("groupname", group);

    const xhttp = new XMLHttpRequest();
    xhttp.onload = function() {
      if (this.readyState == 4 && this.status == 200) {
        var groupid= JSON.parse(this.responseText);
        console.log(groupid);
        // create option using DOM
        const newOption = document.createElement('option');
        const optionText = document.createTextNode(groupid['groupname']);
        newOption.appendChild(optionText);
        newOption.setAttribute('value',groupid['groupID']);
        const selectDropdown = document.getElementById('group');
        selectDropdown.appendChild(newOption);
        console.log('GROUPID :'+ groupid['groupID']);
      }
    }
    xhttp.open("POST", "http://localhost:5000/addgroup");
    xhttp.send(formData);
  }
  document.querySelector('#date').valueAsDate = new Date();
</script>
{% endblock script %}
```

addgoal.html

```
{% extends 'base_template.html' %}

{% block title %}
<title>Add Goal and Reward</title>
{% endblock title %}

{% block content %}
<div class="col py-3" style="background-color:#00AD83">
  <h3 style="color:white; text-align: center;">Add Goal and Reward</h3>
  <div class="container mt-3" style="width: 600px;">
    <div class="card shadow-lg bg-white rounded">
      <form action="/addgoal" method="POST">
```

```
                <div class="card-header" style="text-align: center;">
                    <span style="display:inline-flex"><h4>Goal & Reward</h4><img src="https://s3.jp-tok.cloud-object-storage.appdomain.cloud/personalexpensetrackercapd/goal-icon.webp" style=" margin-left:10px; width:30px; height:30px"></span>
                </div>
                <div class="card-body">
                    <div class="mb-3">
                        <label for="amountspent" class="form-label">Goal Wallet Balance: (Rs) </label>
                        <input type="number"  class="form-control"  name="goal_amount"  id="goal_amount"  placeholder="100.00"  required>
                    </div>

                    <div class="mb-3">
                        <label for="date" class="form-label">Date of Validity: </label>
                        <input type="date" class="form-control" name="date" id="date" required></input>
                    </div>

                    <div class="mb-3">
                        <label for="description" class="form-label">Reward: </label>
                        <input type="text" class="form-control" name="reward" id="reward"></input>
                    </div>
                </div>
                <div class="card-footer text-muted" style="text-align:center">
                    <button type="submit" value="submit" style="background-color:#00AD83; border-color:#00AD83; border-radius:5px;">Create Goal & Reward</button>
                </div>
            </form>
        </div>
    </div>
</div>
{% endblock content %}
```

analysis.html

```
{% extends 'base_template.html' %}

{% block title %}
<title>Analysis</title>
{% endblock title %}

{% set highlight = 'analysis' %}

{% block content %}
```

```
<div class="col-auto px-0 col-lg-10 col-md-6 col-sm-4">
  <div class="card min-vh-100" style="background-color: #00ad83">
    <h4 class="card-header">Analysis of my expenses</h4>
    <div class="card-body">
      <div class="row flex-nowrap">
        <div class="col col-lg-5 col-md-3 px-4" style="background-color: #00ad83">
          <img
            id="picture"
            src="data:image/jpeg;base64,{{ img_data1 }}"
          />
        </div>
        <div class="col col-lg-5 col-md-3 px-4" style="background-color: #00ad83">
          <img
            id="picture"
            src="data:image/jpeg;base64,{{ img_data2 }}"
          />
        </div>
      </div>
    </div>
  </div>
</div>
{% endblock content %}

{% block script %}
<script type="text/javascript">
  function generate_graph1() {}
</script>
{% endblock script %}
```

dashboard.html

```
{% extends 'base_template.html' %}

{% block title %}
<title>Dashboard</title>
{% endblock title %}

{% set highlight = 'dashboard' %}

{% block content %}
```

```
<div class="col py-3" style="background-color:#00AD83">
    <h4 style="color:red;">{{ msg }}</h4>
    <h3 style="color:black; text-align: center;">Welcome Back! {{ email }}</h3>
    <div  class="d-flex  justify-content-end">
        <img src="https://s3.jp-tok.cloud-object-storage.appdomain.cloud/personalexpensetrackercapd/wallet_money.webp"
            style="height: 30px; width:30px">
        <h4 style="margin-left:10px;">Wallet Balance: <span><h5 style="display:inline"><i>{{wallet}}</i></h5></span></h4>
        <a href="updatebalance"><img src="https://s3.jp-tok.cloud-object-
storage.appdomain.cloud/personalexpensetrackercapd/edit_pencil.png"
            style="margin-left:5px; height: 30px; width:30px"></a>
    </div>
    <h3>Here are your expenses:</h3>
    <div class="card-deck">
        {% for expense in expenses %}
        <div class="card shadow-lg bg-white rounded" style="margin: 20px;width:20rem; height:20rem;">
            <div class="card-header" style="text-align: center;">
                <h4>Expense {{loop.index}}</h4>
            </div>
            <div class="card-body">
                <h6 class="card-text">
                    Amount Spent:
                    <span style="color:#00AD83"> Rs {{expense['EXPENSE_AMOUNT']}}</span>
                    <br><br>
                    Description:
                    <span   style="color:#00AD83">{{expense['DESCRIPTION']}}</span>
                    <br><br>
                    Category:
                    <span   style="color:#00AD83">{{expense['CATEGORY_NAME']}}</span>
                </h6>
                <a   href="/modifyexpense?expenseid={{expense['EXPENSEID']}}">Modify</a>
            </div>
            <div class="card-footer text-muted" style="text-align:center">
                <h6>Date on which Expense was made: <span style="color:#00AD83">{{expense['DATE']}}</span></h6>
            </div>
        </div>
        {% endfor %}
    </div>


</div>
{% endblock content %}
```

login.html

```
<!doctype html>
<html lang="en">
 <head>
  <!-- Required meta tags -->
  <meta charset="utf-8">
  <meta name="viewport" content="width=device-width, initial-scale=1">

  <!-- Bootstrap CSS -->
  <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.0.2/dist/css/bootstrap.min.css" rel="stylesheet" integrity="sha384 -
EVSTQN3/azprG1Anm3QDgpJLIm9Nao0Yz1ztcQTwFspd3yD65VohhpuuCOmLASjC"  crossorigin="anonymous">

  <title>Login</title>
 </head>
  <script src="https://cdn.jsdelivr.net/npm/bootstrap@5.0.2/dist/js/bootstrap.bundle.min.js" integrity="sha384-
MrcW6ZMFYlzcLA8Nl+NtUVF0sA7MsXsP1UyJoMp4YLEuNSfAP+JcXn/tWtIaxVXM"  crossorigin="anonymous"></script>

  <body style="background-color:#B2D3C2">
    <div class="container mt-3">
      <h1 style="color: black; text-align: center;">
        Personal Expense Tracker <img src="https://s3.jp-tok.cloud-object-
storage.appdomain.cloud/personalexpensetrackercapd/piggybank.png" style="width:50px;height:  50px;">
      </h1>
      <div class="container mt-5" style="width: 600px;">
       <h4>{{ msg }}</h4>
          <div class="card shadow-lg bg-white rounded">
            <div class="card-header" style="text-align: center;">
             <h4>Login</h4>
            </div>
            <div class="card-body">
             <form action="/login" method="POST">
              <div class="mb-3">
                <label for="email" class="form-label">Email: </label>
                <input type="email" class="form-control" name="email" id="email" placeholder="abc@gmail.com">
               </div>
               <div class="mb-3">
                <label for="passowrd" class="form-label">Password: </label>
                <input type="password"  class="form-control"  name="password"  id="password"></input>
               </div>
               <button  type="submit"   style="background-color:#00AD83;  border-color:#00AD83;   border-radius:5px;">Login</button>
             </form>
            </div>
            <div class="card-footer text-muted" style="text-align:center">
             New user? <span><a href="/">Register Here</a></span>
            </div>
           </div>
      </div>
    </div>
 </body>
</html>
```

modifyexpense.html

```
{% extends 'base_template.html' %}


{% block title %}
<title>Modify Expense</title>
{% endblock title %}


{% block content %}
<div class="col py-3" style="background-color:#00AD83">
  <h3 style="color:white; text-align: center;">Modify expense</h3>
  <div class="container mt-3" style="width: 600px;">
    <div class="card shadow-lg bg-white rounded">
      <form  action="/modifyexpense" method="POST">
        <div class="card-header" style="text-align: center;">
          <span style="display:inline-flex">
            <h4>Expense Made</h4>
            <img src="https://s3.jp-tok.cloud-object-storage.appdomain.cloud/personalexpensetrackercapd/pay-15.png" style=" margin-left:10px; width:30px; height:30px">
          </span>
        </div>
        <div class="card-body">
          <div class="mb-3">
            <label for="amountspent" class="form-label">Amount Spent: (Rs) </label>
            <input type="number" class="form-control" name="amountspent" id="amountspent" placeholder="100.00" value="{{expense['EXPENSE_AMOUNT']}}" required>
          </div>


          <div class="mb-3">
            <label for="expensecategory" class="form-label">Expense Category: </label>
            <select  name="category"  id="category"  class="form-control"  placeholder="Select  a  category">
              <option value="">Select a category</option>
              {% for category in categories %}
                 <option value="{{ category[0] }}" {{'selected' if expense['CATEGORYID'] == category[0]}}>{{ category[1]
}}</option>
              {% endfor %}
            </select>
          </div>

          <div class="mb-3">
            <label for="date" class="form-label">Date of Expense: </label>
             <input type="date" class="form-control" name="date" id="date" value="{{expense['DATE']}}" required></input>
          </div>

          <div class="mb-3">
            <label for="description" class="form-label">Description of Expense: </label>
            <input type="text" class="form-control" name="description" id="description"
value="{{expense['DESCRIPTION']}}"></input>
          </div>

          <div class="mb-3">
            <label for="group" class="form-label">Group(if needed): </label>
            <div title="New group" style="float:right" value="Create group" onclick="addGroup()">ADD GROUP</div><br/>

            <select name="group" id="group" class="form-control">
              <option value="">Select existing group</option>
              {% for group in groups %}
                <option value="{{ group[0] }}" {{'selected' if expense.get('GROUPID') and expense.get('GROUPID') ==
group[0]}}>{{ group[1] }}</option>
              {% endfor %}
            </select>
          </div>

          <input type="hidden" name="expenseid" value="{{expense['EXPENSEID']}}" />
          <input type="hidden" name="oldamountspent" value="{{expense['EXPENSE_AMOUNT']}}" />
        </div>
        <div class="card-footer text-muted" style="text-align:center">
          <button type="submit" value="submit" style="background-color:#00AD83; border-color:#00AD83; border-
radius:5px;">Submit Expense</button>
        </div>
      </form>
    </div>
    </div>
</div>
{% endblock content %}

{% block script %}
<script>
    function addGroup(e) {
        //    e.preventDefault();
        group = window.prompt('Enter group name: ')
        console.log('PROMPT WINDOW SHOWN'+group);

        const   formData   =   new   FormData();
        formData.append("groupname", group);

        const xhttp = new XMLHttpRequest();
        xhttp.onload = function() {
            if (this.readyState == 4 && this.status == 200) {
                var  groupid=  JSON.parse(this.responseText);
                console.log(groupid);
                // create option using DOM
                const newOption = document.createElement('option');
                const optionText = document.createTextNode(groupid['groupname']);
                newOption.appendChild(optionText);
                newOption.setAttribute('value',groupid['groupID']);
                const selectDropdown = document.getElementById('group');
                selectDropdown.appendChild(newOption);
                console.log('GROUPID :'+ groupid['groupID']);
            }
        }
        xhttp.open("POST", "http://localhost:5000/addgroup");
        xhttp.send(formData);
    }
</script>
{% endblock script %}
```

recurringexpense.html

```
{% extends 'base_template.html' %}
{% block title %}
<title>Recurring Expense</title>
{% endblock title %}

{% set highlight = 'recurringexpense' %}

{% block content %}
<div class="col py-3" style="background-color:#00AD83">
    <h3 style="color:white; text-align: center;">Add Recurring Expense</h3>
    <div class="container mt-3" style="width: 600px;">
        <div class="card shadow-lg bg-white rounded">
            <form action="/recurringexpense" method="POST">
                <div class="card-header" style="text-align: center;">
                    <span style="display:inline-flex"><h4>Expense Made</h4><img src="https://s3.jp-tok.cloud-object-storage.appdomain.cloud/personalexpensetrackercapd/pay-15.png" style=" margin-left:10px; width:30px; height:30px"></span>
                </div>
                <div class="card-body">
                    <div class="mb-3">
                        <label for="amountspent" class="form-label">Amount Spent: (Rs) </label>
                        <input type="number" class="form-control" name="amountspent" id="amountspent" placeholder="100.00" required>
                        </div>
                        <div class="mb-3">
                        <label for="expensecategory" class="form-label">Expense Category: </label>
                        <select name="category" id="category" class="form-control" placeholder="Select a category">
                            <option value="">Select a category</option>
                            {% for cat in categories %}
                                <option value="{{ cat[0] }}">{{ cat[1] }}</option>
                            {% endfor %}
                        </select>
                        </div>
                        <div class="mb-3">
                        <label for="date" class="form-label">Date of Expense: </label>
                        <input type="date" class="form-control" name="date" id="date" required></input>
                        </div>
                        <div class="mb-3">
                        <label for="description" class="form-label">Description of Expense: </label>
                        <input type="text" class="form-control" name="description" id="description"></input>
                        </div>
                        <!-- <div class="mb-3">
                        <label for="duration" class="form-label">Number of autorenewals (in months) </label>
            <input type="text" class="form-control" name="autorenewals" id="autorenewals"></input>

            </div> -->

            <!-- <div class="mb-3"> -->

            <!-- <label for="group" class="form-label">Group(if needed): </label> -->

            <!-- <div title="New group" style="float:right" value="Create group" onclick="addGroup()">ADD GROUP</div><br/>


            <select name="group" id="group" class="form-control">

              <option value="">Select existing group</option>

              {% for group in groups %}

                <option value="{{ group[0] }}">{{ group[1] }}</option>

              {% endfor %}

            </select>

            </div> -->

        <!-- </div> -->

        <div class="card-footer text-muted" style="text-align:center">

          <button type="submit" value="submit" style="background-color:#00AD83; border-color:#00AD83; border-radius:5px;">Submit Expense</button>

        </div>

      </form>

    </div>

  </div>

</div>

{% endblock content %}


{% block script %}

  <script>

    function addGroup(e) {

      // e.preventDefault();

      group = window.prompt('Enter group name: ')

      console.log('PROMPT WINDOW SHOWN'+group);


      const formData = new FormData();

      formData.append("groupname", group);


      const xhttp = new XMLHttpRequest();

      xhttp.onload = function() {

        if (this.readyState == 4 && this.status == 200) {

          var groupid= JSON.parse(this.responseText);

          console.log(groupid);

          // create option using DOM

          const newOption = document.createElement('option');
```

```
                    const optionText = document.createTextNode(groupid['groupname']);

                    newOption.appendChild(optionText);

                    newOption.setAttribute('value',groupid['groupID']);

                    const selectDropdown = document.getElementById('group');

                    selectDropdown.appendChild(newOption);

                    console.log('GROUPID :'+ groupid['groupID']);

                }

            }

            xhttp.open("POST", "http://localhost:5000/addgroup");

            xhttp.send(formData);

        }

        document.querySelector('#date').valueAsDate = new Date();

    </script>

{% endblock script %}
```

registration.html

```
<!doctype html>

<html lang="en">

  <head>

    <!-- Required meta tags -->

    <meta charset="utf-8">

    <meta name="viewport" content="width=device-width, initial-scale=1">



    <!-- Bootstrap CSS -->

    <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.0.2/dist/css/bootstrap.min.css" rel="stylesheet" integrity="sha384 -
EVSTQN3/azprG1Anm3QDgpJLIm9Nao0Yz1ztcQTwFspd3yD65VohhpuuCOmLASjC"  crossorigin="anonymous">



    <title>Registration</title>

  </head>

    <script src="https://cdn.jsdelivr.net/npm/bootstrap@5.0.2/dist/js/bootstrap.bundle.min.js" integrity="sha384-
MrcW6ZMFYlzcLA8Nl+NtUVF0sA7MsXsP1UyJoMp4YLEuNSfAP+JcXn/tWtIaxVXM"  crossorigin="anonymous"></script>



    <body style="background-color:#B2D3C2">

        <div class="container mt-3">

            <h1 style="color: black; text-align: center;">

                Personal Expense Tracker <img src="https://s3.jp-tok.cloud-object-
storage.appdomain.cloud/personalexpensetrackercapd/piggybank.png" style="width:50px;height:  45px;">

            </h1>

            <div class="container mt-2" style="width: 600px;">

                    <div class="card shadow-lg bg-white rounded">
            <div class="card-header" style="text-align: center;">
             <h4>Registration Form</h4>
            </div>
            <div class="card-body">
             <form action="/" method="POST">
              <div class="mb-3">
                <label for="email" class="form-label">Email: </label>
                <input type="email" class="form-control" name="email" id="email" placeholder="abc@gmail.com">
               </div>
               <div class="mb-3">
                <label for="passowrd" class="form-label">Password: </label>
                <input type="password"  class="form-control"  name="password"  id="password"></input>
                <p style="color: gray;" class="mt-3">Please make sure that the password meets the following requirements:</p>
                <ol style="color: gray;"><li>Minimum of 8 characters</li><li>Contains an upper case and a special character</li></ol>
               </div>
               <div class="mb-3">
                <label for="confirmpassword" class="form-label">Confrim Password: </label>
                <input type="password" class="form-control" name="confirmpassword" id="confirmpassword" placeholder="********">
               </div>
               <div class="mb-3">
                <label for="wallet" class="form-label">Initial Wallet Amount (Rs): </label>
                <input type="number" class="form-control" name="wallet" id="wallet" placeholder="10000.00">
               </div>
               <button type="submit" style="background-color:#00AD83; border-color:#00AD83; border-radius:5px;">Register</button>
             </form>
            </div>
            <div class="card-footer text-muted" style="text-align:center">
             Already an existing user? <span><a href="login">Login Here</a></span>
            </div>
           </div>
      </div>
    </div>
 </body>
</html>
```

rewards.html

```
{% extends 'base_template.html' %}
{% block title %}
<title>Goals and Rewards</title>
{% endblock title %}

{% set highlight = 'rewards' %}

{% block content %}

<div class="col py-3" style="background-color:#00AD83">

    <h3>Here are your current rewards and goals:</h3>
    <div class="card-deck">
        <!-- {% set count = 1 %} -->
        {% for goal in goals %}

        <div class="card shadow-lg bg-white rounded" style="margin: 20px;width:20rem; height:20rem;">
            <div class="card-header" style="text-align: center;">
                <h4>Goal and Reward {{loop.index}}</h4>
            </div>
            <div class="card-body">
                <h6 class="card-text">Amount Set: <span style="color:#00AD83"> Rs {{goal[0]}}</span>
                <br><br>Reward: <span style="color:#00AD83">{{goal[2]}}</span></h6>
            </div>
            <div class="card-footer text-muted" style="text-align:center">
                <h6><br><br>Date of Validity: <span style="color:#00AD83">{{goal[1]}}</span></h6>
            </div>
        </div>
        {% endfor %}
    </div>

    <div style="text-align: center; margin-top: 5px">
        <img src="https://s3.jp-tok.cloud-object-storage.appdomain.cloud/personalexpensetrackercapd/goal-icon.webp"
            style="margin-left:5px; height:30px; width:30px;">
        <a href="addgoal" style="color:black; text-decoration:none;"><h4 style="display: inline">Add Goal and Reward</h4></a>
    </div>



</div>
{% endblock content %}
```

setmonthlylimit.html

```
{% extends 'base_template.html' %}


{% block title %}
<title>Set Monthly Limit</title>
{% endblock title %}


{% set highlight = 'setmonthlylimit' %}


{% block content %}
<div class="col py-3" style="background-color:#00AD83">
    <h3 style="color:white; text-align: center;">Set Monthly Limit</h3>
    <div class="container mt-3" style="width: 600px;">
         <div class="card shadow-lg bg-white rounded">
            <form  action="/setmonthlylimit" method="POST">
                <div class="card-header" style="text-align: center;">
                     <span style="display:inline-flex">
                         <h4>Monthly Limit</h4>
                         <img src="https://s3.jp-tok.cloud-object-storage.appdomain.cloud/personalexpensetrackercapd/pay-15.png" style=" margin-left:10px; width:30px; height:30px">
                    </span>
                    <div class="card-body">
                        <div class="mb-3">
                            <label for="monthlylimit" class="form-label">Maximum amount allowed this month: (Rs) </label>
                            <input type="number" class="form-control" name="monthlylimit" id="monthlylimit" placeholder="5000.00" required>
                        </div>
                    </div>
                    <div class="card-footer text-muted" style="text-align:center">
                        <button type="submit" value="submit" style="background-color:#00AD83; border-color:#00AD83; border-radius:5px;">Set Monthly Limit</button>
                    </div>
                </div>
            </form>
        </div>
    </div>
</div>
{% endblock content %}
```

updatebalance.html

```
{% extends 'base_template.html' %}
{% block title %}
<title>Update  Balance</title>
{% endblock title %}

{% block content %}
<div class="col py-3" style="background-color:#00AD83">
    <h3 style="color:white; text-align: center;">Update Balance</h3>
    <div class="container mt-3" style="width: 600px;">
        <div class="card shadow-lg bg-white rounded">
            <form  action="/updatebalance"  method="POST">
                <div class="card-header" style="text-align: center;">
                    <span style="display:inline-flex"><h4>Wallet Balance</h4><img src="https://s3.jp-tok.cloud-object-
storage.appdomain.cloud/personalexpensetrackercapd/wallet_money.webp" style=" margin-left:10px; width:30px; height:30px"></span>
                </div>
                <div   class="card-body">
                        <div class="mb-3">
                        <label for="category" class="form-label">Current Balance: </label>
                        <input type="text" value={{wallet}} readonly>
                        </div>
                        <div class="mb-3">
                        <label for="description" class="form-label">New Balance: </label>
                        <input type="text" class="form-control" name="balanceupdated" id="balanceupdated"></input>
                        </div>
                </div>
                <div class="card-footer text-muted" style="text-align:center">
                    <button type="submit" style="background-color:#00AD83; border-color:#00AD83; border-radius:5px;">Update
Balance</button>
                </div>
            </form>
        </div>
    </div>
</div>
{% endblock content %}
```

viewrecurring.html

```
{% extends 'base_template.html' %}

{% block title %}
<title>View Recurring Expenses</title>
```

```
{% endblock title %}


{% set highlight = 'viewrecurring' %}


{% block content %}
<div class="col py-3" style="background-color:#00AD83">
    <h4 style="color:red;">{{ msg }}</h4>
    <h3 style="color:black; text-align: center;">Welcome Back! {{ email }}</h3>
    <div  class="d-flex  justify-content-end">
        <img src="https://s3.jp-tok.cloud-object-storage.appdomain.cloud/personalexpensetrackercapd/wallet_money.webp"
            style="height: 30px; width:30px">
        <h4 style="margin-left:10px;">Wallet Balance: <span><h5 style="display:inline"><i>{{wallet}}</i></h5></span></h4>
        <a href="updatebalance"><img src="https://s3.jp-tok.cloud-object-
storage.appdomain.cloud/personalexpensetrackercapd/edit_pencil.png"
            style="margin-left:5px; height: 30px; width:30px"></a>
    </div>
    <h3>Here are your expenses:</h3>
    <div class="card-deck">
        <!-- {% set count = 1 %} -->
        {% for expense in expenses %}

        <div class="card shadow-lg bg-white rounded" style="margin: 20px;width:20rem; height:20rem;">
            <div class="card-header" style="text-align: center;">
                <h4>Expense {{loop.index}}</h4>
            </div>
            <div class="card-body">
                <h6  class="card-text">Amount  Spent:  <span  style="color:#00AD83">  Rs  {{expense[0]}}</span>
                    <br><br>Reason:     <span      style="color:#00AD83">{{expense[1]}}</span>
                <!--  <br><br>Category:  <span style="color:#00AD83">{{expense[3]}}</span></h6>   -->
                <br><br> <button type = "button" name = "{{expense[1]}}" onclick="removeExpense(name)"> Remove Expense </button>
            </div>
            <div class="card-footer text-muted" style="text-align:center">
                <h6>Date on which Expense was initiated: <span style="color:#00AD83">{{expense[2]}}</span></h6>
            </div>
        </div>
        {% endfor %}
    </div>

</div>
{% endblock content %}
{% block script %}
<script>
    function removeExpense(e) {
        console.log("hello");
        //    e.preventDefault();
        // group = window.prompt('Enter group name: ')
        // console.log('PROMPT WINDOW SHOWN'+group);

        window.alert("cancelling " + e + " autorenewal");
        const formData = new FormData();
        formData.append("description", e);

        const xhttp = new XMLHttpRequest();
        xhttp.onload = function() {
            if (this.readyState == 4 && this.status == 200) {
                window.location.reload
            }
        }
        xhttp.open("POST", "http://localhost:5000/removerecurring");
        xhttp.send(formData);
    }
</script>
{% endblock script %}
```

app.py

```
from flask import Flask, render_template, request, redirect, url_for
from flask_mail import Mail, Message
from datetime import datetime
from flask_cors import CORS, cross_origin
import ibm_db
import json
import plotly
import plotly.graph_objs as go
import pandas as pd
from flask import send_file
from io import BytesIO
import matplotlib.pyplot as plt
import numpy as np
import base64
from PIL import Image
```

```
import time
import atexit
from datetime import datetime
from  apscheduler.schedulers.background  import  BackgroundScheduler


app = Flask(__name__, template_folder='templates')
app.config['SECRET_KEY'] = 'top-secret!'
app.config['MAIL_SERVER'] = 'smtp.sendgrid.net'
app.config['MAIL_PORT'] = 587
app.config['MAIL_USE_TLS'] = True
app.config['MAIL_USERNAME'] = 'apikey'
app.config['MAIL_PASSWORD'] = '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'
app.config['MAIL_DEFAULT_SENDER'] = 'nunnaaarthi@gmail.com'
mail = Mail(app)
cors = CORS(app)
app.config['CORS_HEADERS'] = 'Content-Type'


# GLobal variables
EMAIL = ''
USERID = ''
print()
try:
    conn = ibm_db.connect("DATABASE=bludb;HOSTNAME=54a2f15b-5c0f-46df-8954-
7e38e612c2bd.c1ogj3sd0tgtu0lqde00.databases.appdomain.cloud;PORT=32733;Security=SSL;SSLServerCertificate=DigiCertGlobalRootC
A.crt;UID=nlg66799;PWD=CXtQLAGZ06fD0fhC;", "", "")
except Exception as e:
    print(e)
# FUNCTIONS INTERACTING WITH DB #
print('hello')


def fetch_walletamount():
    sql = 'SELECT WALLET FROM PETA_USER WHERE EMAIL=?'
    stmt = ibm_db.prepare(conn, sql)
    ibm_db.bind_param(stmt, 1, EMAIL)
    ibm_db.execute(stmt)
    user = ibm_db.fetch_assoc(stmt)
    # print(user['WALLET'])
    return user['WALLET']  # returns int



def fetch_categories():
    sql = 'SELECT * FROM PETA_CATEGORY WHERE USERID = ?'
    stmt = ibm_db.prepare(conn, sql)
    ibm_db.bind_param(stmt, 1, USERID)
    ibm_db.execute(stmt)

    categories = []
    while ibm_db.fetch_row(stmt) != False:
        categories.append([ibm_db.result(stmt, "CATEGORYID"),
                           ibm_db.result(stmt, "CATEGORY_NAME")])

    sql = 'SELECT * FROM PETA_CATEGORY WHERE USERID IS NULL'
    stmt = ibm_db.prepare(conn, sql)
    ibm_db.execute(stmt)

    while ibm_db.fetch_row(stmt) != False:
        categories.append([ibm_db.result(stmt, "CATEGORYID"),
                           ibm_db.result(stmt, "CATEGORY_NAME")])

    # print(categories)
    return categories  # returns list


def fetch_userID():
    sql = 'SELECT USERID FROM PETA_USER WHERE EMAIL=?'
    stmt = ibm_db.prepare(conn, sql)
    ibm_db.bind_param(stmt, 1, EMAIL)
    ibm_db.execute(stmt)
    user = ibm_db.fetch_assoc(stmt)
    # print(user['USERID'])
    return user['USERID']  # returns int


def fetch_groups():
    sql = 'SELECT * FROM PETA_GROUPS'
    stmt = ibm_db.exec_immediate(conn, sql)
    groups = []
    while ibm_db.fetch_row(stmt) != False:
        groups.append([ibm_db.result(stmt, "GROUPID"),
                       ibm_db.result(stmt,     "GROUPNAME")])
    # print(groups)
    return groups  # returns list


def fetch_expenses():
    sql = 'SELECT * FROM PETA_EXPENSE where USERID = ' + str(USERID)
    # print(sql)
    stmt = ibm_db.exec_immediate(conn, sql)
    expenses = []
    while ibm_db.fetch_row(stmt):
        category_id = ibm_db.result(stmt, "CATEGORYID")
        category_id = str(category_id)
        sql2 = "SELECT * FROM PETA_CATEGORY WHERE CATEGORYID = " + category_id
        stmt2 = ibm_db.exec_immediate(conn, sql2)
        category_name = ""
        while ibm_db.fetch_row(stmt2) != False:
            category_name = ibm_db.result(stmt2, "CATEGORY_NAME")
        expenses.append([ibm_db.result(stmt, "EXPENSE_AMOUNT"), ibm_db.result(
            stmt, "DATE"), ibm_db.result(stmt, "DESCRIPTION"), category_name])
    # print(expenses)
    return expenses


def fetch_rec_expenses_cron():
    sql = 'SELECT * FROM PETA_REC_EXPENSES;'
    stmt = ibm_db.exec_immediate(conn, sql)
    rec_expenses = []
    while ibm_db.fetch_row(stmt) != False:
        amt = ibm_db.result(stmt, "AMOUNT")
        amt = str(amt)
        description = ibm_db.result(stmt, "DESCRIPTION")
        userid = ibm_db.result(stmt, "USERID")
        date = ibm_db.result(stmt, "RECDATE")
        rec_expenses.append([amt, description, date, userid])
    # print(rec_expenses)
    return rec_expenses


def fetch_rec_expenses():
    sql = 'SELECT * FROM PETA_REC_EXPENSES WHERE USERID = ' + str(USERID)
    stmt = ibm_db.exec_immediate(conn, sql)
    rec_expenses = []
    while ibm_db.fetch_row(stmt) != False:
        amt = ibm_db.result(stmt, "AMOUNT")
        amt = str(amt)
        description = ibm_db.result(stmt, "DESCRIPTION")
        userid = ibm_db.result(stmt, "USERID")
        date = ibm_db.result(stmt, "RECDATE")
        rec_expenses.append([amt, description, date, userid])
    # print(rec_expenses)
    return rec_expenses



def fetch_limits():
    now = datetime.now()
    year = now.year

    limits = [0 for i in range(12)]

    sql = 'SELECT LIMITAMOUNT, LIMITMONTH FROM PETA_LIMIT WHERE USERID = ? AND LIMITYEAR = ?'
    statement = execute_sql(sql, USERID, year)

    while ibm_db.fetch_row(statement):
        limit_amount = int(ibm_db.result(statement, 'LIMITAMOUNT'))
        limit_month = int(ibm_db.result(statement, 'LIMITMONTH'))
        limits[limit_month] = limit_amount

    return limits



# HELPER FUNCTIONS #
def fetch_latest_expenses(expenses):
    # must return expenses of last month
    latest_month = datetime.today().month
    latest_expenses = []
    for exp in expenses:
        if exp[1].month == latest_month:
            latest_expenses.append(exp)

    return latest_expenses
```

```
def    fetch_monthly_expenses(expenses):
    latest_year = datetime.today().year
    monthly_expenses = {}

    for month in range(1, 13):
        monthly_expenses[month] = 0

    for exp in expenses:
        if exp[1].year == latest_year:
            monthly_expenses[exp[1].month] += exp[0]

    return monthly_expenses.values()


def draw_graph1(expenses):
    # TOTAL EXPENSE / DAY OF MONTH
    # x-axis: day , y-axis: expense/day

    latest_expenses = fetch_latest_expenses(expenses)
    mp = {}
    for day in range(1, 31):
        mp[day] = 0

    for exp in latest_expenses:
        mp[exp[1].day] += exp[0]

    x =  mp.keys()
    y = mp.values()

    # print(mp)

    plt.figure()
    plt.title('Expense recorded over the past month')
    plt.plot(x, y)
    plt.xlabel('Day of the month')
    plt.ylabel('Recorded expense')
    plt.xlim(1, 32)

    buffer = BytesIO()
    plt.savefig(buffer, format='png')
    encoded_img_data = base64.b64encode(buffer.getvalue())

    return encoded_img_data


def draw_graph2(expenses, limits):
    # limit/month vs expense/month -> 2 line graphs

    monthly_expenses = fetch_monthly_expenses(expenses)
    x = range(1, 13)
    y1 = limits
    y2 = monthly_expenses

    plt.figure()
    plt.title('Month-wise comparison of limit and expense')
    plt.plot(x, y1, label="Limit/month")
    plt.plot(x, y2, label="Expenses/month")
    plt.xlabel('Month')
    plt.legend()

    buffer = BytesIO()
    plt.savefig(buffer, format='png')

    encoded_img_data = base64.b64encode(buffer.getvalue())

    return encoded_img_data

# finds the category id that matches that of the recurring expense category


def fetch_recurring_category_id():
    categories = fetch_categories()
    for category in categories:
        p = ''
        for i in category[1]:
            if (i == ' '):
                break
            p += i
        category[1] = p
    print(categories)
    categoryid = -1
    for category in categories:
        if category[1] == 'recurring':
            categoryid = category[0]
    print(categoryid)
    return categoryid



# cron to autodeduct the expenses each day
def auto_renew():
    global USERID
    # print(time.strftime("%A, %d. %B %Y %I:%M:%S %p"))
    rec_expenses = fetch_rec_expenses_cron()
    print(rec_expenses)
    current_day = time.strftime("%d")
    print(current_day)
    for expense in rec_expenses:
        here = str(expense[2])
        here = here.split('-')
        here = here[2]
        print(here)
        if (here == current_day):
            sql = "INSERT INTO PETA_EXPENSE(USERID, EXPENSE_AMOUNT, CATEGORYID, DESCRIPTION, DATE) VALUES(?,?,?,?,?);"
            USERID = str(expense[3])
            categoryid = fetch_recurring_category_id()
            print(categoryid)
            stmt = ibm_db.prepare(conn, sql)
            ibm_db.bind_param(stmt, 1, expense[3])
            ibm_db.bind_param(stmt, 2, expense[0])
            ibm_db.bind_param(stmt, 3, categoryid)
            ibm_db.bind_param(stmt, 4, expense[1])
            d3 = time.strftime("%Y-%m-%d")
            ibm_db.bind_param(stmt, 5, d3)
            print(d3, categoryid, expense[0],
                  expense[1], expense[2], expense[3])
            ibm_db.execute(stmt)


            check_monthly_limit(datetime.now().month, datetime.now().year)
            # print(here, d3, expense[0], expense[1], expense[2])
            sql = "UPDATE PETA_USER SET WALLET = WALLET - ? WHERE USERID = ?"
            statement = ibm_db.prepare(conn, sql)
            print(USERID)
            ibm_db.bind_param(statement, 1, expense[0])
            ibm_db.bind_param(statement, 2, expense[3])
            print("deducted")
            ibm_db.execute(statement)


# caller code for the cron
scheduler = BackgroundScheduler()
scheduler.add_job(func=auto_renew, trigger="interval", seconds=3600 * 24)
print('hello')
# END POINTS #
scheduler.start()
print('hello')
atexit.register(lambda: scheduler.shutdown())



@app.route('/', methods=['GET', 'POST'])
@cross_origin()
def registration():
    global EMAIL
    print("hello")
    if request.method == 'GET':
        return   render_template('registration.html')
    if request.method == 'POST':
        email = request.form['email']
        EMAIL = email
        password = request.form['password']
        wallet = request.form['wallet']
        sql = "INSERT INTO PETA_USER(EMAIL,PASSWORD,WALLET) VALUES(?,?,?)"
        stmt = ibm_db.prepare(conn, sql)
        ibm_db.bind_param(stmt, 1, email)
        ibm_db.bind_param(stmt, 2, password)
        ibm_db.bind_param(stmt, 3, wallet)
        print(stmt)
        ibm_db.execute(stmt)
        # msg = Message('Registration Verfication',recipients=[EMAIL])
        # msg.body = ('Congratulations! Welcome user!')
        # msg.html = ('<h1>Registration Verfication</h1>'
        #             '<p>Congratulations! Welcome user!'
        #             '<b>PETA</b>!</p>')
        # mail.send(msg)
        EMAIL = email
    return redirect(url_for('dashboard'))


@app.ro
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methods
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'POST'])
def
login():
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if request.method == 'POST':
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)
password = request.form['password']
sql = "SELECT * FROM PETA_USER
WHERE email=? AND password=?"
stmt = ibm_db.prepare(conn, sql)
ibm_db.bind_param(stmt, 1, email)
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mt,2,password)
ibm_db.execute(stmt)
accou
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```
nt=ibm_db.fetch_assoc(stmt)
if account:
    r
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```
eturn redirect(url_for('dashboard'))el
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```
se:
    return redirect(url_for('login'))
el
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```
 if request.method == 'GET':
     return render_template('login.html')

@app.route('/lo
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ethod=='GET':globalUSERIDglobalEMAILUS
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return redirect(url_for('login'))
```