

Assignment -2
Flask Application Development

Assignment Date	10 October 2022
Student Name	Gollapudi Sai Dayakar Reddy
Student Roll Number	412519104037
Maximum Marks	2 Marks

Question-1:

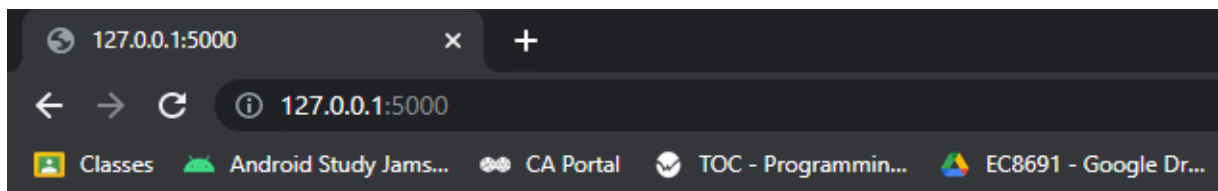
Create a Flask App

[Solution:](#)

[app.py:](#)

```
from flask import Flask
app = Flask(__name__)
@app.route("/")
def hello_world():
    return "<h1>Hello, This is Sai. <br> Welcome to Flask.
    <br>This is my first Flask program!</h1>"
```

Output:



Hello, This is Sai.
Welcome to Flask.
This is my first Flask program!

Question-2:

Add the Home page, About Page

[Solution:](#)

[app.py:](#)

```
from flask import Flask
from flask import render_template
```

```

app = Flask(__name__)

@app.route("/")
def hello_world():
    return "<h1>Hello, This is Prem. <br> Welcome to Flask. <br>This  
is a Flask program!</h1>"

@app.route("/home")
def home():
    return render_template('home.html')

@app.route("/about")
def about():
    return render_template('about.html')

@app.route("/profiles/<username>")
def profile(username):
    return " <h1>Hello,  "+ username  +".  Welcome  to  Flask  
Programming!</h1>"

```

home.html:

```

<!DOCTYPE html>
<head>
    <title>
        Home
    </title>
    <link rel="stylesheet" href="static\css\home.css">
</head>
<body>
    <div class="titlediv">
        <h1>Home Page</h1>
    </div>
    <div class="bodydiv">
        <h3>
            This is home page for create home page assignment
        </h3>
    </div>
    
</body>
</html>

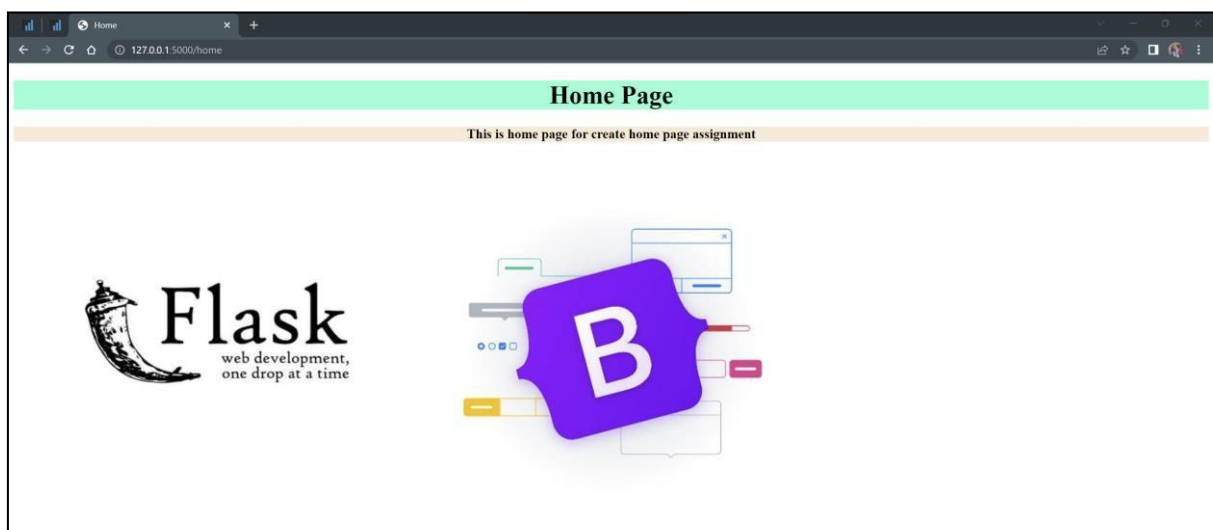
```

[about.html:](#)

```
<!DOCTYPE html>
<head>
  <title>
    About
  </title>
  <link rel="stylesheet" href="static\css\about.css">
</head>
<body>
  <div class="titlediv">
    <h1>About Page</h1>
  </div>
  <div class="bodydiv">
    <h3>
      This is about page for create about page assignment
    <br>
      This page is used to tell about the assignment that is
given to the flask
    <br>
    </h3>
  </div>
</body>
</html>
```

Output:

Home Page:



About Page:



Question-3:

Add the Bootstrap

Solution:

app.py:

```
from flask import Flask
from flask import render_template

app = Flask(__name__)

@app.route("/")
def welcome():
    return render_template("welcome.html")

@app.route("/bootstrap")
def bootstrap():
    return render_template('bootstrap.html')

@app.route("/withoutbootstrap")
def withoutbootstrap():
    return render_template('withoutbootstrap.html')
```

base.html:

```
<!DOCTYPE html>
<head>
    <meta charset="utf-8">
    <meta name="viewport" content="width=device-width, initial-
scale=1">
    <link
href="https://cdn.jsdelivr.net/npm/bootstrap@5.2.1/dist/css/bootstrap
.min.css" rel="stylesheet">
```

```

    <link
href="https://getbootstrap.com/docs/5.2/assets/css/docs.css"
rel="stylesheet">
    <script
src="https://cdn.jsdelivr.net/npm/bootstrap@5.2.1/dist/js/bootstrap.bundle.min.js"></script>
    {% block head %} {% endblock %}
</head>
<body>
    <body background="static/images/signup.png">
    <div class="shadow p-3 mb-5 rounded">
        <nav class="navbar navbar-expand-md navbar-dark bg-dark">
            <div class="container-fluid">
                <div class="navbar-collapse collapse w-100 order-1
order-md-0 dual-collapse2">
                    <ul class="navbar-nav me-auto">
                        <li class="nav-item active">
                            <a class="nav-link" href="home">Home</a>
                        </li>
                        <li class="nav-item">
                            <a class="nav-link"
href="about">About</a>
                        </li>
                    </ul>
                </div>
                <div class="mx-auto order-0">
                    <a class="navbar-brand mx-auto"
href="home">Personal Expense Tracker Application</a>
                    <button class="navbar-toggler" type="button"
data-bs-toggle="collapse" data-bs-target=".dual-collapse2">
                        <span class="navbar-toggler-icon"></span>
                    </button>
                </div>
                <div class="navbar-collapse collapse w-100 order-3
dual-collapse2">
                    <ul class="navbar-nav ms-auto">
                        <li class="nav-item">
                            <a class="nav-link"
href="signin">Login</a>
                        </li>
                        <li class="nav-item">
                            <a class="nav-link"
href="signup">Register</a>
                        </li>
                    </ul>
                </div>
            </div>
        </nav>
    </div>

```

```
        </div>
    </nav>
</div>
{% block body %} {% endblock %}
</body></html>
```

home.html:

```
{% extends "base.html" %}

{% block head %}
    <title>Home</title>
{% endblock %}

{% block body %}
    <div style="text-align:center;" >
        
    </div>
{% endblock %}
```

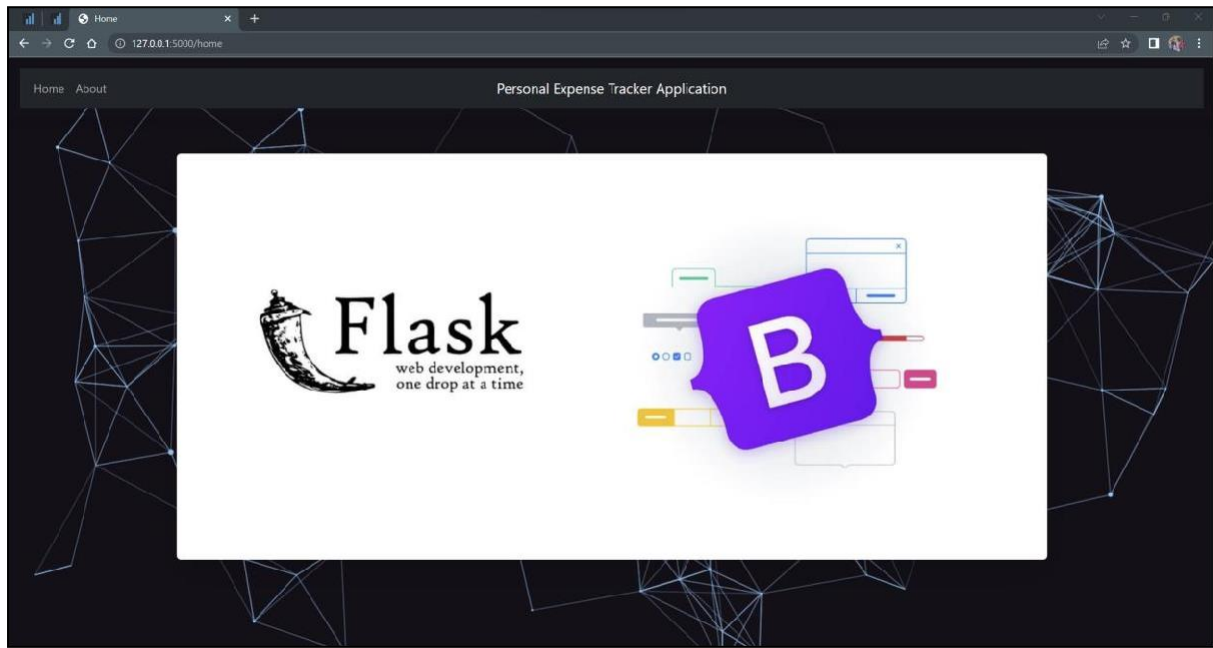
about.html:

```
{% block head %}
    <title>About</title>
{% endblock %}

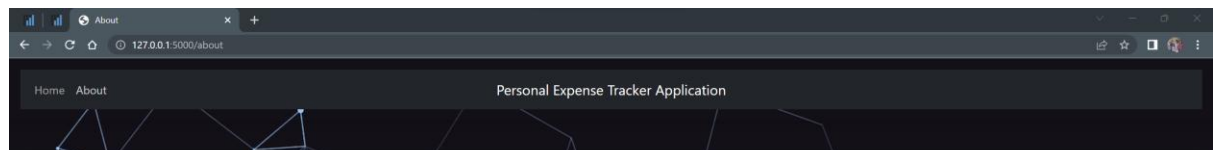
{% block body %}
    <div class="shadow-lg p-3 mb-5 bg-body rounded p-3 mx-auto">
        <h1 class="d-flex justify-content-center">About Page</h1>
        <h3>
            This is about page for create about page assignment
        <br>
            This page is used to tell about the assignment that is
given to the flask
        <br>
        </h3>
    </div>
{% endblock %}
```

Output:

Home Page:

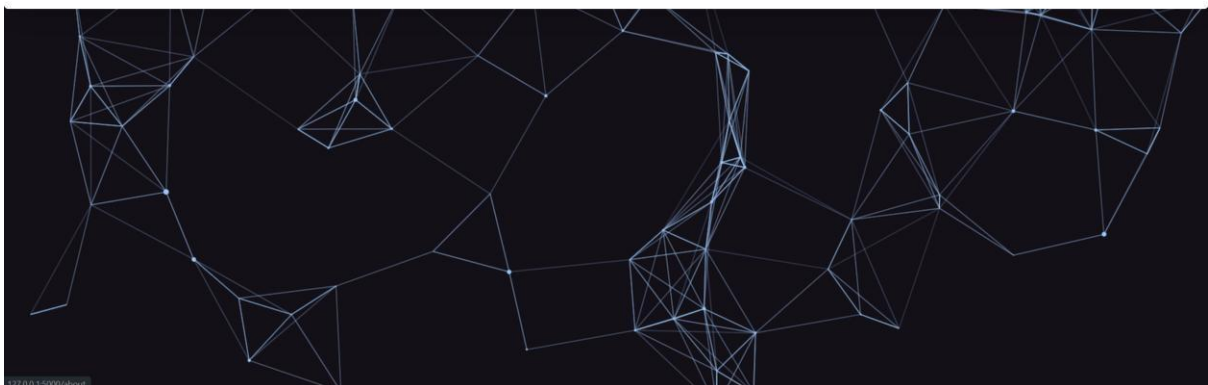


About Page:



About Page

This is about page for create about page usings Bootstrap assignment
This page is used to tell about the assignment that is given to the flask



Question-4,5:

4. Add the Sign in page and add the Signup Page with database connectivity

5. Use IBM Db2 as Database.

Solution:

app.py:

```
from flask import Flask, render_template, request, url_for, flash,
redirect
import ibm_db

app = Flask(__name__)
app.debug=True

conn = ibm_db.connect("DATABASE=bludb;HOSTNAME=ba99a9e6-d59e-4883-
8fc0-
d6a8c9f7a08f.c1ogj3sd0tgtu0lqde00.databases.appdomain.cloud;PORT=3132
1;SECURITY=SSL;SSLServerCertificate=DigiCertGlobalRootCA.crt;UID=lxy8
0423;PWD=mVc9qsjCCpp7hTCi",'','')

@app.route("/")
def base():
    return render_template("base.html")

@app.route("/home")
def home():
    return render_template("home.html")

@app.route("/signup", methods=('GET', 'POST'))
def signup():
    if request.method == 'POST':
        name = request.form['firstname']
        email = request.form['femail']
        username = request.form['username']
        mobile = request.form['mobile']
        password = request.form['password']

        sql = "SELECT * FROM users WHERE name =? and username=?"
        stmt = ibm_db.prepare(conn, sql)
        ibm_db.bind_param(stmt,1,name)
        ibm_db.bind_param(stmt,2,username)
        ibm_db.execute(stmt)
        account = ibm_db.fetch_assoc(stmt)

        if account:
```



```

        return render_template('registered.html')
    else:
        insert_sql = "INSERT INTO users VALUES (?, ?, ?, ?, ?)"
        prep_stmt = ibm_db.prepare(conn, insert_sql)
        ibm_db.bind_param(prepare_stmt, 1, name)
        ibm_db.bind_param(prepare_stmt, 2, email)
        ibm_db.bind_param(prepare_stmt, 3, username)
        ibm_db.bind_param(prepare_stmt, 4, mobile)
        ibm_db.bind_param(prepare_stmt, 5, password)
        ibm_db.execute(prepare_stmt)
        return render_template('success.html')

    return render_template('signup.html')

@app.route("/about")
def about():
    return render_template('about.html')

@app.route("/signin" , methods=('GET', 'POST'))
def signin():
    if request.method == 'POST':
        femail = request.form['femail']
        fpassword = request.form['password']

        sql = "SELECT * FROM users WHERE email =? and password=?"
        stmt = ibm_db.prepare(conn, sql)
        ibm_db.bind_param(stmt,1,femail)
        ibm_db.bind_param(stmt,2,fpassword)
        ibm_db.execute(stmt)
        account = ibm_db.fetch_assoc(stmt)

        if account:
            return render_template('loginsuccess.html')
        else:
            return render_template('loginfailure.html')
    return render_template('signin.html')

if __name__ == '__main__':
    app.run()

```

base.html:

```

<!DOCTYPE html>
<head>
    <meta charset="utf-8">

```

```

    <meta name="viewport" content="width=device-width, initial-
scale=1">
    <link
href="https://cdn.jsdelivr.net/npm/bootstrap@5.2.1/dist/css/bootstrap
.min.css" rel="stylesheet">
    <link
href="https://getbootstrap.com/docs/5.2/assets/css/docs.css"
rel="stylesheet">
    <script
src="https://cdn.jsdelivr.net/npm/bootstrap@5.2.1/dist/js/bootstrap.b
undle.min.js"></script>
    {% block head %} {% endblock %}
</head>
<body>
    <body background="static/images/signup.png">
    <div class="shadow p-3 mb-5 rounded">
        <nav class="navbar navbar-expand-md navbar-dark bg-dark">
            <div class="container-fluid">
                <div class="navbar-collapse collapse w-100 order-1
order-md-0 dual-collapse2">
                    <ul class="navbar-nav me-auto">
                        <li class="nav-item active">
                            <a class="nav-link" href="home">Home</a>
                        </li>
                        <li class="nav-item">
                            <a class="nav-link"
href="about">About</a>
                        </li>
                    </ul>
                </div>
                <div class="mx-auto order-0">
                    <a class="navbar-brand mx-auto"
href="home">Personal Expense Tracker Application</a>
                    <button class="navbar-toggler" type="button"
data-bs-toggle="collapse" data-bs-target=".dual-collapse2">
                        <span class="navbar-toggler-icon"></span>
                    </button>
                </div>
                <div class="navbar-collapse collapse w-100 order-3
dual-collapse2">
                    <ul class="navbar-nav ms-auto">
                        <li class="nav-item">
                            <a class="nav-link"
href="signin">Login</a>
                        </li>
                        <li class="nav-item">

```

```

                                <a class="nav-link"
href="signup">Register</a>
                                </li>
                                </ul>
                                </div>
                                </div>
                                </nav>
                                </div>
                                {% block body %} {% endblock %}
</body>
</html>

```

signin.html:

```

{% extends "base.html"%}

{% block head %}
    <title>Sign In</title>
    <link rel="stylesheet"
href="https://cdnjs.cloudflare.com/ajax/libs/font-
awesome/5.13.0/css/all.min.css">
{% endblock %}

{% block body %}
    <form class="row g-3 needs-validation" novalidate novalidate
action = "{{ url_for('signin') }}" method = "POST">
        <div class="w-25 p-3 mx-auto shadow-lg p-3 mb-5 bg-body
rounded">
            <div class="mb-3" name="formpad">

                <label for="femail" class="form-label">Email:
</label>

                <input type="email" class="form-control"
name="femail" placeholder="Your Email" required>
                <div class="invalid-feedback">
                    Please enter valid email
                </div><br>

                <label for="password" class="form-label">Password :
</label>

                <input type="password" class="form-control"
name="password" placeholder="Your Password" required>
                <div class="invalid-feedback">
                    Please enter your password
                </div><br>

```

```

        <div class="col-12">
            <button class="btn btn-primary"
type="submit">Login</button>
        </div>
    </div>
</div>
</form>

<script>
    (function()
    {
        'use strict';
        window.addEventListener('load', function()
        {
            var forms = document.getElementsByClassName('needs-
validation');
            var validation = Array.prototype.filter.call(forms,
function(form)
            {
                form.addEventListener('submit', function(event)
                {
                    if (form.checkValidity() === false)
                    {
                        event.preventDefault();
                        event.stopPropagation();
                    }
                    form.classList.add('was-validated');
                }, false);
            });
        }, false);
    })();
</script>
{% endblock %}

```

signup.html:

```

{% extends "base.html"%}

{% block head %}
    <title>Signup</title>
{% endblock %}

{% block body %}
    <form class="row g-3 needs-validation" novalidate action = "{{
url_for('signup') }}" method = "POST">

```

```

<div class="shadow-lg p-3 mb-5 bg-body rounded w-25 p-3
mx-auto">
    <div class="mb-3" name="formpad">
        <label for="firstname" class="form-label">Name :
    </label>
        <input type="text" class="form-control"
name="firstname" placeholder="Your Name" required>
        <div class="invalid-feedback">
            Please enter your name
        </div><br>

        <label for="femail" class="form-label">Email:
    </label>
        <input type="email" class="form-control"
name="femail" placeholder="Your Email" required>
        <div class="invalid-feedback">
            Please enter valid email
        </div><br>

        <label for="username" class="form-label">Username
: </label>
        <input type="text" class="form-control"
name="username" placeholder="Your User Name" required>
        <div class="invalid-feedback">
            Please enter your username
        </div><br>

        <label for="mobile" class="form-label">Mobile :
    </label>
        <input type="text" class="form-control"
name="mobile" placeholder="Your mobile number" required>
        <div class="invalid-feedback">
            Please enter your mobile
        </div><br>

        <label for="password" class="form-label">Password
: </label>
        <input type="password" class="form-control"
name="password" placeholder="Your Password" onkeyup='check();'
required>
        <div class="invalid-feedback">
            Please enter your password
        </div><br>

        <label for="repassword" class="form-label">Re-
type password : </label>

```

```

        <input type="password" class="form-control"
name="repassword" placeholder="Re-type your Password"
onkeyup='check();'required>
        <div class="invalid-feedback">
            Please retype your password
        </div><br>

        <div class="col-12">
            <button class="btn btn-primary" type="submit"
onclick="matchPassword()">Register</button>
        </div>
    </div>
</div>
</form>

<script>
    (function()
    {
        'use strict';
        window.addEventListener('load', function()
        {
            var forms = document.getElementsByClassName('needs-
validation');
            var validation = Array.prototype.filter.call(forms,
function(form)
            {
                form.addEventListener('submit', function(event)
                {
                    if (form.checkValidity() === false)
                    {
                        event.preventDefault();
                        event.stopPropagation();
                    }
                    form.classList.add('was-validated');
                }, false);
            });
        }, false);
    });

</script>
{% endblock %}

```

SQL Code :

```

CREATE TABLE users (
    NAME VARCHAR(255),

```

```
email VARCHAR(255),  
username VARCHAR(255),  
mobile VARCHAR(255),  
password VARCHAR(255)  
);
```

Output:

Signin Page:

The screenshot shows a web browser window with the address bar displaying "127.0.0.1:5000/signin". The page title is "Personal Expense Tracker Application". The navigation bar includes "Home", "About", "Login", and "Register". The main content area features a dark background with a white geometric pattern. A white login form is centered, containing the following fields and buttons:

- Email:
- Password:
- Login button (blue)

Signup Page:

The screenshot shows a web browser window with the address bar displaying "127.0.0.1:5000/signup". The page title is "Personal Expense Tracker Application". The navigation bar includes "Home", "About", "Login", and "Register". The main content area features a dark background with a white geometric pattern. A white registration form is centered, containing the following fields and buttons:

- Name:
- Email:
- Username:
- Mobile:
- Password:
- Re-type password:
- Register button (blue)

Database Details:

The screenshot shows the IBM Db2 on Cloud web interface. The 'Tables' tab is selected, displaying a list of tables. The 'USERS' table is highlighted. The 'Table definition' panel on the right shows the schema for the 'USERS' table.

Name	Data type	Nullable	Length	Scale
NAME	VARCHAR	Y	255	0
EMAIL	VARCHAR	Y	255	0
USERNAME	VARCHAR	Y	255	0
MOBILE	VARCHAR	Y	255	0
PASSWORD	VARCHAR	Y	255	0

Approximate 1 rows (32.0 KB)
Updated on 2022-11-31 19:09:18

view data

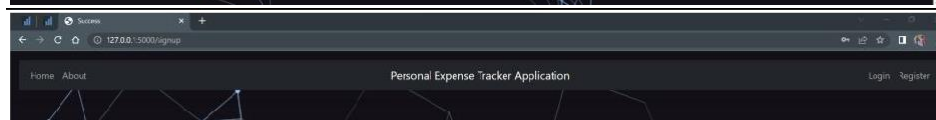
Registration Process:

If New User:

The screenshot shows the registration form in the Personal Expense Tracker Application. The form is titled 'Personal Expense Tracker Application' and has a 'Login Register' link in the top right corner. The form fields are:

- Name: Prem Kashyap Chalakamarthi
- Email: nmami3008@gmail.com
- Username: Prem0046
- Mobile: 96686454
- Password: *****
- Re-type password: *****

A 'Register' button is located at the bottom of the form.



Registration successful...
Proceed to Login Page to signin



If already registered User:

The image shows two screenshots of a web application. The top screenshot is the registration page, titled "Personal Expense Tracker Application". It features a dark background with a white geometric pattern. A white registration form is centered, containing fields for Name, Email, Username, Mobile, Password, and Re-type password, along with a "Register" button. The bottom screenshot shows a confirmation message: "Already Registered..... Proceed to Login Page to sign in" with a dark background and the same white geometric pattern.

Personal Expense Tracker Application

Home About Login Register

Name :
Prem Kasyap Chalakamarthi

Email:
nmmani3008@gmail.com

Username :
Prem0046

Mobile :
96686454

Password :

Re-type password :

Register

Already Registered.....
Proceed to Login Page to sign in

Login Process:

If already registered User:

The image shows a screenshot of the login page, titled "Personal Expense Tracker Application". It features a dark background with a white geometric pattern. A white login form is centered, containing fields for Email and Password, along with a "Login" button.

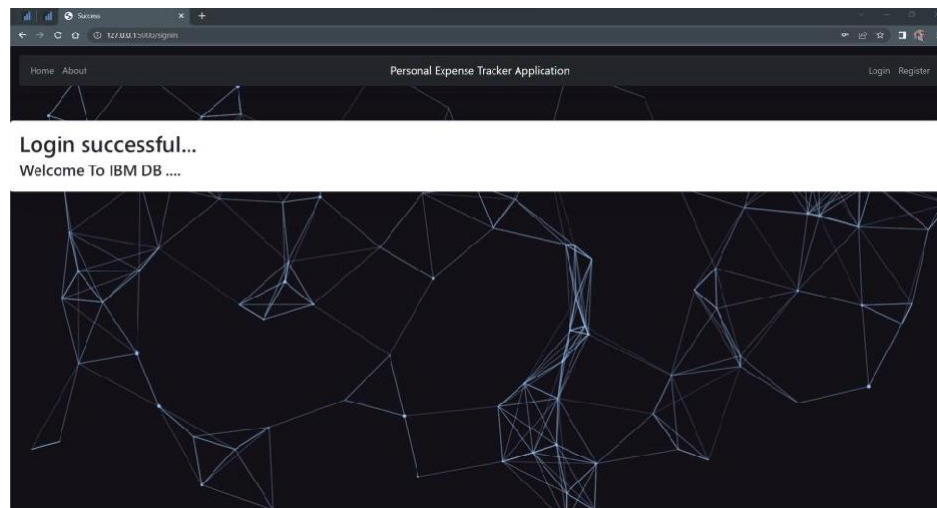
Personal Expense Tracker Application

Home About Login Register

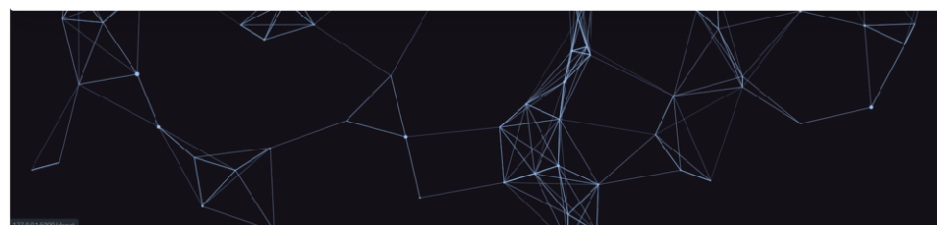
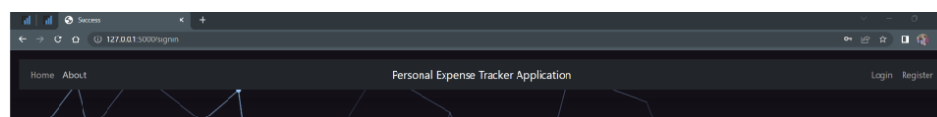
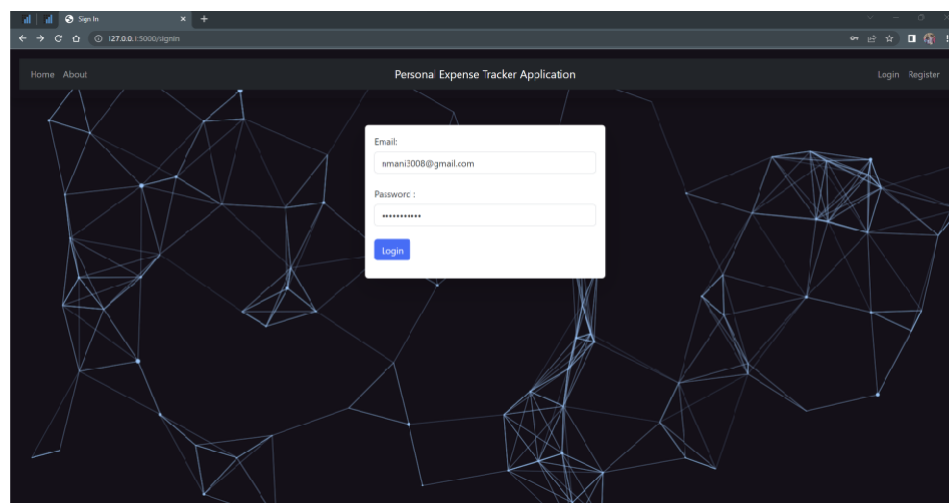
Email:
nmmani3008@gmail.com

Password :

Login



If Not Registered or Invalid Credentials:



Some User Deatails in IBM-db2:

IBM Db2 on Cloud

Load DataLoad HistoryTablesViewsIndexesAliasesMQIsSequencesApplication objects

LXY80423.USERS

Back

Export to CSV

NAME	EMAIL	USERNAME	MOBILE	PASSWORD
Dinosh Kumar	Dkkumar@gmail.com	Dinosh_445	669788796	sdfsf
Nivin	Amxia@gmail.com	Aroia_3243	5677699	cofractff
Prem Kashyap Chilikamarthi	amari3008@gmail.com	Frem0046	96686454	retene'tawr
Sai	sai@gmail.com	Sai_123	456748	sdfsf
prem	hello@gmail.com	Fre#4	453452	sfa