

Implementing Web Application

Team ID	PNT2022TMID46366
Project Name	News Tracker Application

Create UI To Interact With Application:

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```
from flask import Flask, render_template, request
import ibm_db
import bcrypt
from dotenv import load_dotenv
import os
```

```
load_dotenv()
```

```
db = os.getenv("DATABASE")
host = os.getenv("HOSTNAME")
port = os.getenv("PORT")
sslcrt = os.getenv("SSLServerCertificate")
userId = os.getenv("UID")
password = os.getenv("PWD")
print(db,port)
```

```
conn =
```

```
ibm_db.connect(f'DATABASE={db};HOSTNAME={host};PORT={p
```

```
ort};SECURITY=SSL;SSLServerCertificate={sslcert};UID={userId};P  
WD={password}',",")
```

```
app = Flask(__name__)
```

```
@app.route('/')
```

```
def index():
```

```
    return render_template('index.html', title='Home')
```

```
@app.route('/about')
```

```
def about():
```

```
    return render_template('about.html', title='About')
```

```
@app.route('/signin', methods=['GET', 'POST'])
```

```
def signin():
```

```
    if request.method == 'POST':
```

```
        email = request.form['email']
```

```
        pwd = request.form['password']
```

```
        sql = "SELECT password FROM users WHERE email =?"
```

```
        stmt = ibm_db.prepare(conn, sql)
```

```
        ibm_db.bind_param(stmt, 1, email)
```

```
        ibm_db.execute(stmt)
```

```
        auth_token = ibm_db.fetch_assoc(stmt)
```

```
        print("auth",auth_token)
```

```
        if auth_token:
```

```

# encoding user password
userBytes = pwd.encode('utf-8')
byte_pwd = bytes(auth_token['PASSWORD'], 'utf-8')

# checking password
result = bcrypt.checkpw(userBytes, byte_pwd)

if result:
    print("succ")
    return render_template('index.html', succ="Logged in
Successfully")
else:
    return render_template('signin.html', fail="Invalid
Credentials")
else:
    return render_template('signup.html', fail="User doesn't
exist, Please Register using your details!")
else:
    return render_template('signin.html', title='Sign In')

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

        sql = "SELECT * FROM users WHERE email =?"
        stmt = ibm_db.prepare(conn, sql)

```

```
ibm_db.bind_param(stmt,1,email)
ibm_db.execute(stmt)
account = ibm_db.fetch_assoc(stmt)

# converting password to array of bytes
bytes = password.encode('utf-8')

# generating the salt
salt = bcrypt.gensalt()

# Hashing the password
hashed_password = bcrypt.hashpw(bytes, salt)

password = hashed_password

if account:
    return render_template('signin.html', msg="You are
already a member, please login using your details")
else:
    insert_sql = "INSERT INTO users (username, password,
name, email) VALUES (?, ?, ?, ?)"
    prep_stmt = ibm_db.prepare(conn, insert_sql)
    ibm_db.bind_param(prepare_stmt, 1, username)
    ibm_db.bind_param(prepare_stmt, 2, password)
    ibm_db.bind_param(prepare_stmt, 3, name)
    ibm_db.bind_param(prepare_stmt, 4, email)
    ibm_db.execute(prepare_stmt)

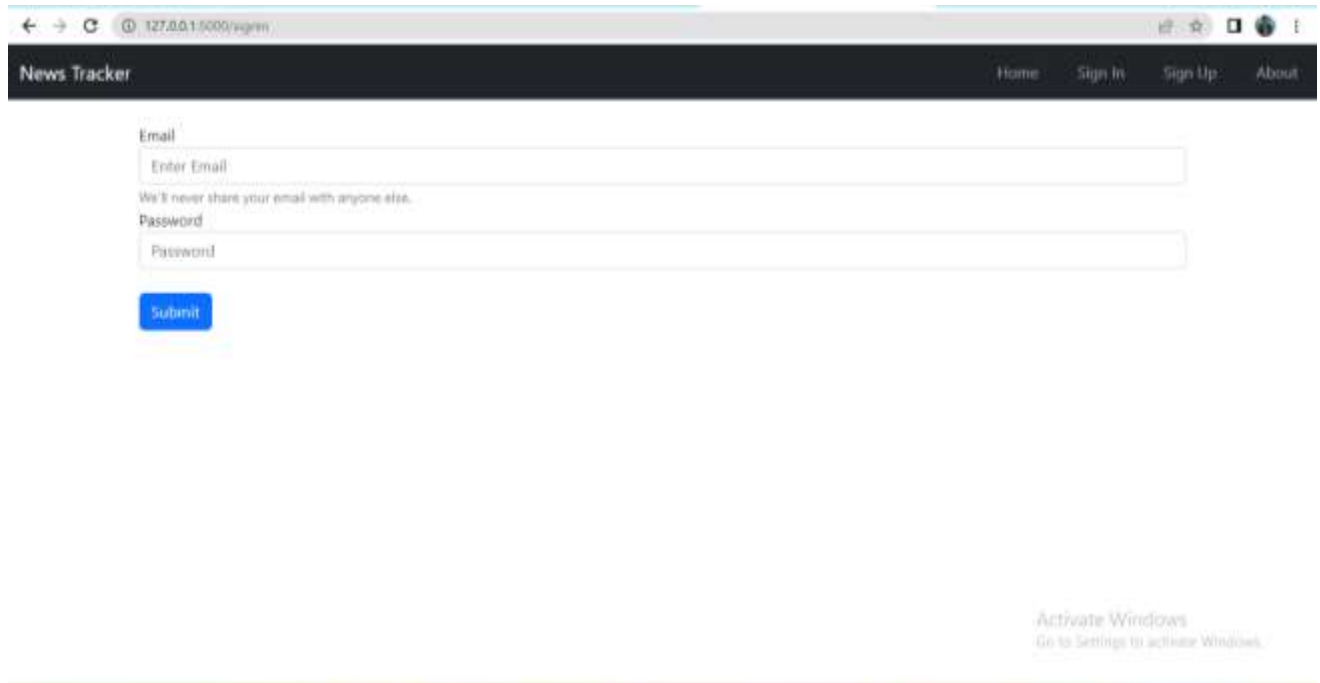
    return render_template('index.html', title="Home",
succ="Registration Successfull!")
```

```
return render_template('signup.html', title='Sign Up')
```

```
if __name__ == "__main__":  
    app.run(debug=True)
```

Outputs:

Login:



The screenshot shows a web browser window with the address bar displaying '127.0.0.1:5000/signup'. The page title is 'News Tracker'. The navigation bar includes links for 'Home', 'Sign In', 'Sign Up', and 'About'. The main content area features a login form with the following elements:

- An 'Email' label above a text input field containing the placeholder text 'Enter Email'.
- A message below the email field: 'We'll never share your email with anyone else.'
- A 'Password' label above a text input field containing the placeholder text 'Password'.
- A blue 'Submit' button located below the password field.

At the bottom right of the page, there is a watermark that reads 'Activate Windows' and 'Go to Settings to activate Windows.'

Register:

The screenshot shows a web browser window with the address bar displaying "127.0.0.1:5000/signup". The page has a dark header with the text "News Tracker" on the left and navigation links "Home", "Sign In", "Sign Up", and "About" on the right. The main content area contains a registration form with the following fields and labels:

- Name:** A text input field containing "John Doe". Below the field is the placeholder text "Enter your name."
- Username:** A text input field containing "Your Username:". Below the field is the text "We'll never share your username with anyone else."
- Email:** A text input field containing "abc@mail.com". Below the field is the text "Enter your email. Your data is secure!"
- Password:** A text input field containing "Password".

Below the password field is a blue button labeled "Sign Up".

In the bottom right corner of the page, there is a "Activate Windows" watermark with the text "Go to Settings to activate Windows."

The browser's address bar at the bottom shows "127.0.0.1:5000/signup".