

Assignment-2

Project Domain	Cloud Application Development
Project Title	News Tracker Application
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Date	03rd Oct 2022

Questions:

1. Create registration page in html with username, email, and phone number and by using POST method display it in next html page.
2. Develop a flask program which should contain at least 5 packages used from pypi.org.
3. Create User table with user with email, username, roll number, password.
4. Perform UPDATE, DELETE Queries with user table
5. Connect python code to db2.
6. Create a flask app with registration page, login page and welcome page. By default, load the registration page once the user enters all the fields store the data in database and navigate to login page authenticate user username and password. If the user is valid show the welcome page.

Answers:

1. Create registration page in html with username, email, and phone number and by using POST method display it in next html page.

Login.html:

```
<html>
<body>
    <center>
        <form action = "http://localhost:3890/login" method = "post">
            <h1>
                Enter user Name:<input type = "text" name = "userName"/><br><br>
                Enter Email-id:<input type = "text" name = "emailId"/><br><br>
                Enter Phone Number:<input type = "text" name =
"phoneNumber"/><br><br>
                <input type = "submit" value = "SUBMIT"/>
            </h1>
        </form>
```

```
</center>
</body>
</html>
```

Sample.py:

```
from flask import Flask, redirect, url_for, request
app = Flask(__name__)
```

```
@app.route('/login', methods=['POST'])
def login():
```

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

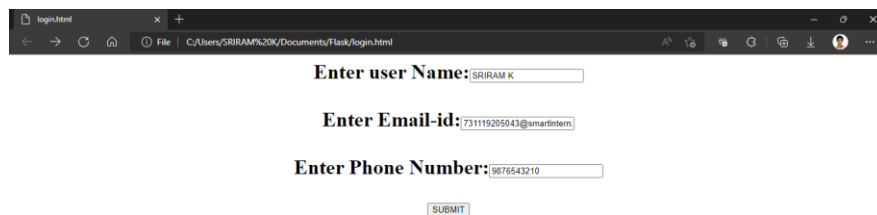
```
        user_name = request.form['userName']
```

```
        email_id = request.form['emailId']
```

```
        phone_number = request.form['phoneNumber']
```

```
        return ' {}'.format("<center><h1>Your user name is:
",user_name,"</h1><br><br><h2>Your email-id is: ",email_id,"</h2><br><br><h3>Your
phone number is: ",phone_number,"</h3></center>")
```

```
if __name__ == '__main__':
    app.run('127.0.0.1',3890)
```



A screenshot of a web browser window displaying a login form. The browser's address bar shows the file path 'C:/Users/SRIRAMK/20K/Documents/Flask/login.html'. The form contains three input fields: 'Enter user Name:' with the value 'SRIRAM K', 'Enter Email-id:' with the value '731119205043@smartinternz', and 'Enter Phone Number:' with the value '9876543210'. Below these fields is a 'SUBMIT' button.



A screenshot of a web browser window displaying the success message after login. The browser's address bar shows 'localhost:3890/login'. The message displayed is: 'Your user name is: SRIRAM K', 'Your email-id is: 731119205043@smartinternz.com', and 'Your phone number is: 9876543210'.



A screenshot of a Windows taskbar at the bottom of the screen, showing various application icons and the system clock indicating 08:45 PM on 06-11-2022.

2. Develop a flask program which should contain at least 5 packages used from pypi.org.

Packages used:

Flask, emoji, matplotlib, numpy, translate, googlesearch

Packages.py:

```
from flask import Flask
from emoji import emojiize
import matplotlib.pyplot as plt
import numpy as np
from translate import Translator
from googlesearch import search

app=Flask(__name__)

@app.route('/')
def login():
    emojione=("Thumbs up emoji using the package emoji:"+emojiize(":thumbs_up:"))

    x = [1,2,3]
    y = [2,4,1]
    plt.plot(x, y)
    plt.xlabel('x - axis')
    plt.ylabel('y - axis')
    plt.title('Using Matplotlib')
    plt.show()
    a = np.array([0, np.pi/2, np.pi])

    translator= Translator(to_lang="ta")
    translation = ("English to Tamil translation using the package
translate:"+translator.translate("How are you?"))

    query = "IBM Cloud"
    tmp=search(query, tld="co.in", num=10, stop=10, pause=2)
    res=[]
    for i in tmp:
        res.append(i+"\n")

    return
("<center>"+"<h1>"+emojione+"</br></br></br>"+translation+"</br></br></br>"+str(np.
sin(a))+"</h1></br></br></br>"+str(res)+"</center>")

if __name__ == '__main__':
    app.run('127.0.0.1',3898,debug=True)
```

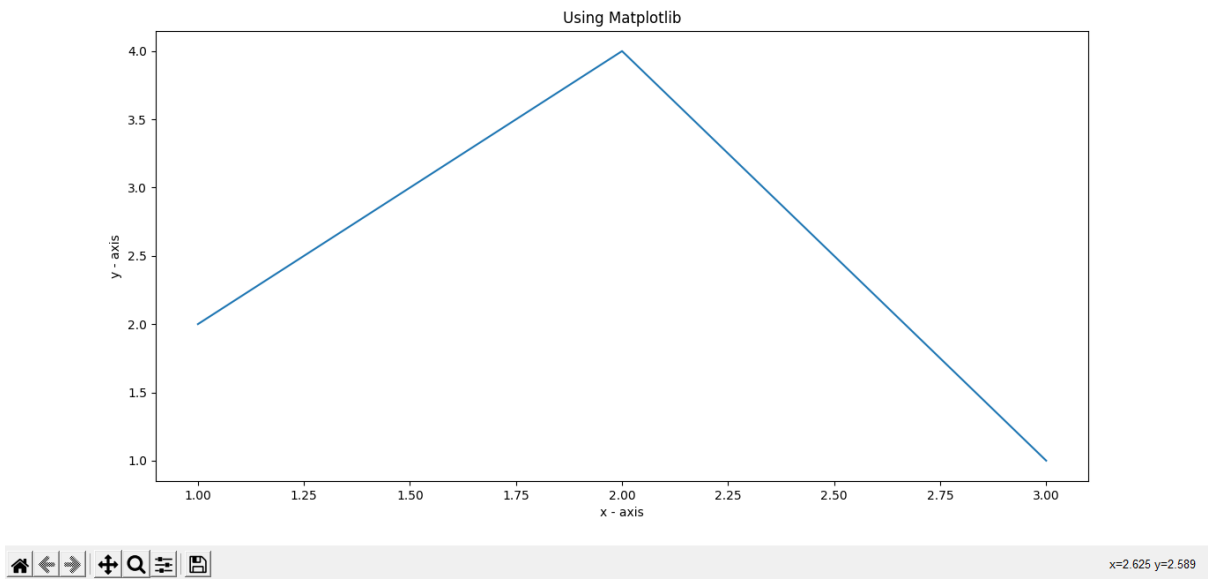


Thumbs up emoji using the package emoji: 🍑

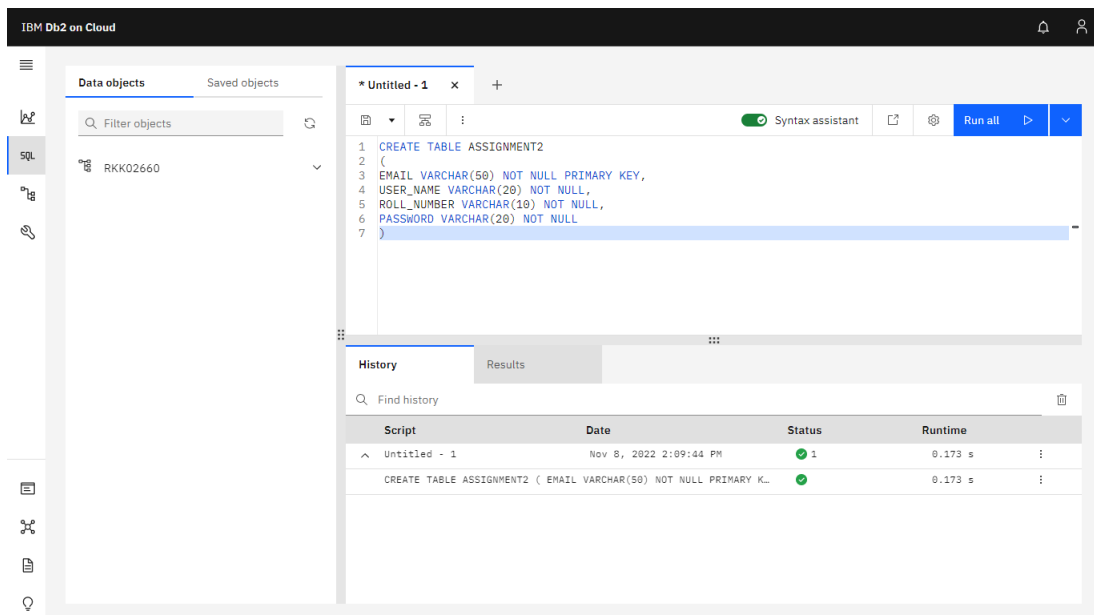
English to Tamil translation using the package translate:எப்படி இருக்கிறீங்க?

[0.0000000e+00 1.0000000e+00 1.2246468e-16]

[<https://www.ibm.com/in-en/cloud/n>, <https://cloud.ibm.com/n>, <https://www.ibm.com/cloud/n>, <https://cloud.ibm.com/registration/n>, <https://cloud.ibm.com/developer/watson/n>, <https://cloud.ibm.com/docs/cloud-shell?topic=cloud-shell-getting-started/n>, <https://www.ibm.com/cloud/free/n>, <https://cloud.ibm.com/catalog/n>, <https://www.ibm.com/cloud/why-ibm/n>, <https://www.ibm.com/products/cloud-pak-for-data/n>]



3.Create User table with user with email, username, roll number, password.



IBM Db2 on Cloud

Load DataLoad History**Tables**ViewsIndexesAliasesMQTsWithoutSequencesApplication objects

Find schemas or tables

Refresh

Schemas

Tables

New table

<input type="checkbox"/>	Name	Schema	Properties
<input type="checkbox"/>	ASSIGNMENT2	RKK02660	...

Total: 1, selected: 0

Table definition

ASSIGNMENT2

No statistics available.

Name	Data type	Nullable	Length	Scale	
EMAIL	VARCHAR	N	50	0	
USER_NAME	VARCHAR	N	20	0	
ROLL_NUMBER	VARCHAR	N	10	0	
PASSWORD	VARCHAR	N	20	0	

View data

IBM Db2 on Cloud

Data objectsSaved objects

Filter objects

RKK02660

*Untitled - 1

Syntax assistant

Run all

```
1 INSERT INTO ASSIGNMENT2 VALUES
2 (
3 '731119205043@smartinternz.com',
4 'smartsriram',
5 '19INT43',
6 'Sriram@123'
7 )
```

History

Results

Find history

Script	Date	Status	Runtime	
Untitled - 1	Nov 8, 2022 2:13:18 PM	✓ 1	0.007 s	
INSERT INTO ASSIGNMENT2 VALUES ('731119205043@smartinternz.com...		✓	0.007 s	

IBM Db2 on Cloud

Load Data

Load History

Tables

Views

Indexes

Aliases

MQTs

Sequences

Application objects

RKK02660.ASSIGNMENT2

Back

Export to CSV

EMAIL	USER_NAME	ROLL_NUMBER	PASSWORD
731119205043@smartinternz.com	smartsriram	19IMT43	Sriram@123

4.Perform UPDATE, DELETE Queries with user table

IBM Db2 on Cloud

Data objects

Saved objects

Filter objects

RKK02660

*Untitled - 1

+

Syntax assistant

Run all

```

1 UPDATE ASSIGNMENT2
2 SET ROLL_NUMBER='19IMT40',PASSWORD='HeroSanthosh'
3 WHERE USER_NAME='smartsriram';

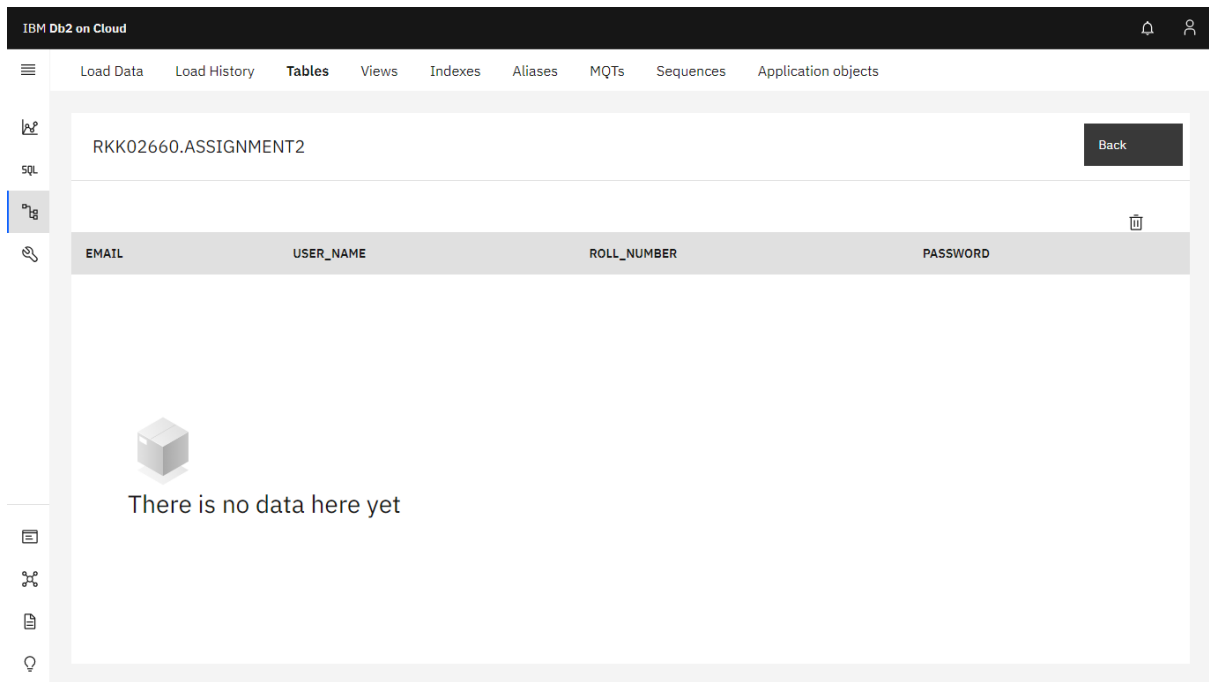
```

History

Results

Find history

Script	Date	Status	Runtime
Untitled - 1	Nov 8, 2022 2:27:25 PM	1	0.009 s
UPDATE ASSIGNMENT2 SET ROLL_NUMBER='19IMT40',PASSWORD='HeroSanthosh...			0.009 s



5. Connect python code to db2.

6. Create a flask app with registration page, login page and welcome page. By default, load the registration page once the user enters all the fields store the data in database and navigate to login page authenticate user username and password. If the user is valid show the welcome page

login.html:

```
<html>
<body>
  <center>
    <form action = "http://localhost:3899/login" method = "post">
      <h1>
        Enter user Name:<input type = "text" name =
"username" required /><br><br>
        Enter Password:<input type = "text" name =
"password"/><br><br>
        <input type = "submit" value = "SUBMIT"
name="submit"/><br><br>
        <a href="/regis">Click here to register</a>
      </h1>
    </form>
  </center>
</body>
```



```
</html>
```

register.html:

```
<html>
<body>
    <center>
        <form action = "http://localhost:3899/register" method = "post">
            <h1>
                Enter user Name:<input type = "text" name =
"username" required /><br><br>
                Enter Email:<input type = "text" name =
"email"/><br><br>
                Enter Password:<input type = "text" name =
"password"/><br><br>
                <input type = "submit" value = "SUBMIT"/>
            </h1>
        </form>
    </center>
</body>
</html>
```

welcome.html:

```
<html>
<body>
    <center>
        
    </center>
</body>
</html>
```

app.py:

```
from flask import Flask,render_template,request,redirect,url_for,session
import ibm_db
import re
app=Flask(__name__)
app.secret_key = 'abc'
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=*
*****;PWD=*****",'','') #Answer for Question(5)

@app.route('/')

```

```

def home():
    return render_template('login.html')

@app.route('/regis')
def regis():
    return render_template('register.html')

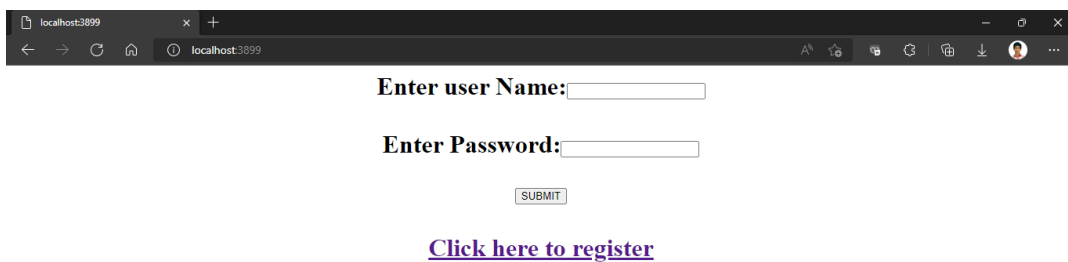
@app.route('/login',methods=['GET','POST'])
def login():
    global userid
    msg=' '
    if request.method=='POST':
        username = request.form['username']
        password = request.form['password']
        sql = "SELECT * FROM User WHERE username = ? AND password =
?"
        stmt = ibm_db.prepare(conn,sql)
        ibm_db.bind_param(stmt,1,username)
        ibm_db.bind_param(stmt,2,password)
        ibm_db.execute(stmt)
        account = ibm_db.fetch_assoc(stmt)
        print(account)
        if account:
            msg='Logged in successfully!'
            return render_template('welcome.html',msg=msg)
        else:
            return render_template('login.html')

@app.route('/register',methods=['GET','POST'])
def register():
    if request.method=='POST':
        username = request.form['username']
        email = request.form['email']
        password = request.form['password']
        sql = "SELECT * FROM User WHERE username = ?"
        stmt = ibm_db.prepare(conn,sql)
        ibm_db.bind_param(stmt,1,username)
        ibm_db.execute(stmt)
        account = ibm_db.fetch_assoc(stmt)
        print(account)
        if account:
            return '{}'.format("Account already exist!")
        else:

```

```
insert_sql="INSERT INTO user VALUES(?, ?, ?)"
prep_stmt=ibm_db.prepare(conn,insert_sql)
ibm_db.bind_param(prepare_stmt,1,username)
ibm_db.bind_param(prepare_stmt,2,email)
ibm_db.bind_param(prepare_stmt,3,password)
ibm_db.execute(prepare_stmt)
msg="You have successfully registered"
return render_template('login.html',msg=msg)
```

```
if __name__ == '__main__':
    app.run('127.0.0.1',3899)
```

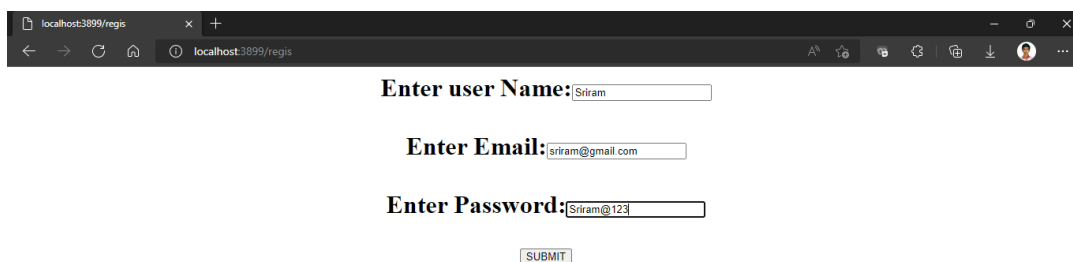
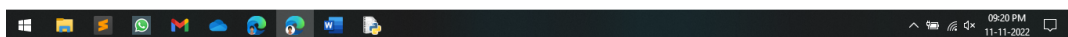


localhost:3899

Enter user Name:

Enter Password:

[Click here to register](#)



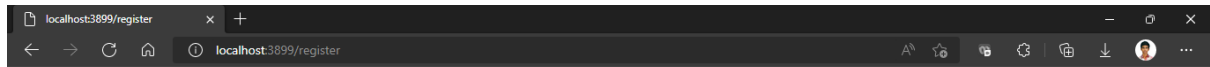
localhost:3899/regist

Enter user Name:

Enter Email:

Enter Password:

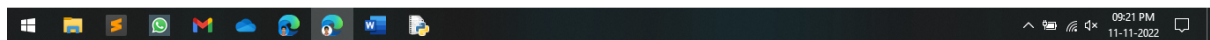




Enter user Name:

Enter Password:

[Click here to register](#)



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IBM Db2 on Cloud

Load DataLoad History**Tables**ViewsIndexesAliasesMQTsSequencesApplication objects

Find schemas or tables

Refresh

SQL

Schemas

Tables

Tables

New table +

Filter

Sort

More

Close

<input type="checkbox"/>	Name	Schema	Properties
<input type="checkbox"/>	ASSIGNMENT2	RKK02660	...
<input type="checkbox"/>	USER	RKK02660	...

Total: 2, selected: 0

Table definition

Close

USER

No statistics available.

Name	Data type	Nullable	Length	Scale	
USERNAME	VARCHAR	Y	32	0	
EMAIL	VARCHAR	Y	32	0	
PASSWORD	VARCHAR	Y	32	0	

View data

IBM Db2 on Cloud

Load DataLoad History**Tables**ViewsIndexesAliasesMQTsSequencesApplication objects

RKK02660.USER

Back

Export to CSV

USERNAME	EMAIL	PASSWORD
Sriram	sriram@gmail.com	Sriram@123
bharani	bharani@gmail.com	Bharani
qew	as	sdadf
