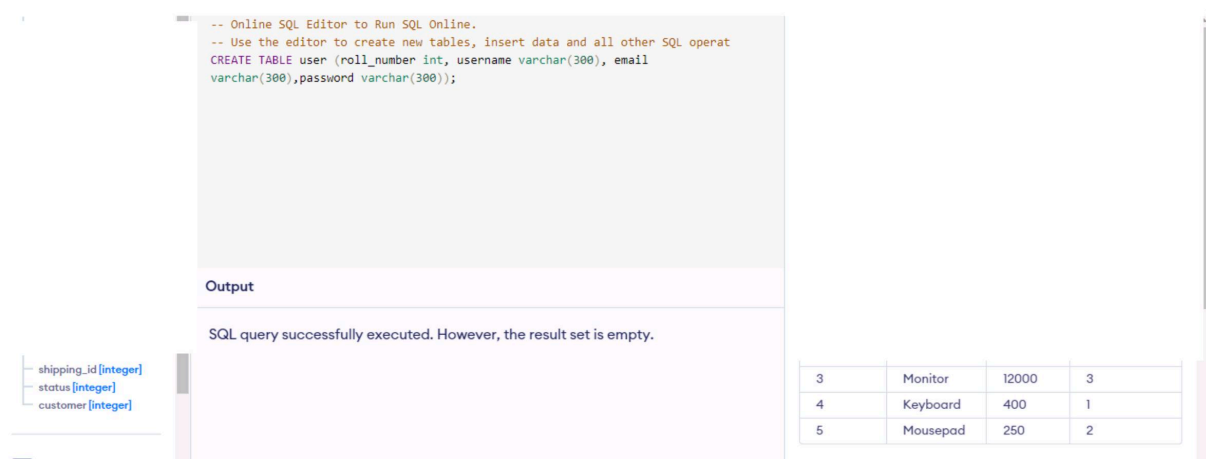


1.Create user table with user with email, username, roll number, password

```
CREATE TABLE user (  
roll_number int,  
username varchar(300),  
email varchar(300),  
password varchar(300) );
```



The screenshot shows an online SQL editor interface. The top section contains the SQL query: `-- Online SQL Editor to Run SQL Online.
-- Use the editor to create new tables, insert data and all other SQL operat
CREATE TABLE user (roll_number int, username varchar(300), email
varchar(300),password varchar(300));`. The bottom section, labeled 'Output', displays the message: 'SQL query successfully executed. However, the result set is empty.' To the left of the editor, there is a sidebar with a tree view showing database objects: 'shipping_id [integer]', 'status [integer]', and 'customer [integer]'. To the right of the editor, there is a table with 4 columns and 3 rows of data:

3	Monitor	12000	3
4	Keyboard	400	1
5	Mousepad	250	2

2.Perform UPDATE, DELETE Queries with user table

INSERT Statement:

```
INSERT INTO user  
( roll_number, username ,email, password) VALUES  
'Amrisha', 'amrisha@gmail.com','amrisha16'),  
(2, 'Aileen', 'aileen.com','aileen10'),  
(3, 'Akshay', 'akshay@gmail.com','akshay12'),  
(4, 'Simon', 'simon@gmail.com','simon123');
```



The screenshot shows an online SQL editor interface. The top section contains the SQL query: `INSERT INTO user(roll_number, username ,email, password) VALUES(1, 'Amrisha', 'amrisha@gmail.com','amrisha16'),(2,
'Aileen', 'aileen.com','aileen10'),(3, 'Akshay', 'akshay@gmail.com','akshay12'),(4, 'Simon',
'simon@gmail.com','simon123');`. The bottom section, labeled 'Output', displays the message: 'SQL query successfully executed. However, the result set is empty.' To the right of the editor, there is a table titled 'User' with 4 columns: 'roll_number', 'username', 'email', and 'password'. The table contains 4 rows of data:

roll_number	username	email	password
1	Amrisha	amrisha@gmail.com	amrisha16
2	Aileen	aileen.com	aileen10
3	Akshay	akshay@gmail.com	akshay12
4	Simon	simon@gmail.com	simon123

UPDATE Statement:

UPDATE users

SET username = 'Amrisha'

WHERE roll_number = '2'

```
INSERT INTO user(roll_number, username ,email, password) VALUES(1, 'Amrisha', 'amrisha@gmail.com','amrisha16'),(2, 'Aileen', 'aileen.com','aileen10'),(3, 'Akshay', 'akshay@gmail.com','akshay12'),(4, 'Simon', 'simon@gmail.com','simon123');
UPDATE user
SET username = 'Amrisha'
WHERE roll_number = '2'
```

Output

SQL query successfully executed. However, the result set is empty.

User			
roll_number	username	email	password
1	Amrisha	amrisha@gmail.com	amrisha16
2	Amrisha	aileen.com	aileen10
3	Akshay	akshay@gmail.com	akshay12
4	Simon	simon@gmail.com	simon123

Insert Statement:

insert into users values(5,'aa','aaa@gmail.com','aasdfg2');

```
INSERT INTO user(roll_number, username ,email, password) VALUES(1, 'Amrisha', 'amrisha@gmail.com','amrisha16'),(2, 'Aileen', 'aileen.com','aileen10'),(3, 'Akshay', 'akshay@gmail.com','akshay12'),(4, 'Simon', 'simon@gmail.com','simon123');
UPDATE user
SET username = 'Amrisha'
WHERE roll_number = '2';
insert into user values(5,'aa','aaa@gmail.com','aasdfg2');
```

Output

SQL query successfully executed. However, the result set is empty.

1	Amrisha	amrisha@gmail.com	amrisha16
2	Amrisha	aileen.com	aileen10
3	Akshay	akshay@gmail.com	akshay12
4	Simon	simon@gmail.com	simon123
5	aa	aaa@gmail.com	aasdfg2
1	Amrisha	amrisha@gmail.com	amrisha16
2	Amrisha	aileen.com	aileen10
3	Akshay	akshay@gmail.com	akshay12
4	Simon	simon@gmail.com	simon123
5	aa	aaa@gmail.com	aasdfg2

DELETE Statement:

delete from users where roll_number='5'

```
INSERT INTO user(roll_number, username, email, password) VALUES(1, 'Amrisha', 'amrisha@gmail.com', 'amrisha16'), (2, 'Aileen', 'aileen.com', 'aileen10'), (3, 'Akshay', 'akshay@gmail.com', 'akshay12'), (4, 'Simon', 'simon@gmail.com', 'simon123');
UPDATE user
SET username = 'Amrisha'
WHERE roll_number = '2';
insert into user values(5, 'aa', 'aaa@gmail.com', 'aasdfg2');
delete from user where roll_number='5';
```

Output

SQL query successfully executed. However, the result set is empty.

roll_number	username	email	password
1	Amrisha	amrisha@gmail.com	amrisha16
2	Amrisha	aileen.com	aileen10
3	Akshay	akshay@gmail.com	akshay12
4	Simon	simon@gmail.com	simon123

1	Amrisha	amrisha@gmail.com	amrisha16
2	Amrisha	aileen.com	aileen10
3	Akshay	akshay@gmail.com	akshay12
4	Simon	simon@gmail.com	simon123
1	Amrisha	amrisha@gmail.com	amrisha16

3.Connect python with db2

```
conn = ibm_db.connect("DATABASE=bludb;HOSTNAME=824dfd4d-99de-440d9991-
```

```
629c01b3832d.bs2io90l08kqb1od8lcg.databases.appdomain.cloud;PORT=30119;SECURITY=SSL
```

```
;SSLServerCertificate=DigiCertGlobalRootCA.crt;UID=lvq43963;PWD=BsnsG1l2s BglRhVN";')
```

4.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.

```
from flask import Flask, render_template, request, redirect, url_for, session
from flask_mysql import MySQL
import MySQLdb.cursors
import reapp = Flask(__name__)
app.secret_key = 'your secret key'
app.config['MYSQL_HOST'] = 'localhost'
app.config['MYSQL_USER'] = 'root'
app.config['MYSQL_PASSWORD'] = 'your password'
app.config['MYSQL_DB'] = 'geeklogin'
mysql = MySQL(app)
@app.route('/')
@app.route('/login', methods=['GET', 'POST'])
def login():
    msg = "if request.method == 'POST' and 'username' in request.form and 'password' in request.form:
        username = request.form['username']
        password = request.form['password']
        cursor = mysql.connection.cursor(MySQLdb.cursors.DictCursor)
        cursor.execute('SELECT * FROM accounts WHERE username = % s AND password
= % s', (username, password, ))
        account = cursor.fetchone()
        if account:
            session['loggedin'] = True
            session['id'] = account['id']
            session['username'] = account['username']
            msg = 'Logged in successfully !'
            return render_template('index.html', msg = msg)
        else:
            msg = 'Incorrect username / password !'
    return render_template('login.html', msg = msg)

@app.route('/logout')
def logout():
    session.pop('loggedin', None)
    session.pop('id', None)
    session.pop('username', None)
```

```

return redirect(url_for('login'))
@app.route('/register', methods=['GET', 'POST'])
def register():
    msg = ""
    if request.method == 'POST' and 'username' in request.form and 'password' in request.form and
    'email' in request.form :
        username = request.form['username']
        password = request.form['password']
        email = request.form['email']
        cursor = mysql.connection.cursor(MySQLdb.cursors.DictCursor)
        cursor.execute('SELECT * FROM accounts WHERE username = % s', (username, ))
        account = cursor.fetchone()
        if account:
            msg = 'Account already exists !'
        elif not re.match(r'^@]+@^[^@]+\.[^@]+', email):
            msg = 'Invalid email address !'
        elif not re.match(r'[A-Za-z0-9]+', username):
            msg = 'Username must contain only characters and numbers !'
        elif not username or not password or not email:
            msg = 'Please fill out the form !'
        else:
            cursor.execute('INSERT INTO accounts VALUES (NULL, % s, % s, % s)', (username,
password, email, ))
            mysql.connection.commit()
            msg = 'You have successfully registered !'
        elif request.method == 'POST':
            msg = 'Please fill out the form!'
    return render_template('register.html', msg = msg)

```

Register

Enter Your Username

Enter Your Password

Enter Your Email ID

Sign Up

Already have an account? [Sign In here](#)

Login

Enter Your Username

Enter Your Password

Sign In

Don't have an account? [Sign Up here](#)

Index

Hi user!!

Welcome to the index page...

Logout