

ASSIGNMENT 2

Assignment Date	15.11.2022
Student Name	Bava Rohith M
Student Roll Number	913019104006
Maximum Marks	2 Marks

QUESTION:

1.Create a Flask App :

```
from turtle import st
from flask import Flask, render_template, request, redirect, url_for, session
from markupsafe import escape

app = Flask(__name__)

import ibm_db

hostname = "2d46b6b4-cbf6-40eb-bbce-6251e6ba0300.bs2io90l08kqblod8lcg.databases.appdomain.cloud"
uid = "rqd39090"
pwd = "rJSVLAsw5oJ6QcO2"
driver = "{IBM DB2 ODBC DRIVER}"
db = "bludb"
port = "32328"
protocol = "TCPIP"
cert = "abc.crt"

dsn = (
    "DATABASE={0};"
    "HOSTNAME={1};"
    "PORT={2};"
    "UID={3};"
    "SECURITY=SSL;"
    "SSLServerCertificate={4};"
    "PWD={5};"
).format(db, hostname, port, uid, cert, pwd)
print(dsn)
try:
    db2 = ibm_db.connect(dsn, "", "")
    print("Connected to data base")
except:
    print("Unable to connect", ibm_db.conn_errormsg())

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

@app.route("/signin")
```

```

def signin():
    return render_template('signin.html')

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

@app.route('/register', methods=['POST', 'GET'])
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(db2, sql)
        ibm_db.bind_param(stmt, 1, username)
        ibm_db.execute(stmt)
        account = ibm_db.fetch_assoc(stmt)

        if account:
            return render_template('signup.html', msg="Username Already
Taken")
        else:
            sql = "insert into user(username,email,password)
values(?,?,?)"
            prep_stmt = ibm_db.prepare(db2, 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)
            return redirect(url_for('signin'))

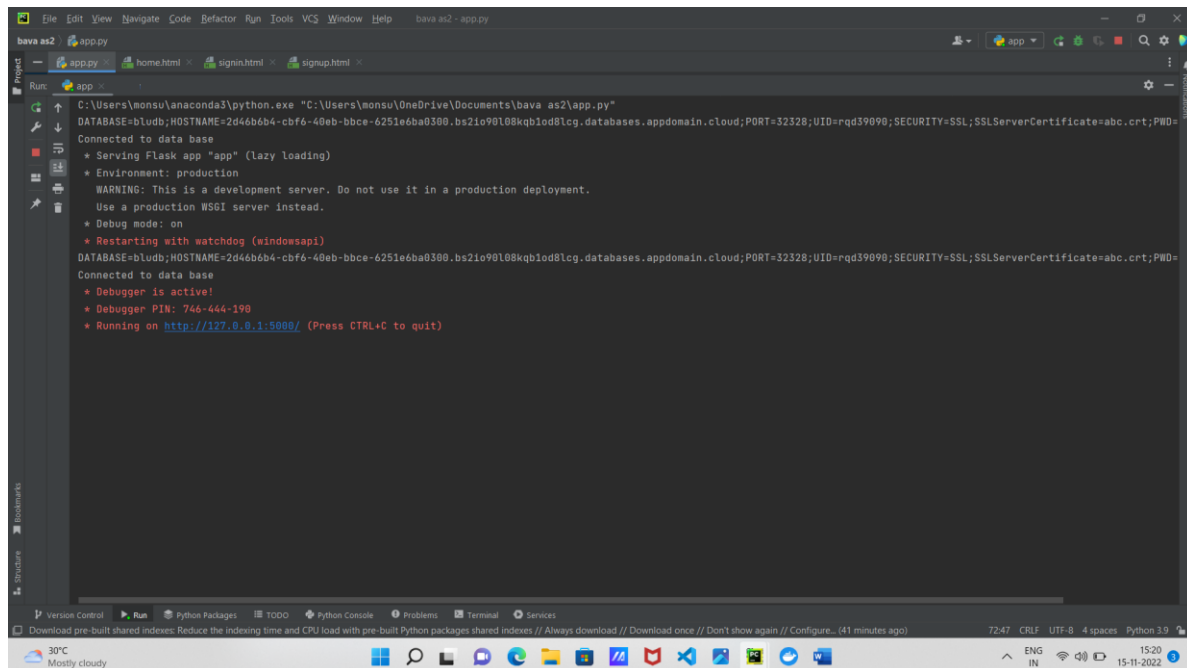
@app.route('/login', methods=['POST', 'GET'])
def login():
    if request.method == 'POST':
        username = request.form['username']
        password = request.form['password']
        sql = "select * from user where username=? and password=?"
        stmt = ibm_db.prepare(db2, sql)
        ibm_db.bind_param(stmt, 1, username)
        ibm_db.bind_param(stmt, 2, password)
        ibm_db.execute(stmt)
        dic = ibm_db.fetch_assoc(stmt)
        print(dic)
        if dic:
            return render_template('home.html', msg="WELCOME TO FLASK
APPLICATION")
        else:
            msg = "Invalid Username or Password"
            return render_template('signin.html', msg=msg)

    elif request.method == 'GET':
        msg = "Invalid Username or Password"
        return render_template('signin.html', msg=msg)

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

```

OUTPUT :



```
File Edit View Navigate Code Refactor Run Tools VCS Window Help bava as2 - app.py
bava as2 app.py
Project app.py home.html sign.html sign.html
Run app
C:\Users\monsu\anaconda3\python.exe "C:\Users\monsu\OneDrive\Documents\bava as2\app.py"
DATABASE=bludb;HOSTNAME=2d46b6b4-cbf6-40eb-bbce-6251e6ba0300.bs21e90108kqb1od8lcg.databases.appdomain.cloud;PORT=32328;UID=rqd39090;SECURITY=SSL;SSLServerCertificate=abc.crt;PWD=
Connected to data base
* Serving Flask app "app" (lazy loading)
* Environment: production
WARNING: This is a development server. Do not use it in a production deployment.
Use a production WSGI server instead.
* Debug mode: on
* Restarting with watchdog (windowsapi)
DATABASE=bludb;HOSTNAME=2d46b6b4-cbf6-40eb-bbce-6251e6ba0300.bs21e90108kqb1od8lcg.databases.appdomain.cloud;PORT=32328;UID=rqd39090;SECURITY=SSL;SSLServerCertificate=abc.crt;PWD=
Connected to data base
* Debugger is active!
* Debugger PIN: 746-444-190
* Running on http://127.0.0.1:5000/ (Press CTRL+C to quit)
```

2. ADD THE HOME AND ABOUT PAGE :

```
<html>

<head>

<link
href="https://cdn.jsdelivr.net/npm/bootstrap@5.2.2/dist/css/bootstrap.min.
css" rel="stylesheet" integrity="sha384-
Zenh87qX5JnK2Jl0vWa8Ck2rdkQ2Bzep5IDxbcnCeuOxjzrPF/et3URy9Bv1WTRi"
crossorigin="anonymous">
<script
src="https://cdn.jsdelivr.net/npm/bootstrap@5.2.2/dist/js/bootstrap.bundle
.min.js" integrity="sha384-
OERcA2EqjJCMA+/3y+gxIOqMEjwtxJY7qPCqsdltbNJuaOe923+mo//f6V8Qbsw3"
crossorigin="anonymous"></script>

<script
src="https://cdn.jsdelivr.net/npm/@popperjs/core@2.11.6/dist/umd/popper.mi
n.js" integrity="sha384-
oBqDVmMz9ATKxIep9tiCxsS/Z9fnfEXiDAYTujMAeBAsjFuCZSmKbSSUnQlhm/jp3"
crossorigin="anonymous"></script>
<script
src="https://cdn.jsdelivr.net/npm/bootstrap@5.2.2/dist/js/bootstrap.min.js
" integrity="sha384-
IDwel+LCz02ROU9k972gdyvl+AESN10+x7tBKgc9I5HFtuNz0wWnPclzo6p9vxnk"
crossorigin="anonymous"></script>

</head>

<style>
    body
```

```

        {
            background-image: linear-gradient( 109.6deg, rgb(4, 57, 192) 11.2%,
rgb(7, 225, 249) 91.1% );

        }

    </style>
<body>

    <nav class="navbar sticky-top bg-light">
        <div class="container-fluid">
            <a class="navbar-brand" href="#">Flask Application</a>
        </div>
    </nav>
    <div class="container text-center">
        <div class="row">
            <div class="col">

                <h1 style="font-family:cooper black ; color:rgb(1, 24,
45);margin-top: 200px;">FLASK APPLICATION</h1>{{msg}}
            </div>

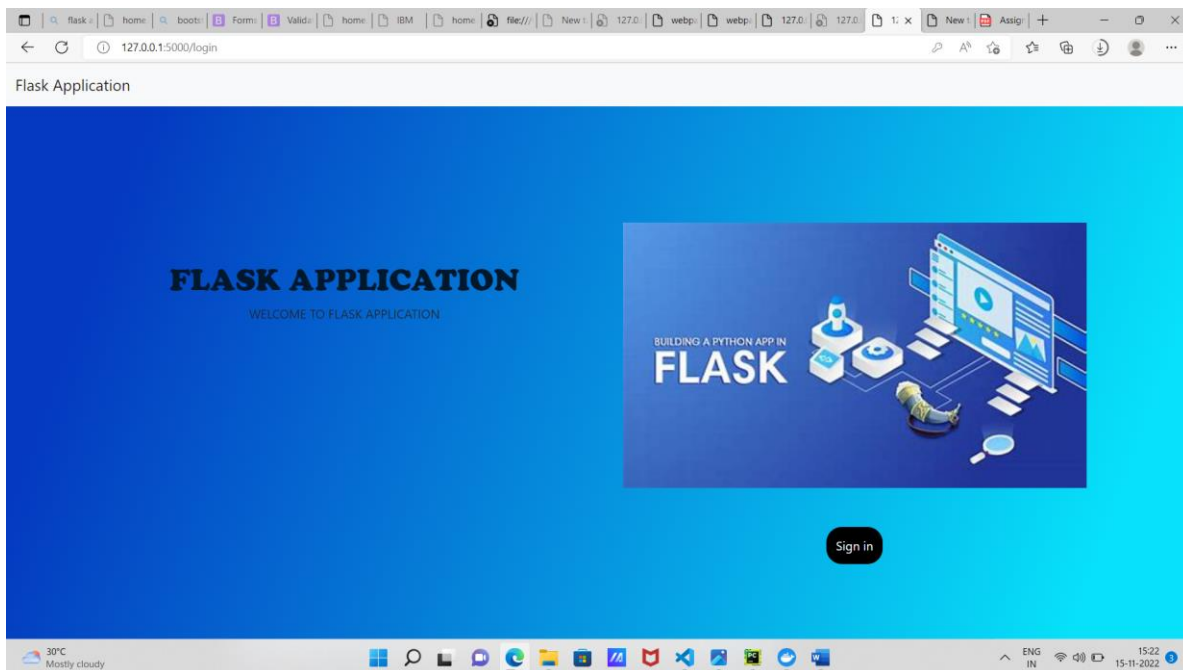
            <div class="col">
                {% block content %}
                 <br>
                <a href="/signin">
                    <input type="submit" value="Sign in" style="margin-top:
50px; background-color: black; color: aliceblue; padding: 10px; border-
radius: 20px;">
                </a>
                <!-- <a href="templates\signin.html" class="btn btn-dark btn-
lg" style=" font-family: 'Zilla Slab', serif; ">SIGN IN</a>-->
            </div>

            {% endblock %}
        </div>

</body>
</html>

```

OUTPUT :



3.ADD THE BOOTSTRAP :

```
<head>

<link
href="https://cdn.jsdelivr.net/npm/bootstrap@5.2.2/dist/css/bootstrap.min.
css" rel="stylesheet" integrity="sha384-
Zenh87qX5JnK2Jl0vWa8Ck2rdkQ2Bzep5IDxbcnCeuOxjzrPF/et3URy9Bv1WTRi"
crossorigin="anonymous">
<script
src="https://cdn.jsdelivr.net/npm/bootstrap@5.2.2/dist/js/bootstrap.bundle
.min.js" integrity="sha384-
OERcA2EqjJCMA+/3y+gxIOqMEjwtxJY7qPCqsdltbNJuaOe923+mo//f6V8Qbsw3"
crossorigin="anonymous"></script>

<script
src="https://cdn.jsdelivr.net/npm/@popperjs/core@2.11.6/dist/umd/popper.mi
n.js" integrity="sha384-
oBqDVmMz9ATKxIep9tiCxs/Z9fnfEXiDAYTujMAeBAsjFuCZSmKbSSUnQlmh/jp3"
crossorigin="anonymous"></script>
<script
src="https://cdn.jsdelivr.net/npm/bootstrap@5.2.2/dist/js/bootstrap.min.js
" integrity="sha384-
IDwe1+LCz02ROU9k972gdyvl+AESN10+x7tBKgc9I5HFtuNz0wWnPclzo6p9vxnk"
crossorigin="anonymous"></script>

</head>
```

4.SIGN IN PAGE :

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

{% block content %}
<form action="/login" method="post" style="margin-top:200px; background-
image:linear-gradient(to right,silver,lightblue); width:fit-content;
padding:20px; ">
<div class="row g-3 align-items-center">
  <div class="col-auto">
    <label for="Username" class="col-form-label">Username</label>
  </div>
  <div class="col-auto">
    <input type="text" name="username" id="username" class="form-control"
  >
  </div>

<div class="row g-3 align-items-center">
  <div class="col-auto">
    <label for="inputPassword6" class="col-form-label">Password</label>
  </div>
  <div class="col-auto">
    <input type="password" id="inputPassword6" class="form-control"
name="password">

  </div>

      <input type="submit" value="Sign in" style="margin-top:
50px; background-color: black; color: aliceblue; padding: 10px; border-
radius: 20px;">

      <h6>Don't have an account? <a href="/signup">Register Now</a> </h6>
</div></div><br></form>

{% endblock %}
```

```
{% block content %}

<hr>

<center>

    <form class="was-validated" action = "{{ url_for('log_in') }}" method = "POST">
        <div style="background-image: linear-gradient(to right,black,white,silver,black); width:fit-content;
borderradius: 30px; margin:50px;">
<div style="padding:30px;">

        <h2 style="font-family:fajita; color:black; background-image: linear-gradient(to right, blue,skyblue,blue);
padding: 15px; width: fit-content; border-radius: 30px;">Log in</h2>

        <br>

        <div class="col">
            <div class="badge bg-primary text-wrap" style="width: 8rem; padding-top: 10px;">

                <label for="username" class="form-label">Username </label>
                </div>
                <font color="white">:</font>

                <input type="text" class="col" placeholder="Enter a Username" name="username">

            </div>

            <br>

            <div class="col">
                <div class="badge bg-primary text-wrap" style="width: 8rem; padding-top: 10px;">

                    <label for="Email" class="form-label">Password </label>
</div>
                <font color="white">:</font>

                <input type="text" class="col" placeholder="Enter Password" name="password">

            </div>

        </div>

    </form>

</center>

</div>
```

```

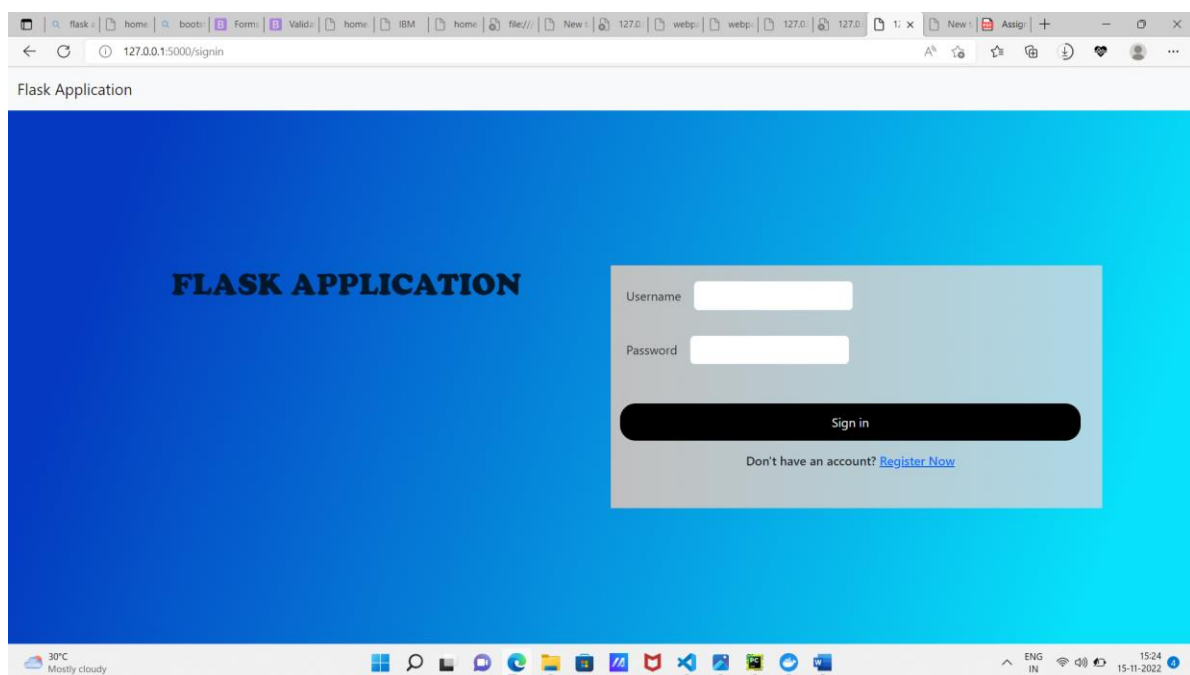
    </div><h6 style="color:black; padding-top:20px;">{{ msg }}</h6>
<br>
    <div class="col-12">
        <button class="btn btn-primary" type="submit">Submit </button>
    </div><br>
    <h5 style="font-style: italic;color:black; ">Already have an account? <a href="{{ url_for('signup') }}"
style="text-decoration: none; font-style: italic;color:black; font-family:times new roman; ">sign up</a></h5>
    </div>

</div>

</center>
</form>
{% endblock %}

```

OUTPUT :



5.SIGN UP PAGE :

```

{% extends 'home.html' %}

{% block content %}
<form action="/register" method="post" style="margin-top:200px;
background-image:linear-gradient(to right,silver,lightblue); width:fit-
content; padding:20px; ">

```



```

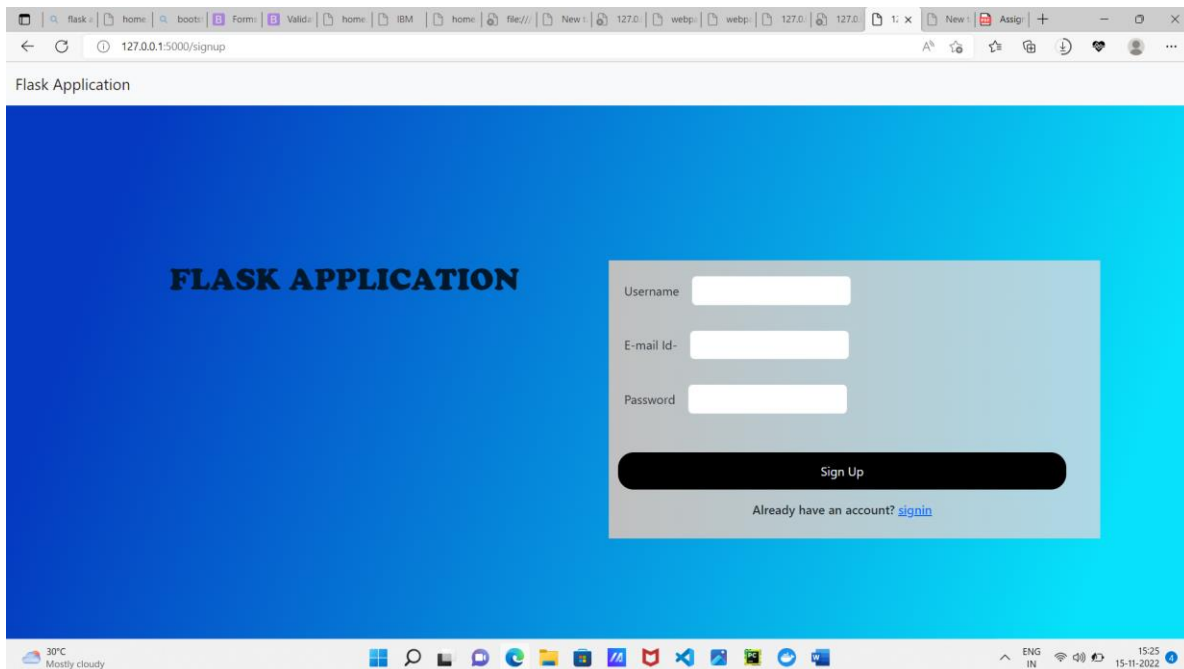
<div class="row g-3 align-items-center">
  <div class="col-auto">
    <label for="Username" class="col-form-label">Username</label>
  </div>
  <div class="col-auto">
    <input type="text" name="username" id="username" class="form-control"
  >
  </div>

  <div class="row g-3 align-items-center">
<div class="col-auto">
  <label for="email" class="col-form-label">E-mail Id</label>
</div>
<div class="col-auto">
  <input type="text" name="email" id="email" class="form-control" >
</div>

<div class="row g-3 align-items-center">
  <div class="col-auto">
    <label for="inputPassword6" class="col-form-label">Password</label>
  </div>
  <div class="col-auto">
    <input type="password" id="inputPassword6" class="form-control"
name="password">
  </div>

```

OUTPUT :



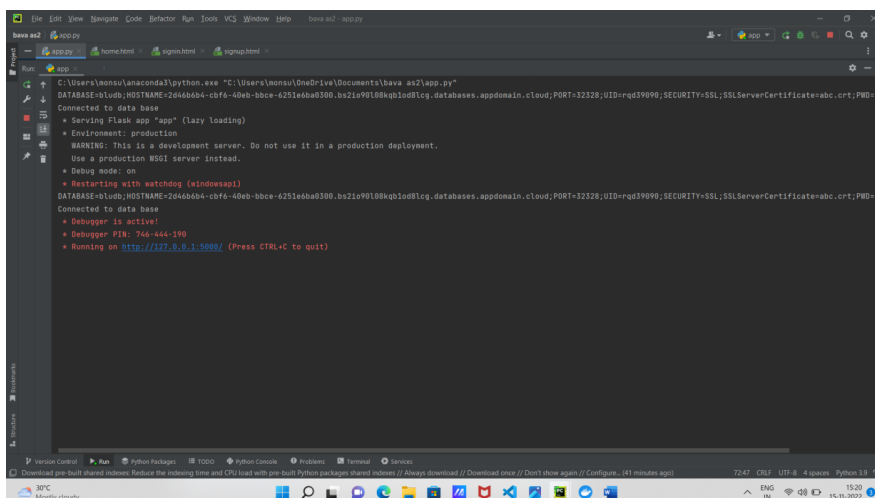
5.DATABASE CONNECTIVITY :

```
import ibm_db

hostname = "2d46b6b4-cbf6-40eb-bbce-6251e6ba0300.bs2io90108kqb1od8lcg.databases.appdomain.cloud"
uid = "rqd39090"
pwd = "rJSVLAsw5oJ6QcO2"
driver = "{IBM DB2 ODBC DRIVER}"
db = "bludb"
port = "32328"
protocol = "TCPIP"
cert = "abc.crt"

dsn = (
    "DATABASE={0};"
    "HOSTNAME={1};"
    "PORT={2};"
    "UID={3};"
    "SECURITY=SSL;"
    "SSLServerCertificate={4};"
    "PWD={5};"
).format(db, hostname, port, uid, cert, pwd)
print(dsn)
try:
    db2 = ibm_db.connect(dsn, "", "")
    print("Connected to data base")
except:
    print("Unable to connect", ibm_db.conn_errormsg())
```

OUTPUT :



```
File Edit View Navigate Code Refactor Run Tools Window Help View: 1024 - 1000%
bava as2 app.py
Project: bava as2
  app.py
  home.html
  signup.html
  signup.html
File Edit View
Run: app.py
C:\Users\monsu\anaconda3\python.exe "C:\Users\monsu\OneDrive\Documents\bava as2\app.py"
Connected to data base
  • Serving Flask app "app" (lazy loading)
  • Environment: production
  WARNING: This is a development server. Do not use it in a production deployment.
  Use a production WSGI server instead.
  • Debug mode: on
  • Restarting with watchdog (win32api)
  DATABASE=bludb;HOSTNAME=2d46b6b4-cbf6-40eb-bbce-6251e6ba0300.bs2io90108kqb1od8lcg.databases.appdomain.cloud;PORT=32328;UID=rqd39090;SECURITY=SSL;SSLServerCertificate=abc.crt;PWD=
Connected to data base
  • Debugger is active!
  • Debugger PID: 746-644-390
  • Running on http://127.0.0.1:5000/ (Press CTRL+C to quit)
Python 3.8
72.47° C 50% UTM-8 4 GB RAM Python 3.8
30°C Mostly cloudy 15:20 15-11-2022
```

DATABASE LIST :

The screenshot displays the IBM Db2 on Cloud console interface. The top navigation bar includes tabs for Load Data, Load History, Tables, Views, Indexes, Aliases, MQTs, Sequences, and Application objects. The 'Tables' tab is currently selected. On the left sidebar, there are icons for SQL, a database icon, and a document icon. The main content area shows the 'RQD39090.USER' database. Below the database name, there is a table listing users. The table has three columns: USERNAME, EMAIL, and PASSWORD. The data rows are as follows:

USERNAME	EMAIL	PASSWORD
Admin	bavarohith001@gmail.com	12345
bava	bava@123	12345
bava@123	bava@123	12345
bavarohith001@gmail.com	bavarohith001@gmail.com	12345
umar	monsumar123@gmail.com	12345

At the top right of the table, there is a 'Back' button and an 'Export to CSV' button. The bottom of the screen shows a Windows taskbar with various application icons and a system tray indicating the temperature is 30°C and the weather is mostly cloudy.