IMPLEMENTING WEB APPLICATION

Create IBM DB2 and Connect with Python

Team ID	PNT2022TMID22144
Project Name	Skill Based Job Recommender Application

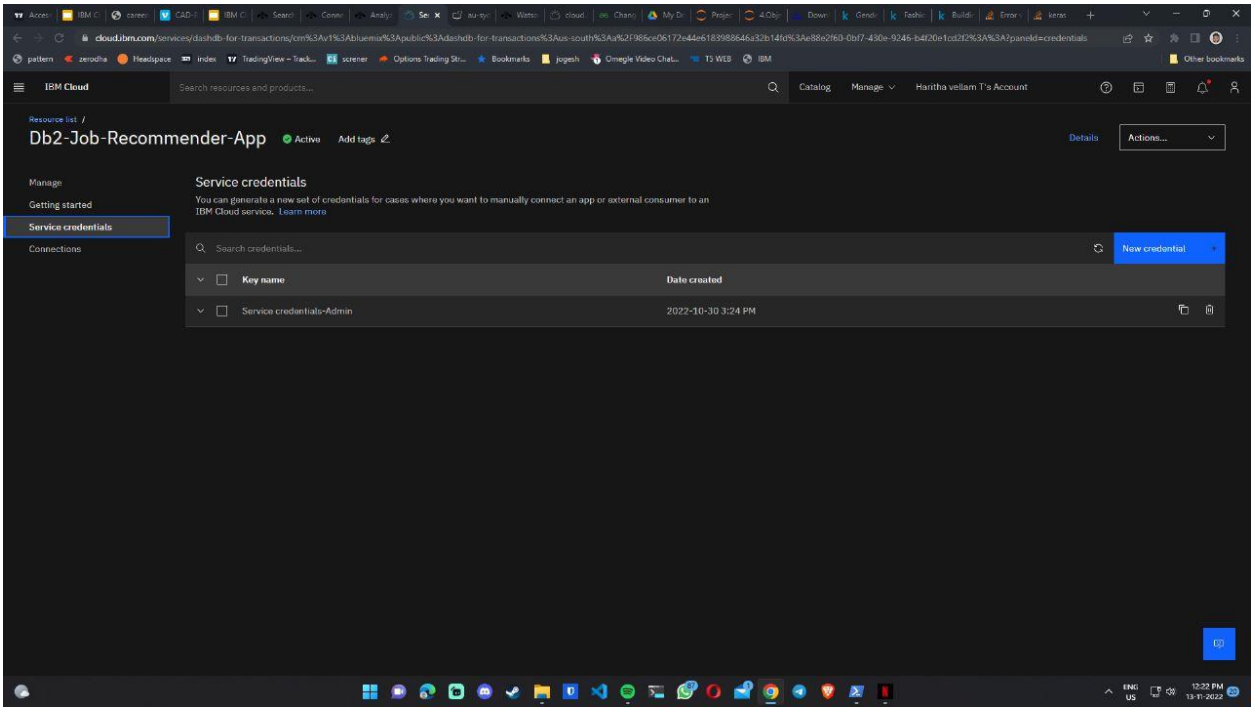
Code:

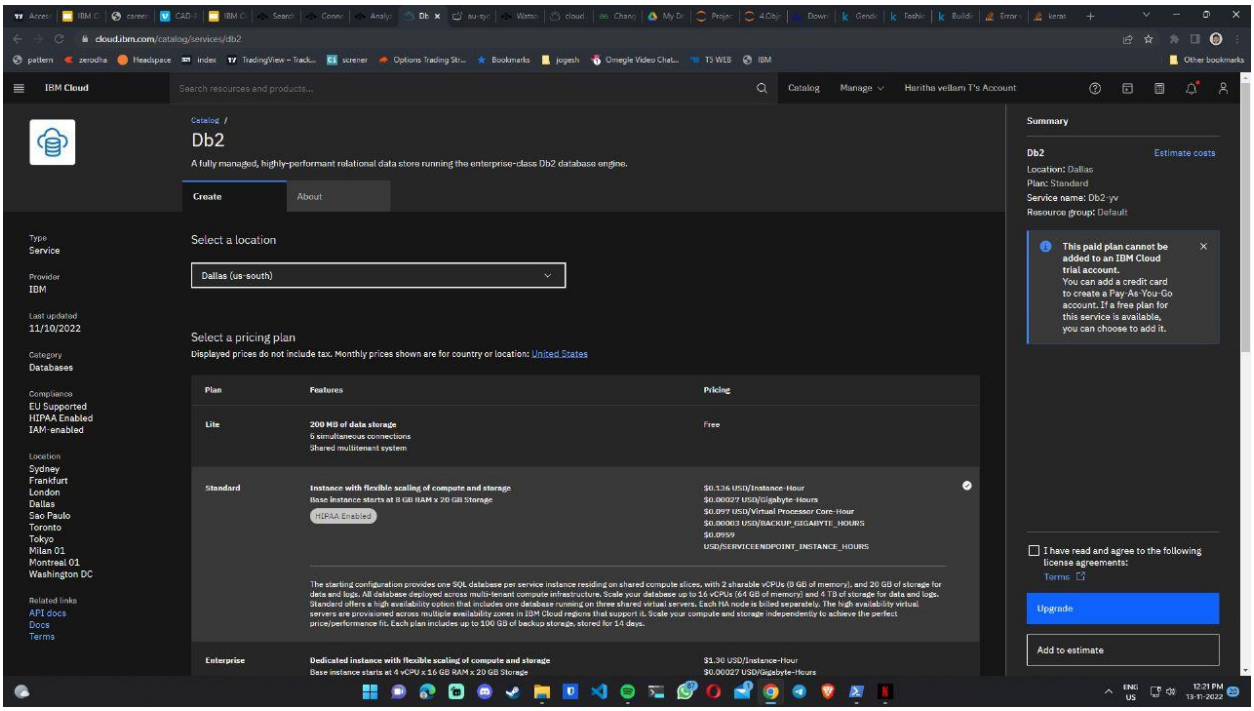
```
import Flask, render_template, request, redirect, url_for, session

import ibm_db
import bcrypt
conn =
ibm_db.connect("DATABASE=bludb;HOSTNAME=;PORT=;SECURITY=SSL;SSLServerCertificate=
DigiCertGlobalRootCA.crt;UID=;PWD=",'','')


# url_for('static', filename='style.css')

app = Flask(_name_)
app.secret_key = b'_5#y2L"F4Q8z\n\xec]/'


@app.route("/",methods=['GET'])
def home():
    if 'email' not in session:
      return redirect(url_for('login'))
    return render_template('home.html',name='Home')

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

    if not email or not username or not rollNo or not password:
      return render_template('register.html',error='Please fill all fields')

    hash=bcrypt.hashpw(password.encode('utf-8'),bcrypt.gensalt())
```

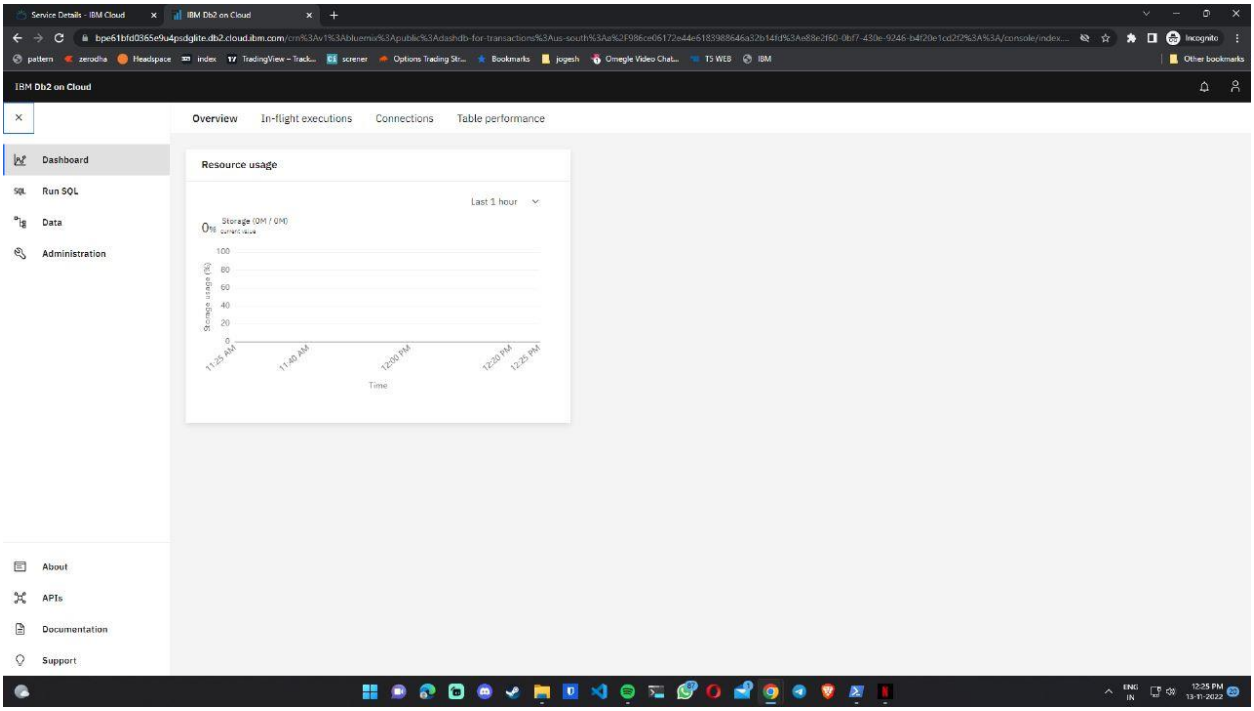
```
    query = "SELECT * FROM USER WHERE email=? OR rollNo=?"
    stmt = ibm_db.prepare(conn, query)
    ibm_db.bind_param(stmt,1,email)
    ibm_db.bind_param(stmt,2,rollNo)
    ibm_db.execute(stmt)
    isUser = ibm_db.fetch_assoc(stmt)

    if not isUser:
      insert_sql = "INSERT INTO User(username,email,PASSWORD,rollNo) VALUES
(?,?,?,?)"
      prep_stmt = ibm_db.prepare(conn, insert_sql)
      ibm_db.bind_param(prep_stmt, 1, username)
      ibm_db.bind_param(prep_stmt, 2, email)
      ibm_db.bind_param(prep_stmt, 3, hash)
      ibm_db.bind_param(prep_stmt, 4, rollNo)
      ibm_db.execute(prep_stmt)
      return render_template('register.html',success="You can login")
    else:
      return render_template('register.html',error='Invalid Credentials')

  return render_template('register.html',name='Home')

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

      if not email or not password:
        return render_template('login.html',error='Please fill all fields')
      query = "SELECT * FROM USER WHERE email=?"
      stmt = ibm_db.prepare(conn, query)
      ibm_db.bind_param(stmt,1,email)
      ibm_db.execute(stmt)
      isUser = ibm_db.fetch_assoc(stmt)
      print(isUser,password)

      if not isUser:
        return render_template('login.html',error='Invalid Credentials')

      isPasswordMatch = bcrypt.checkpw(password.encode('utf-
8'),isUser['PASSWORD'].encode('utf-8'))

      if not isPasswordMatch:
```

```
        return render_template('login.html',error='Invalid Credentials')

      session['email'] = isUser['EMAIL']
      return redirect(url_for('home'))

    return render_template('login.html',name='Home')


@app.route('/logout')
def logout():
    session.pop('email', None)
    return redirect(url_for('login'))
```

Outputs:




cloud.ibm.com/catalog/services/db2
IBM Cloud
Search resources and products...
Catalog
Manage
Haritha vellam T's Account
Catalog /
Db2
A fully managed, highly-performant relational data store running the enterprise-class Db2 database engine.
Create
About
Type
Service
Provider
IBM
Last updated
11/10/2022
Category
Databases
Compliance
EU Supported
HIPAA Enabled
IAM-enabled
Location
Sydney
Frankfurt
London
Dallas
Sao Paulo
Toronto
Tokyo
Milan 01
Montreal 01
Washington DC
Related links
API docs
Docs
Terms
Select a location
Dallas (us-south)
Select a pricing plan
Displayed prices do not include tax. Monthly prices shown are for country or location: United States
Plan
Features
Pricing
Lite
200 MB of data storage
6 simultaneous connections
Shared multitenant system
Free
Standard
Instance with flexible scaling of compute and storage
Base instance starts at 8 GB RAM x 20 GB Storage
HIPAA Enabled
$0.136 USD/Instance-Hour
$0.00027 USD/Gigabyte-Hours
$0.097 USD/Virtual Processor Core-Hour
$0.00003 USD/BACKUP_GIGABYTE_HOURS
$0.0959 USD/SERVICEENDPOINT_INSTANCE_HOURS
The starting configuration provides one SQL database per service instance residing on shared compute slices, with 2 sharable vCPUs (8 GB of memory), and 20 GB of storage for data and logs. All database deployed across multi-tenant compute infrastructure. Scale your database up to 16 vCPUs (64 GB of memory) and 4 TB of storage for data and logs. Standard offers a high availability option that includes one database running on three shared virtual servers. Each HA node is billed separately. The high availability virtual servers are provisioned across multiple availability zones in IBM Cloud regions that support it. Scale your compute and storage independently to achieve the perfect price/performance fit. Each plan includes up to 100 GB of backup storage, stored for 14 days.
Enterprise
Dedicated instance with flexible scaling of compute and storage
Base instance starts at 4 vCPU x 16 GB RAM x 20 GB Storage
$1.30 USD/Instance-Hour
$0.00027 USD/Gigabyte-Hours
Summary
Db2
Estimate costs
Location: Dallas
Plan: Standard
Service name: Db2-yv
Resource group: Default
This paid plan cannot be added to an IBM Cloud trial account.
You can add a credit card to create a Pay-As-You-Go account. If a free plan for this service is available, you can choose to add it.
I have read and agree to the following license agreements:
Terms
Upgrade
Add to estimate


IBM Db2 on Cloud
Overview
In-flight executions
Connections
Table performance
Dashboard
Run SQL
Data
Administration
About
APIs
Documentation
Support
Resource usage
Last 1 hour
Storage (GM / GM)
Storage usage (%)
Time
11:25 AM
11:40 AM
12:00 PM
12:20 PM
12:35 PM