Sprint - 4

DATE	**17 November 2022**
TEAM ID	**PNT2022TMID02136**
PROJECT NAME	**PROJECT: Skills and Job Recommender**
MARKS	**20 Marks**

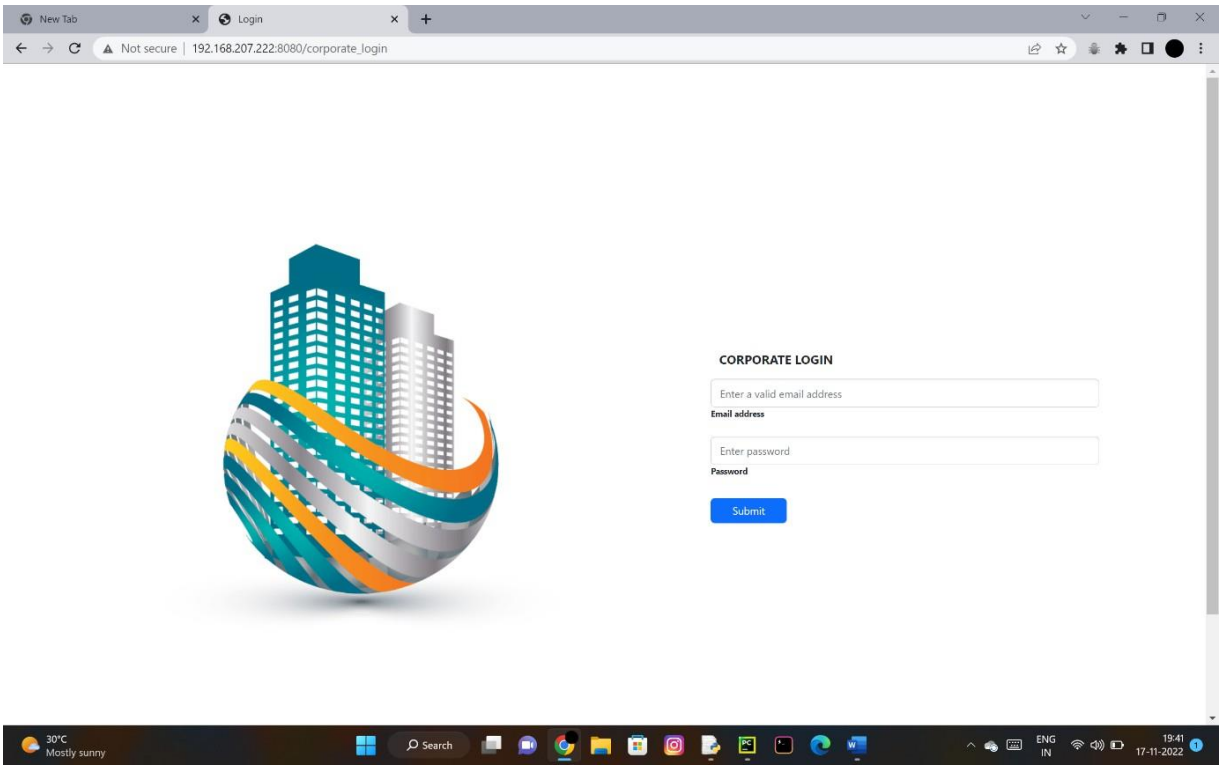
1. Creating corporate login and post job page with python codings

1.1 Corporate login:

```
{% extends "bootstrap/base.html" %}
{% block title %}Login{% endblock %}
{% block styles %}
{{super()}}
<link rel="stylesheet" href="{{url_for('static', filename='style.css')}}">
<link
href="https://cdn.jsdelivr.net/npm/bootstrap@5.2.2/dist/css/bootstrap.min.
css" rel="stylesheet" integrity="sha384-
Zenh87qX5JnK2Jl0vWa8Ck2rdkQ2Bzep5IDxbcnCeuOxjzrPF/et3URy9Bv1WTRi
" crossorigin="anonymous">
{% endblock %}
{% block content %}
<div class="Login-form">
  <section class="vh-100">
  <div class="container-fluid h-custom">
    <div class="row d-flex justify-content-center align-items-center h-100">
      <div class="col-md-9 col-lg-6 col-xl-5">
        <img src="{{url_for('static', filename='images/corp.png')}}"
          class="img-fluid" alt="Sample image">
      </div>
      <div class="col-md-8 col-lg-6 col-xl-4 offset-xl-1">
        <form class="form" method="post"
action="{{url_for('corporate_login')}}">

          <div class="divider d-flex align-items-center my-4">
            <h4 class="text-center fw-bold mx-3 mb-0">CORPORATE LOGIN</h4>
          </div>
          <div class="form-outline mb-4">
```

```
          <input type="text" id="form3Example3" name="email" class="form-
control form-control-lg"
            placeholder="Enter a valid email address" />
          <label class="form-label" for="form3Example3">Email address</label>
        </div>
        <div class="form-outline mb-3">
          <input type="password" id="form3Example4" name="password"
class="form-control form-control-lg"
            placeholder="Enter password" />
          <label class="form-label" for="form3Example4">Password</label>
        </div>
        <div class="text-center text-lg-start mt-4 pt-2">
          <input type="submit" class="btn btn-primary btn-lg"
            style="padding-left: 2.5rem; padding-right: 2.5rem;">
        </div>
      </form>
    </div>
  </div>
 </div>
</div>
  <script
src="https://cdn.jsdelivr.net/npm/bootstrap@5.2.2/dist/js/bootstrap.bundle.
min.js" integrity="sha384-
OERcA2EqjJCMA+/3y+gxIOqMEjwtxJY7qPCqsdltbNJuaOe923+mo//f6V8Qbsw
3" crossorigin="anonymous"></script>
  <script src="https://kit.fontawesome.com/e66a43891e.js"
crossorigin="anonymous"></script>
{% endblock %}
```

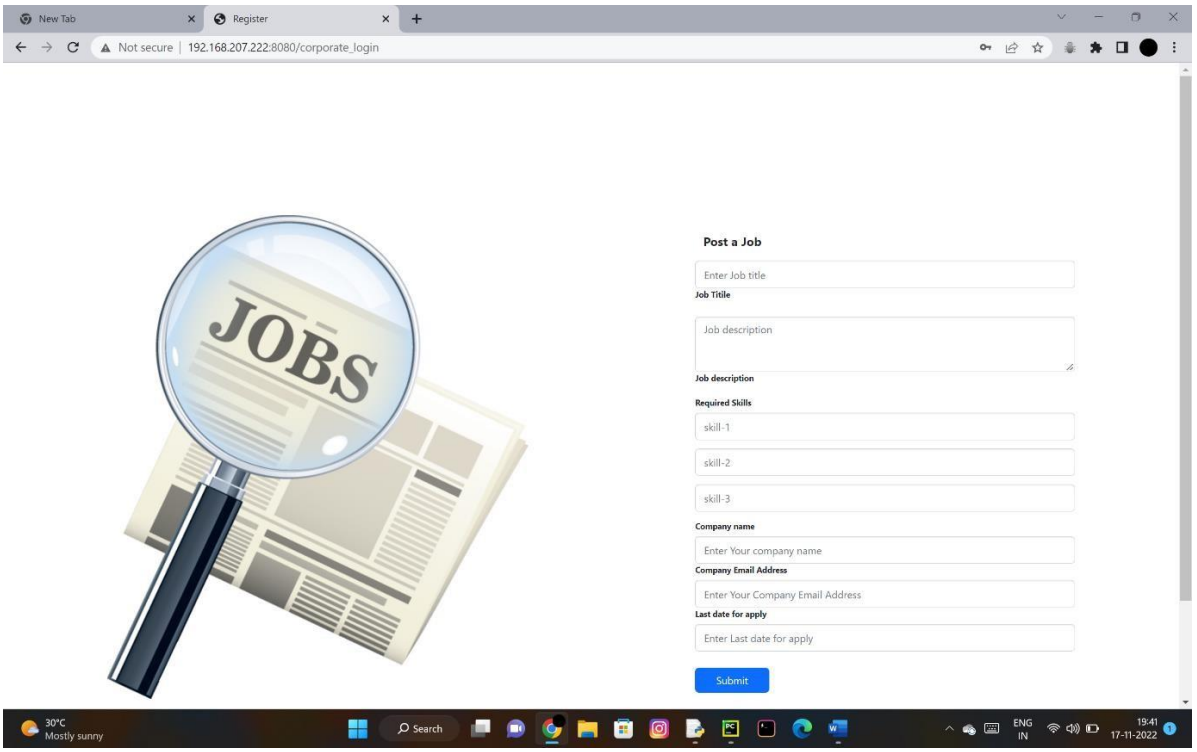


1.2 Post job

```
{% extends "bootstrap/base.html" %}
{% block title %}Register{% endblock %}
{% block styles %}
{{super()}}
<link rel="stylesheet" href="{{url_for('static', filename='style.css')}}">
<link
href="https://cdn.jsdelivr.net/npm/bootstrap@5.2.2/dist/css/bootstrap.min.
css" rel="stylesheet" integrity="sha384-
Zenh87qX5JnK2Jl0vWa8Ck2rdkQ2Bzep5IDxbcnCeuOxjzrPF/et3URy9Bv1WTRi
" crossorigin="anonymous">
{% endblock %}
{% block content %}
<div class="Login-form">
 <section class="vh-100">
 <div class="container-fluid h-custom">
  <div class="row d-flex justify-content-center align-items-center h-100">
   <div class="col-md-9 col-lg-6 col-xl-5">
    <img src="{{url_for('static', filename='images/postjob.png')}}"
     class="img-fluid" alt="Sample image">
   </div>
   <div class="col-md-8 col-lg-6 col-xl-4 offset-xl-1">
    <form class="form" method="post" action="{{url_for('postjob')}}">
```

```
<div class="divider d-flex align-items-center my-4">
  <h4 class="text-center fw-bold mx-3 mb-0">Post a Job</h4>
</div>
<div class="form-outline mb-4">
  <input type="text" id="form3Example3" name="jt" class="form-
control form-control-lg"
    placeholder="Enter Job title" />
  <label class="form-label" for="form3Example3">Job Titile</label>
</div>
<div class="form-outline mb-3">
  <textarea class="form-control form-control-lg" id="Textarea1"
placeholder="Job description" name="jd" rows="3"></textarea>
  <label class="form-label" for="form3">Job description</label>
</div>
<div>
  <label class="form-label"  for="form3Example3">Required
Skills</label>
  <input type="text" name="skill-1" id="skill1" class="form-control
form-control-lg"
    placeholder="skill-1" />
  <input id="skill2" type="text" name="skill-2" class="form-control
form-control-lg"
    placeholder="skill-2" />
  <input type="text" id="skill3" name="skill-3" class="form-control form-
control-lg"
    placeholder="skill-3" />
</div>
<div>
  <label style="margin:10px 0px 10 0px ;" class="form-label"
for="form3Example3">Company name</label>
<input type="text" name="Company-name" class="form-control form-
control-lg"
    placeholder="Enter Your company name" />
</div>
<div>
  <label style="margin:10px 0px 10 0px ;" class="form-label"
for="form3Example3">Company Email Address</label>
<input type="text" name="company-email" class="form-control form-
control-lg"
    placeholder="Enter Your Company Email Address" />
</div>
<div>
  <label style="margin:10px 0px 10 0px ;" class="form-label"
for="form3Example3">Last date for apply</label>
```

```
            <input  type="text" name="date" class="form-control form-control-lg"
              placeholder="Enter Last date for apply" />
            </div>
             <div class="text-center text-lg-start mt-4 pt-2">
                <input type="submit" name="img" class="btn btn-primary btn-lg"
                style="padding-left: 2.5rem; padding-right: 2.5rem;">
             </div>
          </form>
    <script
src="https://cdn.jsdelivr.net/npm/bootstrap@5.2.2/dist/js/bootstrap.bundle.
min.js" integrity="sha384-
OERcA2EqjJCMA+/3y+gxIOqMEjwtxJY7qPCqsdltbNJuaOe923+mo//f6V8Qbsw
3" crossorigin="anonymous"></script>
    <script src="https://kit.fontawesome.com/e66a43891e.js"
crossorigin="anonymous"></script>
{% endblock %}
```



Python codings:

```
from flask import Flask,request,render_template,redirect,flash,url_for
from flask_bootstrap import Bootstrap
import sqlite3
import ibm_db
import ibm_boto3
from ibm_botocore.client import Config,ClientError
import json
from ibm_watson import AssistantV2
from ibm_cloud_sdk_core.authenticators import IAMAuthenticator
import smtplib


ibm_watson_api = 'NERNzL18grk3-kRrozsq897BF2lC-fmbhMO0FeC91XjR'
authenticator = IAMAuthenticator(ibm_watson_api)
assistant = AssistantV2(
   version = '2021-11-27',
   authenticator = authenticator
)
assistant.set_service_url('https://api.jp-
tok.assistant.watson.cloud.ibm.com/instances/403b880a-1907-4cd4-be34-
ed7621ce872c')
assistant_id = '4f9960db-4d31-43a3-a58a-f747bef82cbe'
response = assistant.create_session(
   assistant_id=assistant_id
).get_result()
session_id = json.dumps(response, indent=2)
print(session_id)



COS_ENDPOINT ='https://s3.jp-tok.cloud-object-storage.appdomain.cloud'
COS_API_KEY_ID="N4Il1nx1AhrgMhoAtXgkvC6i4DZzWYE428HMpQSNByAh"
COS_INSTANCE_CRN="crn:v1:bluemix:public:iam-
identity::a/31fa813cf7134a2b87f66465bde60656::serviceid:ServiceId-8d6fd9a6-
0638-4c58-9270-cc40705c2385"
app = Flask(_name_)
Bootstrap(app)
log = 'no'
db = sqlite3.connect("Database.db", check_same_thread=False)
cursor = db.cursor()

cos =
ibm_boto3.resource("s3",ibm_api_key_id=COS_API_KEY_ID,ibm_service_instance_i
```

```
d=COS_INSTANCE_CRN,config=Config(signature_version="oauth"),endpoint_url=COS
_ENDPOINT)

conn = ibm_db.connect("DATABASE=bludb;HOSTNAME=ea286ace-86c7-4d5b-8580-
3fbfa46b1c66.bs2io90l08kqb1od8lcg.databases.appdomain.cloud;PORT=31505;SECU
RITY=SSL;SSLServerCertificate=DigiCertGlobalRootCA.crt;UID=yfp49237;PWD=KmAn
VzPQq2dDSayo;", "", "")

def get_bucket_contents(bucket_name):
    print("Retrieving bucket contents from: {0}".format(bucket_name))
    try:
        files = cos.Bucket(bucket_name).objects.all()
        files_names = []
        for file in files:
            files_names.append(file.key)
            print("Item: {0} ({1} bytes).".format(file.key, file.size))
        return files_names
    except ClientError as be:
        print("CLIENT ERROR: {0}\n".format(be))
    except Exception as e:
        print("Unable to retrieve bucket contents: {0}".format(e))

@app.route('/')
def home():
    files = get_bucket_contents('projectby13')
    return render_template("home.html",login=log,files=files)

@app.route('/login',methods=["POST","GET"])
def login():
    if request.method == "POST":
        email = request.form.get('email')
        password = request.form.get('password')
        sql = "SELECT * FROM USERS"
        stmt = ibm_db.exec_immediate(conn, sql)
        dictionary = ibm_db.fetch_assoc(stmt)
        while dictionary != False:
            if dictionary['EMAIL']==email:
                if dictionary['PASSWORD']==password:
                    flash('You were successfully logged in')
                    log = 'Yes'
                    return redirect(url_for('joblist'))
            dictionary = ibm_db.fetch_assoc(stmt)
        return "wrong crediantials if you are new user please signup"
    return render_template('login.html')
```

```
@app.route('/register',methods=["POST","GET"])
def register():
    if request.method == "POST":
        name = request.form.get("name")
        email = request.form.get("email")
        password = request.form.get("password")
        confirmpassword = request.form.get("repeatpassword")
        if password==confirmpassword:
            sql1 = "SELECT * FROM USERS WHERE NAME =?"
            stmt1 = ibm_db.prepare(conn,sql1)
            ibm_db.bind_param(stmt1,1,name)
            ibm_db.execute(stmt1)
            account = ibm_db.fetch_assoc(stmt1)

            if account:
                print('p')
            else:
                insert_sql = "INSERT INTO USERS VALUES (?,?,?)"
                prep_stmt = ibm_db.prepare(conn, insert_sql)
                ibm_db.bind_param(prep_stmt, 1, name)
                ibm_db.bind_param(prep_stmt, 2, email)
                ibm_db.bind_param(prep_stmt, 3, password)
                ibm_db.execute(prep_stmt)
                print("inserted")
            return redirect(url_for('joblist'))
    return render_template("Register.html")
@app.route('/postjob',methods=["POST","GET"])
def postjob():
    if request.method == "POST":
        jobtitle = request.form.get('jt')
        jobdescription = request.form.get('jd')
        skill1 =  request.form.get('skill-1')
        skill2 =  request.form.get('skill-2')
        skill3 = request.form.get('skill-3')
        Date = request.form.get('date')
        Companyname = request.form.get('Company-name')
        CompanyEmail =  request.form.get('company-email')
        valve = 10
        insert_sql = "INSERT INTO joblist VALUES (?,?,?,?,?,?,?,?)"
        prep_stmt = ibm_db.prepare(conn, insert_sql)
        ibm_db.bind_param(prep_stmt, 1, jobtitle)
        ibm_db.bind_param(prep_stmt, 2, jobdescription)
        ibm_db.bind_param(prep_stmt, 3, skill1)
```

```
        ibm_db.bind_param(prep_stmt, 4, skill2)
        ibm_db.bind_param(prep_stmt, 5, skill3)
        ibm_db.bind_param(prep_stmt, 6, Date)
        ibm_db.bind_param(prep_stmt, 7, Companyname)
        ibm_db.bind_param(prep_stmt, 8, CompanyEmail)
        ibm_db.execute(prep_stmt)
        return redirect(url_for('joblist'))
    else:
        return 'wrong credentials'

@app.route('/joblist',methods=["POST","GET"])
def joblist():
    if request.method == "POST":
        search_key = request.form.get('search-bar')
        sql = "SELECT * FROM joblist"
        stmt = ibm_db.exec_immediate(conn, sql)
        dictionary = ibm_db.fetch_both(stmt)
        jt_list = []
        jd_list = []
        companies = []
        while dictionary != False:
            if search_key == dictionary['SKILL1'] or search_key == dictionary['SKILL2'] or
search_key == dictionary['SKILL3'] :
                jt_list.append(dictionary['JOBTITLE'])
                jd_list.append(dictionary['JOBDES'])
                companies.append(dictionary['COMPANYNAME'])
                dictionary = ibm_db.fetch_both(stmt)
            else:
                dictionary = ibm_db.fetch_both(stmt)
        lent = len(jd_list)
        no = 0
        return render_template("joblist.html", jtr=jt_list, jdr=jd_list,
len=lent,cn=companies)
    else:
        sql = "SELECT * FROM joblist"
        stmt = ibm_db.exec_immediate(conn, sql)
        dictionary = ibm_db.fetch_both(stmt)
        jt_list = []
        jd_list = []
        companies = []
        while dictionary != False:
            jt_list.append(dictionary['JOBTITLE'])
            jd_list.append(dictionary['JOBDES'])
            companies.append(dictionary['COMPANYNAME'])
```

```
        dictionary = ibm_db.fetch_both(stmt)
    lent = len(jd_list)
    no = 0
    return render_template("joblist.html",jtr=jt_list,jdr=jd_list,len =
lent,cn=companies)
#-----------------------------Bucket storage-----------------------------
-#
def multi_part_upload(bucket_name, item_name,file_path):
  try:
    print("Starting file transfer for {0} to bucket: {1}\n".format(item_name,
bucket_name))
    part_size = 1024 * 1024 * 5
    file_threshold = 1024 * 1024 * 15
    transfer_config = ibm_boto3.s3.transfer.TransferConfig(
      multipart_threshold=file_threshold,
      multipart_chunksize=part_size
    )
    print("out")
    with open(file_path, "rb") as file_data:
      cos.Object(bucket_name, item_name).upload_fileobj(
        Fileobj=file_data,
        Config=transfer_config
      )

    print("Transfer for {0} Complete!\n".format(item_name))
  except ClientError as be:
    print("CLIENT ERROR: {0}\n".format(be))
  except Exception as e:
    print("Unable to complete multi-part upload: {0}".format(e))

@app.route('/applyjob', methods = ['GET', 'POST'])
def applyjob():
  if request.method == 'POST':
    companyname = request.form.get('cnp')
    sql = "SELECT * FROM joblist"
    stmt = ibm_db.exec_immediate(conn, sql)
    dictionary = ibm_db.fetch_both(stmt)
    while dictionary != False:
      print(dictionary["COMPANYNAME"])
      if companyname == dictionary["COMPANYNAME"]:
        cnname=dictionary["COMPANYNAME"]
        cnmail = dictionary["COMPANYEMAIL"]
        dictionary = ibm_db.fetch_both(stmt)
      dictionary = ibm_db.fetch_both(stmt)
```

```
      return render_template('applyjob.html',cne=cnmail,cnn=cnname)
@app.route('/mail',methods=["POST","GET"])
def mail():
   if request.method == 'POST':
      my_email = "kprathap1307@gmail.com"
      password = "qsustqqoqudsxrcb"
      companyname = request.form.get('cnn')
      companyemail = request.form.get('cne')
      name = request.form.get('name')
      email= request.form.get('email')
      experience= request.form.get('experience')
      message= request.form.get('message')
      sslc_schoolname = request.form.get('sschool-name')
      sslc_passedout = request.form.get('sschool-year')
      sslc_percentage = request.form.get('sschool-percentage')
      hslc_schoolname = request.form.get('hschool-name')
      hslc_passedout = request.form.get('hschool-year')
      hslc_percentage = request.form.get('hschool-percentage')
      college_name = request.form.get('d-name')
      college_passedout = request.form.get('d-year')
      college_cgpa = request.form.get('d-cgpa')
      skill1 = request.form.get('skill-1')
      skill2 = request.form.get('skill-2')
      skill3 = request.form.get('skill-3')
      mail = f'Hello {companyname} , Mail from Mr.perks , here are the candidate
informations for your current openings ' \
            f'Candidate name = {name} , candidate email = {email} , candidate
experience = {experience} ,candidate objectives = {message}' \
            f'candidate education details : SSLC - SSLC school name = {sslc_schoolname}
, SSLC - SSLC Passed out year = {sslc_passedout},' \
            f'Percentage = {sslc_percentage} , HSLC school name =
{hslc_schoolname},passed out year = {hslc_passedout}' \
            f'CGPA / Percentage= {college_cgpa} and candidate skills are 1.{skill1}
2.{skill2} 3.{skill3}  '
      with smtplib.SMTP("smtp.gmail.com", port=587) as connection:
         connection.starttls()
         connection.login(user=my_email, password=password)
         connection.sendmail(from_addr=my_email, to_addrs=companyemail,
                             msg=f"Subject:Applyed for job \n\n {mail}")
      return 'Sucessfully applied for the job '
@app.route('/corporate_login',methods=["POST","GET"])
def corporate_login():
   if request.method == "POST":
      email = request.form.get('email')
```

```
            password = request.form.get('password')
            admin_email = 'admin@123'
            admin_password = 'karur@123'
            if email == admin_email and password==admin_password:
                return render_template('postjob.html')
            else:
                return 'username and password will be given by admin'
        return render_template('corporate_login.html')



    if __name__== '__main__':
        app.secret_key = 'super secret key'
        app.config['SESSION_TYPE'] = 'filesystem'
app.run(host='0.0.0.0',port=8080,debug=True)
```