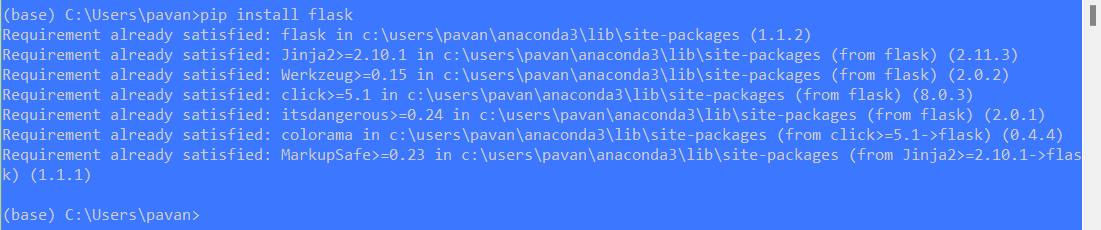
We are going to design a web application using Flask Framework and convert the image into Docker image

1. **Install Flask in Anaconda Prompt**

pip install flask



1. **Run the following code in Syper prompt**

from flask import Flask

app=Flask(\_\_name\_\_)

@app.route("/")

def helloworld():

return "Helloworld"

@app.route("/home")

def home():

return "Home page"

@app.route("/about")

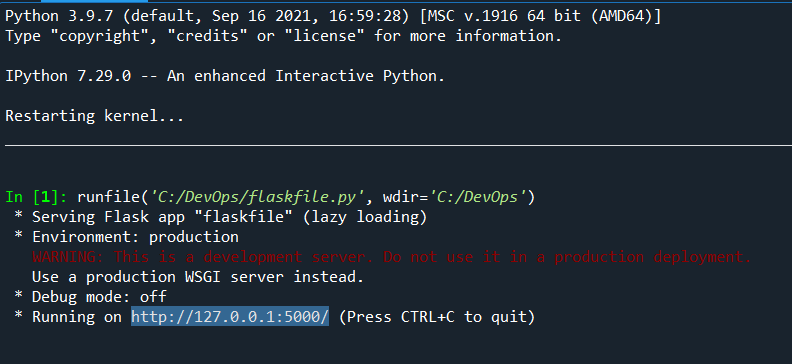
def aboutus():

return "About Us"

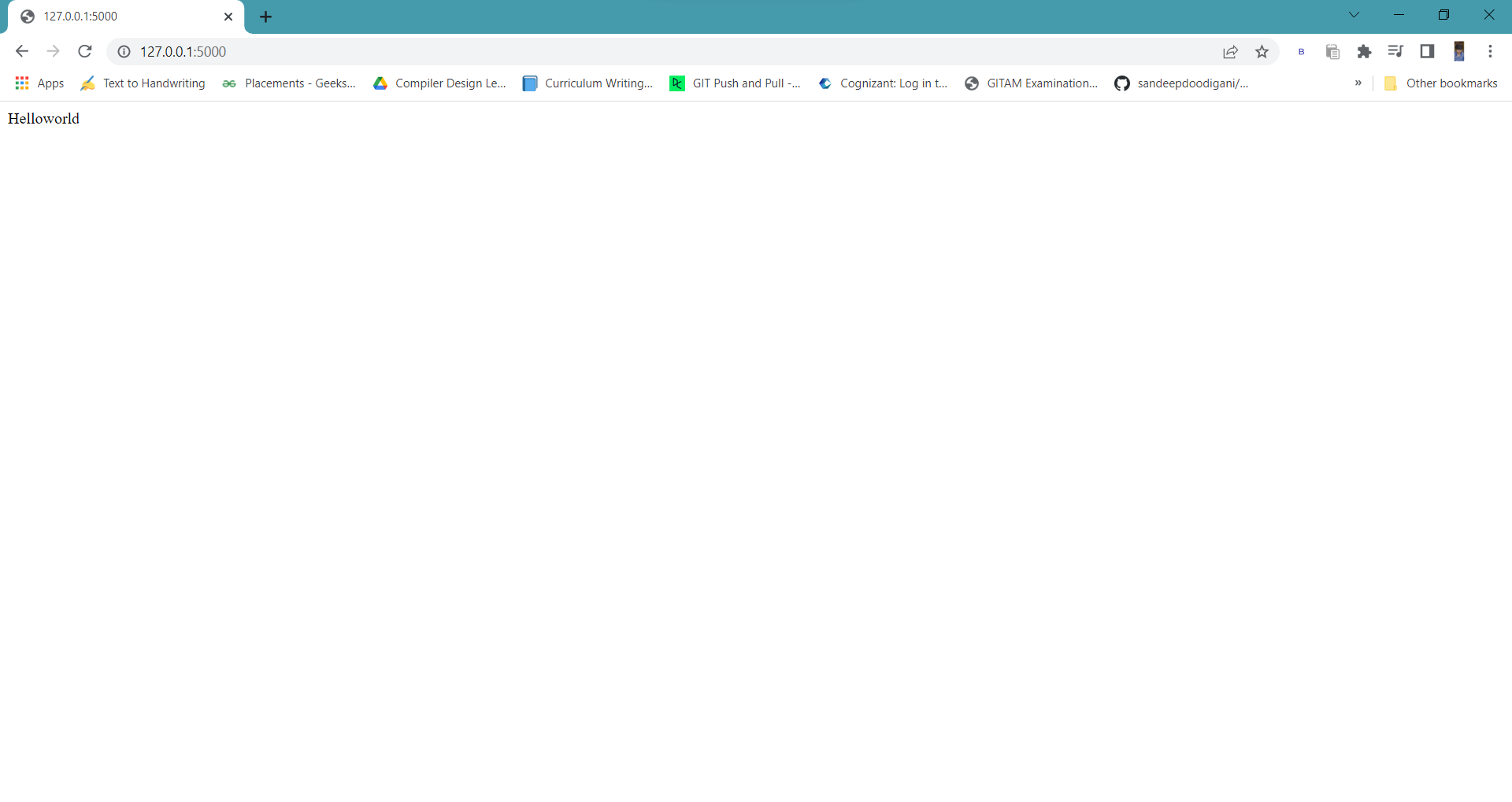
if \_\_name\_\_=="\_\_main\_\_":

app.run()

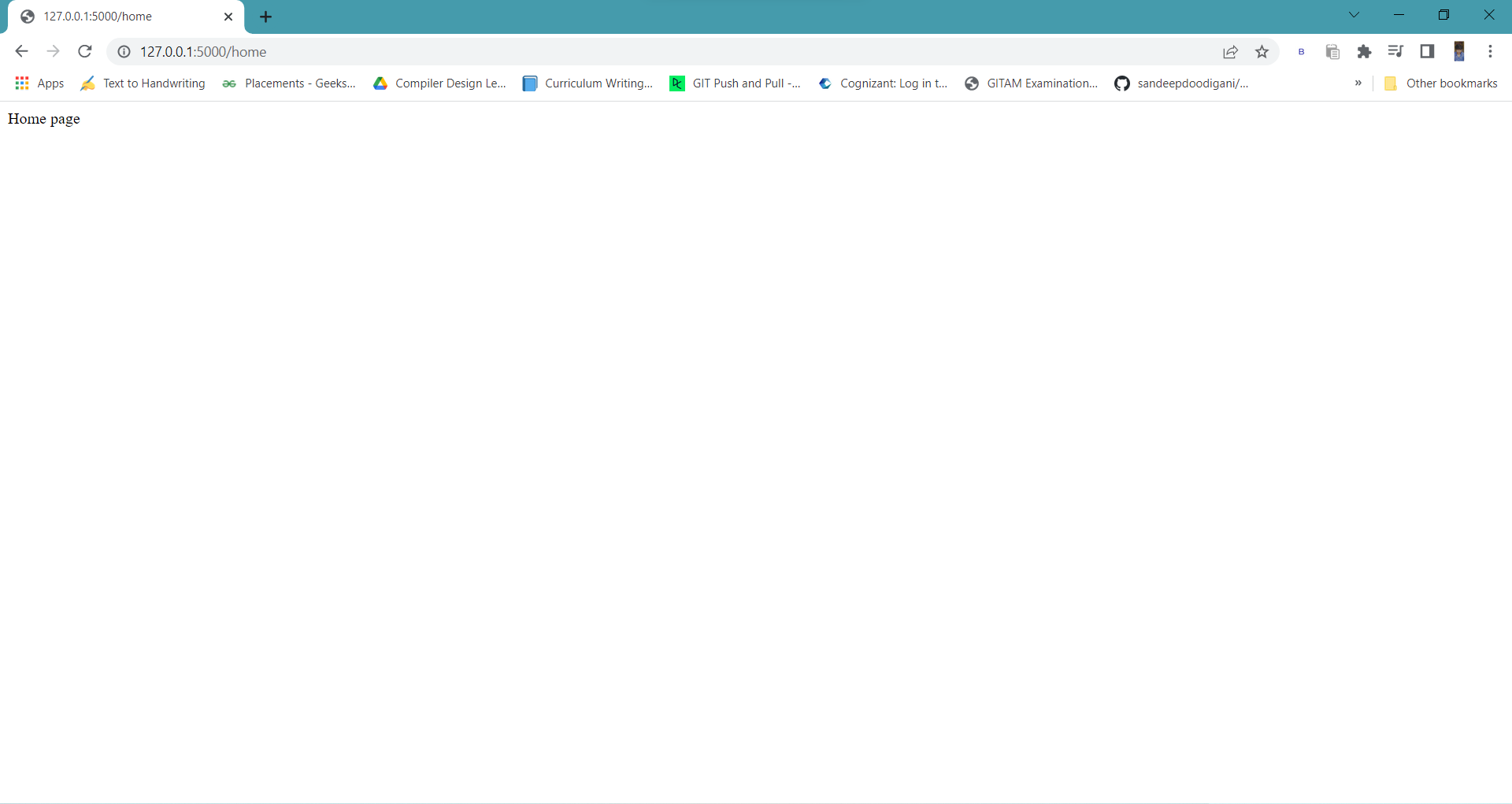
**Here we are creating the Routes**



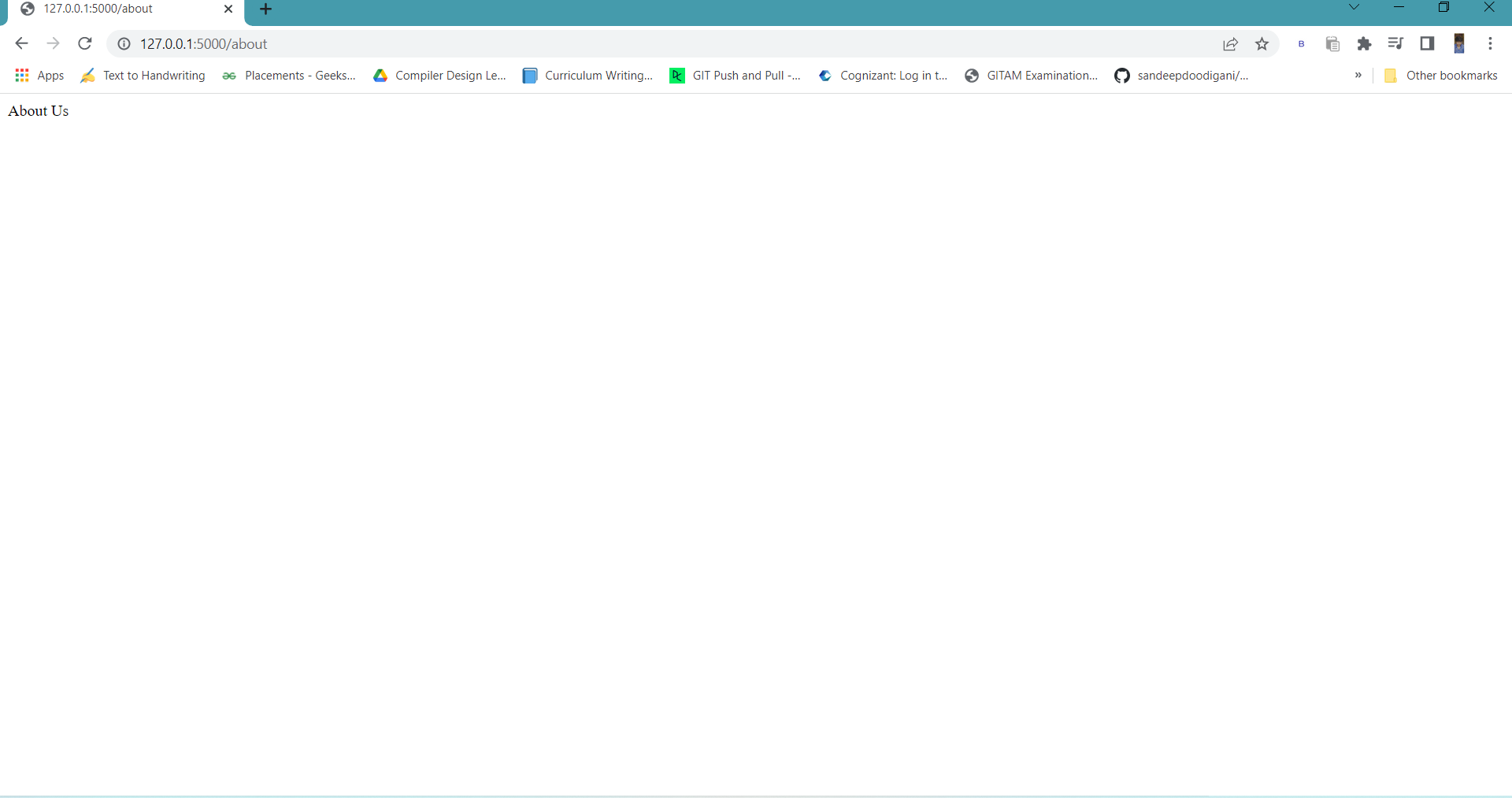
<http://127.0.0.1:5000/> or http://localhost:5000/



<http://127.0.0.1:5000/home>



<http://127.0.0.1:5000/about>



1. **Now we are going to create a login.html page to the flask application**

<html>

<head>

<title> Login Page</title>

</head>

<body>

<form>

<center>

<h1>Student Form</h1>

</center>

<label> Firstname: </label>

<input type="text" name="firstname" size="15"/> <br> <br>

<label> Middlename: </label>

<input type="text" name="middlename" size="15"/> <br> <br>

<label> Lastname: </label>

<input type="text" name="lastname" size="15"/> <br> <br>

<label>

Course :

</label>

<select>

<option value="Course">Course</option>

<option value="BCA">BCA</option>

<option value="BBA">BBA</option>

<option value="B.Tech">B.Tech</option>

<option value="MBA">MBA</option>

<option value="MCA">MCA</option>

<option value="M.Tech">M.Tech</option>

</select>

<br>

<br>

<label>

Gender :

</label><br>

<input type="radio" name="male"/> Male <br>

<input type="radio" name="female"/> Female <br>

<input type="radio" name="other"/> Other

<br>

<br>

<label>

Phone :

</label>

<input type="text" name="country code" value="+91" size="2"/>

<input type="text" name="phone" size="10"/> <br> <br>

Address

<br>

<textarea cols="80" rows="5" value="address">

</textarea>

<br> <br>

Email:

<input type="email" id="email" name="email"/> <br>

<br> <br>

Password:

<input type="Password" id="pass" name="pass"> <br>

<br> <br>

Re-type password:

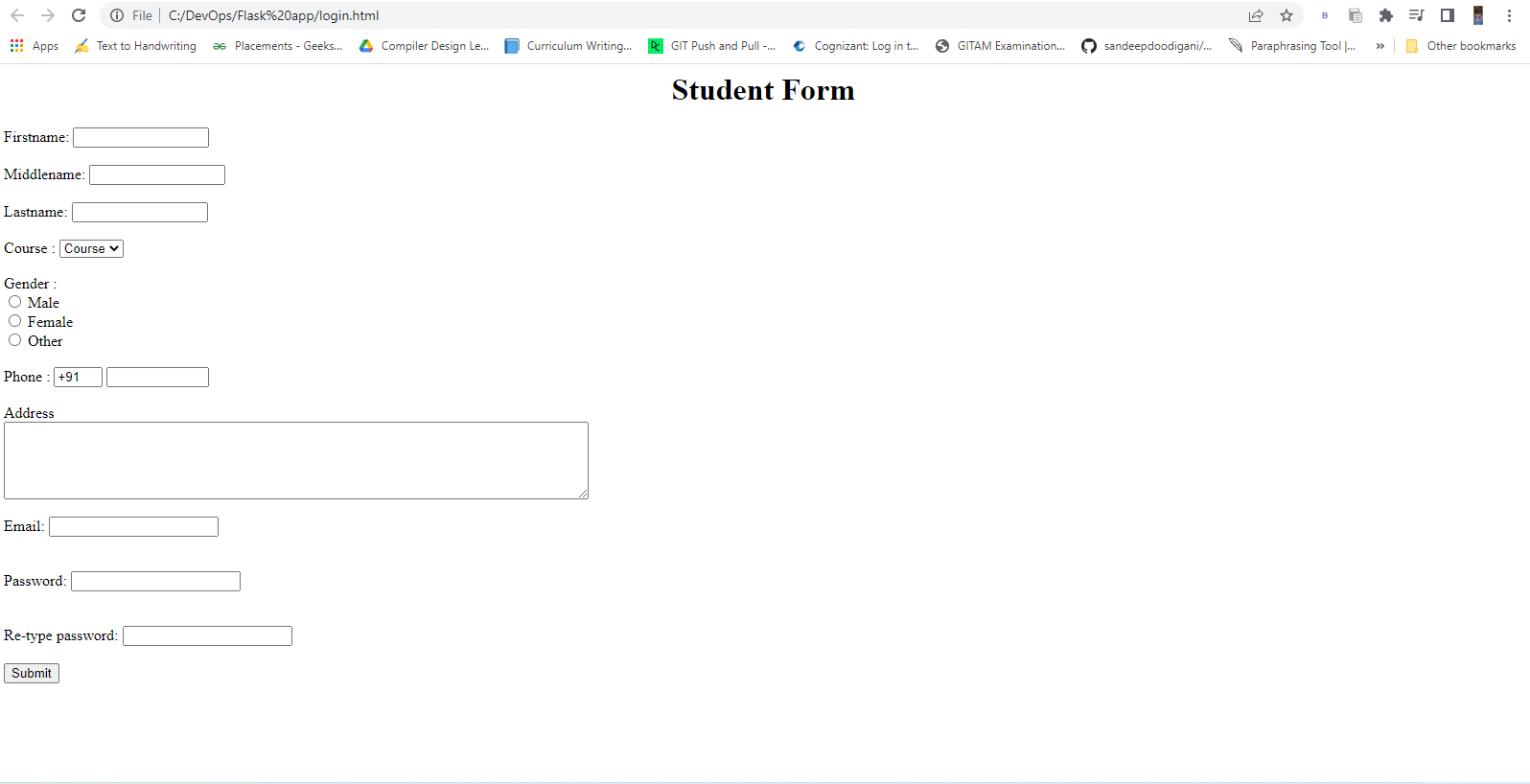
<input type="Password" id="repass" name="repass"> <br> <br>

<input type="button" value="Submit"/>

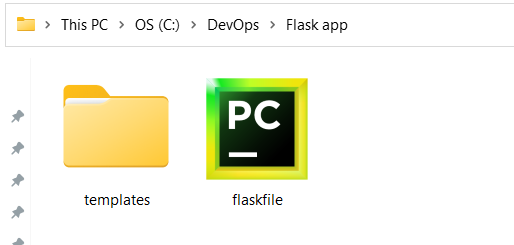
</form>

</body>

</html>



\*\*\*We need to save the file in templates folder only\*\*\*



1. **Now we need to modify the flask code as follows:**

from flask import Flask, render\_template

app=Flask(\_\_name\_\_)

@app.route("/")

def helloworld():

return "Helloworld"

@app.route("/login")

def home():

return render\_template("login.html")

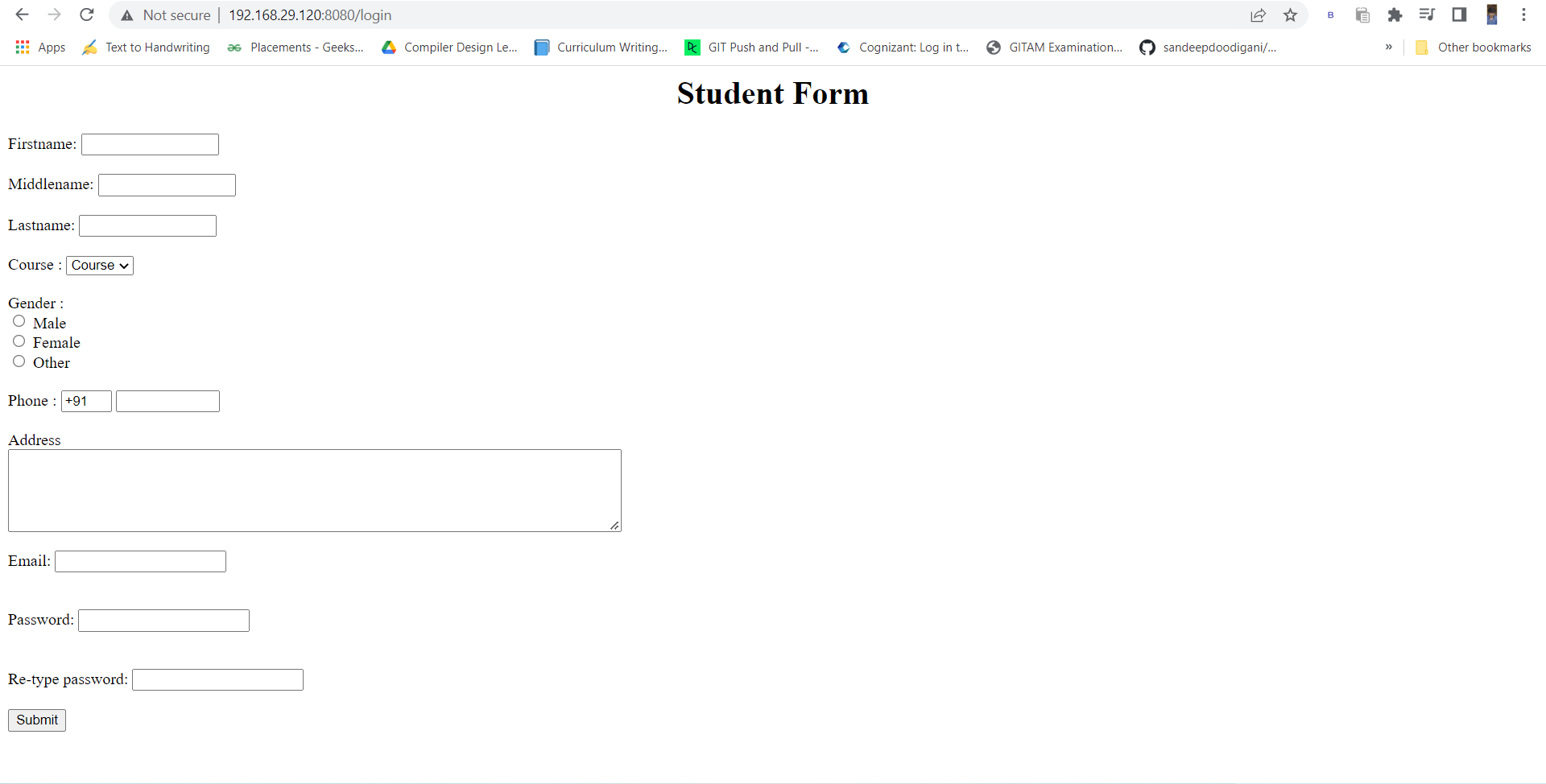
@app.route("/about")

def aboutus():

return "About Us"

if \_\_name\_\_=="\_\_main\_\_":

app.run(host='0.0.0.0',port=8080)



1. **Connecting Backend and frontend**

from flask import Flask, render\_template,redirect,request,url\_for

app=Flask(\_\_name\_\_)

@app.route('/success/<name>')

def success(name):

return "Welcome %s" %name

@app.route("/login", methods = ['POST','GET'])

def home():

if request.method=='POST':

user=request.form['nm']

#password=request.form['password']

print(user)

return redirect(url\_for('success',name=user))

else:

return render\_template("login.html")

@app.route("/about")

def aboutus():

return "About Us"

if \_\_name\_\_=="\_\_main\_\_":

app.run(host='0.0.0.0',port=9090)

**login.html**

<html>

<head>

<title> Login Page</title>

</head>

<body>

<form action="http://localhost:9090/login" method = "post">

<center>

<h1>Student Form</h1>

</center>

<label> Firstname: </label>

<input type="text" name="nm" size="15"/> <br> <br>

password:

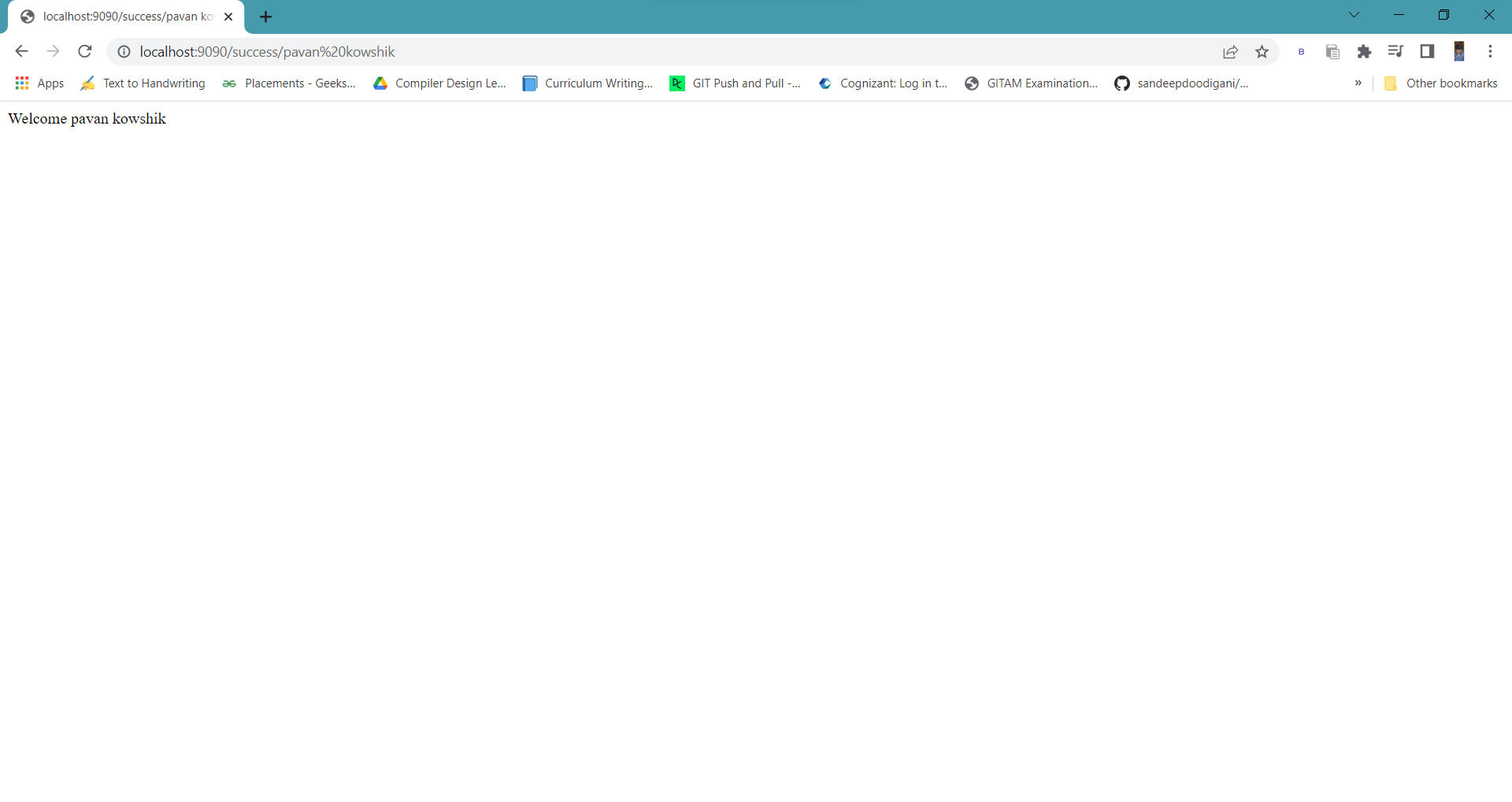
<input type="Password" name="password"> <br> <br>

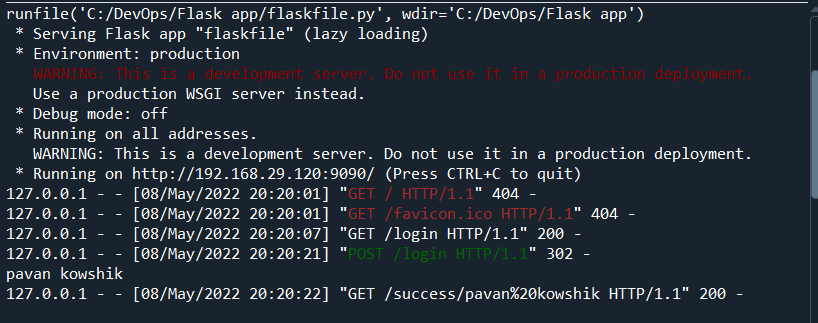
<input type="submit" value="submit"/>

</form>

</body>

</html>





1. **Now we are validating the user and the password**

from flask import Flask, render\_template,redirect,request,url\_for

app=Flask(\_\_name\_\_)

@app.route('/success/<name>')

def success(name):

return "Welcome %s" %name

@app.route("/login", methods = ['POST','GET'])

def home():

if request.method=='POST':

user=request.form['nm']

password=request.form['psw']

if user=="pavankowshik" and password=="123456":

print(user)

return redirect(url\_for('success',name=user))

else:

return "Not a valid user.Enter username pavankowshik"

else:

return render\_template("login.html")

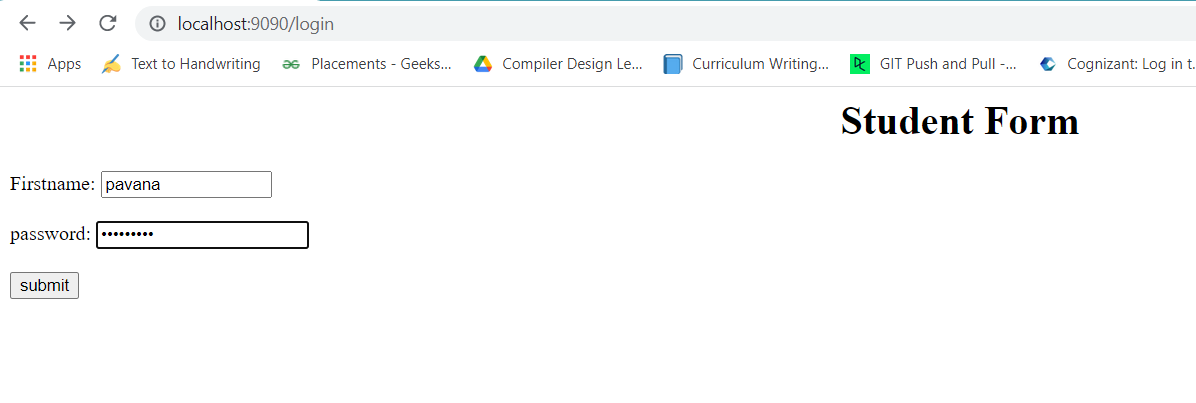
@app.route("/about")

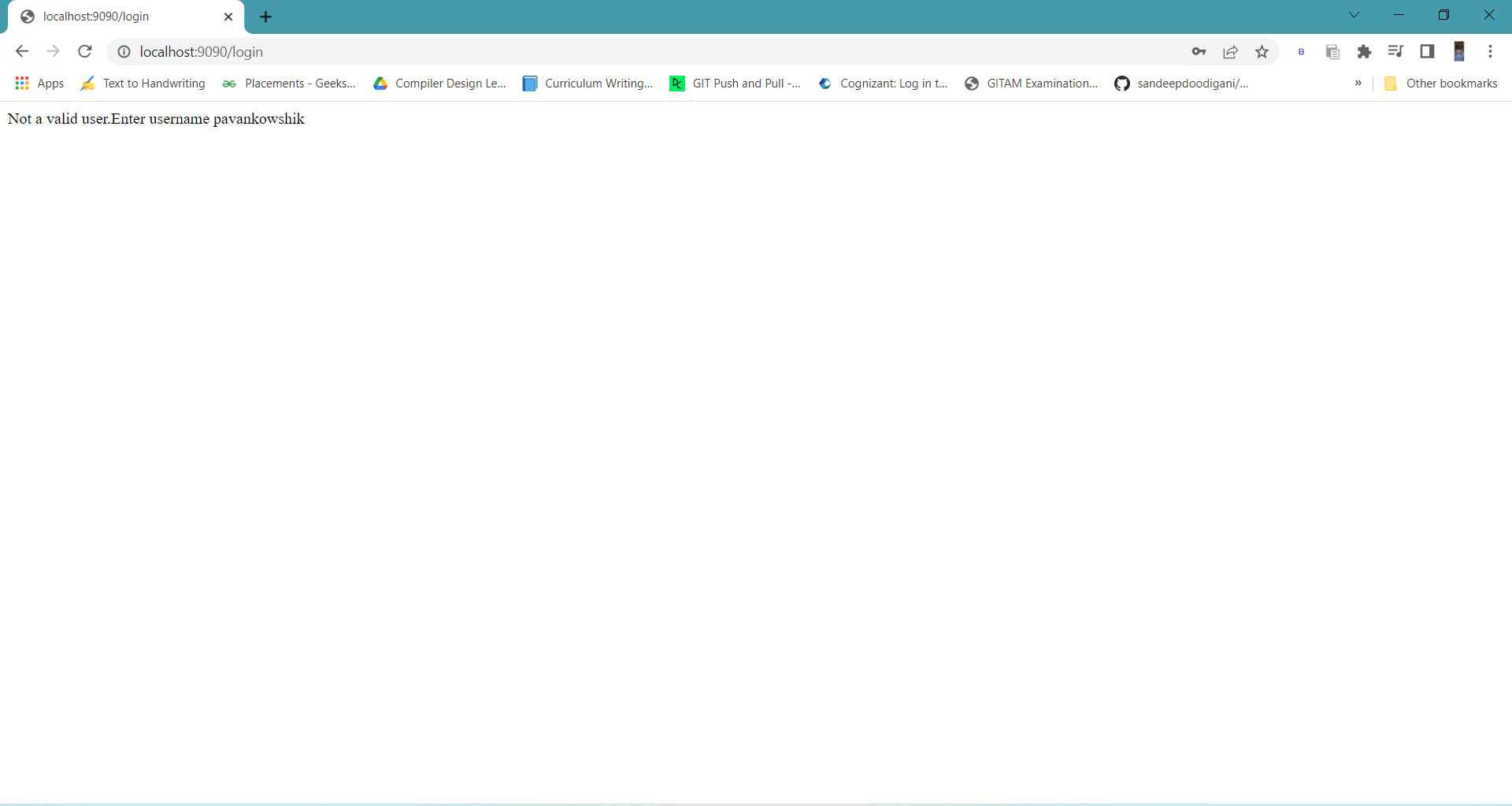
def aboutus():

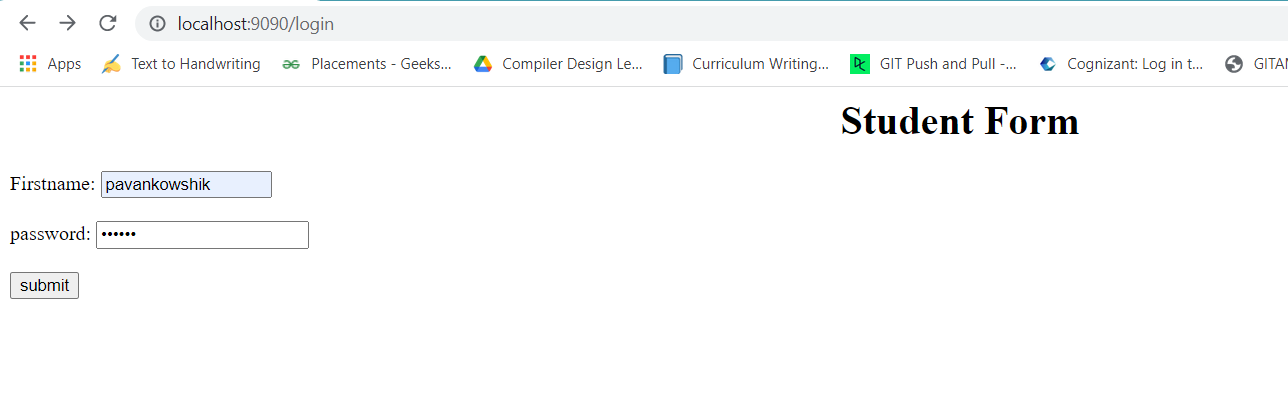
return "About Us"

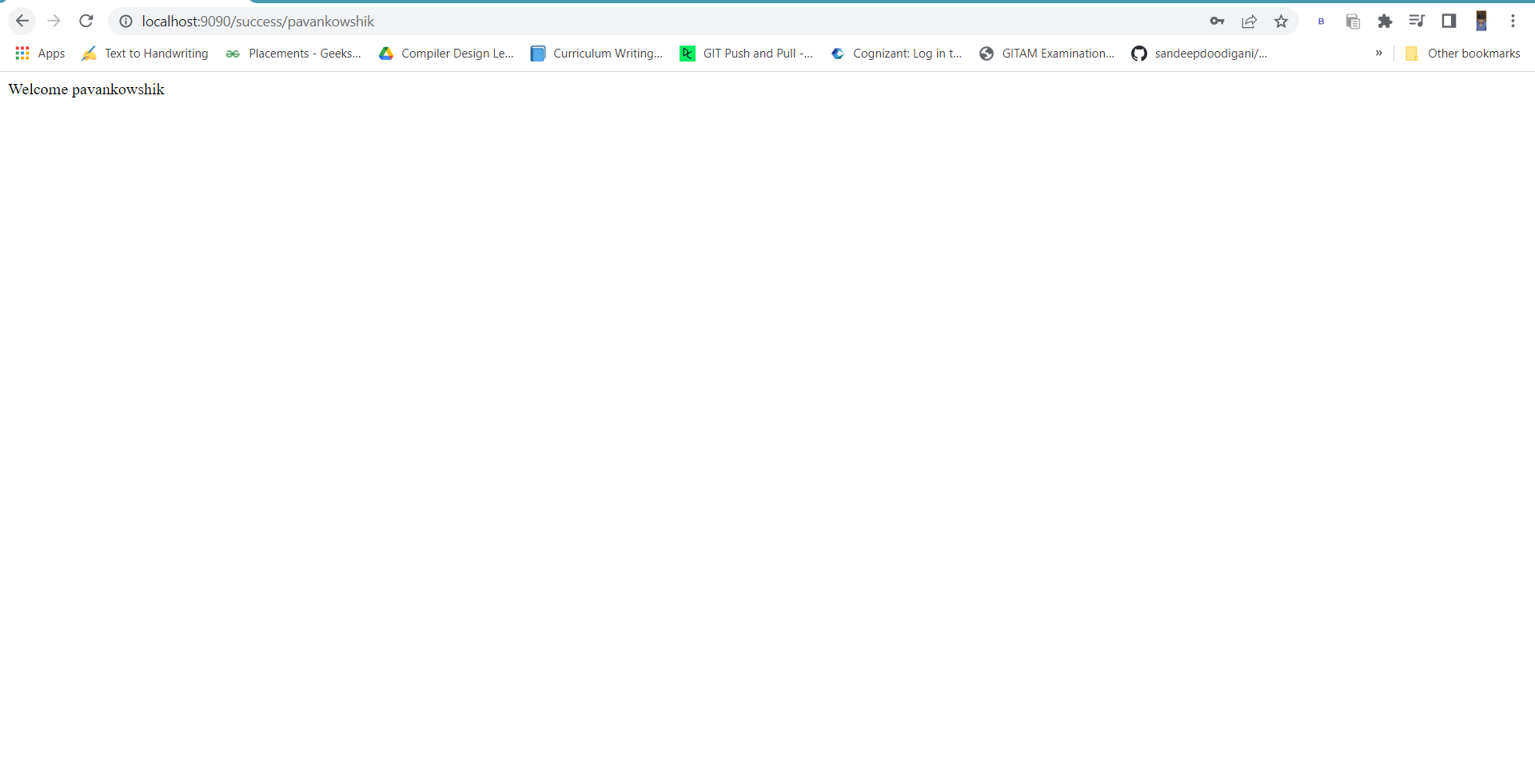
if \_\_name\_\_=="\_\_main\_\_":

app.run(host='0.0.0.0',port=9090)

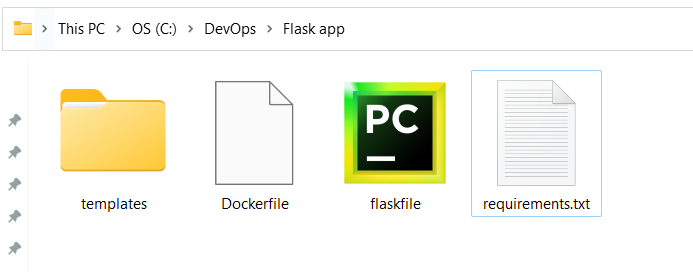


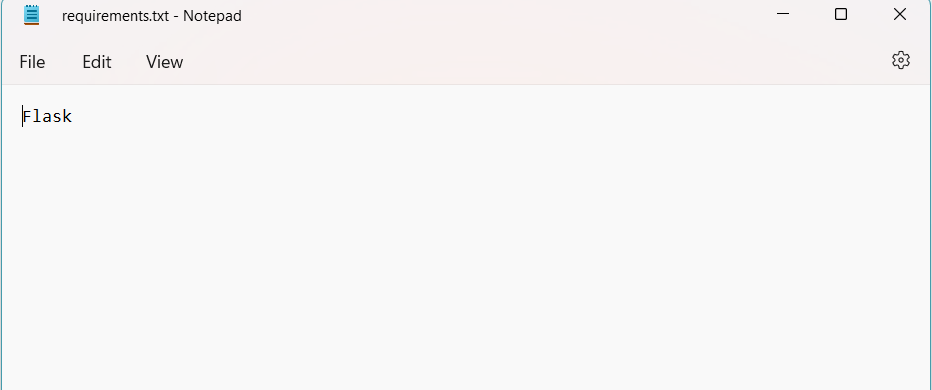




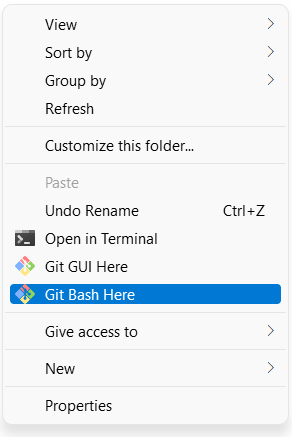


1. Now create a file name requriments.txt and add the libraries required





1. Now use GITBASH prompt to create a dockerfile



$ touch Dockerfile



FROM python:3.6.5-alphine // Python Version and the operating System used

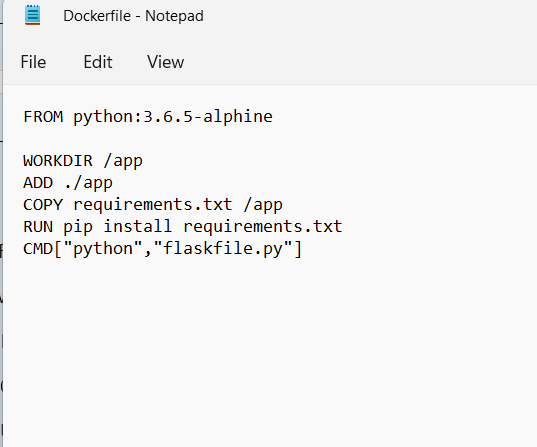
WORKDIR /app //Work Directory

ADD ./app // Add all the files in the app folder

COPY requirements.txt /app

RUN pip install requirements.txt // running the requirements file

CMD["python","flaskfile.py"]



\*\*\*Now Login to AWS , we are going to run the Flask app in AWS EC2 instance\*\*\*

1. Follow the AWS setup as usual
2. Now Open command prompt and connect to Ubuntu through local command prompt
3. Now Execute the following commands

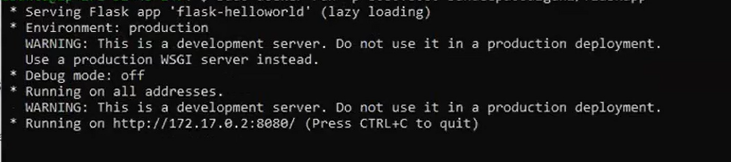
Sudo apt-get update

Sudo apt install docker.io

Sudo docker images

Sudo docker pull pavankowshik22/flaskapp

Sudo docker run -p 8080:8080 pavankowshik22/flaskapp



Now use the dns server and add 8080 port number and also the /login