Republic Arab Syrian
University Tishreen – Lattakia
Department of Communication and
electrical engineering
5 th , Network Programming : Homework No2

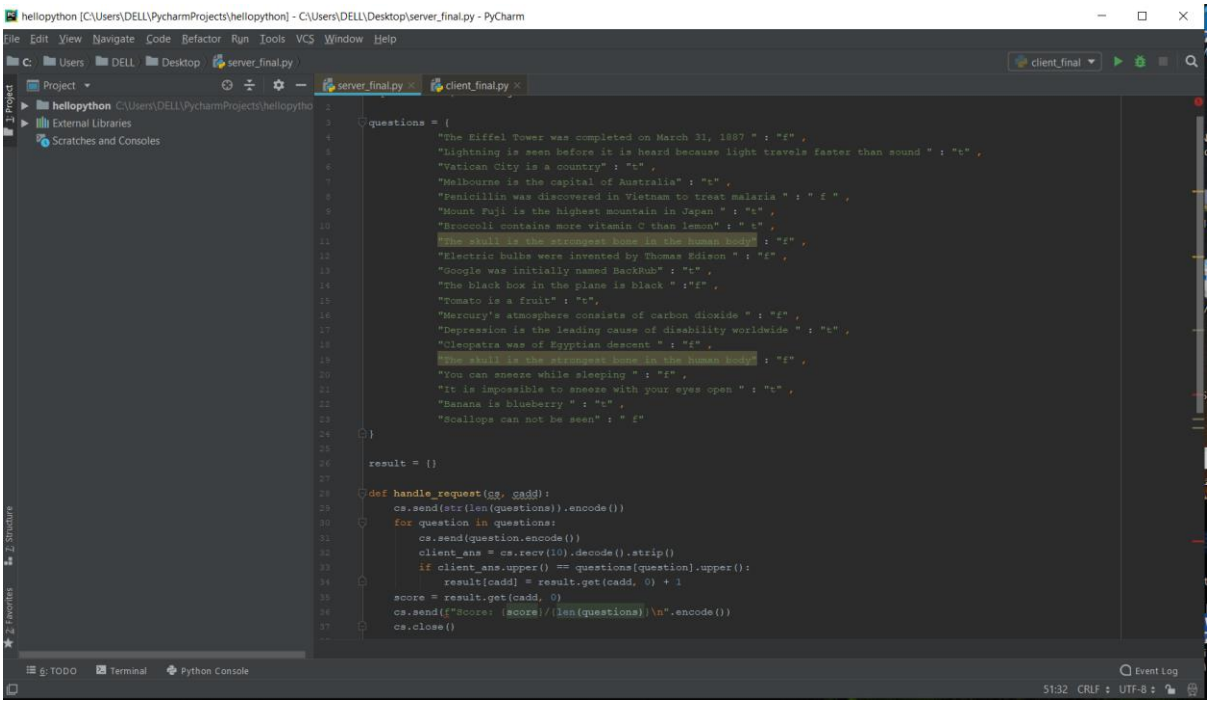
الجمهورية العربية السورية
اللاذقية -جامعـــة تشريـــن
كلية الهندسة الكهربائية والميكانيكية
قسم هندسة الاتصالات والالكترونيات
السنة الخامسة: وظيفة ٢برمجة شبكات

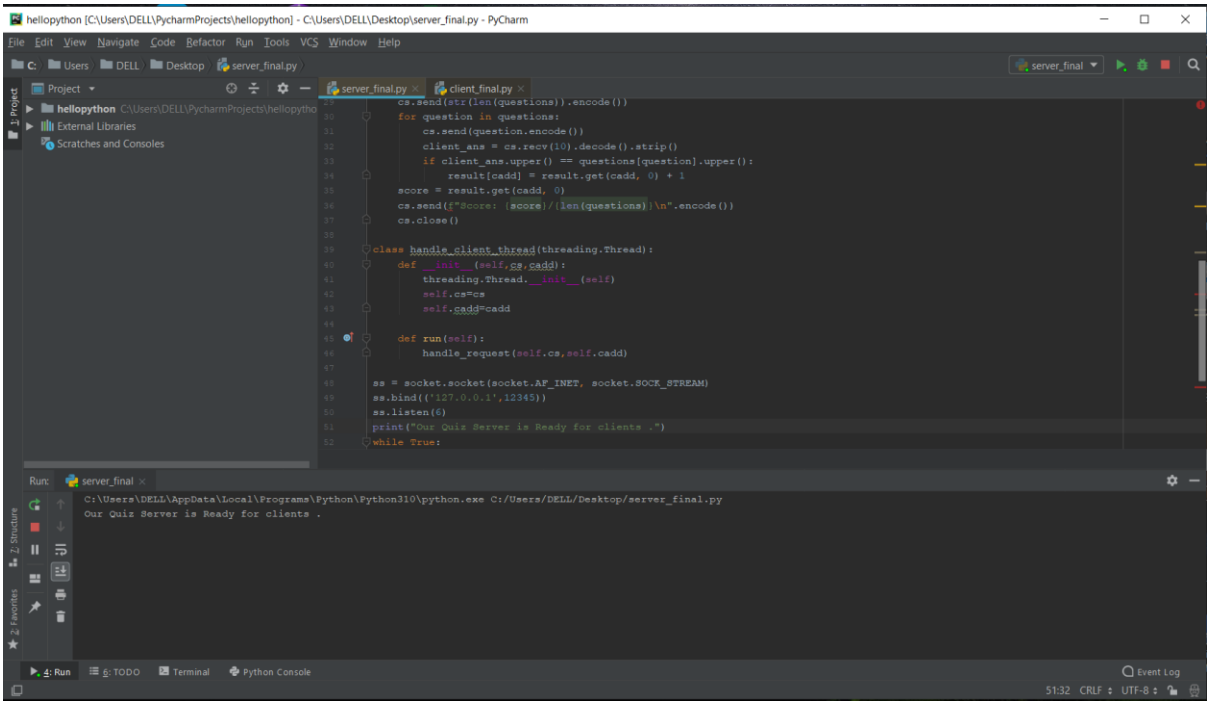
Name:_zeinab daood, Number:2444, To GitHub:__no_____ Submitted

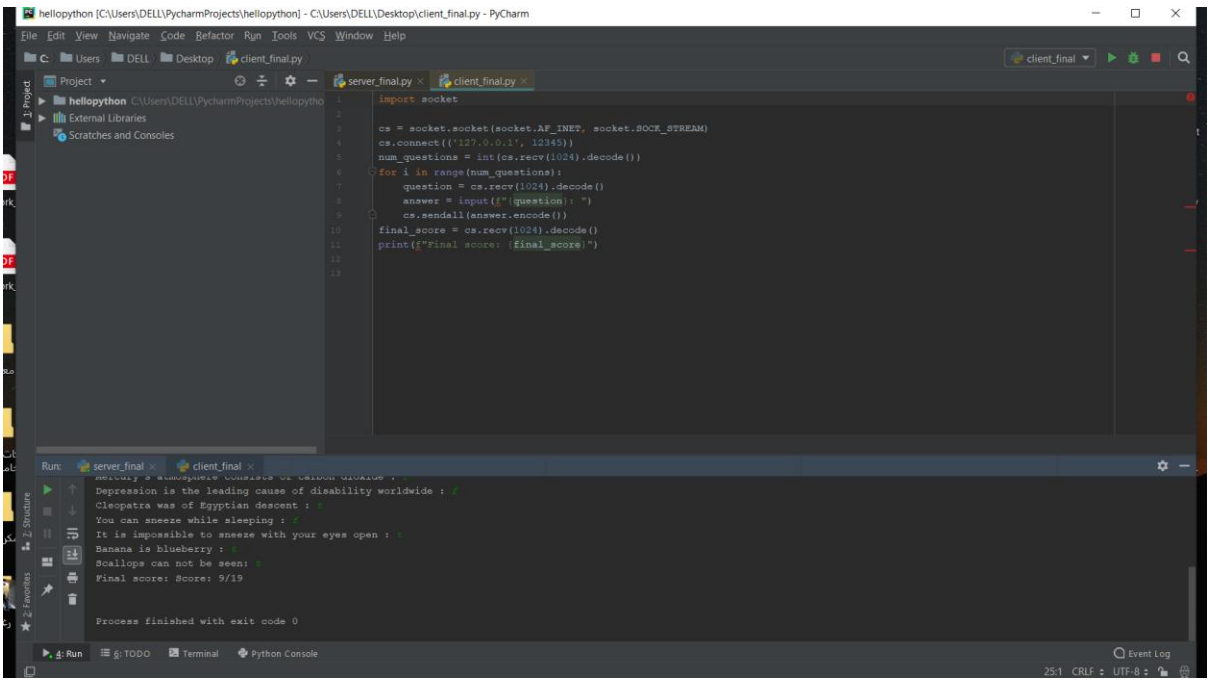
Second Network programming Homework

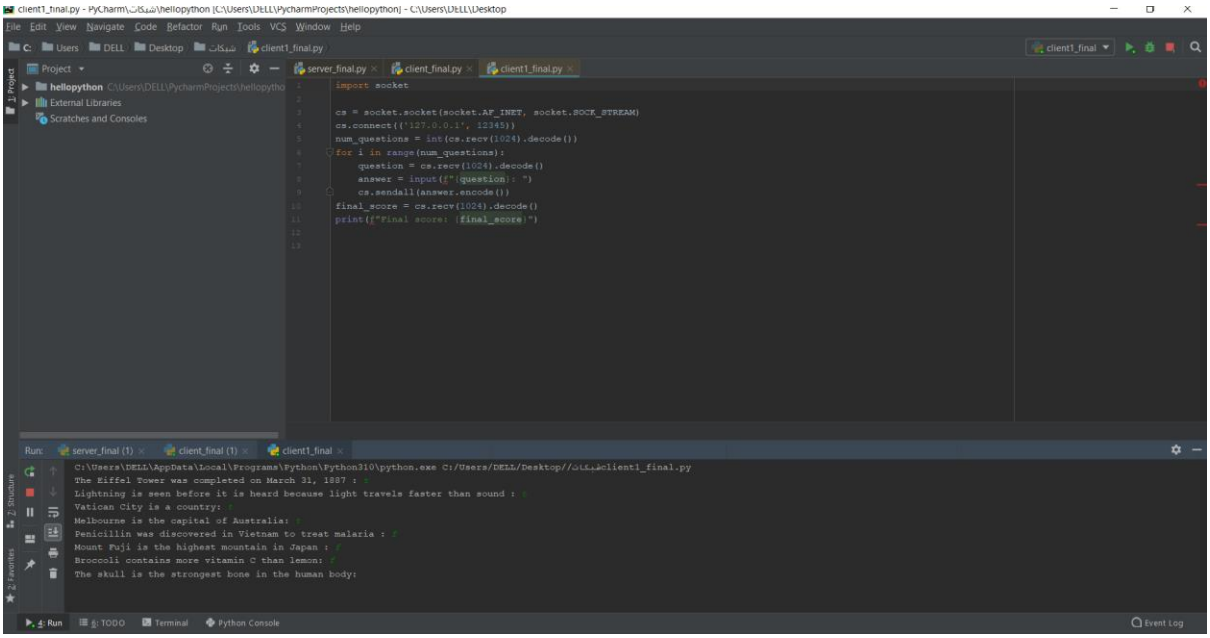
Question 1: TCP Server/Client Quiz App with Multi-threading?

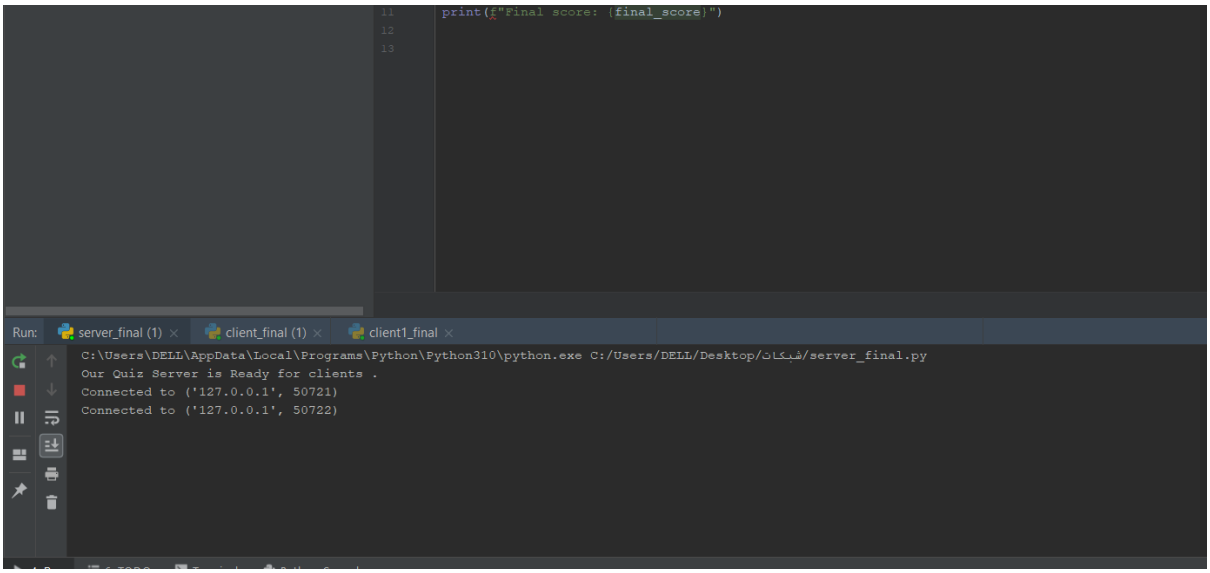
As an improvement to previous first homework, build a TCP server and client quiz application using Python. The server should handle multiple client connections simultaneously using multi-threading. The application should allow clients to connect, participate in a quiz, and receive their quiz scores upon completion




hellopython [C:\Users\DELL\PycharmProjects\hellopython] - C:\Users\DELL\Desktop\server_final.py - PyCharm
File Edit View Navigate Code Refactor Run Tools VCS Window Help
server_final.py
client_final.py
cs.send(str(len(questions)).encode())
for question in questions:
cs.send(question.encode())
client_ans = cs.recv(10).decode().strip()
if client_ans.upper() == questions[question].upper():
result[cadd] = result.get(cadd, 0) + 1
score = result.get(cadd, 0)
cs.send(f"Score: {score}/{len(questions)}\n".encode())
cs.close()
class handle_client_thread(threading.Thread):
def __init__(self,cs,cadd):
threading.Thread.__init__(self)
self.cs=cs
self.cadd=cadd
def run(self):
handle_request(self.cs,self.cadd)
ss = socket.socket(socket.AF_INET, socket.SOCK_STREAM)
ss.bind(('127.0.0.1',12345))
ss.listen(6)
print("Our Quiz Server is Ready for clients .")
while True:
Run: server_final
C:\Users\DELL\AppData\Local\Programs\Python\Python310\python.exe C:/Users/DELL/Desktop/server_final.py
Our Quiz Server is Ready for clients .
4: Run
6: TODO
Terminal
Python Console
Event Log
51:32 CRLF UTF-8

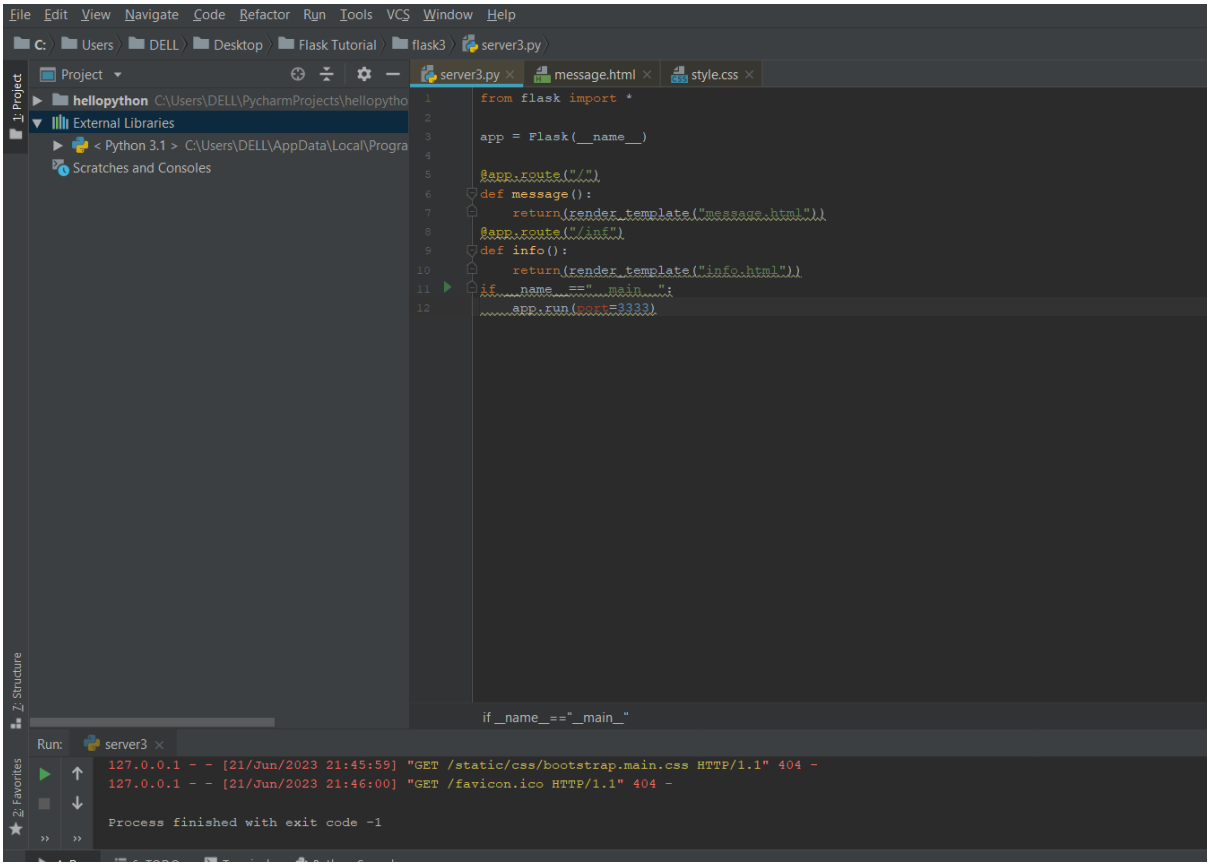

hellopython [C:\Users\DELL\PycharmProjects\hellopython] - C:\Users\DELL\Desktop\client_final.py - PyCharm
File Edit View Navigate Code Refactor Run Tools VCS Window Help
server_final.py
client_final.py
import socket
cs = socket.socket(socket.AF_INET, socket.SOCK_STREAM)
cs.connect(('127.0.0.1', 12345))
num_questions = int(cs.recv(1024).decode())
for i in range(num_questions):
question = cs.recv(1024).decode()
answer = input(f"{question}: ")
cs.sendall(answer.encode())
final_score = cs.recv(1024).decode()
print(f"Final score: {final_score}")
Run: server_final
client_final
Depression is the leading cause of disability worldwide : f
Cleopatra was of Egyptian descent : f
You can sneeze while sleeping : f
It is impossible to sneeze with your eyes open : t
Banana is blueberry : f
Scallops can not be seen: f
Final score: Score: 9/19
Process finished with exit code 0
4: Run
6: TODO
Terminal
Python Console
Event Log
25:1 CRLF UTF-8

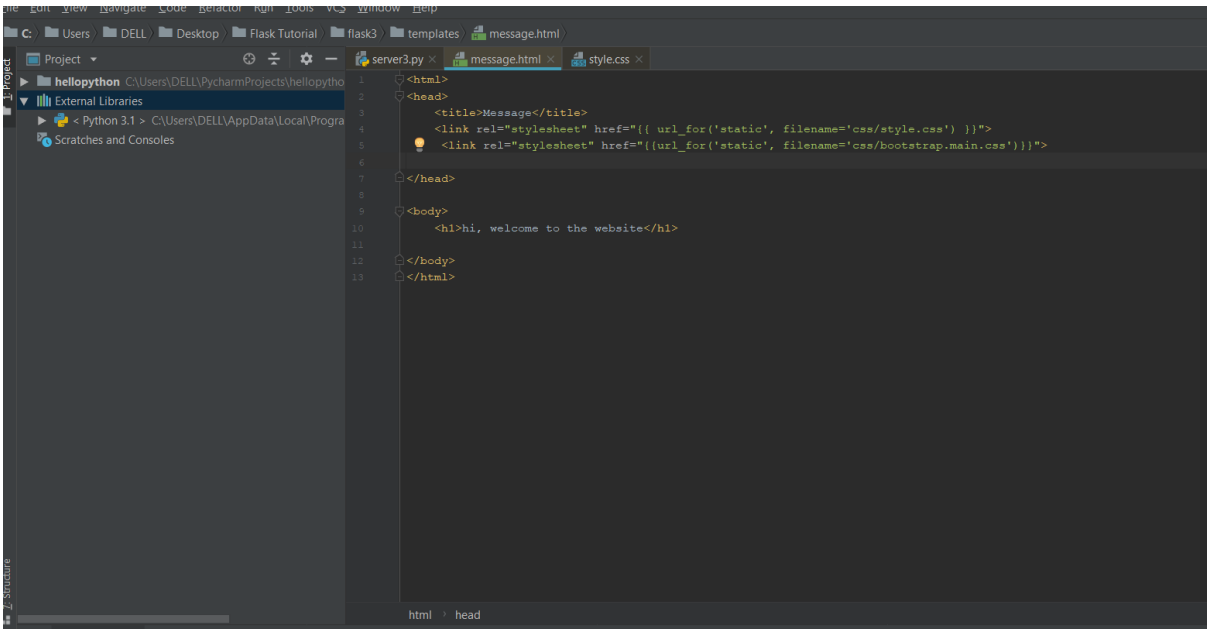


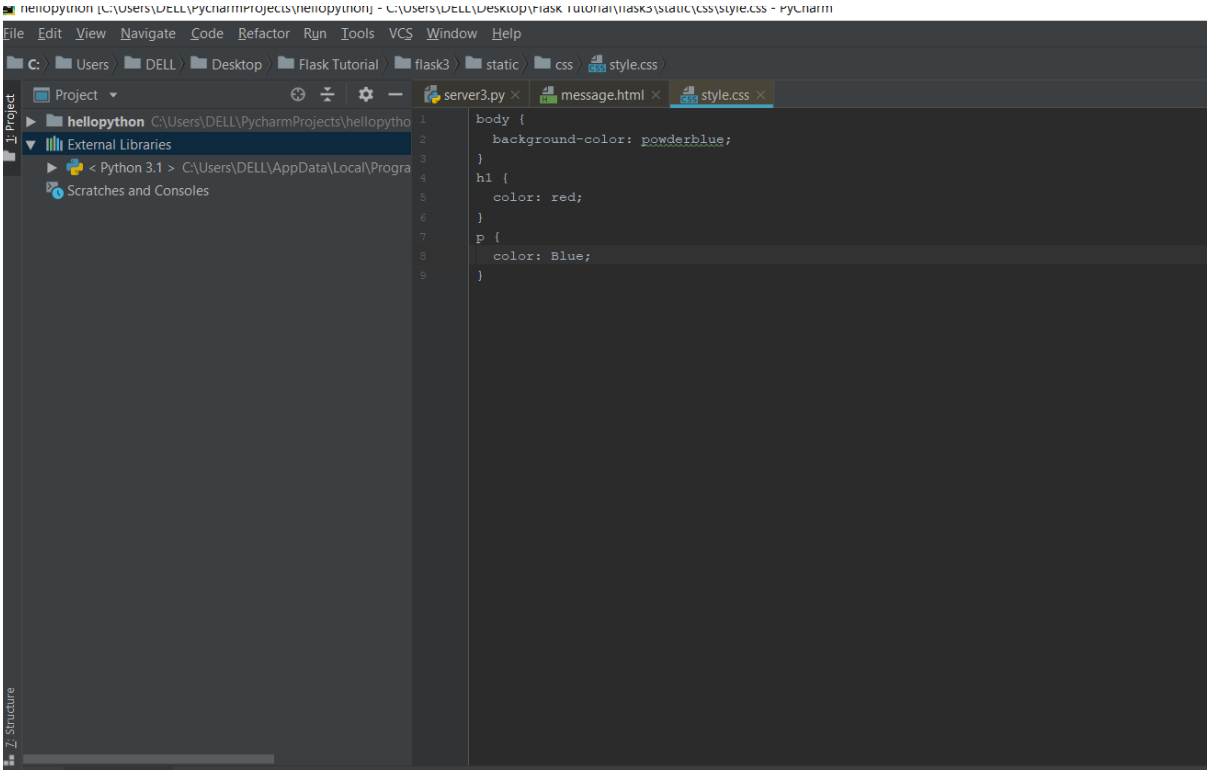


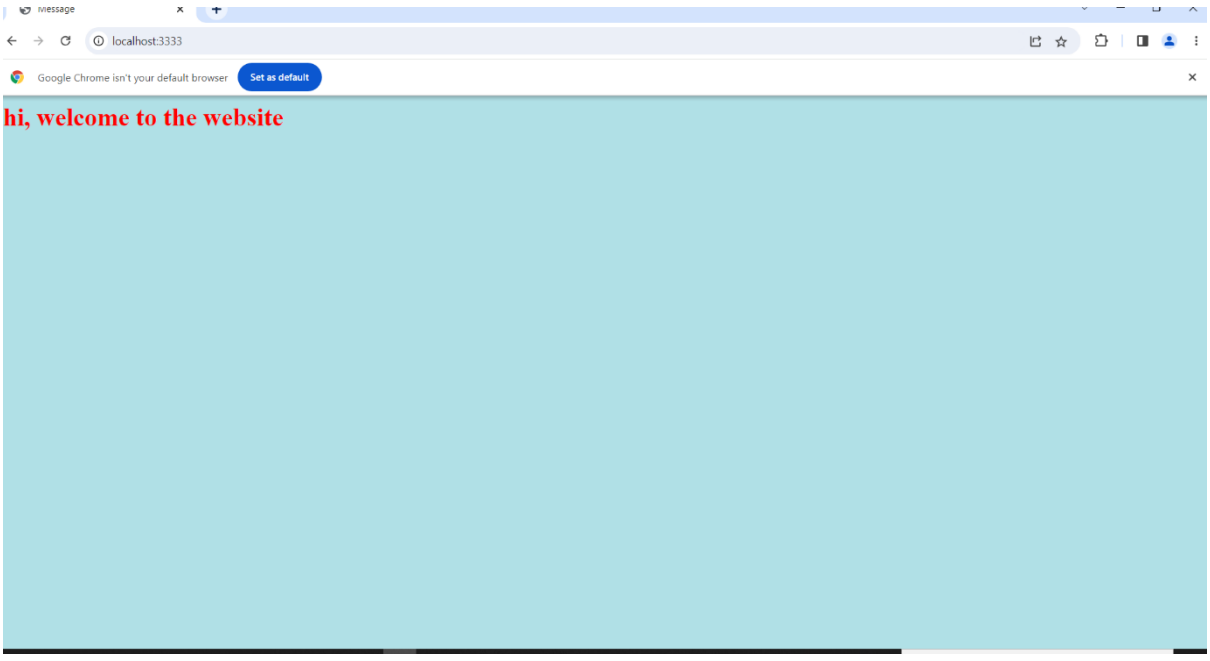
Question 2: Simple Website with Python Flask Framework

Create a simple website with multiple pages using Flask, HTML, CSS, and Bootstrap. The website should demonstrate your understanding of web design principles.


File Edit View Navigate Code Refactor Run Tools VCS Window Help
C: Users DELL Desktop Flask Tutorial flask3 server3.py
Project
hellopython C:\Users\DELL\PycharmProjects\hellopytho
External Libraries
< Python 3.1 > C:\Users\DELL\AppData\Local\Progra
Scratches and Consoles
server3.py
message.html
style.css
from flask import *
app = Flask(__name__)
@app.route("/")
def message():
return(render_template("message.html"))
@app.route("/inf")
def info():
return(render_template("info.html"))
if __name__=="__main__":
app.run(port=3333)
if __name__=="__main__"
Run: server3
127.0.0.1 - - [21/Jun/2023 21:45:59] "GET /static/css/bootstrap.main.css HTTP/1.1" 404 -
127.0.0.1 - - [21/Jun/2023 21:46:00] "GET /favicon.ico HTTP/1.1" 404 -
Process finished with exit code -1


C: Users DELL Desktop Flask Tutorial flask3 templates message.html
Project
hellopython C:\Users\DELL\PycharmProjects\hellopytho
External Libraries
< Python 3.1 > C:\Users\DELL\AppData\Local\Progra
Scratches and Consoles
server3.py
message.html
style.css
<html>
<head>
<title>Message</title>
<link rel="stylesheet" href="{{ url_for('static', filename='css/style.css') }}">
<link rel="stylesheet" href="{{url_for('static', filename='css/bootstrap.main.css')}}">
</head>
<body>
<h1>hi, welcome to the website</h1>
</body>
</html>
html head





العوائق التي ظهرت هي ان برنامج ال pycharm لايحتوي على حزمة ال flask لذلك اتجهنا الى تنزيل الحزمة على البرنامج والاستفادة منها في فتح صفحة على المتصفح