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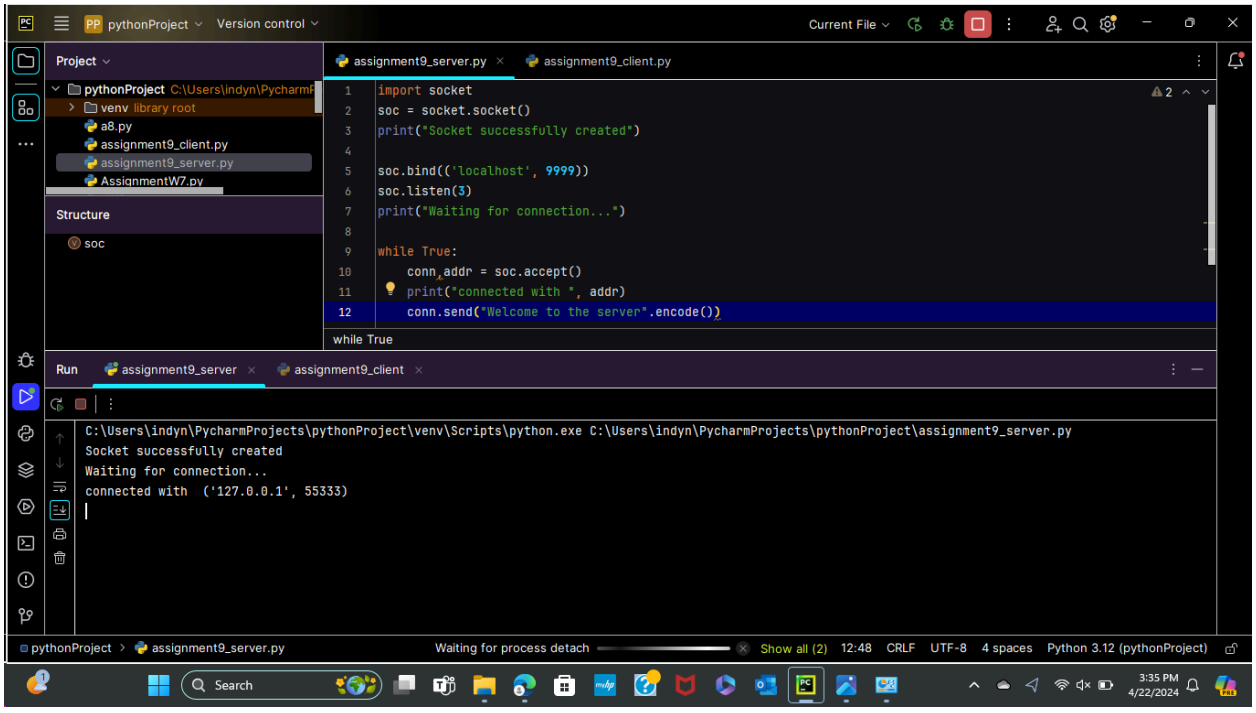
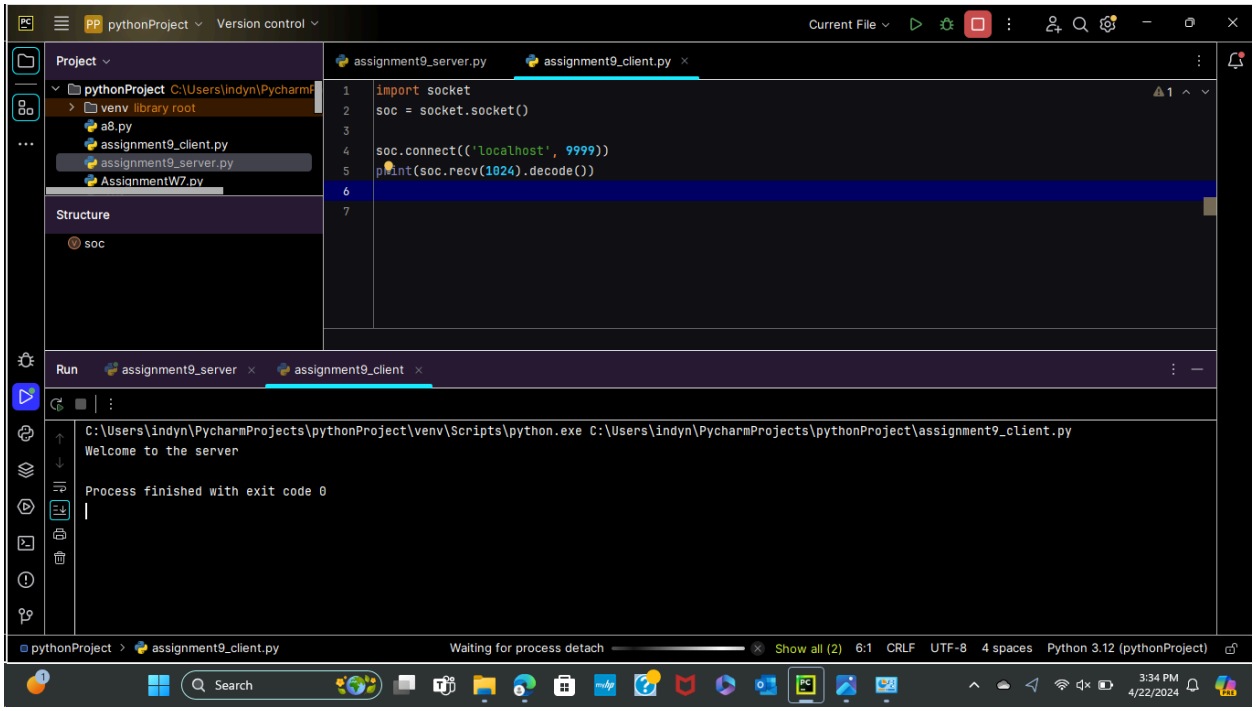
CYSE250 - 1:30
22 April 2024

Assignment 9

1. **Suppose you run the TCP client without starting the server. What happens and why?**
   The client will try to connect to a nonexistent server. This would mean the client would try to output or have a conversation with a nonexistent server, so unless the client server has a way to compile without the server, the code will error.
2. **What is a local host, and how is it used to develop networked applications?**
   A local host is a local machine that is making a request within a network, typically this refers to a singular device and by pinging the local host it means the computer is communicating with itself.
3. **What does time.sleep() do in python?**
   The time.sleep() function prevents the action of a program for the number inputted in the parameter.
4. **Explain in brief about the following system call in python:**
   a. **bind():** Used to specify the local address and port the server will listen to for connections
   b. **connect():** Used to establish connection between the client and server; used to connect the client socket to the specified address from the bind function
   c. **send():** Used to send data from the server/client
   d. **recv():** Used to receive data sent to the server/client
   e. **accept():** Used to accept an incoming connection
5. **Write a simple socket program in python to have one client and one server communicating with each other using a secure chat system.**




pythonProject
Version control
Current File
Project
pythonProject C:\Users\indyn\PycharmP
venv library root
a8.py
assignment9_client.py
assignment9_server.py
AssignmentW7.py
Structure
soc
assignment9_server.py
assignment9_client.py
1 import socket
2 soc = socket.socket()
3
4 soc.connect(('localhost', 9999))
5 print(soc.recv(1024).decode())
6
7
Run
assignment9_server
assignment9_client
C:\Users\indyn\PycharmProjects\pythonProject\venv\Scripts\python.exe C:\Users\indyn\PycharmProjects\pythonProject\assignment9_client.py
Welcome to the server
Process finished with exit code 0
pythonProject
assignment9_client.py
Waiting for process detach
Show all (2)
6:1
CRLF
UTF-8
4 spaces
Python 3.12 (pythonProject)
Search
3:34 PM
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