

CAPSTONE

NAME:- Mihir Kumar

Regd. No.:- 2141011109

Socket-Local/Python

New ▾					Sort ▾	View ▾	...
Home	Name	Date modified	Type	Size			
Gallery	Socket	10-04-2025 11:17	File folder				

New ▾					Sort ▾	View ▾	...
Home	Name	Date modified	Type	Size			
Gallery	python	10-04-2025 11:17	File folder				

New ▾					Sort ▾	View ▾	...
Home	Name	Date modified	Type	Size			
Gallery	client	10-04-2025 11:14	Python File	1 KB			
OneDrive	server	10-04-2025 11:13	Python File	1 KB			

```
Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.

Install the latest PowerShell for new features and improvements! https://aka.ms/PSWindows

PS C:\Users\MIHIR KUMAR\Desktop\Socket\python> python -version
Python was not found; run without arguments to install from the Microsoft Store, or disable this shortcut from Settings > Apps > Advanced app settings > App execution aliases.
PS C:\Users\MIHIR KUMAR\Desktop\Socket\python> pyton
pyton : The term 'pyton' is not recognized as the name of a cmdlet, function, script file, or operable program. Check the spelling of the name, or if a path was included, verify that the path is correct and try again.
At line:1 char:1
~> pyton
~> ~~~~~
~> CategoryInfo          : ObjectNotFound: (python:String) [], CommandNotFoundException
~> FullyQualifiedErrorId : CommandNotFoundException

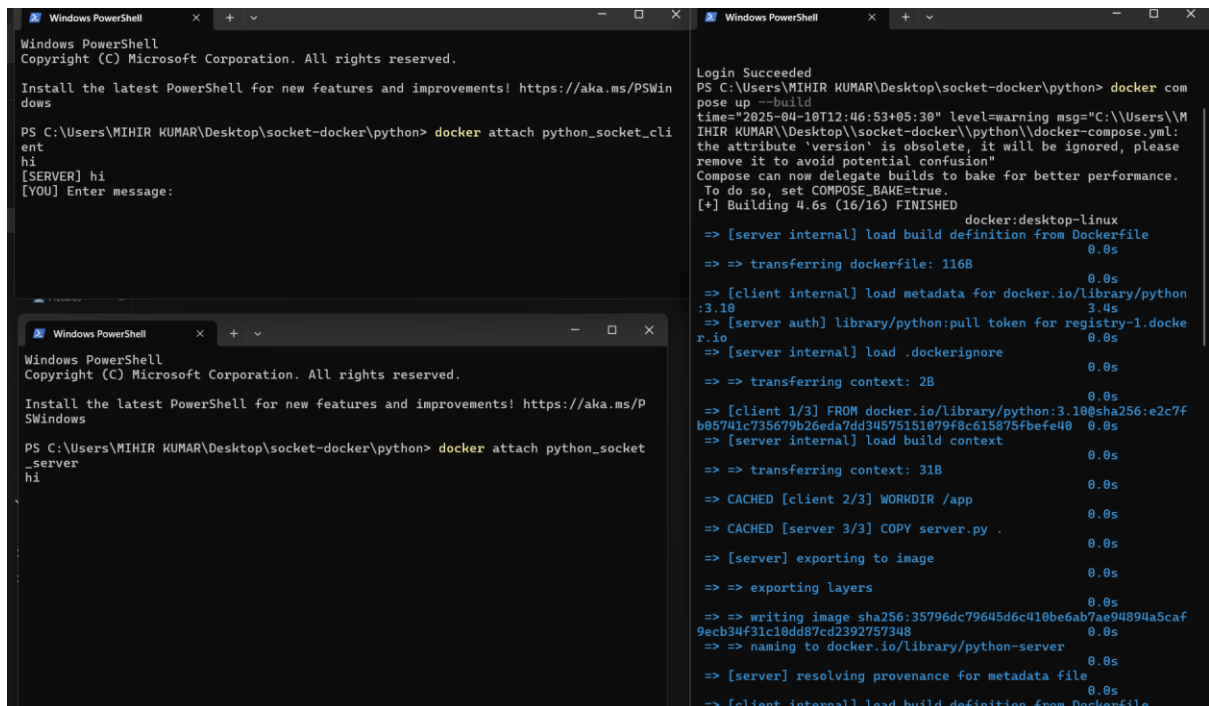
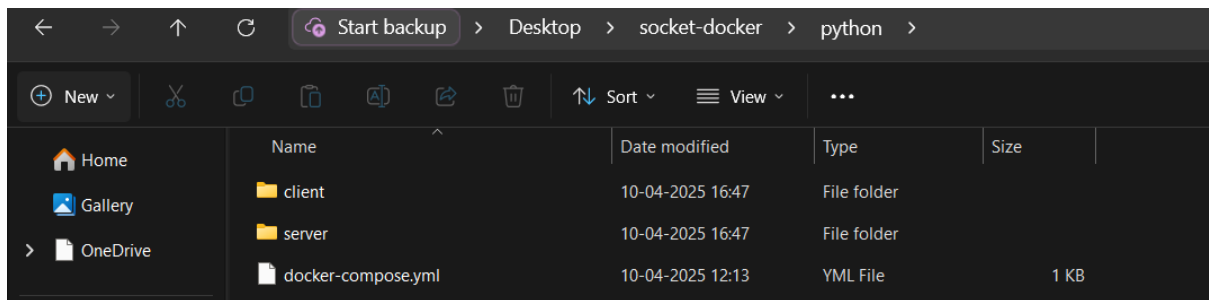
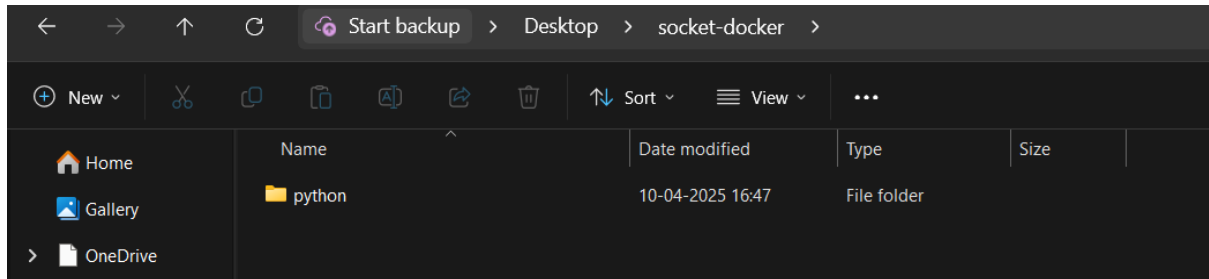
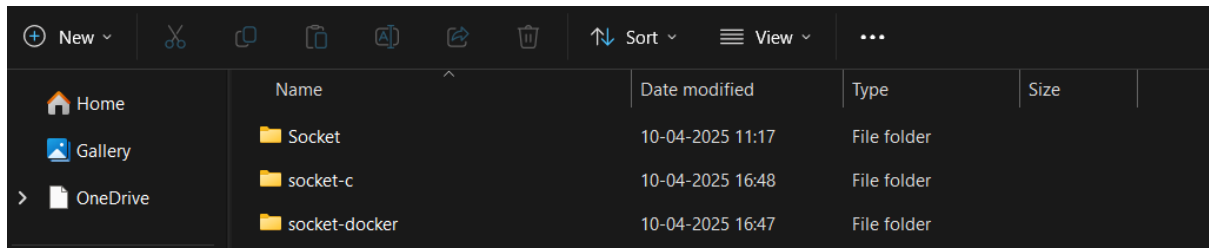
PS C:\Users\MIHIR KUMAR\Desktop\Socket\python> python
PS C:\Users\MIHIR KUMAR\Desktop\Socket\python> python -version
Unknown option: -e
Usage: C:\Users\MIHIR KUMAR\AppData\Local\Microsoft\WindowsApps\python.exe [-option] ... [-c cmd | -m mod | file | -] [arg] ...
Try 'python -h' for more information.
PS C:\Users\MIHIR KUMAR\Desktop\Socket\python> python ./server.py
Server listening on localhost:12345
Connected to client at ('127.0.0.1', 63772)
Client says: hello
Enter reply to client: hi
Client says: my name is mihir
Enter reply to client: my name is server

Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.

Install the latest PowerShell for new features and improvements! https://aka.ms/PSWindows

PS C:\Users\MIHIR KUMAR\Desktop\Socket\python> python ./client.py
Connected to server at localhost:12345
Enter message to server: hello
Server says: hi
Enter message to server: my name is mihir
Server says: my name is server
Enter message to server: my |
```

Socket-Docker/Python



Ask Gordon BETA

Containers

Images

Volumes

Builds

Docker Hub

Docker Scout

Extensions

Images Give feedback

View and manage your local and Docker Hub images. [Learn more](#)

Local

Docker Hub repositories

1 GB / 0 Bytes in use 4 images Last refresh: 21 hours ago

Search

<input type="checkbox"/>	Name	Tag	Image ID	Created	Size	Actions
<input type="checkbox"/>	python-client	latest	583f1016388d	37 minutes ag	1 GB	
<input type="checkbox"/>	python-server	latest	35796dc79645	37 minutes ag	1 GB	
<input type="checkbox"/>	python	latest	f285e872b452	2 days ago	1.01 GB	
<input type="checkbox"/>	hello-world	latest	74cc54e27dc4	3 months ago	10.07 KB	

Showing 4 items

Walkthroughs

1. FROM node

2. RUN npm install -g

3. WORKDIR /app

4. COPY package

How do I run a container?

6 mins

Run Docker Hub images

5 mins

[View more in the Learning center](#)

Ask Gordon BETA

Containers

Images

Volumes

Builds

Docker Hub

Docker Scout

Extensions

Containers Give feedback

View all your running containers and applications. [Learn more](#)

Container CPU usage

0.00% / 1400% (14 CPUs available)

Container memory usage

7.89MB / 7.33GB

[Show charts](#)

Search

Only show running containers

<input type="checkbox"/>	Name	Container ID	Image	Port(s)	CPU (%)	Last started	Actions
<input type="checkbox"/>	python	-	-	-	0%	5 minutes ago	

Showing 1 item

Walkthroughs

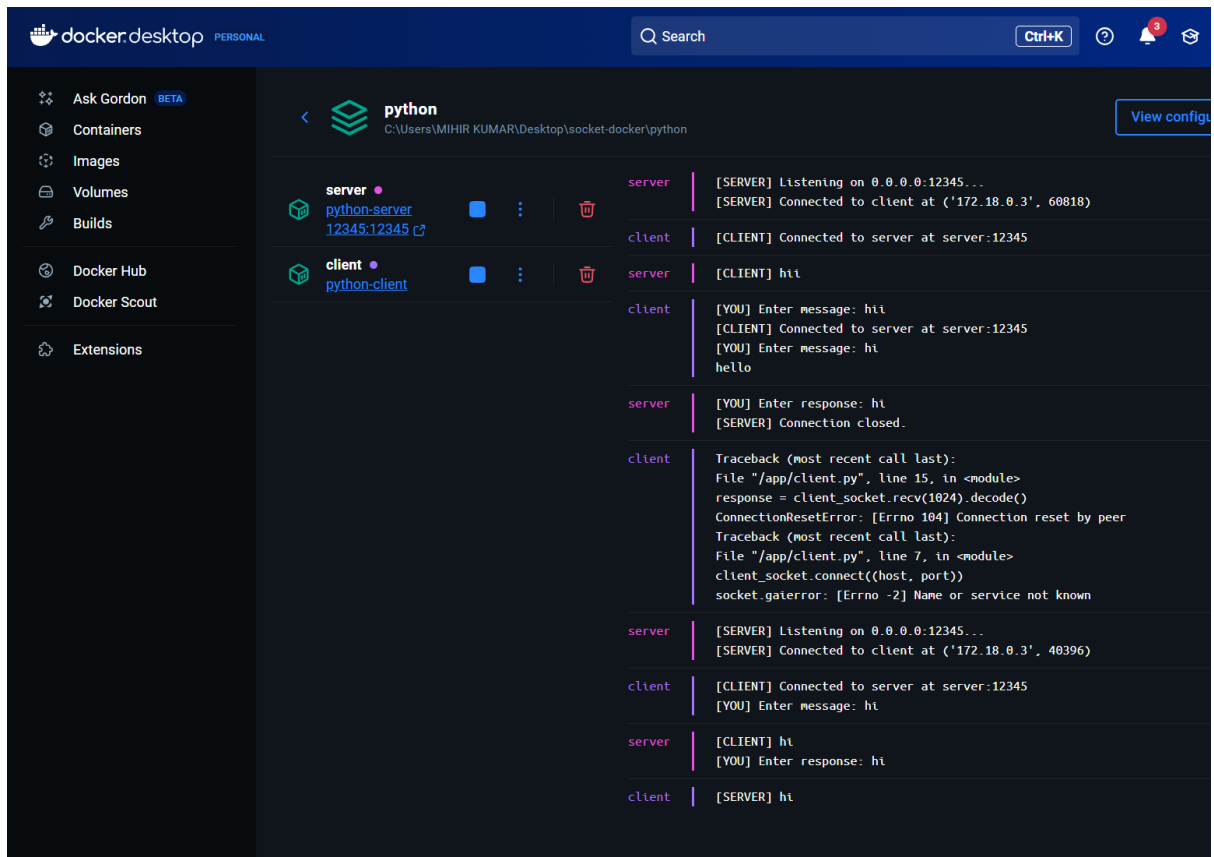
Multi-container applications

8 mins

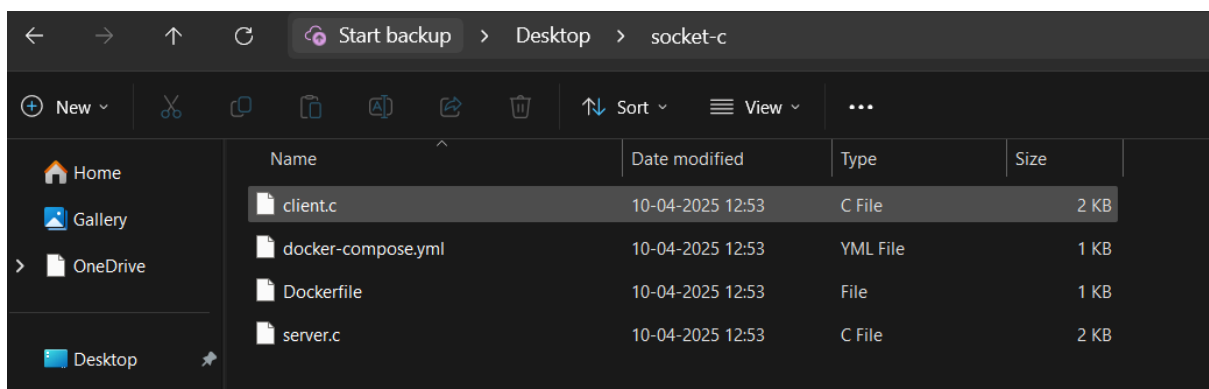
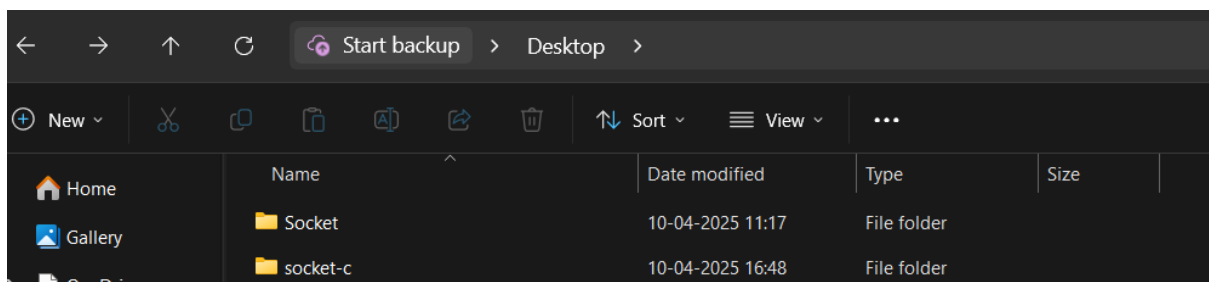
Containerize your application

3 mins

[View more in the Learning center](#)



Socket-Docker/C



```
Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.

Install the latest PowerShell for new features and improvements! https://aka.ms/PSWindows

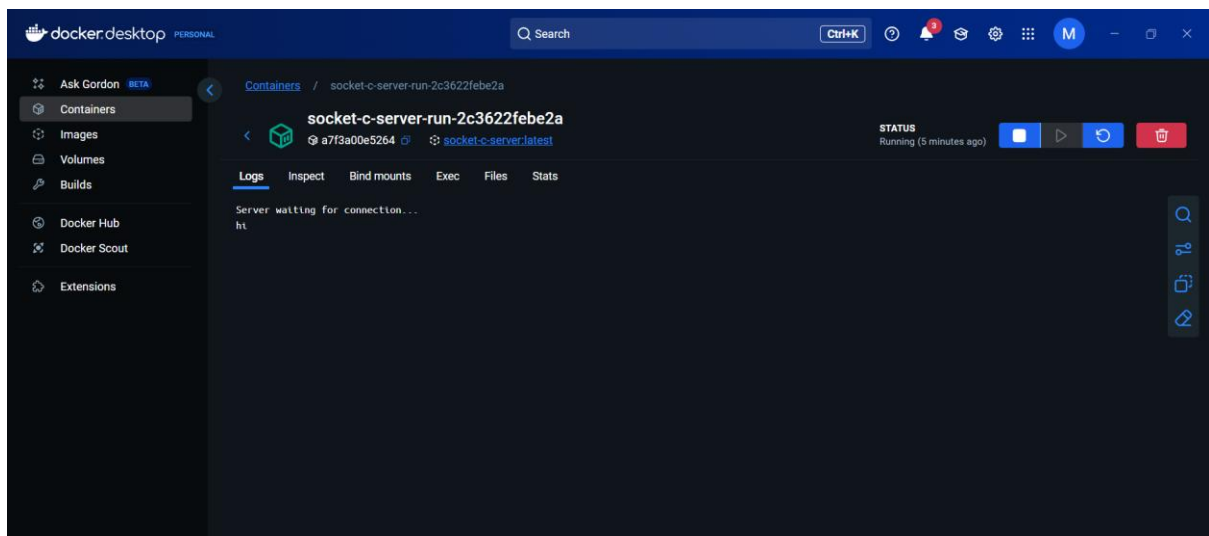
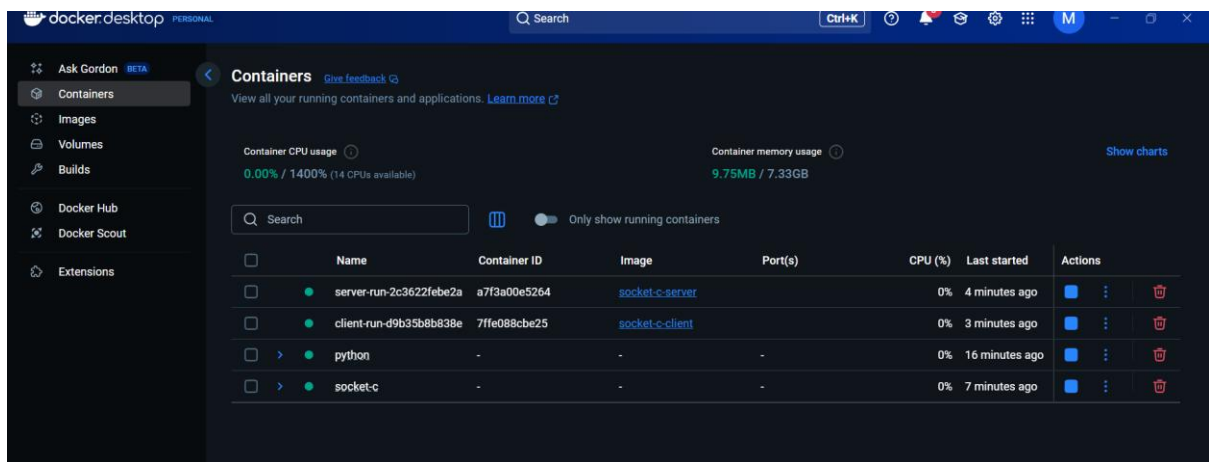
PS C:\Users\MIHIR KUMAR\Desktop\socket-c> docker-compose run client
time="2025-04-10T12:59:54+05:30" level=warning msg="C:\\Users\\MIHIR KUMAR\\Desktop\\socket-c\\docker-compose.yml: the attribute 'version' is obsolete, it will be ignored, please remove it to avoid potential confusion"
[*] Creating 1/1
  ✓ Container chat_server  Running
0s
Connected to server!
Client: hi

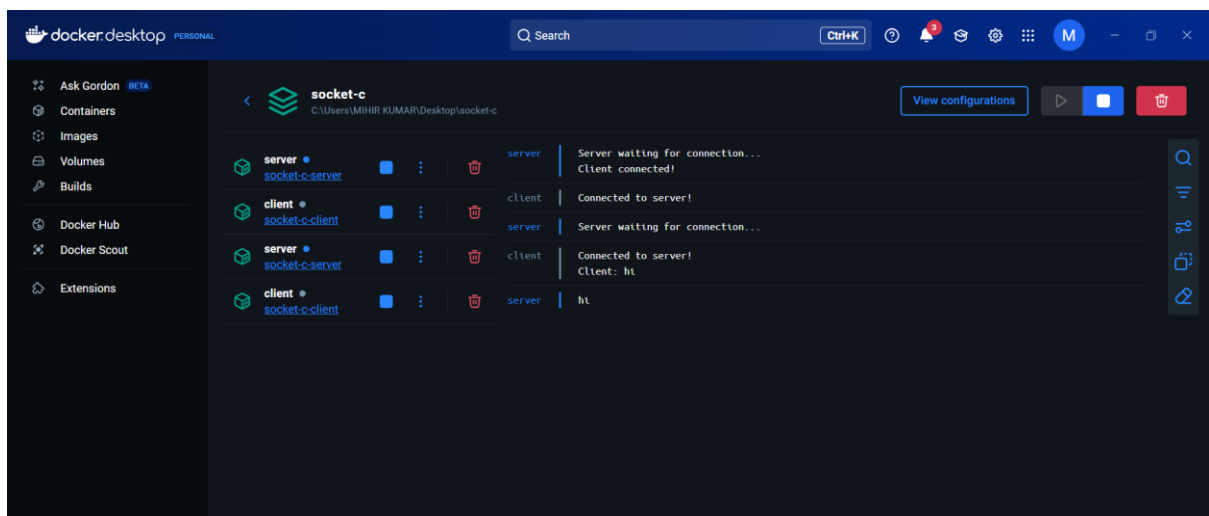
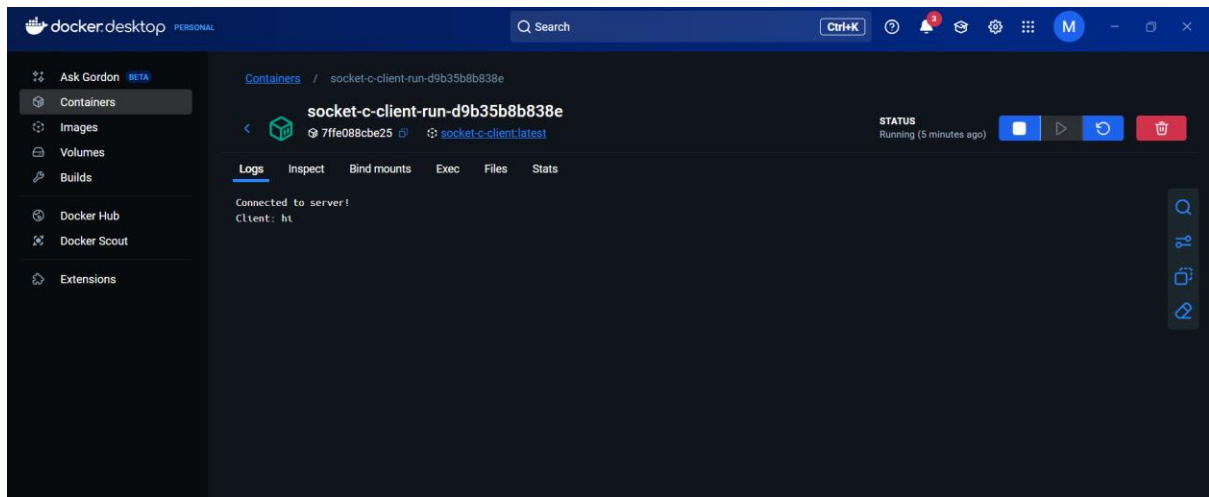
Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.

Install the latest PowerShell for new features and improvements! https://aka.ms/PSWindows

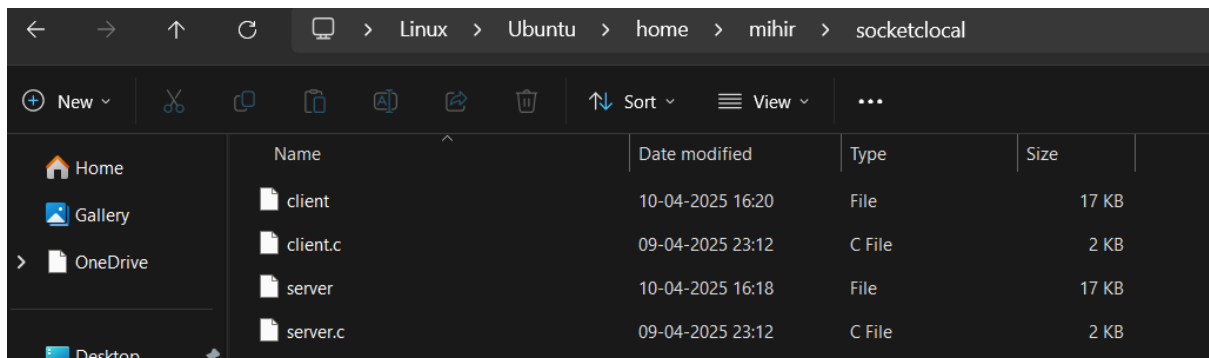
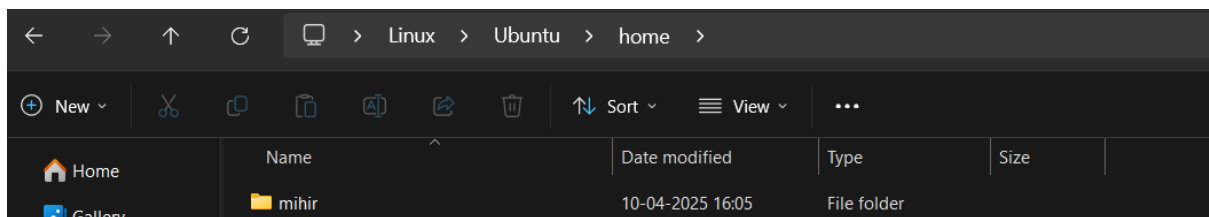
PS C:\Users\MIHIR KUMAR\Desktop\socket-c> docker-compose run server
time="2025-04-10T12:59:14+05:30" level=warning msg="C:\\Users\\MIHIR KUMAR\\Desktop\\socket-c\\docker-compose.yml: the attribute 'version' is obsolete, it will be ignored, please remove it to avoid potential confusion"
Server waiting for connection...
hi

=> sha256:a0fcfad35b187f556943bae42047e6b09c6a79788921825df88a820773ec0ecb 2.81MB / 2.81MB
=> extracting sha256:a0fcfad35b187f556943bae42047e6b09c6a79788921825df88a820773ec0ecb 8.6s
=> sha256:8b77cd7514d65ebffdfc56971b896c1e9f0067d45e9ffcf96a76802cbd596d6 9.61kB / 9.61kB
=> extracting sha256:8b77cd7514d65ebffdfc56971b896c1e9f0067d45e9ffcf96a76802cbd596d6 1.8s
=> sha256:ea589c0b318a435eaaa443207f64cbb47ec482575de53c1b3ad00642ab59c4b4 1.78kB / 1.78kB
=> extracting sha256:ea589c0b318a435eaaa443207f64cbb47ec482575de53c1b3ad00642ab59c4b4 0.1s
=> extracting sha256:a0fcfad35b187f556943bae42047e6b09c6a79788921825df88a820773ec0ecb 2.9s
=> extracting sha256:e4dd9c002dd2bb0fbb6d61f18a350e5c8aeabcc16e0fa702claba8c09c9936cd 0.0s
=> extracting sha256:8b77cd7514d65ebffdfc56971b896c1e9f0067d45e9ffcf96a76802cbd596d6 2.7s
=> extracting sha256:ea589c0b318a435eaaa443207f64cbb47ec482575de53c1b3ad00642ab59c4b4 0.0s
=> [server internal] load build context
=> transferring context: 2.93kB
=> [server auth] library/gcc:pull token for registry-1.docker.io
=> CACHED [client 2/6] WORKDIR /app
=> [server 3/6] COPY server.c .
=> [server 4/6] COPY client.c .
=> [server 5/6] RUN gcc -o server server.c
=> [server 6/6] RUN gcc -o client client.c
=> [server] exporting to image
=> exporting layers
=> writing image sha256:01ffcb914712c5af092d6ce8c63ea91ca080e3439de929a0174fbcf8f6ce5162 0.1s
=> naming to docker.io/library/socket-c-server
=> [server] resolving provenance for metadata file
=> [client internal] load build definition from Dockerfile
=> transferring dockerfile: 291B
```





Socket-Local/C



Name	Date modified	Type	Size
mihir@LAPTOP-8L9A0TAA: ~/socketclocal			
mihir@LAPTOP-8L9A0TAA:~/socketclocal\$ gcc server.c -o server			
/usr/bin/ld: cannot open output file server: Permission denied			
collect2: error: ld returned 1 exit status			
mihir@LAPTOP-8L9A0TAA:~/socketclocal\$ sudo gcc server.c -o server			
[sudo] password for mihir:			
mihir@LAPTOP-8L9A0TAA:~/socketclocal\$./server			
Server is listening on port 8080			
Message from client: my name is mihir			
Enter a message for client: hello			
Client disconnected.			
mihir@LAPTOP-8L9A0TAA:~/socketclocal\$			

Ubuntu	
mihir@LAPTOP-8L9A0TAA: \$	cd socketclocal
mihir@LAPTOP-8L9A0TAA: ~/socketclocal\$	sudo gcc client.c -o client
[sudo] password for mihir:	
mihir@LAPTOP-8L9A0TAA: ~/socketclocal\$./client
Enter a message for server: my name is ai	
Server disconnected.	
mihir@LAPTOP-8L9A0TAA: ~/socketclocal\$	