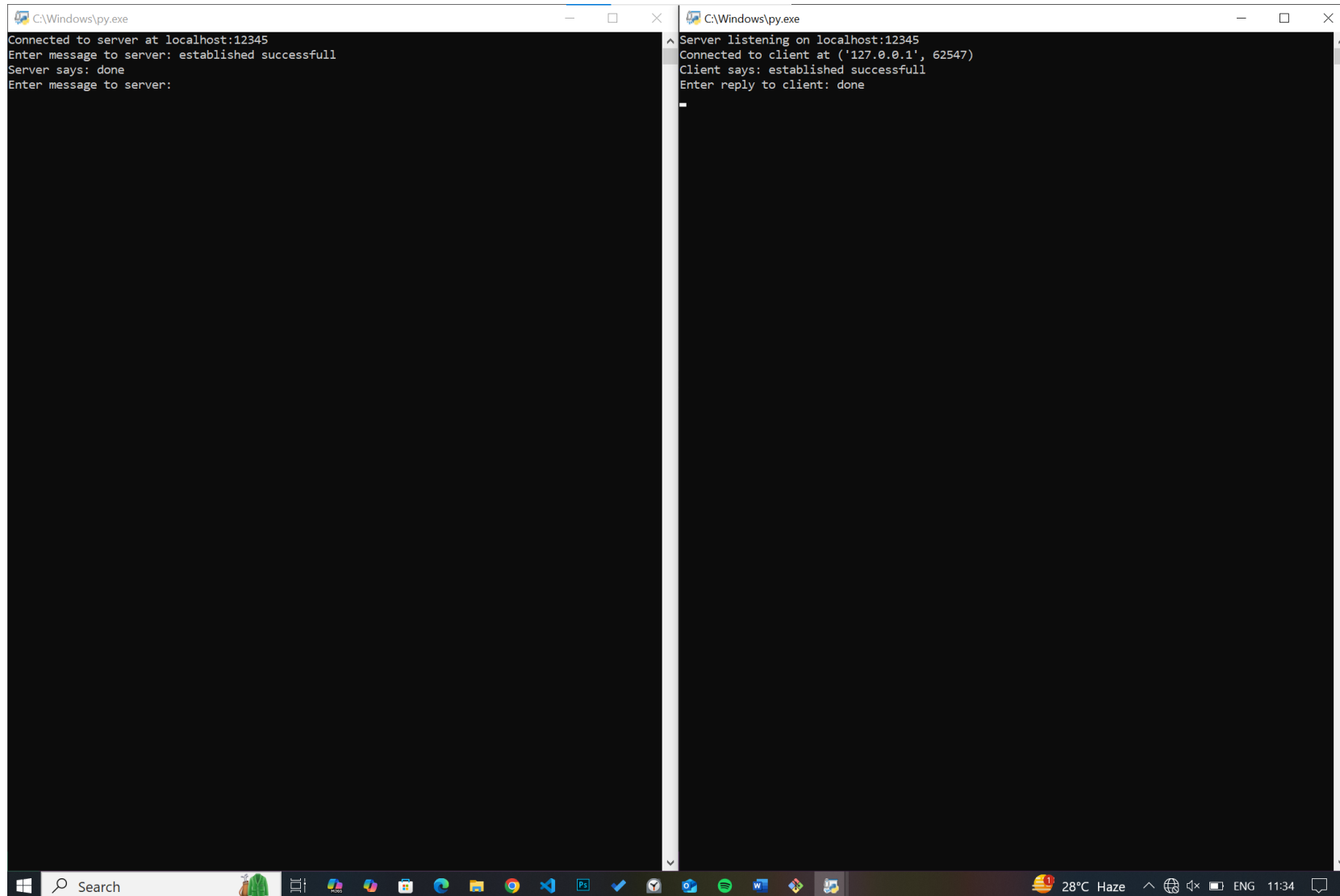


Capston-4

Name:- Ganesh Gouda

Regd. No:- 2251007002

Python Local code:-



The image shows two side-by-side Windows command prompt windows. The left window, titled 'C:\Windows\py.exe', displays the following text: 'Connected to server at localhost:12345', 'Enter message to server: established successfull', 'Server says: done', and 'Enter message to server:'. The right window, also titled 'C:\Windows\py.exe', displays: 'Server listening on localhost:12345', 'Connected to client at ('127.0.0.1', 62547)', 'Client says: established successfull', and 'Enter reply to client: done'. Both windows have a black background with white text. The Windows taskbar is visible at the bottom, showing the Start button, a search bar, and various application icons. The system tray on the right shows the temperature as 28°C, weather as Haze, and the time as 11:34.

```
C:\Windows\py.exe
Connected to server at localhost:12345
Enter message to server: established successfull
Server says: done
Enter message to server:

C:\Windows\py.exe
Server listening on localhost:12345
Connected to client at ('127.0.0.1', 62547)
Client says: established successfull
Enter reply to client: done
```

Python Docker code:

The screenshot displays the Docker Desktop application interface. The top navigation bar includes the Docker logo, a search bar, and a 'PERSONAL' label. The left sidebar contains navigation options: Ask Gordon (BETA), Containers, Images (selected), Volumes, Builds, Docker Hub, Docker Scout, and Extensions.

The main area is titled 'Images' and shows a list of local Docker images. Below the title, it indicates '1 GB / 0 Bytes in use' and '4 images'. A search bar and view toggles are present. The image list is as follows:

<input type="checkbox"/>	Name	Tag	Image ID	Created	Size	Actions
<input type="checkbox"/>	python	latest	f285e872b452	1 day ago	1.01 GB	
<input type="checkbox"/>	hello-world	latest	74cc54e27dc4	3 months ago	10.07 KB	
<input type="checkbox"/>	python-server	latest	1c4ffb6ccc69	8 minutes ago	1 GB	
<input type="checkbox"/>	python-client	latest	6f5c76df7b81	8 minutes ago	1 GB	

Showing 4 items

Below the images list, a 'Terminal' window is open, showing the following output:

```
✓ server Built 0.0s
✓ Network python_default Created 0.1s
✓ Container python_socket_server Created 0.1s
✓ Container python_socket_client Created 0.1s
Attaching to python_socket_client, python_socket_server
python_socket_server | [SERVER] Listening on 0.0.0.0:12345...
python_socket_server | [SERVER] Connected to client at ('172.18.0.3', 39870)
python_socket_client | [CLIENT] Connected to server at server:12345
```

The bottom status bar shows 'Engine running', system resources (RAM 0.85 GB, CPU 0.75%, Disk 2.23 GB used), and the terminal window title 'Terminal v4.40.0'.

- 

```
2025-04-10 12:01:48 python_socket_server | [SERVER] Listening on 0.0.0.0:12345...
2025-04-10 12:01:48 python_socket_server | [SERVER] Connected to client at ('172.18.0.3', 39870)
2025-04-10 12:13:47 python_socket_server | [CLIENT] hi
2025-04-10 12:13:56 python_socket_server | [YOU] Enter response: hlw
2025-04-10 12:01:48 python_socket_client | [CLIENT] Connected to server at server:12345
2025-04-10 12:13:47 python_socket_client | [YOU] Enter message: hi
2025-04-10 12:13:56 python_socket_client | [SERVER] hlw
```

```
2025-04-10 12:01:48 python_socket_client | [CLIENT] Connected to server at server:12345
2025-04-10 12:13:47 python_socket_client | [YOU] Enter message: hi
2025-04-10 12:13:56 python_socket_client | [SERVER] hlw
```

+ ✓ ✗

```
Windows PowerShell
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Try the new cross-platform PowerShell https://aka.ms/pscore6

PS C:\Users\gk252> cd D:\Socket-docker\python
PS D:\Socket-docker\python> docker attach python_socket_client
hi
[SERVER] h1w
[YOU] Enter message:
```

Windo...	✕
Windo...	✕
Windo...	✕

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% / 800% (8 CPUs available)

Container memory usage
13.87MB / 3.63GB

[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%	10 minutes ago	
<input type="checkbox"/>	python_socket_ser	726bc3dcdd5f	python-server	12345:12345	0%	10 minutes ago	
<input type="checkbox"/>	python_socket_clie	3fdff2546832	python-client		0%	10 minutes ago	

Showing 3 items

Walkthroughs

Terminal

```
Windows PowerShell
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Try the new cross-platform PowerShell https://aka.ms/pscore6

PS C:\Users\gk252> cd D:\Socket-docker\python
PS D:\Socket-docker\python> docker attach python_socket_server
```

Engine running

RAM 0.91 GB CPU 0.25% Disk: 2.23 GB used (limit 1006.85 GB)

Terminal v4.40.0

Ask Gordon BETA

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Images

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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	latest	f285e872b452	1 day ago	1.01 GB	
<input type="checkbox"/>	hello-world	latest	74cc54e27dc4	3 months ago	10.07 KB	
<input type="checkbox"/>	python-server	latest	1c4ffb6ccc69	12 minutes ag	1 GB	
<input type="checkbox"/>	python-client	latest	6f5c76df7b81	12 minutes ag	1 GB	

Showing 4 items

Terminal

```
Attaching to python_socket_client, python_socket_server
python_socket_server | [SERVER] Listening on 0.0.0.0:12345...
python_socket_server | [SERVER] Connected to client at ('172.18.0.3', 39870)
python_socket_client | [CLIENT] Connected to server at server:12345
python_socket_client | [YOU] Enter message: hi
python_socket_server | [CLIENT] hi
python_socket_server | [YOU] Enter response: hlw
python_socket_client | [SERVER] hlw
```

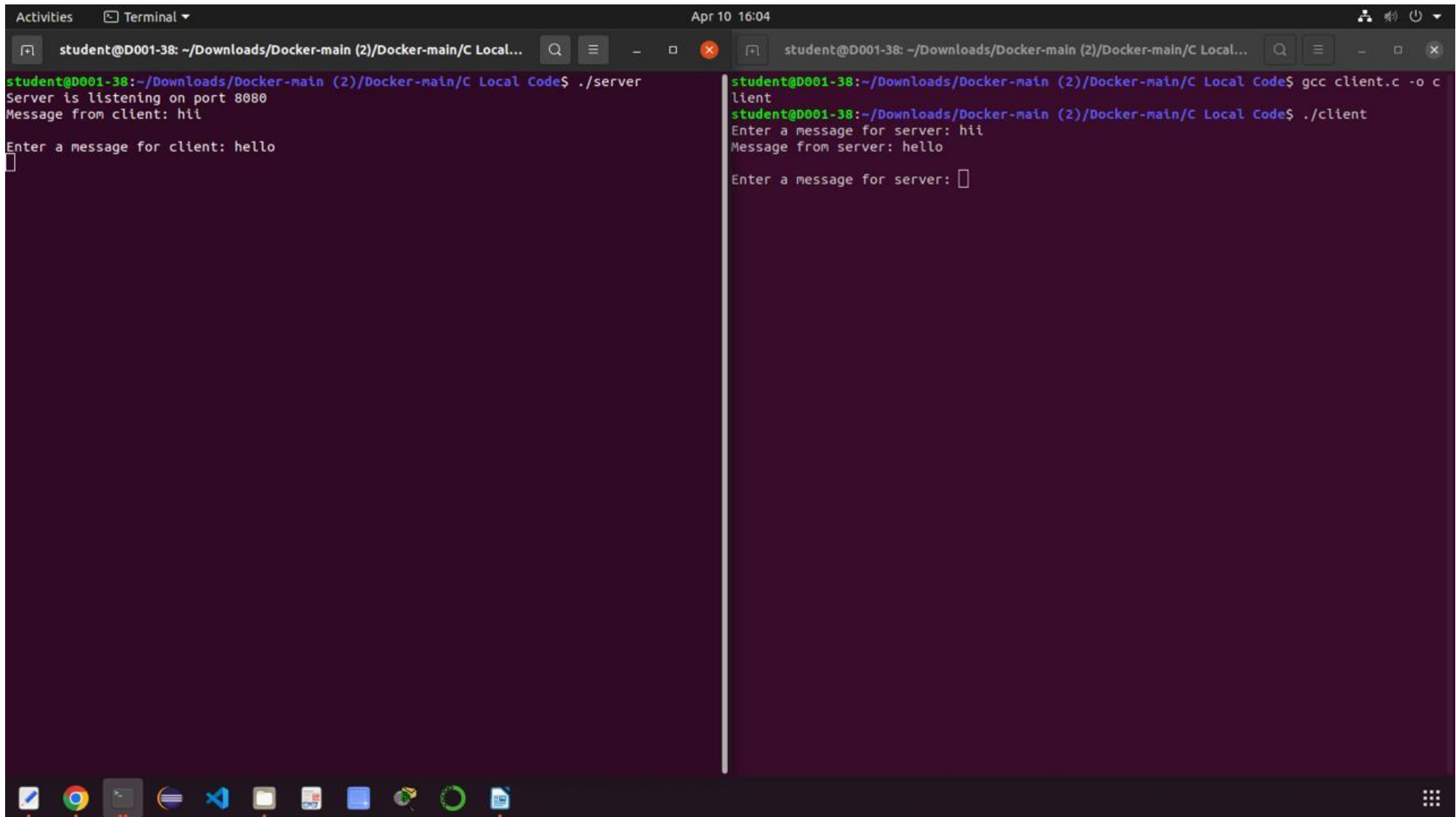
View in Docker Desktop View Config Enable Watch

Engine running

RAM 0.89 GB CPU 0.00% Disk: 2.23 GB used (limit 1006.85 GB)

Terminal v4.40.0

C Local code:-



```
student@D001-38: ~/Downloads/Docker-main (2)/Docker-main/C Local Code$ ./server
Server is listening on port 8080
Message from client: hii
Enter a message for client: hello

```

```
student@D001-38:~/Downloads/Docker-main (2)/Docker-main/C Local Code$ gcc client.c -o client
student@D001-38:~/Downloads/Docker-main (2)/Docker-main/C Local Code$ ./client
Enter a message for server: hii
Message from server: hello
Enter a message for server: 
```

C Docker code:-

The screenshot displays the Docker Desktop application interface. The left sidebar contains navigation options: Ask Gordon (BETA), Containers, Images, Volumes, Builds, Docker Hub, Docker Scout, and Extensions. The main area shows a list of containers under the 'c' namespace in the directory 'E:\wipro\Socket-Docker\c'. Three containers are listed: 'server c-server', 'server c-server', and 'client c-client'. To the right of the container list is a log viewer showing the following output:

```
2025-04-10 12:54:05 chat_server | Server waiting for connection...
2025-04-10 12:54:06 chat_server | Client connected!
2025-04-10 12:54:32 chat_server | Client: hyy
```

Below the Docker Desktop interface, two Windows PowerShell terminal windows are open. The left terminal window shows the following commands and output:

```
PS C:\Users\shail> cd E:\wipro\Socket-Docker\c
PS E:\wipro\Socket-Docker\c> docker-compose run client
time="2025-04-10T12:54:05+05:30" level=warning msg="E:\wipro\Socket-Docker\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 Created                                0.1s
[+] Running 1/1
  ✔ Container chat_server Started                                0.2s

Connected to server!
Client: hyy
```

The right terminal window shows the following commands and output:

```
PS C:\Users\shail> cd E:\wipro\Socket-Docker\c
PS E:\wipro\Socket-Docker\c> docker-compose run server
time="2025-04-10T12:53:45+05:30" level=warning msg="E:\wipro\Socket-Docker\c\docker-compose.yml: the attribute 'version' is obsolete, it will be ignored, please remove it to avoid potential confusion"
[+] Creating 1/1
  ✔ Network c_chatnet Created                                    0.0s

Server waiting for connection...
```

The bottom status bar of the Docker Desktop interface indicates 'Engine running' and 'Terminal v4.40.0'.

docker desktop

PERSONAL

Search

Ctrl+K

?

1

S

Ask Gordon

BETA

Containers

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Builds

Docker Hub

Docker Scout

Extensions

<

c

E:\wipro\Socket-Docker\c

View configurations

server

c-server

server

c-server

client

c-client

2025-04-10 12:54:05 chat_server | Server waiting for connection...

2025-04-10 12:54:06 chat_server | Client connected!

2025-04-10 12:54:32 chat_server | Client: hyy

Terminal

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

PS C:\Users\shail> cd E:\wipro\Socket-Docker\Python

PS E:\wipro\Socket-Docker\Python> docker attach python_socket_client

hello

[SERVER] hyy

[YOU] Enter message:

PS E:\wipro\Socket-Docker\Python>

Ask Gordon BETA

Containers

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1.57 GB / 0 Bytes in use 6 images

Last refresh: 22 hours ago

Search



<input type="checkbox"/>	Name	Tag	Image ID	Created	Size	Actions
<input type="checkbox"/>	● python-server	latest	e6d99b5d2934	55 minutes ag	1.45 GB	
<input type="checkbox"/>	● python-client	latest	24b9850c8d43	55 minutes ag	1.45 GB	
<input type="checkbox"/>	● c-server	latest	8692b9e2f7e4	8 minutes ago	2 GB	
<input type="checkbox"/>	● c-client	latest	eca6d4f9574b	8 minutes ago	2 GB	

Showing 6 items

Terminal

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

PS C:\Users\shail> cd E:\wipro\Socket-Docker\Python

PS E:\wipro\Socket-Docker\Python> docker attach python_socket_client

hello

[SERVER] hyy

[YOU] Enter message:

PS E:\wipro\Socket-Docker\Python>



Windo...



Windo...



Windo...



Ask Gordon BETA

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Builds [Give feedback](#)

Build container images and artifacts from source code. [Learn more](#)

Selected builder

desktop-linux

Import builds

Builder settings

Build history

Active builds

Search



Show only my builds

<input type="checkbox"/>	Name	ID	Builder	Duration	Created	Author	
<input type="checkbox"/>	✓ c	18uhou	desktop-linux	0.7s	8 minutes ago	N/A	
<input type="checkbox"/>	✓ c	xlvcrm	desktop-linux	25.1s	9 minutes ago	N/A	
<input type="checkbox"/>	✓ client	2q9p6q	desktop-linux	0.7s	24 minutes ago	N/A	

Rows per page: 10

1-6 of 6

Terminal

+ - X

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

```
PS C:\Users\shail> cd E:\wipro\Socket-Docker\Python
PS E:\wipro\Socket-Docker\Python> docker attach python_socket_client
hello
[SERVER] hyy
[YOU] Enter message:
PS E:\wipro\Socket-Docker\Python> 
```



Windo... X

Windo... X

Windo... X

Engine running

|| :

RAM 1.35 GB CPU 0.12% Disk: 3.22 GB used (limit 1006.85 GB)

>_ Terminal ✓ v4.40.0