

COMP 6231 – Distributed System Design
Assignment-3
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Task 1

USED IPs:

Client1: 172.17.0.3

Client2: 172.17.0.4

Client3: 172.17.0.5

USED Ports:

Client1: 52540

Client2: 39338

Client3: 36950

Serve IP and Ports (IP,Ports) : (172.17.0.2, 50091)

Storage location:

Users/princeghoghari/Desktop/Princekumar_pravinbhai_Ghoghari_40216962_A1/Server

List of Commands used:

Server:

1) docker pull python : to pull the image from docker and it is used to download a particular image, or set of images. If no tag is provided, Docker Engine uses the: latest tag as a default.

2) To create Server container:

```
->> docker run --name assign3_40216962 --mount
```

```
type=bind,source=/Users/princeghoghari/Desktop/Princekumar_pravinbhai_Ghoghari_40216962_A1/Server,target=/assign3_40216962 --shm-size 2GB -it python bash
```

=> it will create a container and used it as an python

3) apt-get update (inside bash)

4) apt-get install nano net-tools iputils-ping (inside bash)

5) exit (To come out from bash)

6) docker commit assign3_40216962 assign3_40216962-img (To create an image) : Make an image of container that we have created.

Client:

1) To create Client1 container:

```
docker run --name assign3_40216962_client1 --mount  
type=bind,source=/Users/princeghoghari/Desktop/Princekumar_pravinbhai_Ghoghari_40216  
962_A1/Client,target=/assign3_40216962/client --shm-size 30GB -it assign3_40216962-img  
bash
```

=> Create a client container from an image that we have created

2)To create Client2 container:

```
docker run --name assign3_40216962_client1 --mount  
type=bind,source=/Users/princeghoghari/Desktop/Princekumar_pravinbhai_Ghoghari_40216  
962_A1/Client,target=/assign3_40216962/client --shm-size 30GB -it assign3_40216962-img  
bash
```

=> Create a client container from an image that we have created

3)To create Client3 container:

```
docker run --name assign3_40216962_client1 --mount  
type=bind,source=/Users/princeghoghari/Desktop/Princekumar_pravinbhai_Ghoghari_40216  
962_A1/Client,target=/assign3_40216962/client --shm-size 30GB -it assign3_40216962-img  
bash
```

=> Create a client container from an image that we have created

Log file Server:

```
root@9b7536ea06e3:/assignment3# python server.py
```

```
Connection from : ('172.17.0.3', 52540)
```

```
connected
```

```
Connection from : ('172.17.0.4', 39338)
```

```
connected
```

```
Connection from : ('172.17.0.5', 50216)
```

```
connected
```

Logs file for Clients:

Client 1 LOG:

```
root@757229b08aaa:/assign3_40216962# cd client
```

```
root@757229b08aaa:/assign3_40216962/client# ls
```

```
about.txt    mandarin_duck.jpg    taco_bell.mp3
```

```
client.py    orca.jpg              user-guide-nokia-1-4-user-guide.pdf
```

```
jellyfish.jpg picture-of-something.jpg
```

```
root@757229b08aaa:/assign3_40216962/client# python client.py
```

```
Connected to server at IP: 172.17.0.2 and Port: 50092
```

```
Handshake Done. EOF is: <zw5aIY4I>
```

```
Current Directory: /assignment3:
```

```
|
```

```
-- .idea
```

```
-- server.py
```

```
<socket.socket fd=3, family=2, type=1, proto=0, laddr=('172.17.0.3', 52540),
```

```
raddr=('172.17.0.2', 50092)>
```

```
Enter The Command : mkdir prince
```

```
Current Directory: /assignment3:
```

```
|
```

```
-- .idea
```

-- prince

-- server.py

Enter The Command : rm prince

Current Directory: /assignment3:

|

-- .idea

-- server.py

Enter The Command : ls

Enter The Command : cd prince

Current Directory: /assignment3/prince:

|

--

--

Enter The Command : cd ..

Current Directory: /assignment3:

|

-- .idea

-- prince

-- server.py

Enter The Command : ul orca.jpg

File Name : orca.jpg

File Size :58111

File has been successfully Uploaded.

Current Directory: /assignment3:

|

-- .idea

-- prince

-- orca.jpg

-- server.py

Client 2 LOG:

```
root@a387ea83c27c:/assign3_40216962# cd client/
root@a387ea83c27c:/assign3_40216962/client# python client.py
Connected to server at IP: 172.17.0.2 and Port: 50092
Handshake Done. EOF is: <oELpvXlv>
Current Directory: /assignment3:
|
-- .idea
-- server.py
<socket.socket fd=3, family=2, type=1, proto=0, laddr=('172.17.0.4', 39338),
raddr=('172.17.0.2', 50092)>
Enter The Command : mkdir prince
Current Directory: /assignment3:
|
-- .idea
-- prince
-- server.py
Enter The Command : exit
Exiting the application.
root@a387ea83c27c:/assign3_40216962/client# python client.py
Connected to server at IP: 172.17.0.2 and Port: 50092
Handshake Done. EOF is: <R6yIDx5s>
Current Directory: /assignment3:
|
-- .idea
-- prince
-- orca.jpg
-- server.py
<socket.socket fd=3, family=2, type=1, proto=0, laddr=('172.17.0.4', 36950),
raddr=('172.17.0.2', 50092)>
Enter The Command : mkdir parth
Current Directory: /assignment3:
|
```

```
-- .idea
-- parth
-- prince
-- orca.jpg
-- server.py
```

Enter The Command : cd ..

Current Directory: /:

|

```
-- run
-- lib
-- dev
-- var
-- tmp
-- proc
-- usr
-- srv
-- bin
-- root
-- etc
-- sys
-- sbin
-- media
-- boot
-- home
-- mnt
-- opt
-- assignment3
-- .dockerenv
```

Enter The Command : cd assignment3

Current Directory: /assignment3:

|

```
-- .idea
```

```
-- parth
-- prince
-- orca.jpg
-- server.py
Enter The Command : ul about.txt
File Name : about.txt
File Size :1625
File has been successfully Uploaded.
Current Directory: /assignment3:
|
-- .idea
-- parth
-- prince
-- about.txt
-- orca.jpg
-- server.py
Enter The Command : exit
Exiting the application.
```

Client 3 LOG:

```
root@e9d689cfefda:/assign3_40216962# cd client/
root@e9d689cfefda:/assign3_40216962/client# python client.py
Connected to server at IP: 172.17.0.2 and Port: 50092
Handshake Done. EOF is: <ZoxYljJ0>
Current Directory: /assignment3:
|
-- .idea
-- prince
-- orca.jpg
```

```
-- server.py
```

```
<socket.socket fd=3, family=2, type=1, proto=0, laddr=('172.17.0.5', 50216),  
raddr=('172.17.0.2', 50092)>
```