**Experiment 55**

Configure and demonstrate the use of FTP and Telnet. (on Ubuntu container ) Show the imp steps and file name of configurations. (on answer sheet) Put the Pub folder available for access to all.

**Create 4 files:**

**Dockerfile:**

FROM ubuntu:latest

# Install required packages

RUN apt-get update && apt-get install -y \

vsftpd \

telnetd \

xinetd \

&& rm -rf /var/lib/apt/lists/\*

# Create necessary directories

RUN mkdir -p /var/ftp/pub && \

chmod 777 /var/ftp/pub && \

mkdir -p /var/run/vsftpd/empty

# Configure vsftpd

COPY vsftpd.conf /etc/vsftpd.conf

# Configure telnet

COPY telnet /etc/xinetd.d/telnet

# Create startup script

COPY start-services.sh /start-services.sh

RUN chmod +x /start-services.sh

# Expose ports

EXPOSE 20 21 23 40000-40100

# Start services

CMD ["/start-services.sh"]

**vsftpd.conf**

listen=YES

listen\_ipv6=NO

anonymous\_enable=YES

local\_enable=YES

write\_enable=YES

local\_umask=022

anon\_upload\_enable=YES

anon\_mkdir\_write\_enable=YES anon\_other\_write\_enable=YES anon\_root=/var/ftp

anon\_world\_readable\_only=NO

chroot\_local\_user=YES

allow\_writeable\_chroot=YES pasv\_enable=YES

pasv\_min\_port=40000

pasv\_max\_port=40100

xferlog\_enable=YES

xferlog\_file=/var/log/vsftpd.log xferlog\_std\_format=YES

ftpd\_banner=Welcome to FTP Server

**telnet**

service telnet

{

disable = no

flags = REUSE

socket\_type = stream

wait = no

user = root

server = /usr/sbin/in.telnetd log\_on\_failure += USERID

log\_on\_success += PID HOST EXIT }

**start-services.sh**

#!/bin/bash

# Start xinetd (for telnet)

/usr/sbin/xinetd -dontfork &

# Start vsftpd

/usr/sbin/vsftpd /etc/vsftpd.conf &

# Keep container running

tail -f /dev/null

**Enter the following commands**

docker build -t ftp-telnet-server .

docker run -d \

-p 20-21:20-21 \

-p 23:23 \

-p 40000-40100:40000-40100 \

--name ftp-telnet \

ftp-telnet-server

# Test connections from host machine: # FTP test:

ftp localhost

# Username: anonymous

# Password: (press enter)

Telnet setup :  
Here’s the Telnet setup for Ubuntu Container in a .txt format with proper steps:

### Telnet Setup on Ubuntu Container

**Run the Ubuntu container:**bash  
Copy code  
docker run --privileged -ti ubuntu:20.04 bash

**Update package lists and install Telnet packages:**bash  
Copy code  
apt update

apt install telnetd xinetd nano -y

1. **Configure Telnet:**

Open or create the Telnet configuration file:  
bash  
Copy code  
nano /etc/xinetd.d/telnet

Add the following content to the file:  
plaintext  
Copy code  
service telnet

{

flags = REUSE

socket\_type = stream

wait = no

user = root

server = /usr/sbin/in.telnetd

log\_on\_failure += USERID

disable = no

}

**Add a new user for Telnet:**bash  
Copy code  
adduser newuser

passwd newuser

**Start and enable the xinetd service:**bash  
Copy code  
service xinetd restart

1. **Find the container’s IP address:**

Install net-tools to access network tools:  
bash  
Copy code  
apt install net-tools -y

Find the IP address of the container:  
bash  
Copy code  
ifconfig

1. The IP address will be in the format 172.17.0.x.
2. **Access Telnet from another machine:**

From another machine, use the following command to connect via Telnet:  
bash  
Copy code  
telnet <container\_ip>