

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 test:
```

```
telnet localhost
```

