Raspberry Pi and systemd labs.

In this lab you will install **ncat**(nc) and create a systemd service that listens to port 66666 and writes to /tmp/mydaemon.txt. Then, from another system you connect to port 66666 on the first machine. You monitor **/tmp/mydaemon.txt** using **tail -f**.

1. Install ncat

```
pi@pi159:~ $ sudo apt install -y ncat
pi@pi159:~ $ which ncat
/usr/bin/ncat
```

2. Create a script that starts ncat on port 5555 and writes to /tmp/mydaemon.txt and make the script executable.

```
pi@pi159:~ $ sudo cat /usr/local/bin/mydaemon.sh
#!/usr/bin/bash
/usr/bin/nc -l 55555 > /tmp/mydaemon.text
pi@pi159:~ $ sudo chmod +x /usr/local/bin/mydaemon.sh
```

3. Create a systemd Unit file in */lib/systemd/system*

```
pi@pi159:~ $ cat /lib/systemd/system/mydaemon.service
[Unit]
Description=listen to port 55555


[Service]
Type=simple
ExecStart=/usr/local/bin/mydaemon.sh
KillMode=process
Restart=on-failure


[Install]
WantedBy=multi-user.target
```

4. Enable the new service and start it.

```
pi@pi159:~ $ sudo systemctl enable mydaemon --now
Created symlink
/etc/systemd/system/multi-user.target.wants/mydaemon.service →
/lib/systemd/system/mydaemon.service.
```

5. Check the service using systemctl.

```
pi@pi159:~ $ sudo systemctl status mydaemon
(it should report back that the service is active (running))
```

6. Monitor /tmp/mydaemon.txt

```
pi@pi159:~ $ sudo tail -f /tmp/mydaemon.text
```

(initially the file is empty.

7. Connect to port 55555 and write some text.
   In the monitoring process the text should appear.
   Or ask someone else to connect to your system using port 55555.

```
pi@pi159:~ $ ncat localhost 55555
Hello there…
```

8. Stop the mydaemon service, and check it.

```
pi@pi159:~ $ sudo systemctl stop mydaemon.service
pi@pi159:~ $ sudo systemctl status mydaemon.service
```