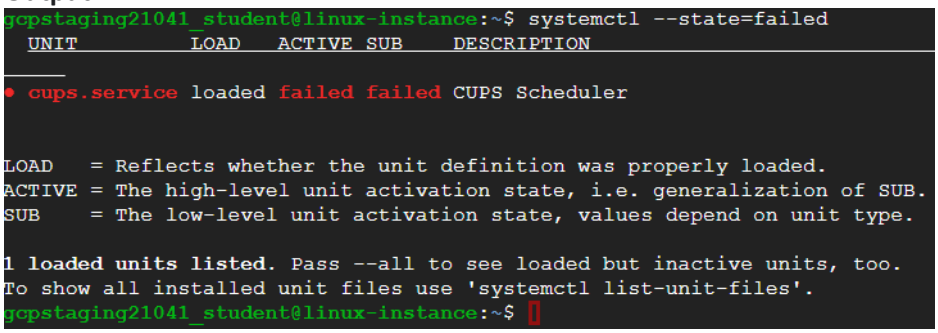
FIXING A FAILING SERVICE

We can list services that are in a failed state with the systemctl command:

```
sudo systemctl --state=failed
```

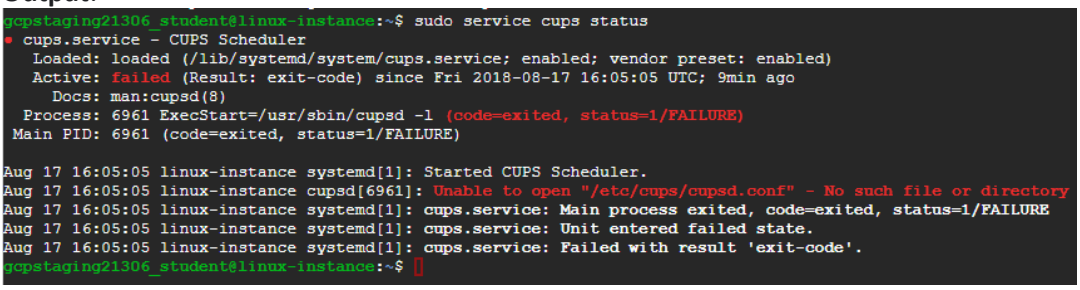
Output:



We see here that the cups service is in a failed state. This is the service used to manage printers on Linux systems. We can get more information about this failure by checking the status:

```
sudo service cups status
```

Output:



In the log lines that we get, we see that the process failed to start. It's telling us that it's unable to find /etc/cups/cupsd.conf, which is the location where the configuration of this service is located. So, let's look at the contents of that directory:

```
sudo ls -l /etc/cups
```

Output:

```
gcpstaging21306_student@linux-instance:~$ ls -l /etc/cups
total 56
-rw-r--r-- 1 root root 15303 May  7 18:07 cups-browsed.conf
-rw-r--r-- 1 root root  4630 Aug 17 16:04 cupsd.conf.old
-rw-r--r-- 1 root root  2931 Jun 22 18:30 cups-files.conf
drwxr-xr-x 2 root root  4096 Jun 22 18:30 interfaces
drwxr-xr-x 2 root lp    4096 Jun 22 18:30 ppd
-rw-r--r-- 1 root root   240 Aug 17 16:05 raw.convs
-rw-r--r-- 1 root root   211 Aug 17 16:05 raw.types
-rw-r--r-- 1 root root   142 Jun 22 18:30 snmp.conf
drwx------ 2 root lp    4096 Aug 17 16:04 ssl
-rw-r----- 1 root lp      90 Aug 17 16:05 subscriptions.conf
gcpstaging21306_student@linux-instance:~$
```

There's no cupsd.conf, but there is cupsd.conf.old. Apparently the configuration file was deleted. Good thing we kept a copy! Let's move that file so that cups can find it and start successfully:

```
sudo mv /etc/cups/cupsd.conf.old /etc/cups/cupsd.conf
```

As with the other commands, we get no output after executing this. We can run ls again to see that the file was renamed correctly:

```
sudo ls -l /etc/cups
```

Output:

```
gcpstaging21306_student@linux-instance:~$ ls -l /etc/cups
total 56
-rw-r--r-- 1 root root 15303 May  7 18:07 cups-browsed.conf
-rw-r--r-- 1 root root  4630 Aug 17 16:04 cupsd.conf
-rw-r--r-- 1 root root  2931 Jun 22 18:30 cups-files.conf
drwxr-xr-x 2 root root  4096 Jun 22 18:30 interfaces
drwxr-xr-x 2 root lp    4096 Jun 22 18:30 ppd
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-rw-r--r-- 1 root root   211 Aug 17 16:05 raw.types
-rw-r--r-- 1 root root   142 Jun 22 18:30 snmp.conf
drwx------ 2 root lp    4096 Aug 17 16:04 ssl
-rw-r----- 1 root lp      90 Aug 17 16:05 subscriptions.conf
gcpstaging21306_student@linux-instance:~$
```

Now that the file was renamed successfully, we can start cups:

```
sudo service cups start
```

And then check the status:

```
sudo service cups status
```

Output:

```
gcpstaging21306_student@linux-instance:~$ service cups status
● cups.service - CUPS Scheduler
   Loaded: loaded (/lib/systemd/system/cups.service; enabled; vendor preset: enabled)
   Active: active (running) since Fri 2018-08-17 16:17:10 UTC; 4s ago
     Docs: man:cupsd(8)
 Main PID: 7374 (cupsd)
    Tasks: 1
   Memory: 1.4M
      CPU: 9ms
   CGroup: /system.slice/cups.service
           └─7374 /usr/sbin/cupsd -l

Aug 17 16:17:10 linux-instance systemd[1]: Started CUPS Scheduler.
gcpstaging21306_student@linux-instance:~$
```