LAB :: Install Suricata

- # super user command.
- $ normal user command.
- Username `apnic` and password `training`.

Topology

```
[group1.apnictraining.net] [192.168.30.1]
[group2.apnictraining.net] [192.168.30.2]
......
[group10.apnictraining.net] [192.168.30.10]
[group11.apnictraining.net] [192.168.30.11]
......
[group20.apnictraining.net] [192.168.30.20]
[group21.apnictraining.net] [192.168.30.21]
......
[group30.apnictraining.net] [192.168.30.30]
```

In this lab you will be installing and configuring Suricata Intrusion Detection System (IDS).

Prerequisites Knowledge of Ubuntu, linux commands, Intrusion Detection Systems.

Lab Tasks

Step 1: Update Ubuntu software
Step 2: Install pre-requisite software
Step 3: Install Suricata
Step 4: Install EveBox
Step 5: Review Suricata configuration

Part 1. Installation

1. Login to the server.

   ```
   ssh apnic@192.168.30.XX
   ```

   Password is `training`

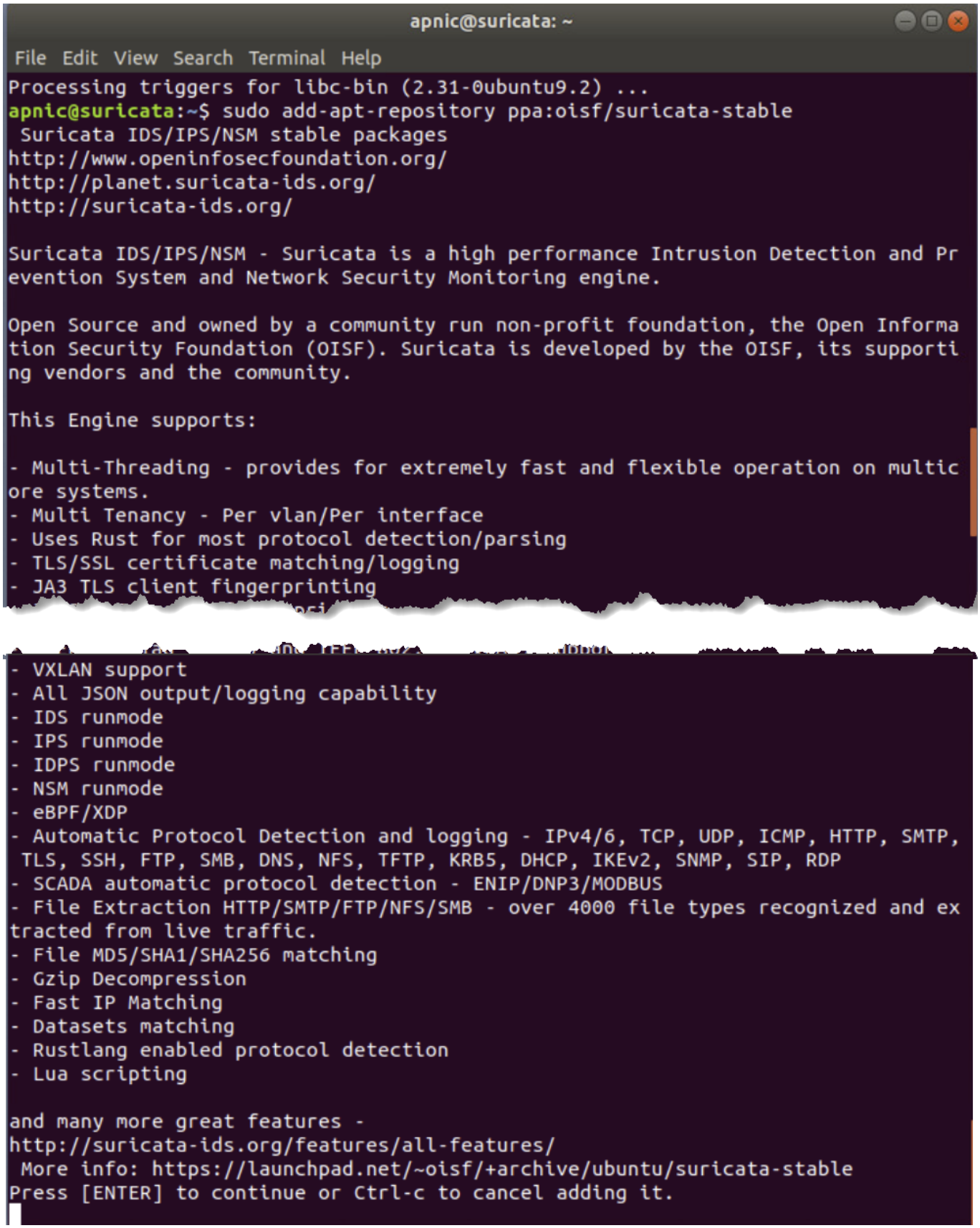
2. Install pre-requisite software

```
sudo apt-get update
sudo apt-get install -y nano jq software-properties-common
```

   Password is `training`

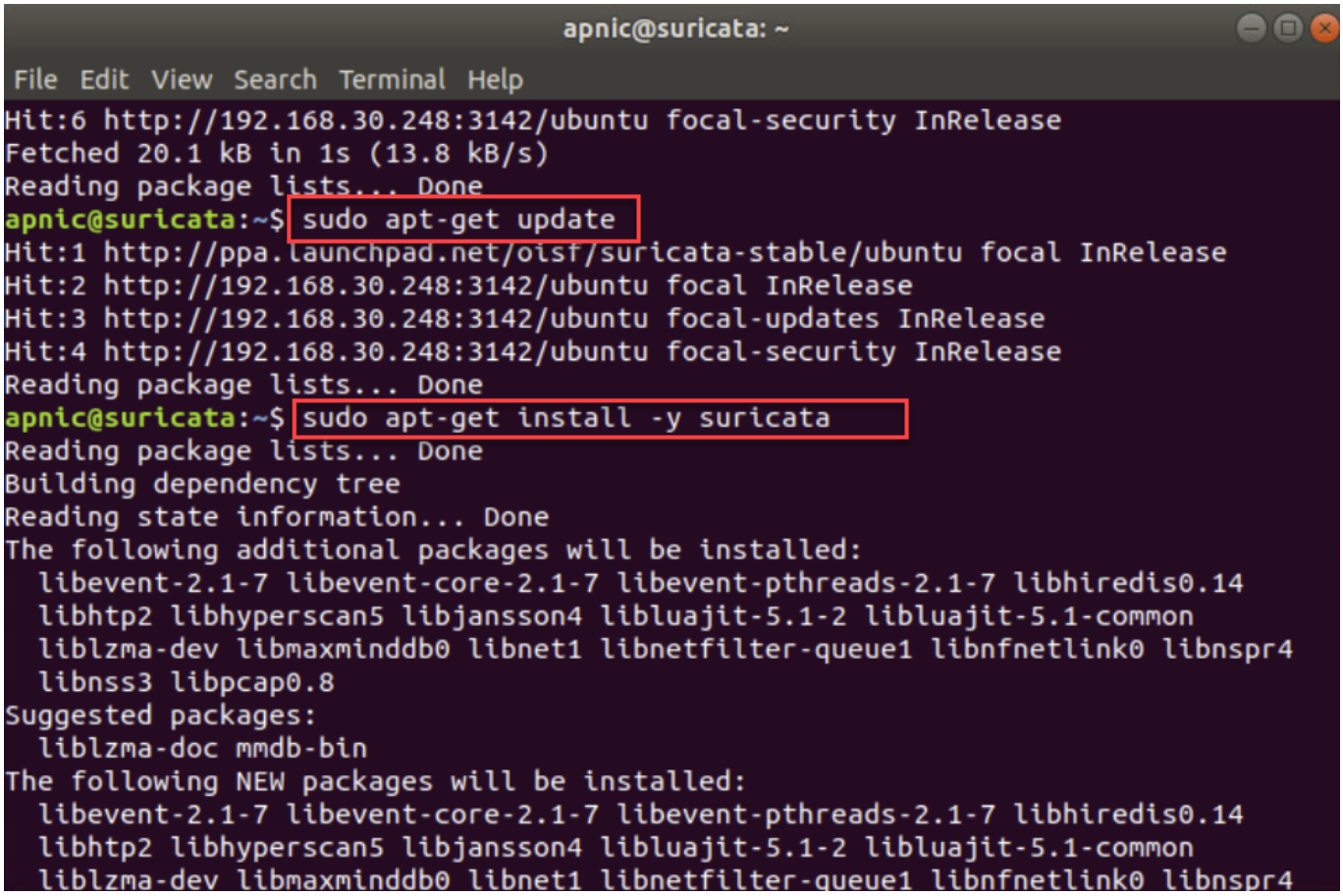
3. Add the Suricata installation repository

```
sudo add-apt-repository ppa:oisf/suricata-stable
```



4. Install Suricata.

```
sudo apt-get update
sudo apt-get install -y suricata
```



5. Install EveBox

```
mkdir Downloads
cd Downloads
wget https://evebox.org/files/release/0.14.0/evebox_0.14.0_amd64.deb
sudo dpkg -i evebox_0.14.0_amd64.deb
```

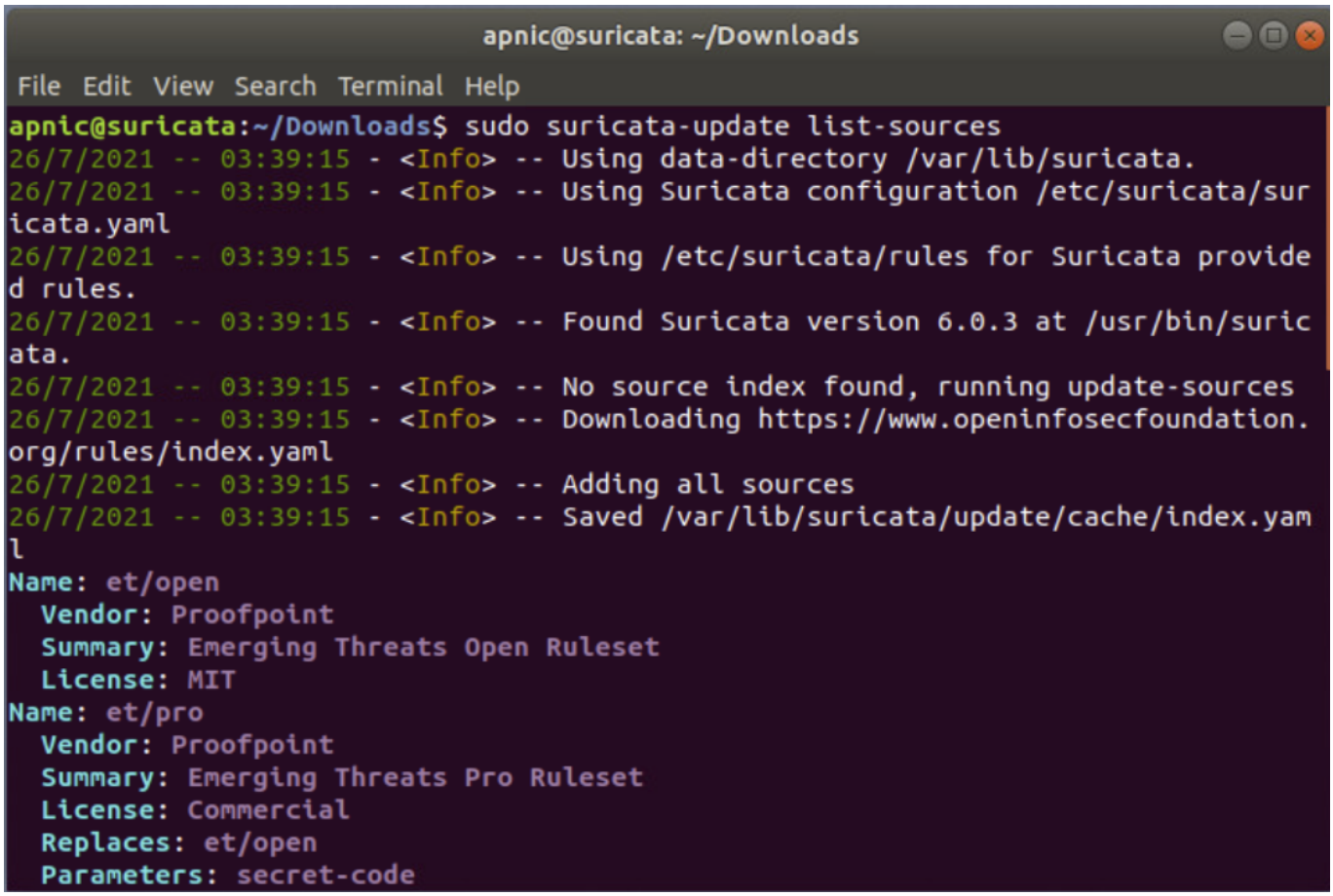
NOTE: Refer to the website for the latest version https://evebox.org/files/release/latest/

6. Backup the Suricata configuration file.

```
sudo cp /etc/suricata/suricata.yaml /etc/suricata/suricata.yaml.bak
```

7. Update the Suricata signatures/rules used for detection.

```
sudo suricata-update list-sources
```



NOTE To see just the name of the listed sources

```
sudo suricata-update list-sources | grep Name
```

8. Enable the Suricata rules for identifying and classifying traffic.

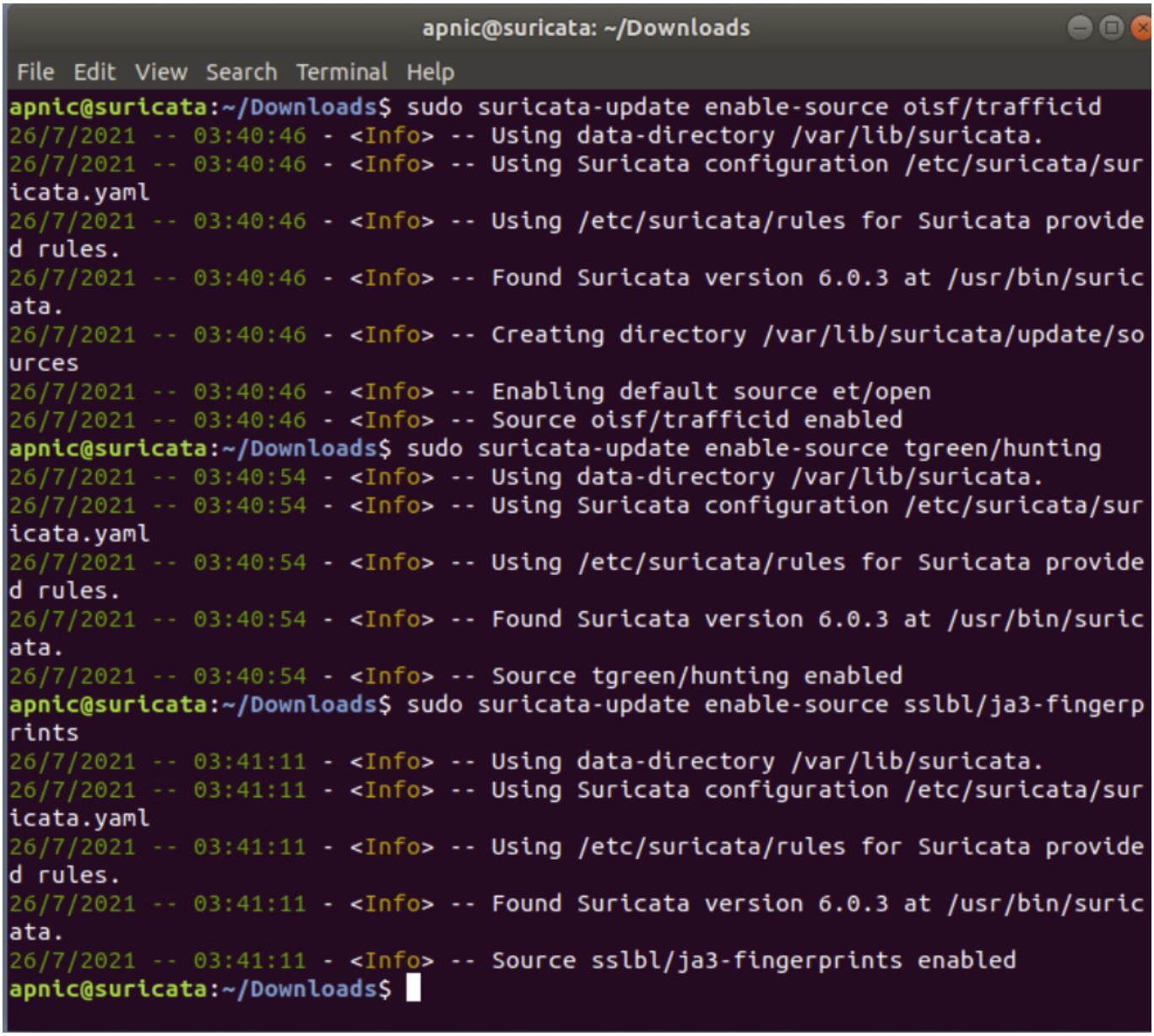
```
sudo suricata-update enable-source oisf/trafficid
```

9. Enable the Suricata rules for network anomaly detection.

```
sudo suricata-update enable-source tgreen/hunting
```

10. Enable the Suricata SSL Certificate Ruleset to detect and/or block malicious SSL connections based on the SSL certificate fingerprint.

```
sudo suricata-update enable-source sslbl/ja3-fingerprints
```



11. List enabled sources for rule updates.

```
sudo suricata-update list-enabled-sources
```

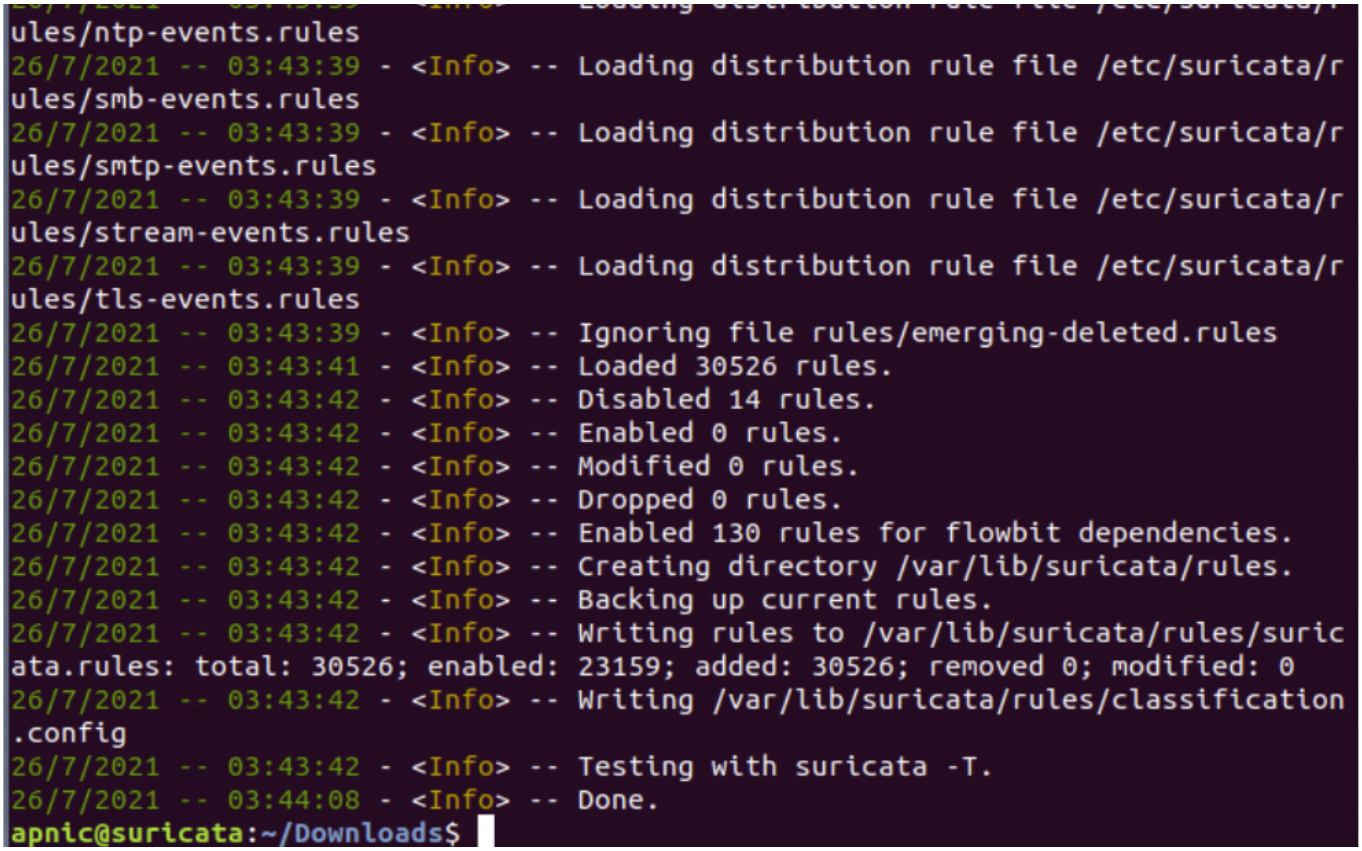
```
apnic@suricata: ~/Downloads
File  Edit  View  Search  Terminal  Help
apnic@suricata:~/Downloads$ sudo suricata-update list-enabled-sources
26/7/2021 -- 03:42:45 - <Info> -- Using data-directory /var/lib/suricata.
26/7/2021 -- 03:42:45 - <Info> -- Using Suricata configuration /etc/suricata/sur
icata.yaml
26/7/2021 -- 03:42:45 - <Info> -- Using /etc/suricata/rules for Suricata provide
d rules.
26/7/2021 -- 03:42:45 - <Info> -- Found Suricata version 6.0.3 at /usr/bin/suric
ata.
Enabled sources:
  - tgreen/hunting
  - et/open
  - sslbl/ja3-fingerprints
  - oisf/trafficid
apnic@suricata:~/Downloads$
```

12. Update the signature/rules.

```
sudo suricata-update
```

```
apnic@suricata: ~/Downloads
File  Edit  View  Search  Terminal  Help
apnic@suricata:~/Downloads$ sudo suricata-update
26/7/2021 -- 03:43:38 - <Info> -- Using data-directory /var/lib/suricata.
26/7/2021 -- 03:43:38 - <Info> -- Using Suricata configuration /etc/suricata/sur
icata.yaml
26/7/2021 -- 03:43:38 - <Info> -- Using /etc/suricata/rules for Suricata provide
d rules.
26/7/2021 -- 03:43:38 - <Info> -- Found Suricata version 6.0.3 at /usr/bin/suric
ata.
26/7/2021 -- 03:43:38 - <Info> -- Loading /etc/suricata/suricata.yaml
26/7/2021 -- 03:43:38 - <Info> -- Disabling rules for protocol http2
26/7/2021 -- 03:43:38 - <Info> -- Disabling rules for protocol modbus
26/7/2021 -- 03:43:38 - <Info> -- Disabling rules for protocol dnp3
26/7/2021 -- 03:43:38 - <Info> -- Disabling rules for protocol enip
26/7/2021 -- 03:43:38 - <Info> -- Fetching https://openinfosecfoundation.org/rul
es/trafficid/trafficid.rules.
 100% - 9855/9855
26/7/2021 -- 03:43:38 - <Info> -- Done.
26/7/2021 -- 03:43:38 - <Info> -- Fetching https://rules.emergingthreats.net/ope
n/suricata-6.0.3/emerging.rules.tar.gz.
 100% - 2960372/2960372
26/7/2021 -- 03:43:39 - <Info> -- Done.
26/7/2021 -- 03:43:39 - <Info> -- Fetching https://raw.githubusercontent.com/tra
visbgreen/hunting-rules/master/hunting.rules.
 100% - 62241/62241
26/7/2021 -- 03:43:39 - <Info> -- Done.
26/7/2021 -- 03:43:39 - <Info> -- Fetching https://sslbl.abuse.ch/blacklist/ja3_
fingerprints.rules.
 100% - 26236/26236
26/7/2021 -- 03:43:39 - <Info> -- Done.
```

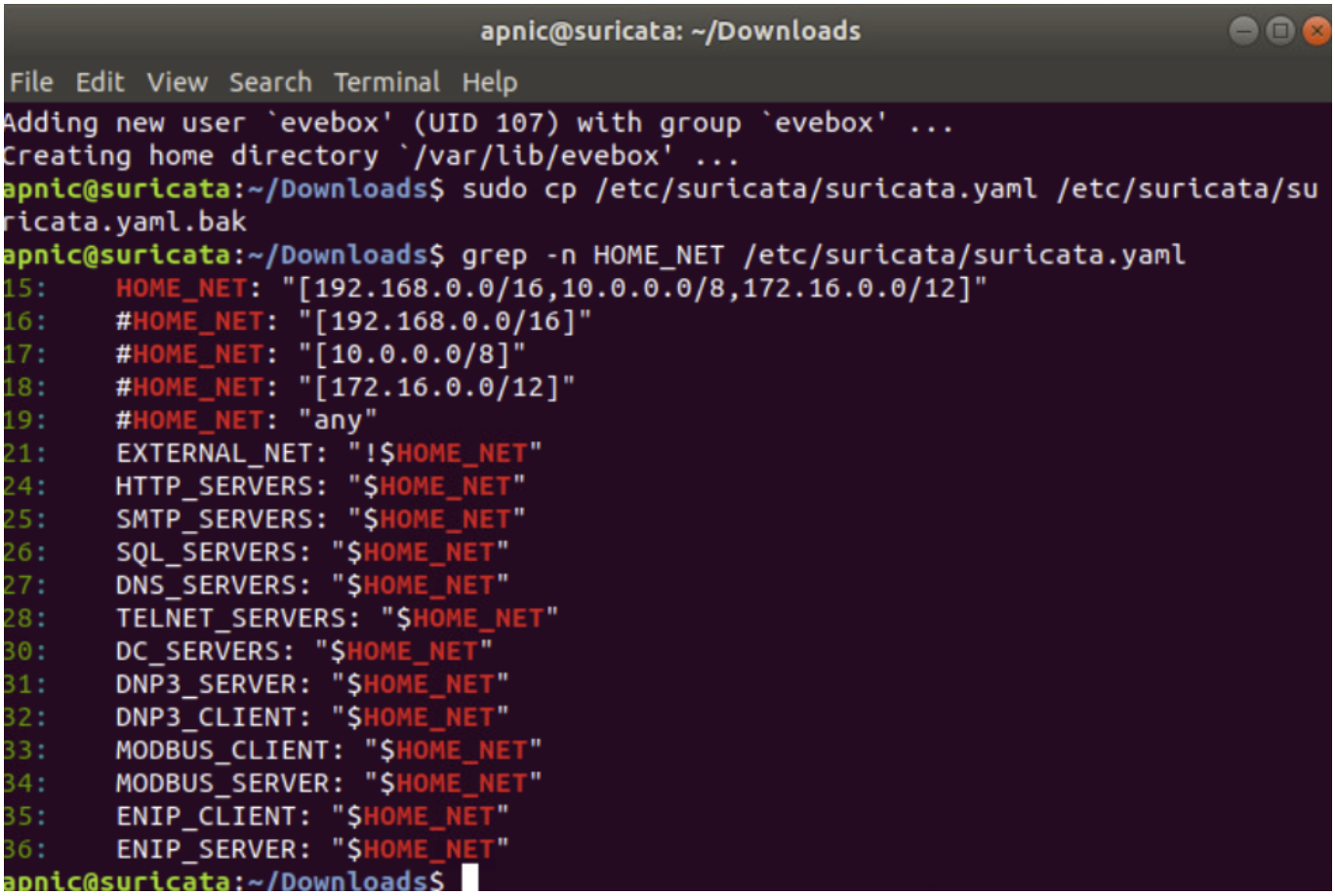
```
26/7/2021 -- 03:43:39 - <Info> -- Loading distribution rule file /etc/suricata/r
```



Part 2. Review the Suricata configuration

1. To determine the network address used by Suricata, review the variable called **$HOME_NET** in the **suricata.yaml** file.

```
grep -n HOME_NET /etc/suricata/suricata.yaml
```



2. Review the variable called **default-rule-path** to determine the path where the rules are stored by Suricata.

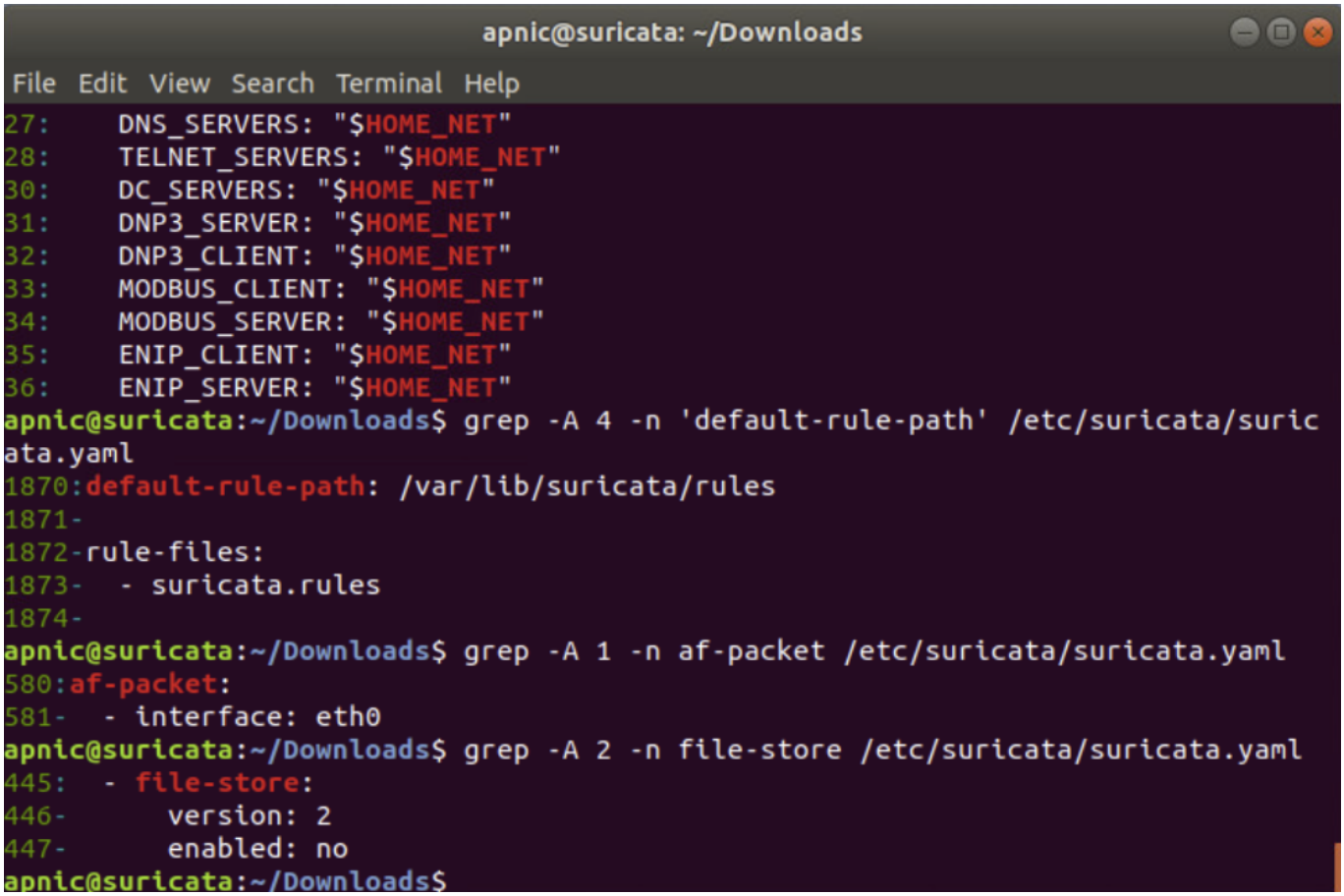
```
grep -A 4 -n 'default-rule-path' /etc/suricata/suricata.yaml
```

3. Review the variable **af-packet** to determine which interface suricata will listen for traffic.

```
grep -A 1 -n 'af-packet' /etc/suricata/suricata.yaml
```

4. Review the variable **file-store** to see what storage format is used.

```
grep -A 2 -n 'file-store' /etc/suricata/suricata.yaml
```



Refer to the documentation for more detail https://suricata.readthedocs.io/en/latest/quickstart.html

5. View the downloaded rules.

```
sudo ls -lash /var/lib/suricata/rules
```

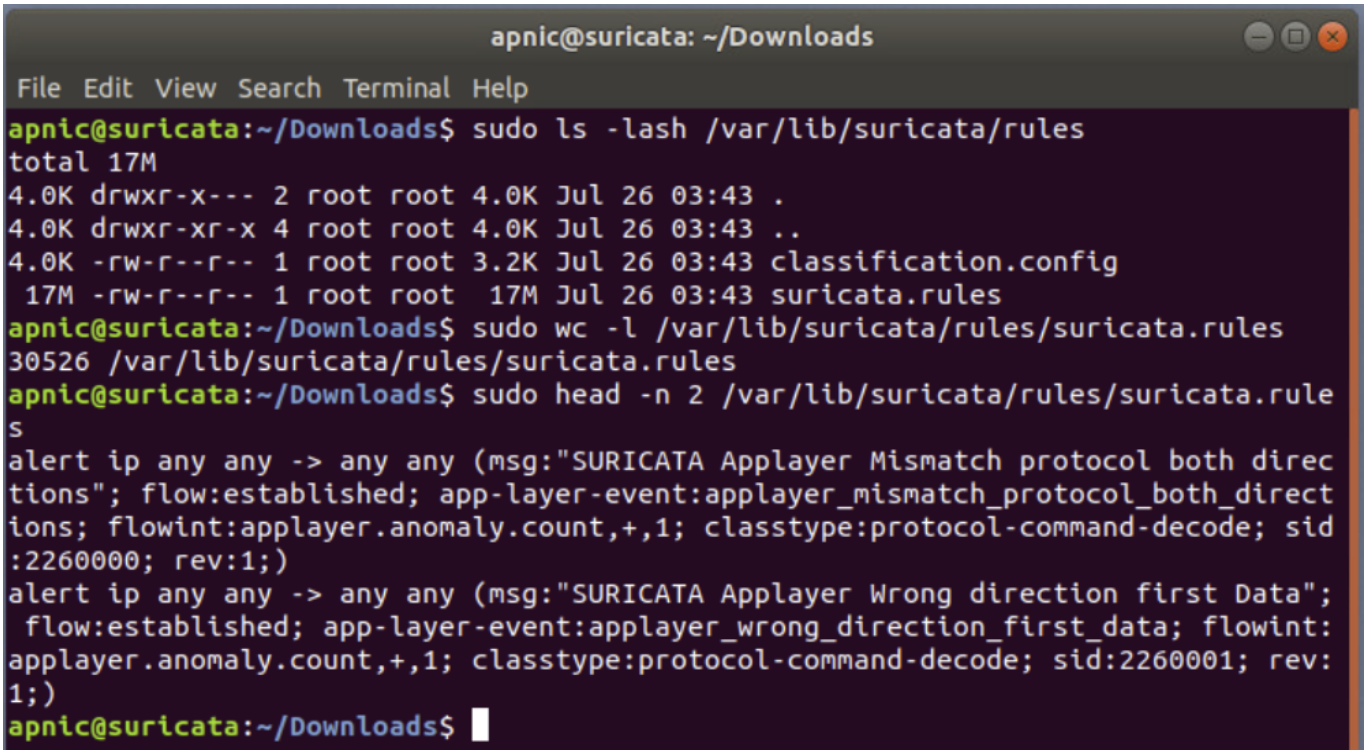
Password = `training`

6. Display how many rules in the suricata.rules file.

```
sudo wc -l /var/lib/suricata/rules/suricata.rules
```

7. View the first 2 records of the suricata.rules file.

```
sudo head -n 2 /var/lib/suricata/rules/suricata.rules
```

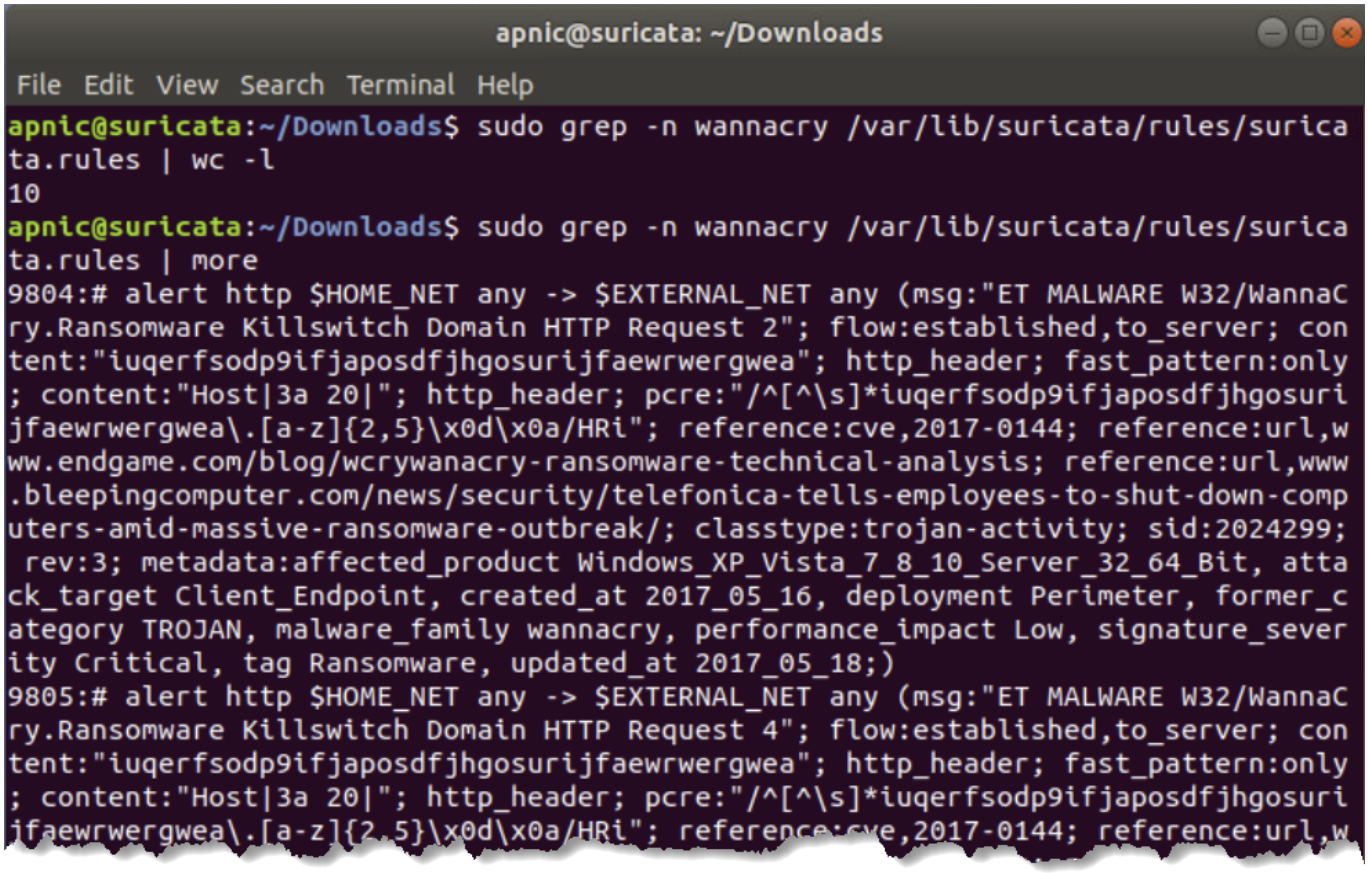


8. Count how many rules are for wannacry.

```
sudo grep wannacry /var/lib/suricata/rules/suricata.rules | wc -l
```

9. Display the rules for wannacry.

```
sudo grep -n wannacry /var/lib/suricata/rules/suricata.rules
```



Refer to the online documentation https://suricata.readthedocs.io/en/suricata-6.0.3/rules/intro.html

1. View the classifications for Suricata.

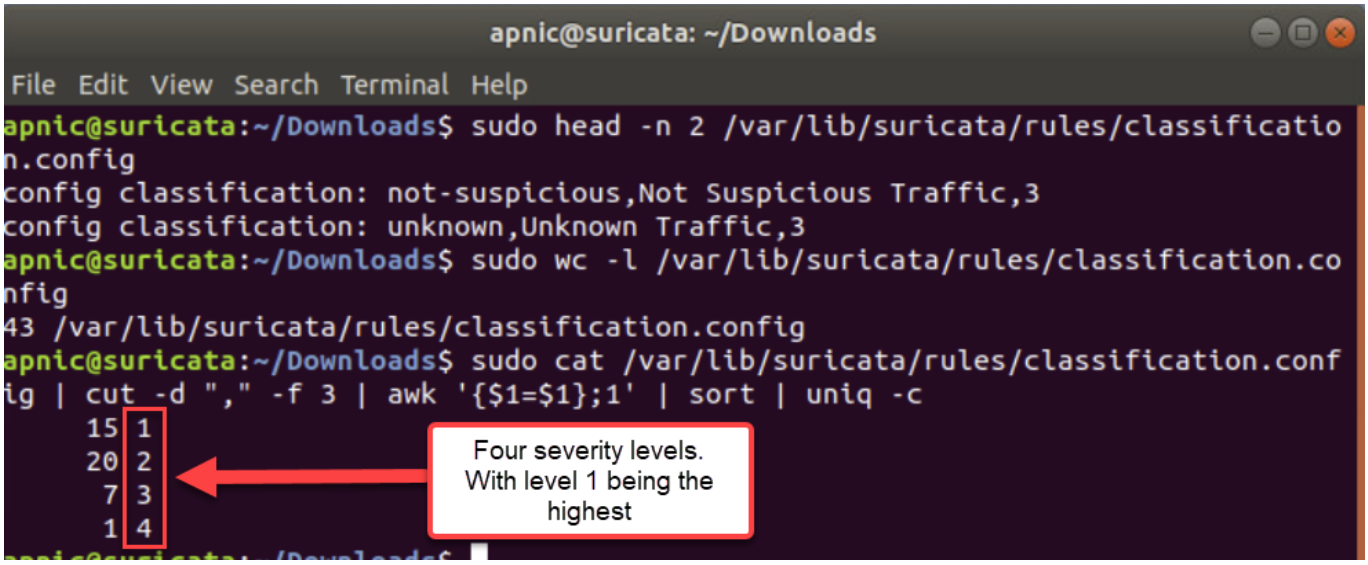
```
sudo head -n 2 /var/lib/suricata/rules/classification.config
```

2. Display how many classifications for Suricata

```
sudo wc -l /var/lib/suricata/rules/classification.config
```

3. Display how many of each severity for the classifications

```
sudo cat /var/lib/suricata/rules/classification.config | cut -d "," -f 3 | \
awk '{$1=$1};1' | sort | uniq -c
```



4. Confirm the status of Suricata.

```
sudo systemctl status suricata
```

Password = `training`

Note: Press `q` to quit from the status output.

END OF EXERCISE