1 Adding users

```
systemd-coredump:x:999:999:systemd Core Dumper:/:/usr/sbin/nologin
james:x:1001:1001:,,,:/home/james:/bin/bash
connor:x:1002:1002:,,,:/home/connor:/bin/bash
dave:x:1003:1003:dave,0,0,0,0:/home/dave:/bin/bash
mike:x:1004:1004:mike,0,0,0,0:/home/mike:/bin/bash
smomot@smomot-VirtualBox:~$
```

Two users have sudo permissions and two do not

```
smomot@smomot-VirtualBox:~$ sudo -l -U james
User james is not allowed to run sudo on smomot-VirtualBox.
smomot@smomot-VirtualBox:~$ sudo -l -U connor
User connor is not allowed to run sudo on smomot-VirtualBox.
smomot@smomot-VirtualBox:~$ sudo -l -U dave
Matching Defaults entries for dave on smomot-VirtualBox:
    env_reset, mail_badpass,
    secure_path=/usr/local/sbin\:/usr/local/bin\:/usr/sbin\:/usr/bin\:/sbin\:/bi
n\:/snap/bin

User dave may run the following commands on smomot-VirtualBox:
    (ALL : ALL) ALL
smomot@smomot-VirtualBox:~$ sudo -l -U mike
Matching Defaults entries for mike on smomot-VirtualBox:
    env_reset, mail_badpass,
    secure_path=/usr/local/sbin\:/usr/local/bin\:/usr/sbin\:/usr/bin\:/sbin\:/bi
n\:/snap/bin

User mike may run the following commands on smomot-VirtualBox:
    (ALL : ALL) ALL
smomot@smomot-VirtualBox:~$
```

2 HDD Configuration

: Backup partition

User drives

/dev/sdb

11 GB Hard Disk
VBOX HARDDISK

5.4 GB Hard Disk
VBOX HARDDISK

CD/DVD Drive
VBOX CD-ROM

Model	VBOX HARDDISK (1.0)
Size	5.4 GB (5,368,709,120 bytes)
Partitioning	GUID Partition Table
Serial Number	VB715ed278-cfd618f9
Assessment	SMART is not supported

Volumes

backups Partition 1 1.0 GB Ext4	mike Partition 2 1.0 GB Ext4	dave Partition 3 1.0 GB Ext4	connor Partition 4 1.0 GB Ext4	james Partition 5 1.4 GB Ext4
★ ▶	★ ▶	★ ▶	★	★ ▶

■   —   ⚙

Size	1.0 GB — 965 MB free (3.5% full)
Device	/dev/sdb2
UUID	f6c7f2f0-76ec-4dbf-9ada-c244f6e77fa0
Partition Type	Linux Filesystem
Contents	Ext4 (version 1.0) — Mounted at /home/mike/mydrive

/dev/sdb

11 GB Hard Disk
VBOX HARDDISK

5.4 GB Hard Disk
VBOX HARDDISK

CD/DVD Drive
VBOX CD-ROM

Model	VBOX HARDDISK (1.0)
Size	5.4 GB (5,368,709,120 bytes)
Partitioning	GUID Partition Table
Serial Number	VB715ed278-cfd618f9
Assessment	SMART is not supported

Volumes

| backups Partition 1 1.0 GB Ext4	mike Partition 2 1.0 GB Ext4	dave Partition 3 1.0 GB Ext4	connor Partition 4 1.0 GB Ext4	james Partition 5 1.4 GB Ext4
★ ▶	★ ▶	★ ▶	★ ▶	★ ▶

■   —   ⚙

Size	1.0 GB — 965 MB free (3.5% full)
Device	/dev/sdb3
UUID	1ee99a72-beec-4e31-8c8f-54de0689e9bd
Partition Type	Linux Filesystem
Contents	Ext4 (version 1.0) — Mounted at /home/dave/mydrive

11 GB Hard Disk
VBOX HARDDISK

5.4 GB Hard Disk
VBOX HARDDISK

CD/DVD Drive
VBOX CD-ROM

Model   VBOX HARDDISK (1.0)
Size   5.4 GB (5,368,709,120 bytes)
Partitioning   GUID Partition Table
Serial Number   VB715ed278-cfd618f9
Assessment   SMART is not supported

Volumes

backups	mike	dave	connor	james
Partition 1	Partition 2	Partition 3	Partition 4	Partition 5
1.0 GB Ext4	1.0 GB Ext4	1.0 GB Ext4	1.0 GB Ext4	1.4 GB Ext4

Size   1.0 GB — 965 MB free (3.5% full)
Device   /dev/sdb4
UUID   4494b700-fcf6-40a4-b7f5-f9e7c23fa41b
Partition Type   Linux Filesystem
Contents   Ext4 (version 1.0) — Mounted at /home/connor/mydrive

---

11 GB Hard Disk
VBOX HARDDISK

5.4 GB Hard Disk
VBOX HARDDISK

CD/DVD Drive
VBOX CD-ROM

Model   VBOX HARDDISK (1.0)
Size   5.4 GB (5,368,709,120 bytes)
Partitioning   GUID Partition Table
Serial Number   VB715ed278-cfd618f9
Assessment   SMART is not supported

Volumes

| backups	mike	dave	connor	james
Partition 1	Partition 2	Partition 3	Partition 4	Partition 5
1.0 GB Ext4	1.0 GB Ext4	1.0 GB Ext4	1.0 GB Ext4	1.4 GB Ext4

Size   1.4 GB — 1.3 GB free (4.3% full)
Device   /dev/sdb5
UUID   1b30c5f5-530e-4a41-9a6e-00f528ddc60c
Partition Type   Linux Filesystem
Contents   Ext4 (version 1.0) — Mounted at /home/james/mydrive

Folders in backups
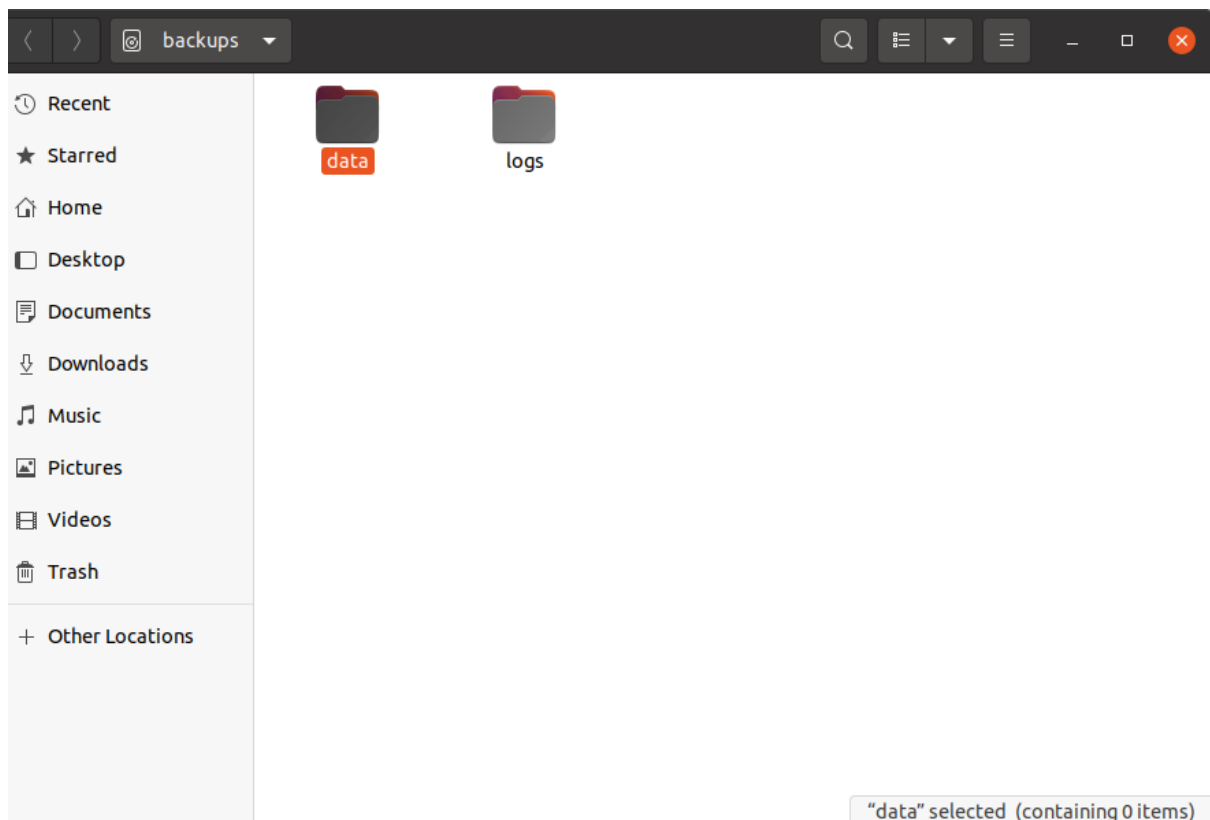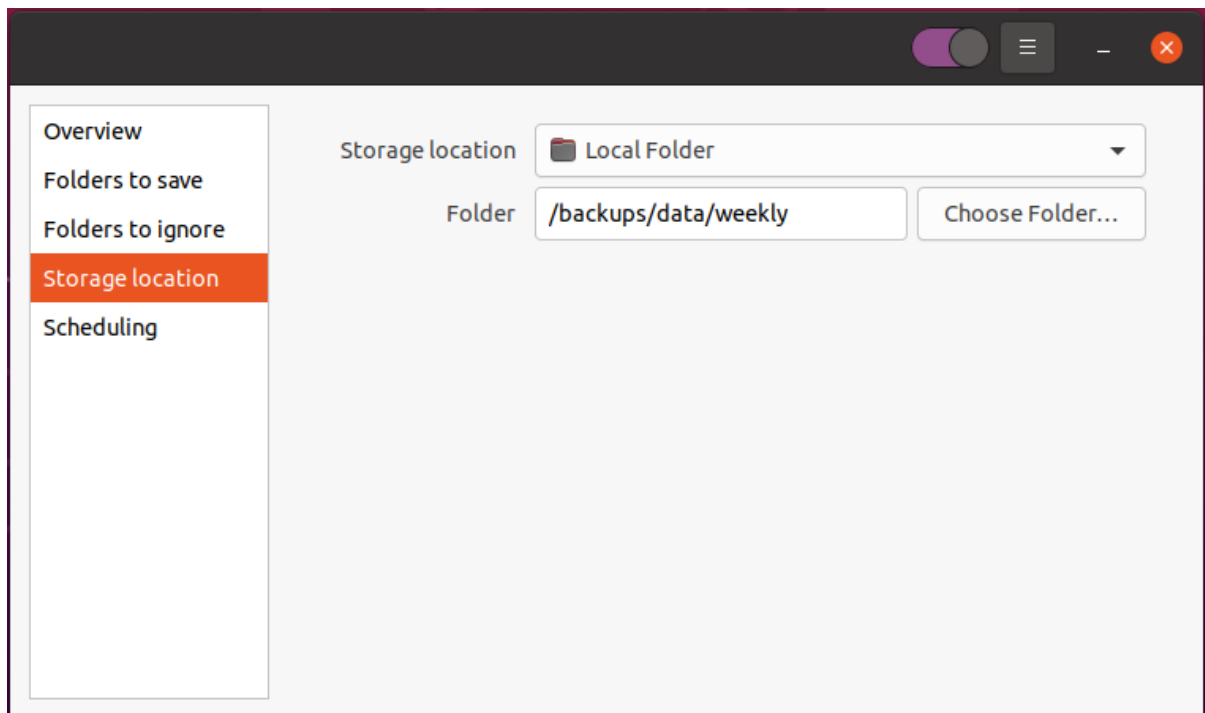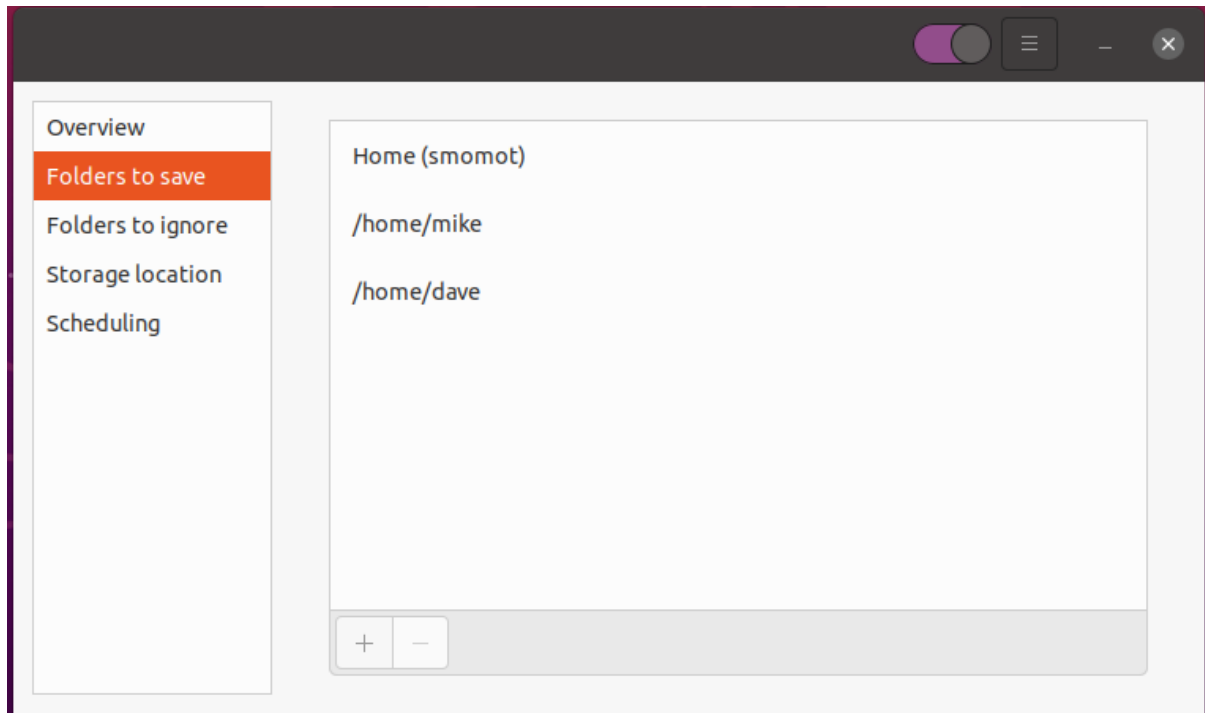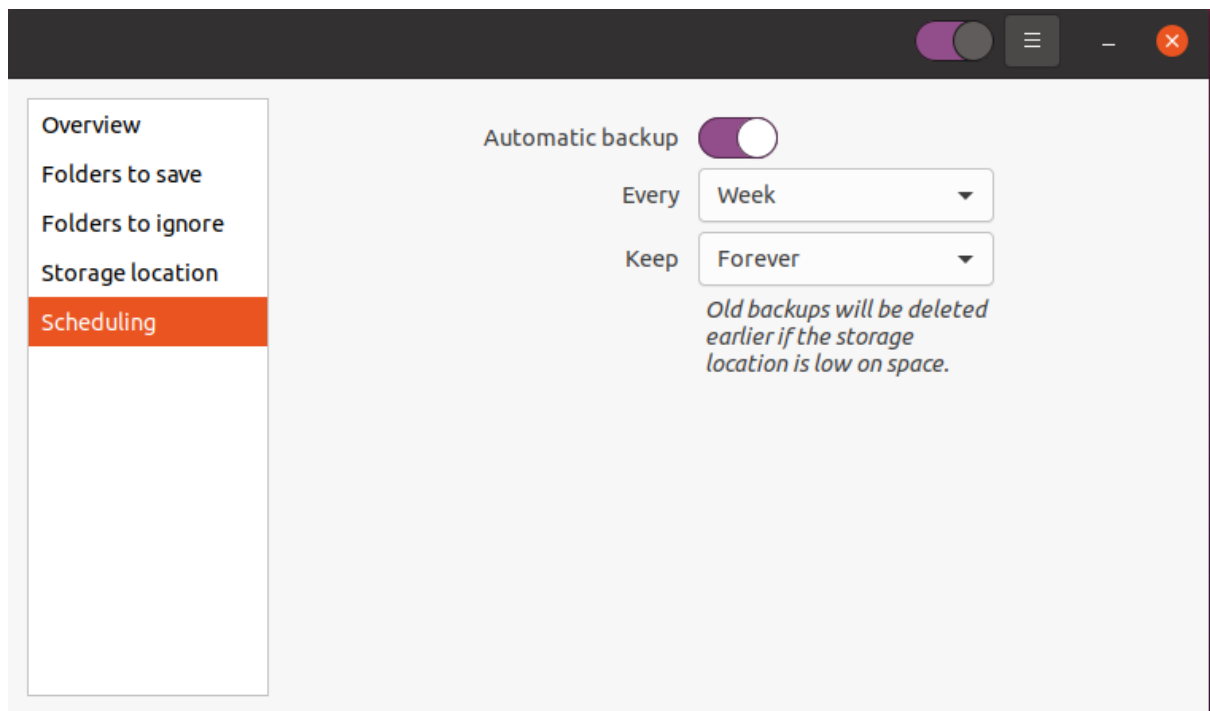

Locking the folders for other users
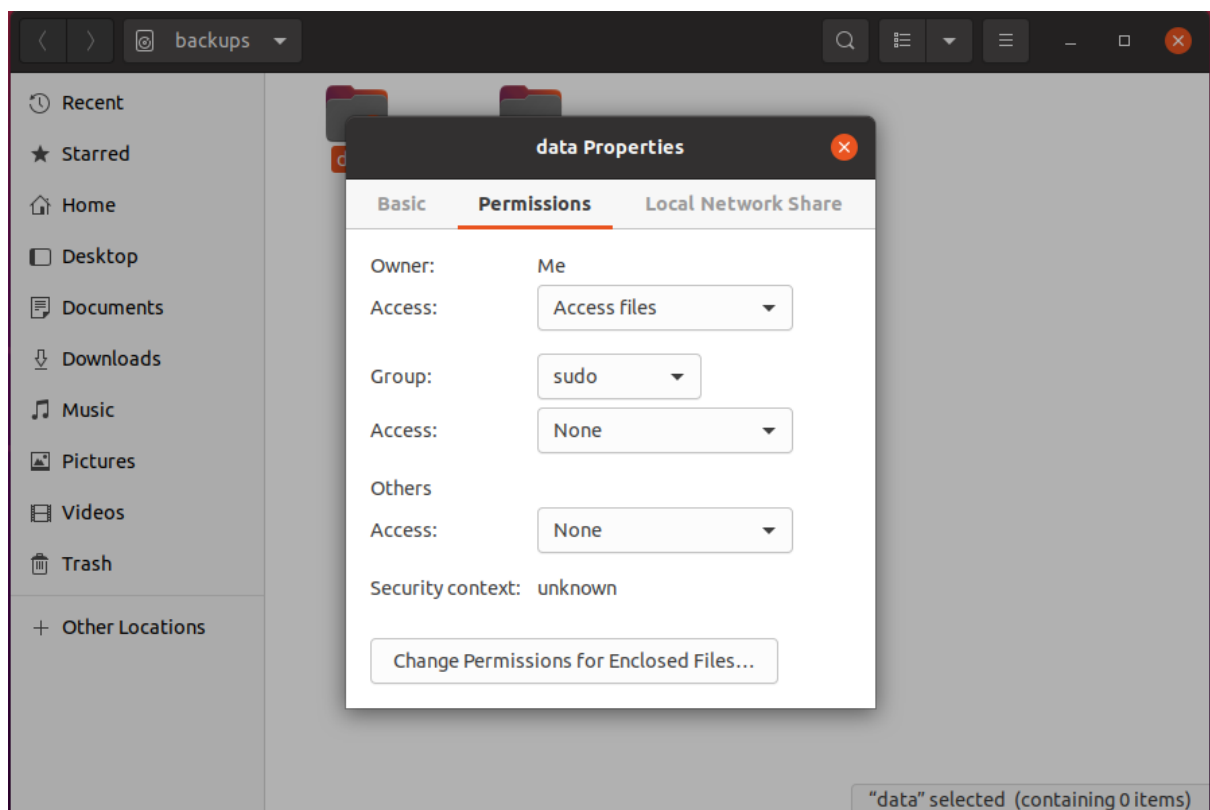
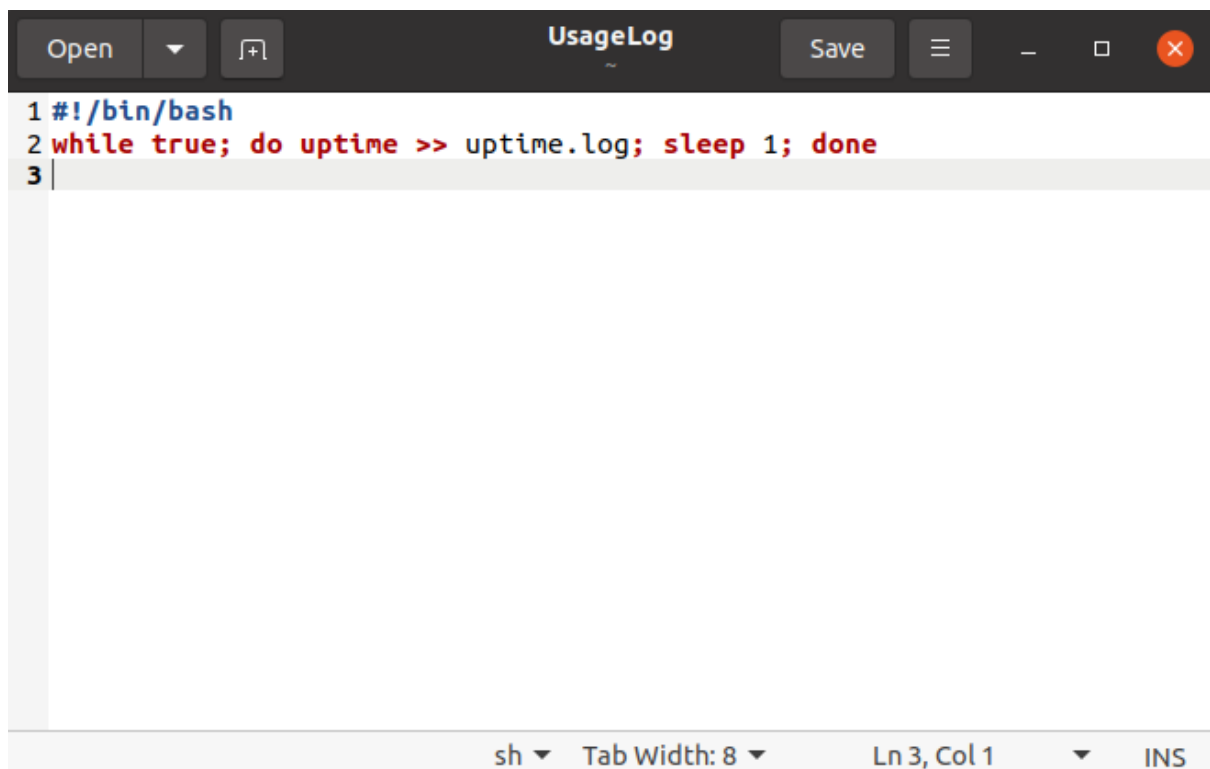## Assigning the partition to each user

```
smomot@smomot-VirtualBox:~$ sudo chown mike:mike /home/mike/mydrive -R
smomot@smomot-VirtualBox:~$ sudo chown dave:dave /home/dave/mydrive -R
smomot@smomot-VirtualBox:~$ sudo chown connor:connor /home/connor/mydrive -R
```

Backups

Performance Monitoring


```bash
1 #!/bin/bash
2 while true; do uptime >> uptime.log; sleep 1; done
3
```

uptime.log

Open ▾ [+]   Save ≡ — ⊡ ✕

```
84  21:21:47 up 11 min,  1 user,  load average: 0.44, 0.20, 0.12
85  21:21:48 up 11 min,  1 user,  load average: 0.40, 0.20, 0.12
86  21:21:49 up 11 min,  1 user,  load average: 0.40, 0.20, 0.12
87  21:21:50 up 11 min,  1 user,  load average: 0.40, 0.20, 0.12
88  21:21:51 up 11 min,  1 user,  load average: 0.40, 0.20, 0.12
89  21:21:52 up 11 min,  1 user,  load average: 0.40, 0.20, 0.12
90  21:21:53 up 12 min,  1 user,  load average: 0.37, 0.20, 0.12
91  21:21:54 up 12 min,  1 user,  load average: 0.37, 0.20, 0.12
92  21:21:55 up 12 min,  1 user,  load average: 0.37, 0.20, 0.12
93  21:21:56 up 12 min,  1 user,  load average: 0.37, 0.20, 0.12
94  21:21:57 up 12 min,  1 user,  load average: 0.37, 0.20, 0.12
95  21:21:58 up 12 min,  1 user,  load average: 0.34, 0.19, 0.12
96  21:21:59 up 12 min,  1 user,  load average: 0.34, 0.19, 0.12
97  21:22:00 up 12 min,  1 user,  load average: 0.34, 0.19, 0.12
98  21:22:01 up 12 min,  1 user,  load average: 0.34, 0.19, 0.12
99  21:22:02 up 12 min,  1 user,  load average: 0.34, 0.19, 0.12
100 21:22:03 up 12 min,  1 user,  load average: 0.31, 0.19, 0.12
101 21:22:04 up 12 min,  1 user,  load average: 0.31, 0.19, 0.12
102 21:22:05 up 12 min,  1 user,  load average: 0.31, 0.19, 0.12
103 21:22:06 up 12 min,  1 user,  load average: 0.31, 0.19, 0.12
104 21:22:07 up 12 min,  1 user,  load average: 0.31, 0.19, 0.12
105 21:22:08 up 12 min,  1 user,  load average: 0.29, 0.19, 0.12
106 21:22:09 up 12 min,  1 user,  load average: 0.29, 0.19, 0.12
107 21:22:10 up 12 min,  1 user,  load average: 0.29, 0.19, 0.12
108 21:22:11 up 12 min,  1 user,  load average: 0.29, 0.19, 0.12
109 21:22:12 up 12 min,  1 user,  load average: 0.29, 0.19, 0.12
110 21:22:13 up 12 min,  1 user,  load average: 0.27, 0.18, 0.12
111 21:22:14 up 12 min,  1 user,  load average: 0.27, 0.18, 0.12
```

Plain Text ▾   Tab Width: 8 ▾   Ln 47, Col 62   ▾   INS

Syn Flood Detection Service

Open ▾ [+]   **SynCookiesChecker**   Save ≡ — ☐ ✕

SynCookiesChecker ✕   calc.log ✕   syncookies.log ✕

```sh
1 #!/bin/bash
2 if grep -q 1 /proc/sys/net/ipv4/tcp_syncookies; then
3 netstat -nt > calc.log ;
4 File=/calc.log
5 if [ -f $File ] ; then
6 cnt=$(cat $File | wc -l)
7 if [ $cnt -gt 10 ]
8 then
9 while :
10 do
11 netstat -nt >>syncookies.log
12 sleep 1;
13 done
14 fi ;
15 fi ;
16 fi ;
```

sh ▾   Tab Width: 8 ▾   Ln 16, Col 5   ▾   INS

Attempt to make a SystemD service

Custom kernel

Installing kernel package

```
smomot@smomot-VirtualBox:~$ sudo apt-get install kernel-package
Reading package lists... Done
Building dependency tree
Reading state information... Done
```

Installing linux kernel source code:

```
smomot@smomot-VirtualBox: ~

smomot@smomot-VirtualBox:~$ wget https://cdn.kernel.org/pub/linux/kernel/v4.x/li
nux-4.9.11.tar.sign
--2021-12-19 19:13:57--  https://cdn.kernel.org/pub/linux/kernel/v4.x/linux-4.9.
11.tar.sign
Resolving cdn.kernel.org (cdn.kernel.org)... 199.232.25.176, 2a04:4e42:43::432
Connecting to cdn.kernel.org (cdn.kernel.org)|199.232.25.176|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 833 [text/plain]
Saving to: 'linux-4.9.11.tar.sign'

linux-4.9.11.tar.si   0%[                    ]       0  --.-KB/s    in 0.001s


Cannot write to 'linux-4.9.11.tar.sign' (Success).
smomot@smomot-VirtualBox:~$ wget wget https://cdn.kernel.org/pub/linux/kernel/v4
.x/linux-4.9.11.tar.xz
--2021-12-19 19:14:11--  http://wget/
Resolving wget (wget)... failed: Temporary failure in name resolution.
wget: unable to resolve host address 'wget'
--2021-12-19 19:14:11--  https://cdn.kernel.org/pub/linux/kernel/v4.x/linux-4.9.
11.tar.xz
Resolving cdn.kernel.org (cdn.kernel.org)... 199.232.25.176, 2a04:4e42:43::432
Connecting to cdn.kernel.org (cdn.kernel.org)|199.232.25.176|:443... connected.
HTTP request sent, awaiting response... 200 OK
```