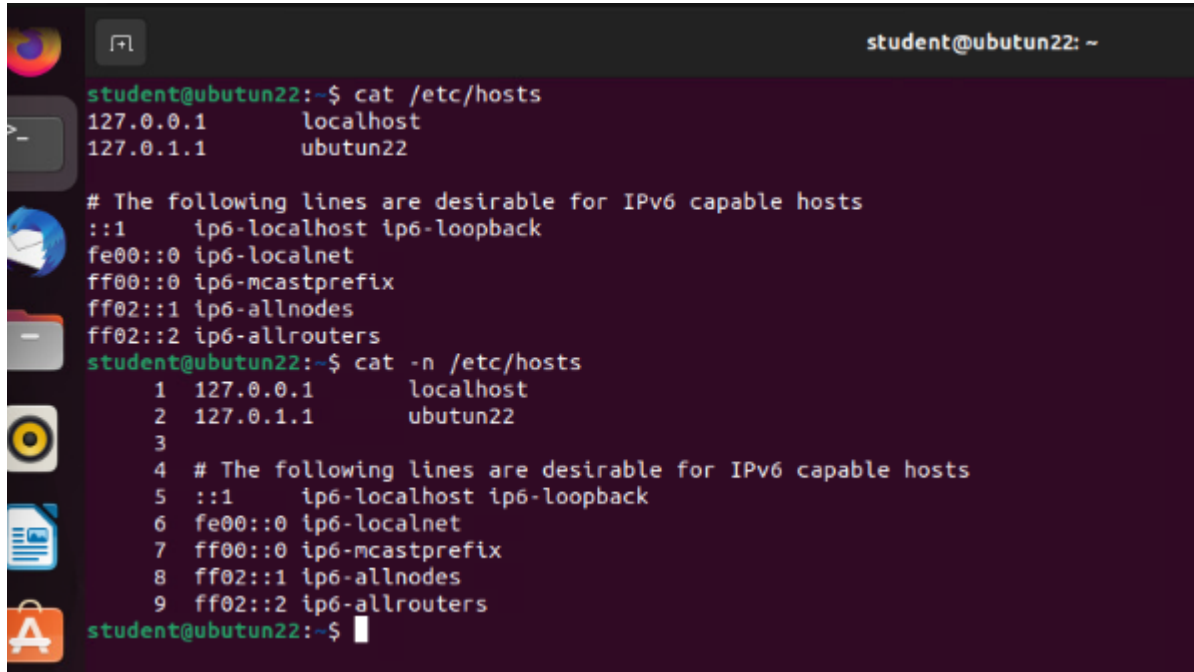


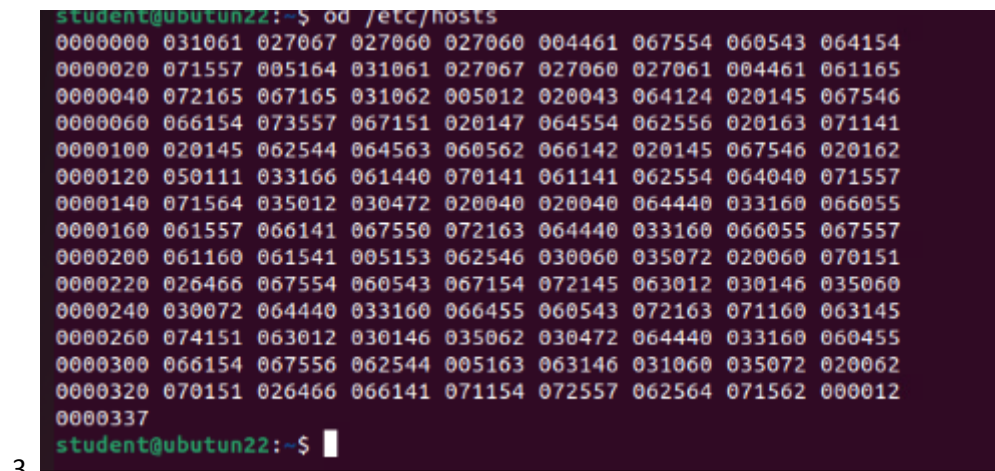
2. How many lines does the file have? 9 lines

2A. Compare them. The first one is producing the line number in hexadecimal, while the cat -n command displays the line in number form. The tac command is the reverse command of the original cat command.

A terminal window titled 'student@ubutun22: ~' showing the contents of the /etc/hosts file. The first command is 'cat /etc/hosts', which displays the file's content. The second command is 'cat -n /etc/hosts', which displays the same content with line numbers 1 through 9. The file content includes IPv4 addresses (127.0.0.1, 127.0.1.1) and IPv6 addresses (:::1, fe00::0, ff00::0, ff02::1, ff02::2) mapped to localhost, localnet, mcastprefix, allnodes, and allrouters respectively.

```
student@ubutun22:~$ cat /etc/hosts
127.0.0.1      localhost
127.0.1.1      ubutun22

# The following lines are desirable for IPv6 capable hosts
:::1          ip6-localhost ip6-loopback
fe00::0       ip6-localnet
ff00::0       ip6-mcastprefix
ff02::1       ip6-allnodes
ff02::2       ip6-allrouters
student@ubutun22:~$ cat -n /etc/hosts
 1 127.0.0.1      localhost
 2 127.0.1.1      ubutun22
 3
 4 # The following lines are desirable for IPv6 capable hosts
 5 :::1          ip6-localhost ip6-loopback
 6 fe00::0       ip6-localnet
 7 ff00::0       ip6-mcastprefix
 8 ff02::1       ip6-allnodes
 9 ff02::2       ip6-allrouters
student@ubutun22:~$
```

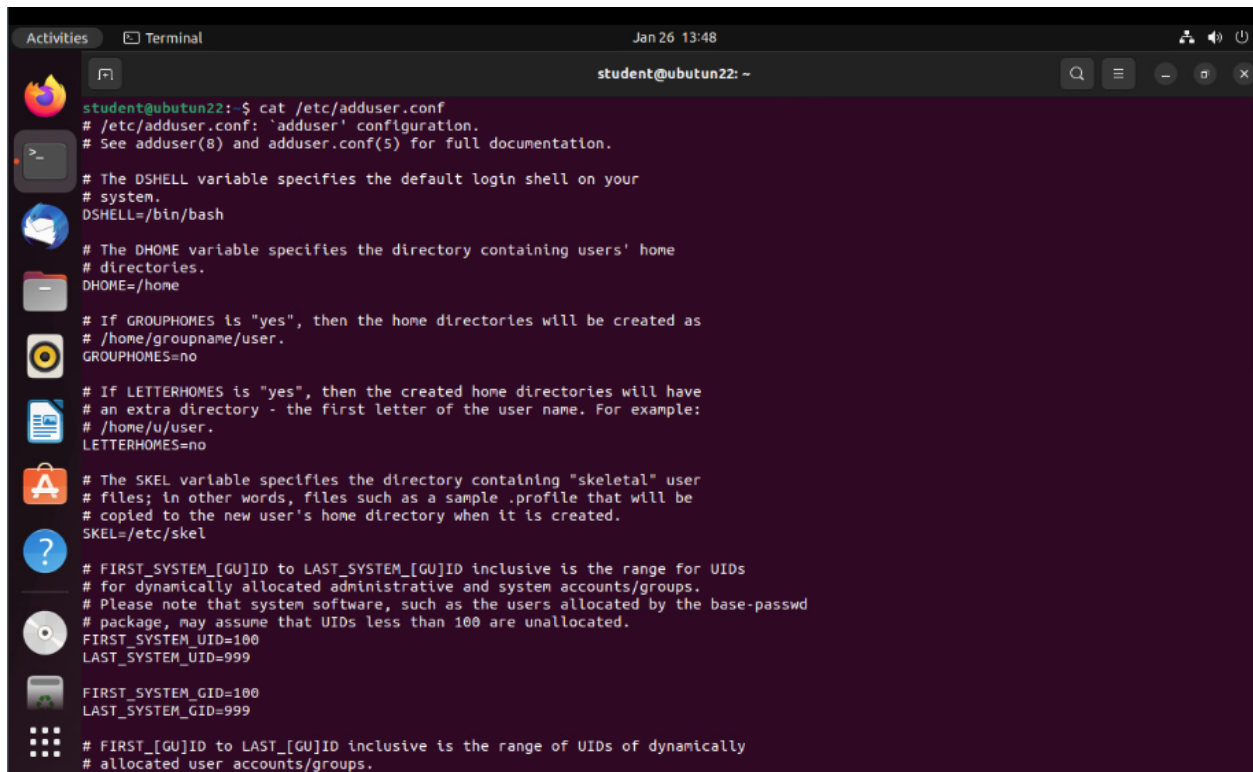
A terminal window titled 'student@ubutun22: ~' showing the output of the 'od' command applied to the /etc/hosts file. The output is a hexadecimal dump of the file's content, showing each byte in hexadecimal format, separated by spaces and grouped by lines.

```
student@ubutun22:~$ od /etc/hosts
0000000 031061 027067 027060 027060 004461 067554 060543 064154
0000020 071557 005164 031061 027067 027060 027061 004461 061165
0000040 072165 067165 031062 005012 020043 064124 020145 067546
0000060 066154 073557 067151 020147 064554 062556 020163 071141
0000100 020145 062544 064563 060562 066142 020145 067546 020162
0000120 050111 033166 061440 070141 061141 062554 064040 071557
0000140 071564 035012 030472 020040 020040 064440 033160 066055
0000160 061557 066141 067550 072163 064440 033160 066055 067557
0000200 061160 061541 005153 062546 030060 035072 020060 070151
0000220 026466 067554 060543 067154 072145 063012 030146 035060
0000240 030072 064440 033160 066455 060543 072163 071160 063145
0000260 074151 063012 030146 035062 030472 064440 033160 060455
0000300 066154 067556 062544 005163 063146 031060 035072 020062
0000320 070151 026466 066141 071154 072557 062564 071562 000012
0000337
student@ubutun22:~$
```

3.

```
student@ubutun22: ~  
student@ubutun22:~$ cat /etc/hosts  
127.0.0.1    localhost  
127.0.1.1    ubutun22  
  
# The following lines are desirable for IPv6 capable hosts  
::1         ip6-localhost ip6-loopback  
fe00::0     ip6-localnet  
ff00::0     ip6-mcastprefix  
ff02::1     ip6-allnodes  
ff02::2     ip6-allrouters  
student@ubutun22:~$ cat -n /etc/hosts  
1 127.0.0.1    localhost  
2 127.0.1.1    ubutun22  
3  
4 # The following lines are desirable for IPv6 capable hosts  
5 ::1         ip6-localhost ip6-loopback  
6 fe00::0     ip6-localnet  
7 ff00::0     ip6-mcastprefix  
8 ff02::1     ip6-allnodes  
9 ff02::2     ip6-allrouters  
student@ubutun22:~$ tac / etc/hosts  
tac: /: read error: Invalid argument  
tac: failed to open 'etc/hosts' for reading: No such file or directory  
student@ubutun22:~$ tac / etc/hosts  
tac: /: read error: Invalid argument  
tac: failed to open 'etc/hosts' for reading: No such file or directory  
student@ubutun22:~$ tac /etc/hosts  
ff02::2 ip6-allrouters  
ff02::1 ip6-allnodes  
ff00::0 ip6-mcastprefix  
fe00::0 ip6-localnet  
::1     ip6-localhost ip6-loopback  
# The following lines are desirable for IPv6 capable hosts  
  
127.0.1.1    ubutun22  
127.0.0.1    localhost  
student@ubutun22:~$
```

4.

A terminal window titled 'Terminal' with a date and time of 'Jan 26 13:48'. The user is 'student@ubutun22: ~'. The command 'cat /etc/adduser.conf' has been executed, displaying the following configuration file content:

```
student@ubutun22:~$ cat /etc/adduser.conf
# /etc/adduser.conf: 'adduser' configuration.
# See adduser(8) and adduser.conf(5) for full documentation.

# The DSHELL variable specifies the default login shell on your
# system.
DSHELL=/bin/bash

# The DHOME variable specifies the directory containing users' home
# directories.
DHOME=/home

# If GROUPHOMES is "yes", then the home directories will be created as
# /home/groupname/user.
GROUPHOMES=no

# If LETTERHOMES is "yes", then the created home directories will have
# an extra directory - the first letter of the user name. For example:
# /home/u/user.
LETTERHOMES=no

# The SKEL variable specifies the directory containing "skeletal" user
# files; in other words, files such as a sample .profile that will be
# copied to the new user's home directory when it is created.
SKEL=/etc/skel

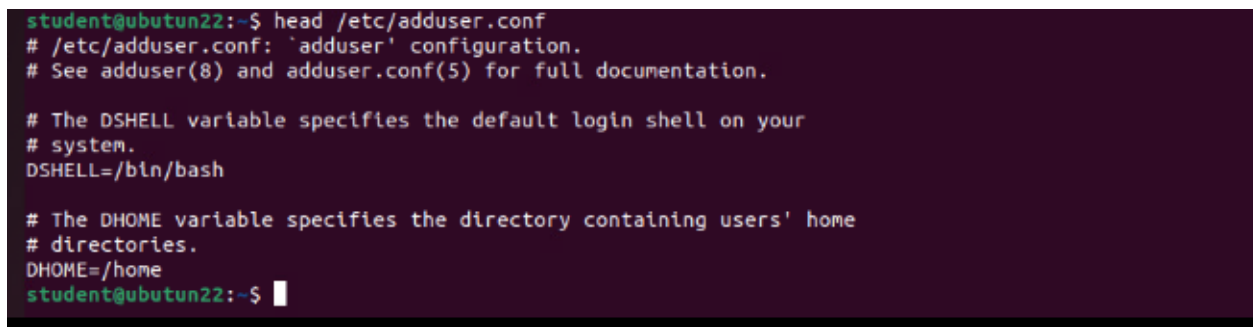
# FIRST_SYSTEM_[GU]ID to LAST_SYSTEM_[GU]ID inclusive is the range for UIDs
# for dynamically allocated administrative and system accounts/groups.
# Please note that system software, such as the users allocated by the base-passwd
# package, may assume that UIDs less than 100 are unallocated.
FIRST_SYSTEM_UID=100
LAST_SYSTEM_UID=999

FIRST_SYSTEM_GID=100
LAST_SYSTEM_GID=999

# FIRST_[GU]ID to LAST_[GU]ID inclusive is the range of UIDs of dynamically
# allocated user accounts/groups.
```

5. What is displayed on the screen? How many lines are displayed, which ones are they, and why?

The first 10 line of the adduser.conf file is shown.

A terminal window showing the command 'head /etc/adduser.conf' being executed. The output displays the first 10 lines of the configuration file:

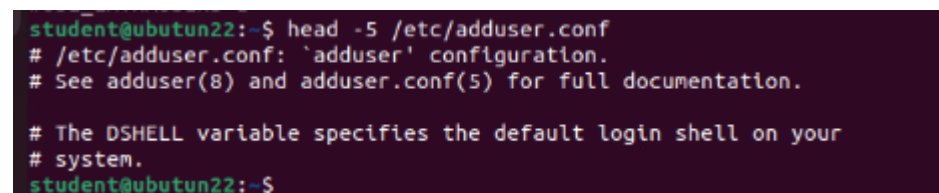
```
student@ubutun22:~$ head /etc/adduser.conf
# /etc/adduser.conf: 'adduser' configuration.
# See adduser(8) and adduser.conf(5) for full documentation.

# The DSHELL variable specifies the default login shell on your
# system.
DSHELL=/bin/bash

# The DHOME variable specifies the directory containing users' home
# directories.
DHOME=/home
student@ubutun22:~$
```

6. How many lines are displayed and why?

The file is shown everything to the 5<sup>th</sup> line of the adduser.conf

A terminal window showing the command 'head -5 /etc/adduser.conf' being executed. The output displays the first 5 lines of the configuration file:

```
student@ubutun22:~$ head -5 /etc/adduser.conf
# /etc/adduser.conf: 'adduser' configuration.
# See adduser(8) and adduser.conf(5) for full documentation.

# The DSHELL variable specifies the default login shell on your
# system.
student@ubutun22:~$
```

How many lines are displayed and why?

3

```
student@ubutun22:~$ head -3 /etc/adduser.conf
# /etc/adduser.conf: 'adduser' configuration.
# See adduser(8) and adduser.conf(5) for full documentation.

student@ubutun22:~$
```

7. What is displayed on the screen? How many lines are displayed; which ones are they and why?

The last 10 line of the adduser.conf file.

```
student@ubutun22:~$ tail /etc/adduser.conf
tail: cannot open '/etc/adduser.conf' for reading: No such file or directory
student@ubutun22:~$
```

8. How many lines are displayed and why?

There are 5 line of the last file of adduser.conf.

```
student@ubutun22:~$ tail -5 /etc/adduser.conf
# check user and group names also against this regular expression.
#NAME_REGEX="^[a-z][-a-z0-9_]*$"

# use extrausers by default
#USE_EXTRAUSERS=1
student@ubutun22:~$
```

```
student@ubutun22:~$ cat -n /etc/adduser.conf
 1 # /etc/adduser.conf: 'adduser' configuration.
 2 # See adduser(8) and adduser.conf(5) for full documentation.
 3
 4 # The DSHELL variable specifies the default login shell on your
 5 # system.
 6 DSHELL=/bin/bash
 7
 8 # The DHOME variable specifies the directory containing users' home
 9 # directories.
10 DHOME=/home
11
12 # If GROUPHOMES is "yes", then the home directories will be created as
13 # /home/groupname/user.
14 GROUPHOMES=no
15
16 # If LETTERHOMES is "yes", then the created home directories will have
17 # an extra directory - the first letter of the user name. For example:
18 # /home/u/user.
19 LETTERHOMES=no
20
21 # The SKEL variable specifies the directory containing "skeletal" user
22 # files; in other words, files such as a sample .profile that will be
23 # copied to the new user's home directory when it is created.
24 SKEL=/etc/skel
25
26 # FIRST_SYSTEM_[GU]ID to LAST_SYSTEM_[GU]ID inclusive is the range for UIDs
27 # for dynamically allocated administrative and system accounts/groups.
28 # Please note that system software, such as the users allocated by the base-passwd
29 # package, may assume that UIDs less than 100 are unallocated.
30 FIRST_SYSTEM_UID=100
31 LAST_SYSTEM_UID=999
32
33 FIRST_SYSTEM_GID=100
34 LAST_SYSTEM_GID=999
35
36 # FIRST_[GU]ID to LAST_[GU]ID inclusive is the range of UIDs of dynamically
37 # allocated user accounts/groups.
38 FIRST_USER_UID=1000
```