

<ul style="list-style-type: none"> This command show the installation of the Apache web server 	<pre>gs11@hatchS1:/var/www/html\$ gs11@hatchS1:/var/www/html\$ ^C gs11@hatchS1:/var/www/html\$ sudo apt install apache2 Reading package lists... Done Building dependency tree... Done Reading state information... Done apache2 is already the newest version (2.4.58-1ubuntu0.10). 0 upgraded, 0 newly installed, 0 to remove and 77 not upgraded. gs11@hatchS1:/var/www/html\$ gs11@hatchS1:/var/www/html\$ sudo apt install apache2_</pre>
<ul style="list-style-type: none"> The sudo cat /etc/group command lists all groups The newly created “Webdevs” group is listed at the bottom of the output 	<pre>voice:x:22: cdrom:x:24:gs11 floppy:x:25: tape:x:26: sudo:x:27:gs11,ottoserver udm:x:29: dip:x:30:gs11 www-data:x:33: backup:x:34: operator:x:37: list:x:38: irc:x:39: src:x:40: shadow:x:42: utmp:x:43: video:x:44: sas1:x:45: plugdev:x:46:gs11 staff:x:50: games:x:60: users:x:100:ottoserver,bubblefrog nogroup:x:65534: systemd-journal:x:999: systemd-network:x:998: systemd-timesync:x:997: input:x:996: sgx:x:995: kvm:x:994: render:x:993: lxd:x:101:gs11 messagebus:x:102: systemd-resolve:x:992: ssh:x:100: polkitd:x:991: crontab:x:990: syslog:x:104: uidd:x:105: rdma:x:106: tcpdump:x:107: landscape:x:108: fwupd-refresh:x:989: gs11:x:1000: ottoserver:x:1001: bubblefrog:x:1002: sssd:x:109: ssl-cert:x:110: webdevs:x:1003: gs11@hatchS1:~\$ sudo addgroup webdevs fatal: The group 'webdevs' already exists. gs11@hatchS1:~\$</pre>
<ul style="list-style-type: none"> The command shown in the picture is how users are added to the Server Sudo useradd <username> 	<pre>gs11@hatchS1:~\$ sudo useradd user1 gs11@hatchS1:~\$ sudo useradd user2 gs11@hatchS1:~\$ sudo useradd user3 gs11@hatchS1:~\$</pre>

- This screenshot shows how passwords are changed for each user
- Type “Sudo passwd <username>”
- Then you will be prompted to enter and re-enter the new password

```
gs11@hatchS1:~$
gs11@hatchS1:~$
gs11@hatchS1:~$ sudo passwd user1
New password:
Retype new password:
passwd: password updated successfully
gs11@hatchS1:~$ sudo passwd user2
New password:
Retype new password:
passwd: password updated successfully
gs11@hatchS1:~$ sudo passwd user3
New password:
Retype new password:
passwd: password updated successfully
gs11@hatchS1:~$ _
```

- This screenshot shows how to add users to a group
- Use the command “Sudo usermod -aG <groupname> <username>”

```
gs11@hatchS1:~$
gs11@hatchS1:~$
gs11@hatchS1:~$ sudo usermod -aG webdevs user1
gs11@hatchS1:~$ sudo usermod -aG webdevs user2
gs11@hatchS1:~$ sudo usermod -aG webdevs user3
gs11@hatchS1:~$
gs11@hatchS1:~$
gs11@hatchS1:~$
gs11@hatchS1:~$
```

- This output shows that three users have successfully been added to the webdevs group

```
cdrom:x:24:gs11
floppy:x:25:
tape:x:26:
sudo:x:27:gs11,ottoserver
audio:x:29:
dip:x:30:gs11
www-data:x:33:
backup:x:34:
operator:x:37:
list:x:38:
irc:x:39:
rpc:x:40:
shadow:x:42:
utmp:x:43:
video:x:44:
sasl:x:45:
webdevs:x:46:gs11
staff:x:50:
games:x:60:
users:x:100:ottoserver,bubblefrog
nogroup:x:65534:
systemd-journal:x:999:
systemd-network:x:998:
systemd-timesync:x:997:
input:x:996:
sgx:x:995:
kvm:x:994:
render:x:993:
lxd:x:101:gs11
messagebus:x:102:
systemd-resolve:x:992:
_ssh:x:103:
polkitd:x:991:
cron:x:990:
syslog:x:104:
uuidd:x:105:
roma:x:106:
tcpdump:x:107:
landscape:x:108:
fwupd-refresh:x:989:
gs11:x:1000:
ottoserver:x:1001:
bubblefrog:x:1002:
sssd:x:109:
ssl-cert:x:110:
webdevs:x:1003:user1,user2,user3
user1:x:1004:
user2:x:1005:
user3:x:1006:
gs11@hatchS1:~$
```

- This screenshot shows making a directory to host the website in
- Two directories need to be created. One called /var/www and the other called /var/www/website

```
gs11@hatchS1:~$
gs11@hatchS1:~$
gs11@hatchS1:~$
gs11@hatchS1:~$ sudo mkdir -p /var/www
gs11@hatchS1:~$ sudo mkdir -p /var/www/website
gs11@hatchS1:~$ cd /var/www/website
gs11@hatchS1:/var/www/website$ ls -l
total 0
gs11@hatchS1:/var/www/website$ _
```

- This screenshot shows the change ownership command for the website directory
- Type "Sudo chown root:webdevs /var/www" to change the ownership of the directory

```
gs11@hatchS1:~$
gs11@hatchS1:~$
gs11@hatchS1:~$
gs11@hatchS1:~$ sudo chown root:webdevs /var/www
gs11@hatchS1:~$
```

- This screenshot shows how to add different files to the newly created directory, using the "touch" command
- Once the files have been created, use "ls -l" to ensure that the files have been correctly created

```
gs11@hatchS1:~$ sudo -D website
usage: sudo -h | -K | -k | -V
usage: sudo -v [-ABkNnS] [-g group] [-h host] [-p prompt] [-u user]
usage: sudo -l [-ABkNnS] [-g group] [-h host] [-p prompt] [-U user]
       [-u user] [command [arg ...]]
usage: sudo [-ABbEHkNnPS] [-r role] [-t type] [-C num] [-D directory]
       [-g group] [-h host] [-p prompt] [-R directory] [-T timeout]
       [-u user] [VAR=value] [-i | -s] [command [arg ...]]
usage: sudo -e [-ABkNnS] [-r role] [-t type] [-C num] [-D directory]
       [-g group] [-h host] [-p prompt] [-R directory] [-T timeout]
       [-u user] file ...
gs11@hatchS1:~$ sudo touch index.html styles.css script.js
gs11@hatchS1:~$ ls -l
total 0
-rw-r--r-- 1 root root 0 Feb 11 22:39 index.html
-rw-r--r-- 1 root root 0 Feb 11 22:39 script.js
-rw-r--r-- 1 root root 0 Feb 11 22:39 styles.css
gs11@hatchS1:~$ _
```

- Finally, we will set the permissions with the “sudo chmod 644 *” command

```
gs11@hatchS1:~$  
gs11@hatchS1:~$  
gs11@hatchS1:~$ sudo chmod 644 *  
gs11@hatchS1:~$ ls -l  
total 0  
-rw-r--r-- 1 root root 0 Feb 11 22:39 index.html  
-rw-r--r-- 1 root root 0 Feb 11 22:39 script.js  
-rw-r--r-- 1 root root 0 Feb 11 22:39 styles.css  
gs11@hatchS1:~$
```