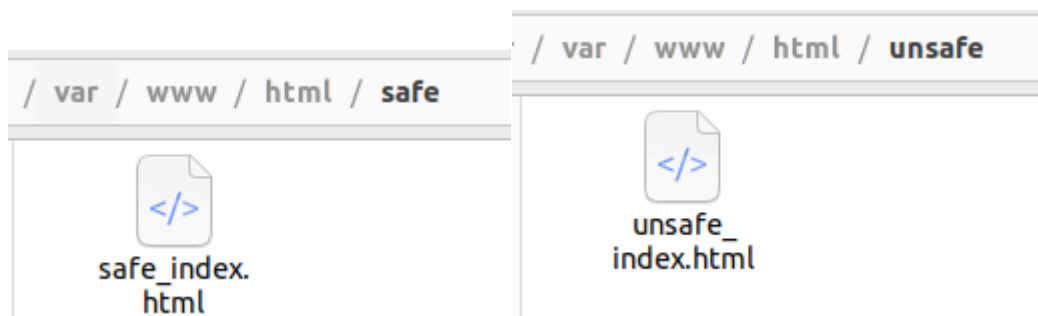## Task 1.1:

Install nginx

```
karrs@nspj24:~$ sudo apt install nginx
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following additional packages will be installed:
  libnginx-mod-http-geoip2 libnginx-mod-http-image-filter
  libnginx-mod-http-xslt-filter libnginx-mod-mail libnginx-mod-stream
  libnginx-mod-stream-geoip2 nginx-common nginx-core
Suggested packages:
  fcgiwrap nginx-doc
The following NEW packages will be installed:
  libnginx-mod-http-geoip2 libnginx-mod-http-image-filter
  libnginx-mod-http-xslt-filter libnginx-mod-mail libnginx-mod-stream
  libnginx-mod-stream-geoip2 nginx nginx-common nginx-core
0 upgraded, 9 newly installed, 0 to remove and 108 not upgraded.
Need to get 697 kB of archives.
After this operation, 2395 kB of additional disk space will be used.
Do you want to continue? [Y/n] y
Get:1 http://tw.archive.ubuntu.com/ubuntu jammy-updates/main amd64 ngi
```
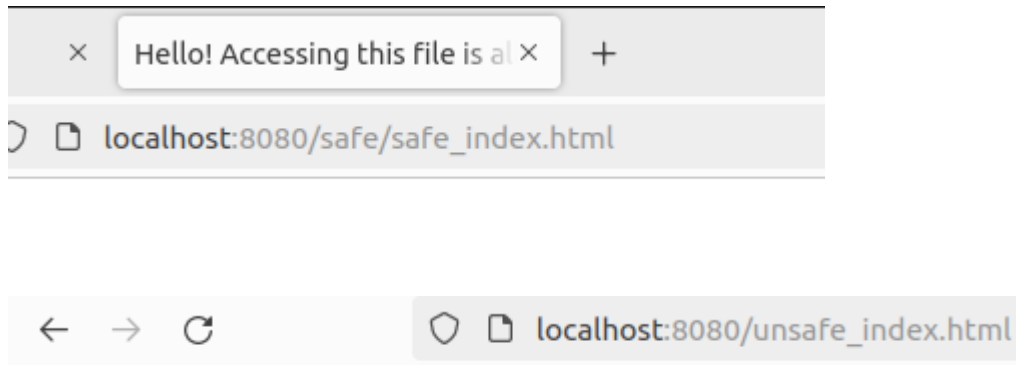
Move files to the root folder of nginx

```
include /etc/nginx/conf.d/*.conf;
  server {
          listen 8080;
          location / {
                  root /var/www/html;
          }
  }
}
```

/ var / www / html / **safe**

</>
safe_index.
html

/ var / www / html / **unsafe**

</>
unsafe_
index.html

Task 1.2:

生成 profile 前:

Hello! Accessing this file is NOT allowed.

用 aa-autodep 生成 profile，再將 nginx 設為 complain mode，並且

重啟 nginx，再用 aa-logprof 去設定 profile，接著再去 profile 裡面

新增題目要求的規則:

/var/www/html/safe/* r,

deny /var/www/html/unsafe/* r,

最後再將 nginx 設為 enforce mode，並且重新訪問兩個檔案，就能

得到結果。

```
# Last Modified: Sat Apr 27 15:50:05 2024
abi <abi/3.0>,

include <tunables/global>

/usr/sbin/nginx flags=(complain) {
  include <abstractions/apache2-common>
  include <abstractions/base>
  include <abstractions/dovecot-common>
  include <abstractions/evince>
  include <abstractions/openssl>
  include <abstractions/web-data>

  capability dac_override,
  capability setgid,
  capability setuid,

  /var/www/html/safe/* r,
  deny /var/www/html/unsafe/* r,
  /usr/sbin/nginx mr,
  /var/log/nginx/access.log w,
  /var/log/nginx/error.log w,
  owner /etc/group r,
  owner /etc/nginx/conf.d/ r,
  owner /etc/nginx/mime.types r,
  owner /etc/nginx/modules-enabled/ r,
  owner /etc/nginx/nginx.conf r,
  owner /etc/nsswitch.conf r,
  owner /etc/passwd r,
  owner /run/nginx.pid rw,

}
```
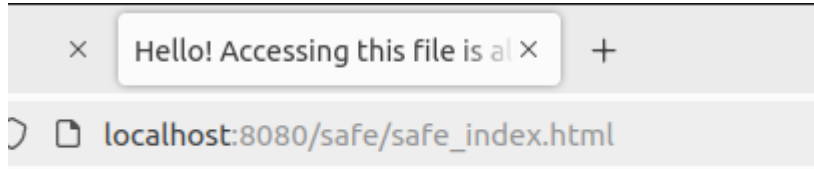
```
karrs@nspj24:/etc/apparmor.d$ sudo aa-enforce nginx
Setting /usr/sbin/nginx to enforce mode.
```
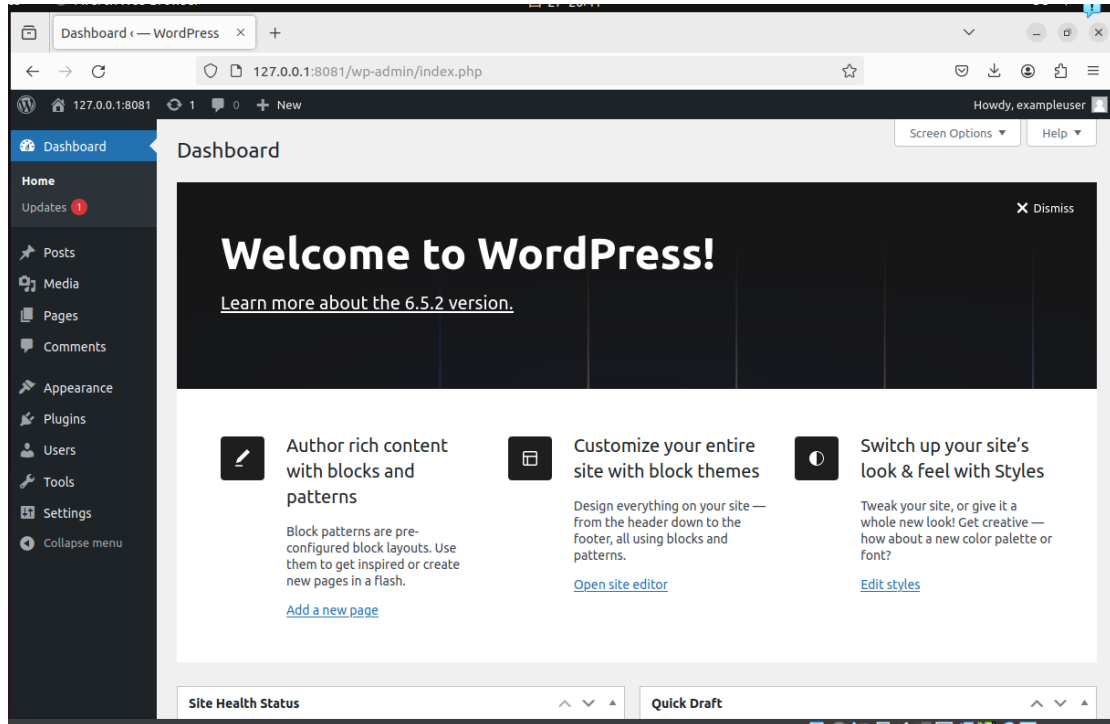
×   Hello! Accessing this file is a ×   +

localhost:8080/safe/safe_index.html

403 Forbidden   ×   +

→   C   localhost:8080/unsafe/unsafe_index.html

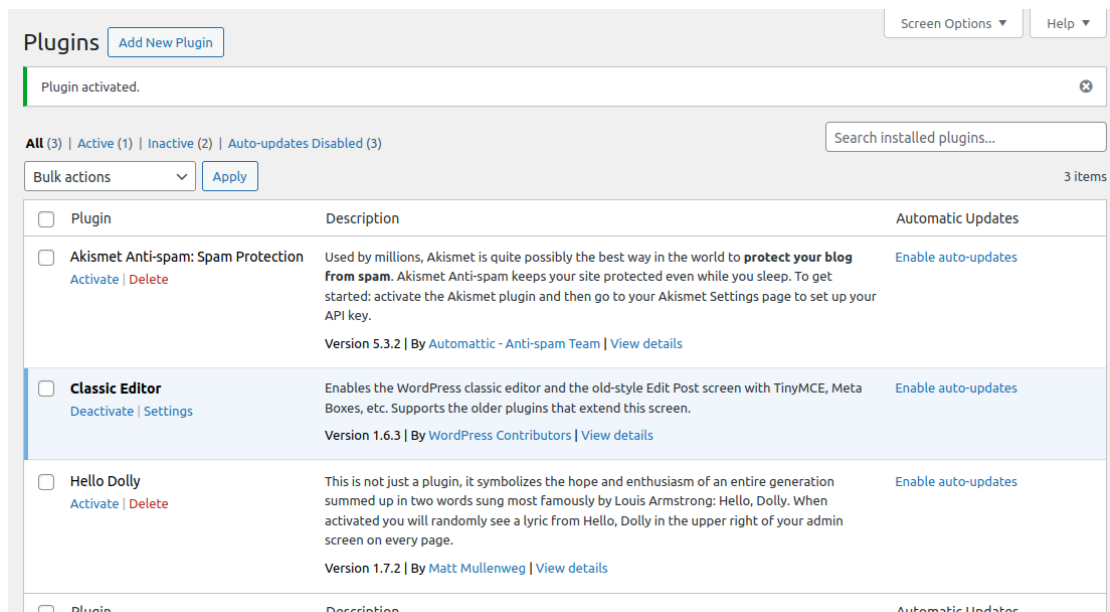# 403 Forbidden

nginx/1.18.0 (Ubuntu)

Task 2:

Login wordpress

Add a new plugin "Classic Editor"

Create profile nspj-docker_110550063

```
1 #include <tunables/global>
2
3
4 profile nspj-docker_110550063 flags=(attach_disconnected,mediate_deleted) {
5
6    #include <abstractions/base>
7
8
9    deny network inet,
10   deny network inet6,
11   deny network raw,
12   capability,
13   file,
14   umount,
15
16   deny @{PROC}/{*,**^[0-9*],sys/kernel/shm*} wkx,
17   deny @{PROC}/sysrq-trigger rwklx,
18   deny @{PROC}/mem rwklx,
19   deny @{PROC}/kmem rwklx,
20   deny @{PROC}/kcore rwklx,
21
22   deny mount,
23
24   deny /sys/[^f]*/** wklx,
25   deny /sys/f[^s]*/** wklx,
26   deny /sys/fs/[^c]*/** wklx,
27   deny /sys/fs/c[^g]*/** wklx,
28   deny /sys/fs/cg[^r]*/** wklx,
29   deny /sys/firmware/efi/efivars/** rwklx,
30   deny /sys/kernel/security/** rwklx,
31
32   deny /var/www/html/wp-content/plugins/** wlx,
33   deny /var/www/html/wp-content/themes/** wlx,
34   owner /var/www/html/wp-content/uploads/** rw,
35 }
```

並在 docker-compose.yml 裡新增

```
# TODO: attach the apparmor profile to
security_opt:
  - apparmor=nspj-docker_110550063
```

測試下載 plugin，發現會被擋掉

Health Check & Troubleshooting

Installation failed.

More Details

Health Check identifies common problems, and helps you troubleshoot plugin and theme conflicts.

By *The WordPress.org community*

我覺得這次困難的點在於找到資源，一開始找的時候都找不到可用

的教學，後來是參考了同學的意見才成功找到