1. Configure apache to use Worker MPM

```
aya@Aya:~$ sudo a2enmod mpm_worker
[sudo] password for aya:
Considering conflict mpm_event for mpm_worker:
ERROR: Module mpm_event is enabled - cannot proceed due to conflicts. It needs to be disabled first!
Considering conflict mpm_prefork for mpm_worker:
aya@Aya:~$ sudo a2dismod mpm_event
Module mpm_event disabled.
To activate the new configuration, you need to run:
 systemctl restart apache2
aya@Aya:~$ sudo a2enmod mpm_worker
Considering conflict mpm_event for mpm_worker:
Considering conflict mpm_prefork for mpm_worker:
Enabling module mpm_worker.
To activate the new configuration, you need to run:
 systemctl restart apache2
aya@Aya:~$ sudo service apache2 restart
aya@Aya:~$
```

2. Check the status of rewrite\_mod and enable it if it is enabled.

```
aya@Aya:~$ sudo a2enmod rewrite
Enabling module rewrite.
To activate the new configuration, you need to run:
   systemctl restart apache2
aya@Aya:~$ sudo service apache2 restart
aya@Aya:~$ sudo apache2ctl -M | grep rewrite
   rewrite_module (shared)
aya@Aya:~$
```

- 3. Write RewriteCond and RewiteRules for:
- a. Deny access to http://localhost/page?queryString if queryString contains the string forbidden.

```
RewriteEngine on
RewriteCond %{QUERY_STRING} forbidden
RewriteRule ^page$ - [F]

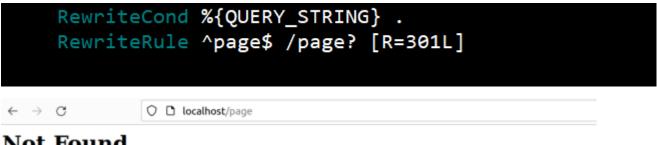
irtualHost>
```

## Forbidden

You don't have permission to access this resource.

Apache/2.4.52 (Ubuntu) Server at localhost Port 80

#### b. Remove the Query String



### Not Found

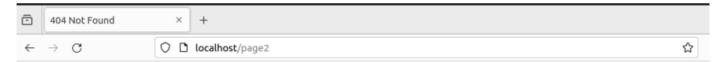
The requested URL was not found on this server.

Apache/2.4.52 (Ubuntu) Server at localhost Port 80

c. Rewrite URLs like http://localhost/page1?var=val to

http://localhost/page2?var=val but do not rewrite if val isn't present.

RewriteCond %{QUERY\_STRING} (.+)=(.+) [NC] RewriteRule ^page\$ /page2



#### Not Found

The requested URL was not found on this server.

Anache/2 4 52 (Hhuntu) Server at localhest Port 80

d. Take a URL of the form http://localhost/path?var=val and transform it into

http://localhost/path/var/val.

```
RewriteCond %{QUERY_STRING} ^([^&]+)=([^$]+)$
RewriteRule ^(.*)$ /$1/%1/%2? [R=301,L]
```

# rtualHost>

e. Map http://localhost/example/one/two to

http://localhost/something.cgi?arg=one&other=two

RewriteRule ^/example/(.+)/(.+) /something.cgi?arg=\$1&other=\$2 [R=301]