

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 RewriteRules for:

- a. Deny access to `http://localhost/page?queryString` if queryString contains the string forbidden.

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

virtualHost>
```



b. Remove the Query String

```
RewriteCond %{QUERY_STRING} .  
RewriteRule ^page$ /page? [R=301L]
```



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
```



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]
```