

Lab :2

1. Configure apache to use Worker MPM

```
ibrahim@ibrahim-Lenovo-ideapad-100-15IBD: /var/www/html/lab2
ibrahim@ibrahim-Lenovo-ideapad-100-15IBD:/var/www/html/lab2$ sudo a2enmod mpm_worker
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:
ibrahim@ibrahim-Lenovo-ideapad-100-15IBD:/var/www/html/lab2$ sudo a2dismod mpm_event
Module mpm_event disabled.
To activate the new configuration, you need to run:
    systemctl restart apache2
ibrahim@ibrahim-Lenovo-ideapad-100-15IBD:/var/www/html/lab2$ sudo systemctl restart apache2
Job for apache2.service failed because the control process exited with error code.
See "systemctl status apache2.service" and "journalctl -xeu apache2.service" for details.
ibrahim@ibrahim-Lenovo-ideapad-100-15IBD:/var/www/html/lab2$ 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
ibrahim@ibrahim-Lenovo-ideapad-100-15IBD:/var/www/html/lab2$ sudo systemctl restart apache2
ibrahim@ibrahim-Lenovo-ideapad-100-15IBD:/var/www/html/lab2$ apachectl -V | grep -i mpm
Server MPM:      worker
ibrahim@ibrahim-Lenovo-ideapad-100-15IBD:/var/www/html/lab2$
```

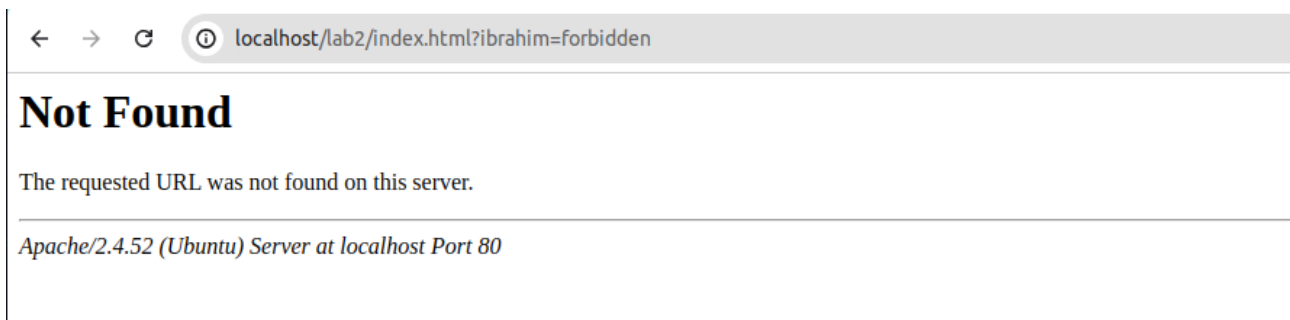
2. Check the status of rewrite_mod and enable it if it is enabled.

```
ibrahim@ibrahim-Lenovo-ideapad-100-15IBD: /var/www/html/lab2
ibrahim@ibrahim-Lenovo-ideapad-100-15IBD:/var/www/html/lab2$ sudo a2enmod rewrite
Enabling module rewrite.
To activate the new configuration, you need to run:
    systemctl restart apache2
ibrahim@ibrahim-Lenovo-ideapad-100-15IBD:/var/www/html/lab2$ sudo systemctl restart apache2
ibrahim@ibrahim-Lenovo-ideapad-100-15IBD:/var/www/html/lab2$
```

3. Write RewriteCond and RewriteRules for:

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

```
ibrahim@ibrahim-Lenovo-ideapad-100-15IBD: /var/www/html/lab2
RewriteCond %{QUERY_STRING} forbidden [NC]
RewriteRule ^ - [F]
```



b. Remove the Query String

```
# Match any request that has a query string
RewriteCond %{QUERY_STRING} .+
RewriteRule ^(.*)$ /$1? [R]
```

c. Rewrite URLs like <http://localhost/page1?var=val> to <http://localhost/page2?var=val> but do not rewrite if val isn't present.

```
# Match any request with a query string
RewriteCond %{QUERY_STRING} (.)=(.+)
RewriteRule ^/page1 page2?%1=%2
```

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

```
# Match any request with a query string of the form var=val
RewriteCond %{QUERY_STRING} ^([^=]+)=([^&]+)$
RewriteRule ^(.*)$ /$1/%1/%2?

</VirtualHost>
```

e. Map <http://localhost/example/one/two> to <http://localhost/something.cgi?arg=one&other=two>

```
# Rewrite /python2/default.html/one/two to /something.cgi?arg=one&other=two
RewriteRule ^/python2/default.html/([^\s/]+)/([^\s/]+)$ /something.cgi?arg=$1&other=$2 [R=301,L]
```