

1. Configure apache to use Worker MPM

```
(base) eslam@eslam-Latitude-E7450:/etc/apache2$ apache2ctl -M | grep mpm
AH00558: apache2: Could not reliably determine the server's fully qualified domain name, using 127.0.1.1. Set the 'ServerName' directive globally to suppress this message mpm_event_module (shared)
(base) eslam@eslam-Latitude-E7450:/etc/apache2$ sudo a2dismod mpm_event [sudo] password for eslam:
Module mpm event disabled.
To activate the new configuration, you need to run:
    systemctl restart apache2
(base) eslam@eslam-Latitude-E7450:/etc/apache2$ systemctl restart apache2
(base) eslam@eslam-Latitude-E7450:/etc/apache2$ sudo a2enmod mpm_worker
Considering conflict mpm_event for mpm_worker:
Considering conflict mpm_prefork for mpm_worker:
Module mpm_worker already enabled
(base) eslam@eslam-Latitude-E7450:/etc/apache2$ apache2ctl -M | grep mpm
AH00558: apache2: Could not reliably determine the server's fully qualified domain name, using 127.0.1.1. Set the 'ServerName' directive globally to suppress this message
    mpm_worker_module (shared)
(base) eslam@eslam-Latitude-E7450:/etc/apache2$
```

eck the status of rewrite mod and enable it if it is enabled.

```
• (base) eslam@eslam-Latitude-E7450:/etc/apache2$ apache2ctl -M | grep rewrite

AH00558: apache2: Could not reliably determine the server's fully qualified domain name, using 127.0.1.1. Set the 'ServerName' directive globally to suppress this message rewrite_module (shared)

• (base) eslam@eslam-Latitude-E7450:/etc/apache2$
```

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

```
#lap2

RewriteEngine on #important

RewriteCond %{QUERY_STRING} forbidden
RewriteRule .+ - [F]
```



b. Remove the Query String

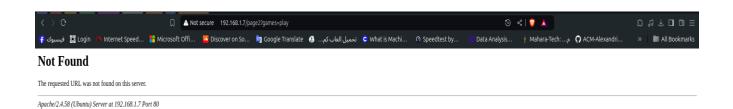
```
#Q3.b

RewriteCond %{QUERY_STRING} (state)=(.+)

RewriteRule ^/TASKS/(.+)/(.+) /TODO/$2/$1/%2.html? [R]
```

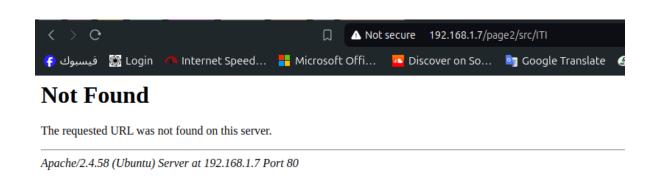


c. Rewrite URLs like http://localhost/page1?var=val to http://localhost/page2?var=val but do not rewrite if val isn't present.



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

```
51
52 #03.d
53 RewriteCond %{QUERY_STRING} (.+)=(.+)
54 RewriteRule ^/page1 /page2/%1/%2? [R]
55
```



e. Map http://localhost/example/one/two to http://localhost/something.cgiarg=one&otho

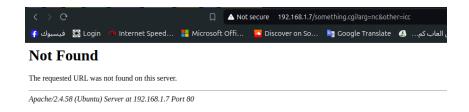
```
55 #Q3.e

57 RewriteRule ^/(.+)/(.+)$ /something.cgi?arg=$2&other=$3 [R]

58

59

60
```



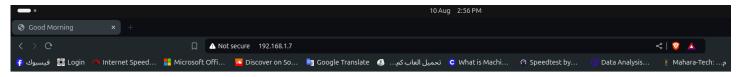
f. (Bonus) Display a goodevening.html page if the time is after 6:00 PM and

```
#Bounse

RewriteCond %{TIME_HOUR} >=18
RewriteRule .+ /bouns/goodevening.html [L]

RewriteCond %{TIME_HOUR} <18
RewriteRule .+ /bouns/goodmooring.html [L]
```

ng.html page if the time is before that



Good Morning!