

1. Configure apache to use Worker MPM

```
ties  Terminal 27 Apr 1:41 PM
alaa@lol:~$ sudo a2dismod mpm_prefork
[sudo] password for alaa:
Module mpm_prefork already disabled
alaa@lol:~$ 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:
alaa@lol:~$ sudo a2dismod mpm_event
Module mpm_event disabled.
To activate the new configuration, you need to run:
systemctl restart apache2
alaa@lol:~$ 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
alaa@lol:~$ systemctl restart apache2
alaa@lol:~$ apache2ctl -V | grep MPM
Server MPM: worker
alaa@lol:~$
```

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

```
ties  Terminal 27 Apr 2:20 PM
alaa@lol:~$ apache2ctl -M | grep rewrite
AH00558: apache2: Could not reliably determine the server's fully qualified domain name, using 172.20.10.4. Set the 'ServerName' directive globally to suppress this message
rewrite_module (shared)
alaa@lol:~$
```

Its enabled

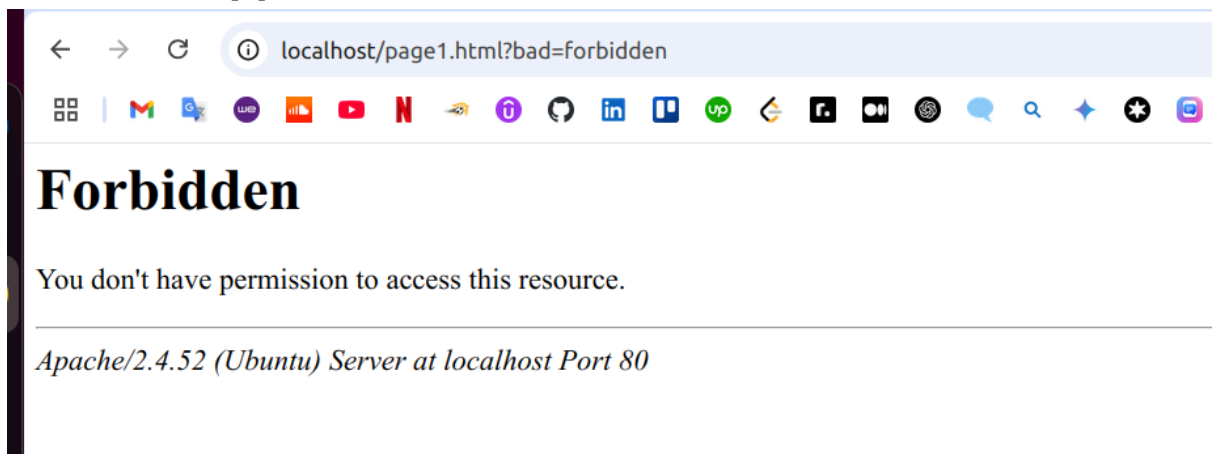
3. Write RewriteCond and RewriteRules for:

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

RewriteEngine On

RewriteCond %{QUERY_STRING} forbidden

RewriteRule ^ - [F]



b. Remove the Query String

RewriteEngine On

RewriteCond %{QUERY_STRING} !^\$

RewriteRule ^(.*)\$ /\$1? [R=301,L]

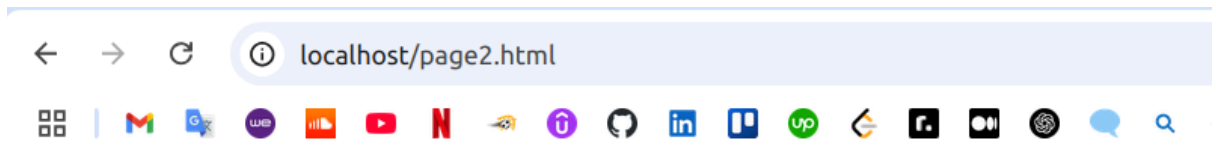
c. Rewrite URLs like <http://localhost/page1?var=val> to <http://localhost/page2?var=val> but do not rewrite if val isn't present.

RewriteEngine On

RewriteCond %{REQUEST_URI} ^/page1\$

RewriteCond %{QUERY_STRING} (^|&)var=val(&|\$)

RewriteRule ^page1\$ /page2?%{QUERY_STRING} [R=301,L]

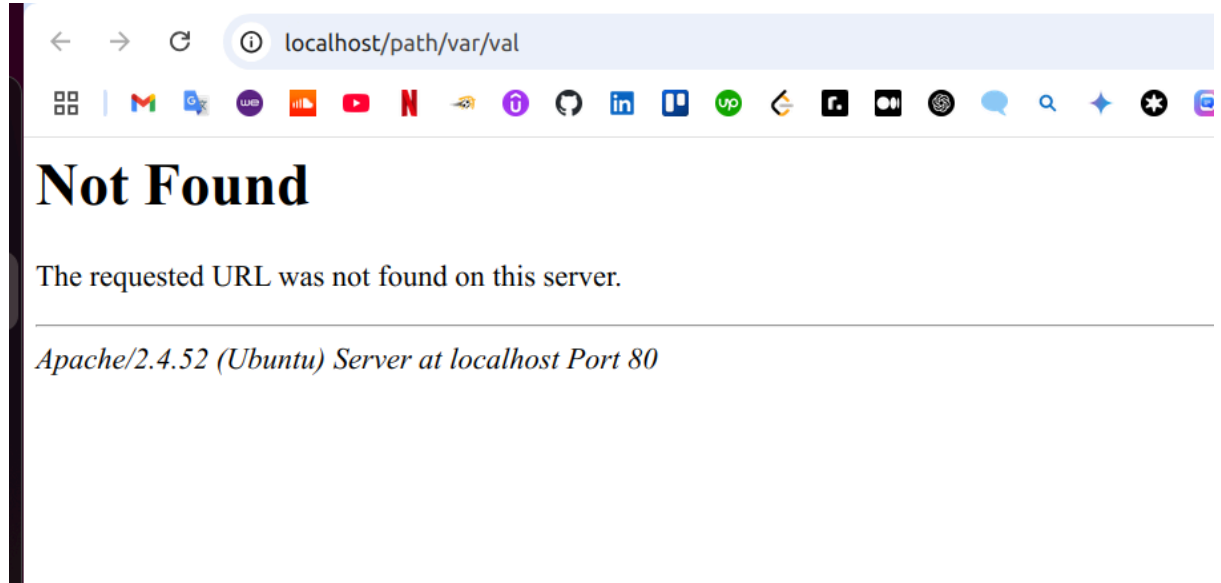


Welcome to Page 2!

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

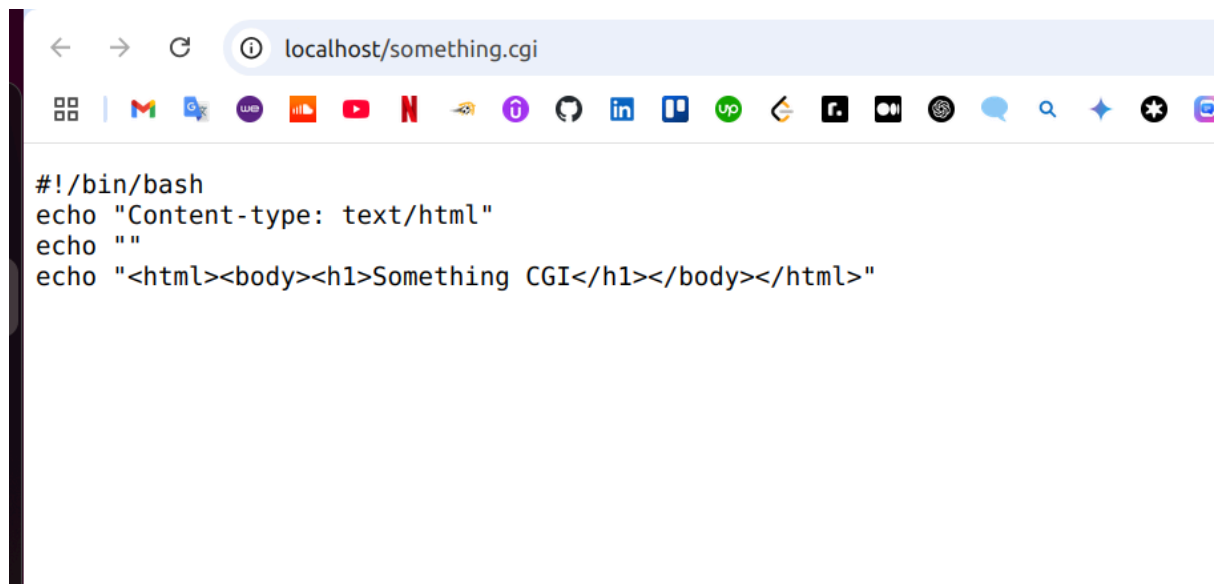
RewriteEngine On

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



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

```
RewriteEngine On  
RewriteRule ^example/([^/]+)/([^/]+)$ /something.cgi?arg=$1&other=$2  
[R=301,L]
```



- f. (Bonus) Display a `goodevening.html` page if the time is after 6:00 PM and `goodmorning.html` page if the time is before that
4. Create a virtual host for `os.iti.gov.eg` to redirect to a local directory in your server
- task4,8