

Apache Day2
Team 2
Mansoura Open source
Intake 45

Team members :-

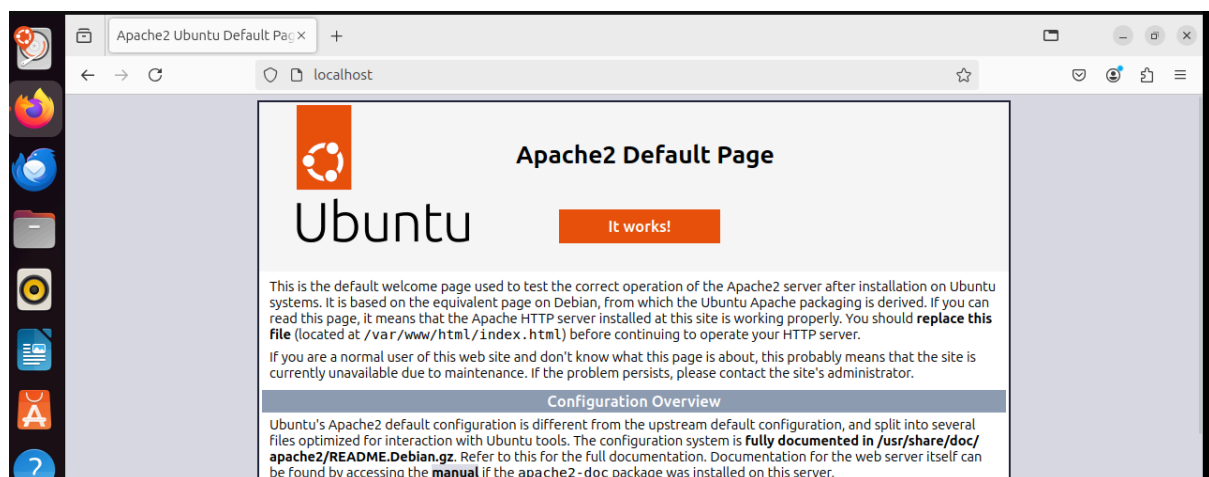
Dina Ebrahim Elhadidy
Hager Mahmoud Elmadany
Merna Mahmoud Tera
Nouran Mostafa Ahmed
Nada Mohamed Ahmed Hassan

1. Change the default index page to default.html instead of index.html (use DirectoryIndex)

```
ubuntu@ubuntu:~$ sudo vi /etc/apache2/apache2.conf
ubuntu@ubuntu:~$
```

```
DirectoryIndex default.html index.html
```

```
ubuntu@ubuntu:~$ sudo service apache2 restart
ubuntu@ubuntu:~$
```



2. Change the default port to be 8000 instead of 80

```
ubuntu@ubuntu:~$ sudo vi /etc/apache2/ports.conf
```

```
# /etc/apache2/sites-enabled/000-default.conf
```

```
Listen 8000
```

```
<IfModule ssl_module>
```

```
    Listen 443
```

```
</IfModule>
```

```
<IfModule mod_gnutls.c>
```

```
    Listen 443
```

```
</IfModule>
```

```
~
```

```
ubuntu@ubuntu:~$ sudo vi /etc/apache2/sites-available/000-default.conf
```

```
<VirtualHost *:8000>
```

```
    # The ServerName directive must be
```

3. What is the importance of rewrite module?

allows you to rewrite URLs dynamically

- Restricts access to certain pages or directories based on conditions.
- Redirects old URLs to new ones or forces www or https
- Converts ugly URLs into clean URLs

4. Configure apache to use Worker MPM

```
(root@kali)~# a2dismod mpm_prefork
```

Server **MPM:** prefork

```
(root@kali)~# vi /etc/apache2/apache2.conf
```

```
(root@kali)~# a2dismod mpm_prefork
```

ERROR: The following modules depend on mpm_prefork and

```
(root@kali)~# a2dismod php7.4
```

Module php7.4 disabled.

To activate the new configuration, you need to run:
systemctl restart apache2

```
(root@kali)~# a2dismod mpm_prefork
```

Module mpm_prefork disabled.

To activate the new configuration, you need to run:
systemctl restart apache2

```
(root@kali)~# 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

```
(root@kali)~# systemctl restart apache2
```

```
(root@kali)~# apachectl -V | grep MPM
```

Server **MPM:** worker

```
<IfModule mpm_worker_module>
    StartServers          4
    MinSpareThreads       25
    MaxSpareThreads       75
    ThreadLimit           64
    ThreadsPerChild       25
    MaxRequestWorkers     150
</IfModule>
```

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

```
(root@kali)-[/etc/apache2/sites-enabled]
# a2enmod rewrite
Enabling module rewrite.
To activate the new configuration, you need to run:
    systemctl restart apache2

(root@kali)-[/etc/apache2/sites-enabled]
# systemctl restart apache2

(root@kali)-[/etc/apache2/sites-enabled]
# apache2ctl -M | grep rewrite
AH00558: apache2: Could not reliably determine the server's fully qualified domain name,
Set the 'ServerName' directive globally to suppress this message
rewrite_module (shared)
```

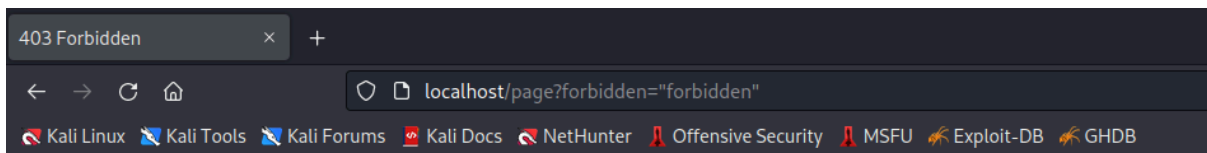
Bonus:

1- 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]
```



Forbidden

You don't have permission to access this resource.

Apache/2.4.48 (Debian) Server at localhost Port 80

B. Remove the Query String

```
RewriteRule ^/test$ /$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.

```
ubuntu@ubuntu:~$ sudo vi /var/www/html/.htaccess
ubuntu@ubuntu:~$
```

```
RewriteEngine On
```

```
RewriteCond %{QUERY_STRING} (^|&)var=([^&]+) [NC]
RewriteRule ^page1$ /page2?%{QUERY_STRING} [L,R=301]
```

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

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

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

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