

# **Apache Lab2**

## **Team 4**

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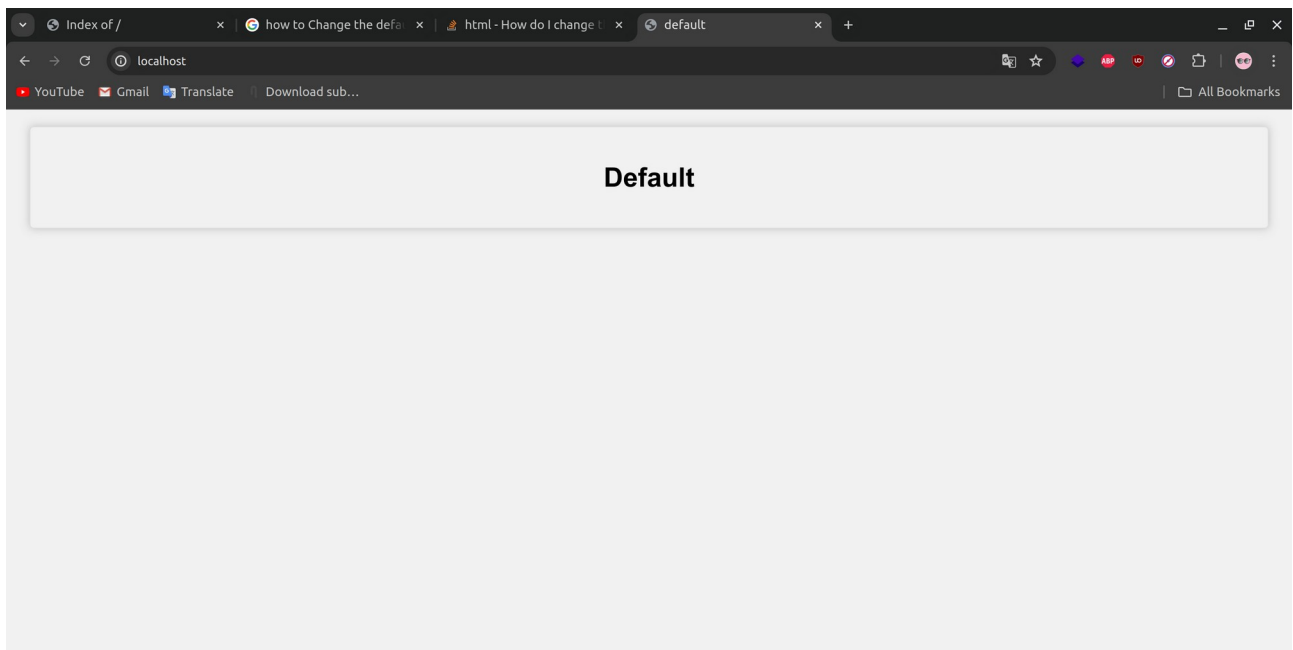
1. Change the default index page to default.html instead of index.html (use DirectoryIndex)

```
cd /etc/apache2  
sudo vim apache2.conf
```

# Add the following code in the file

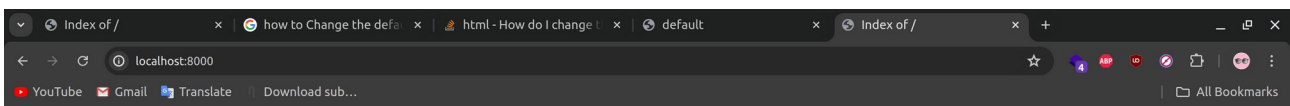
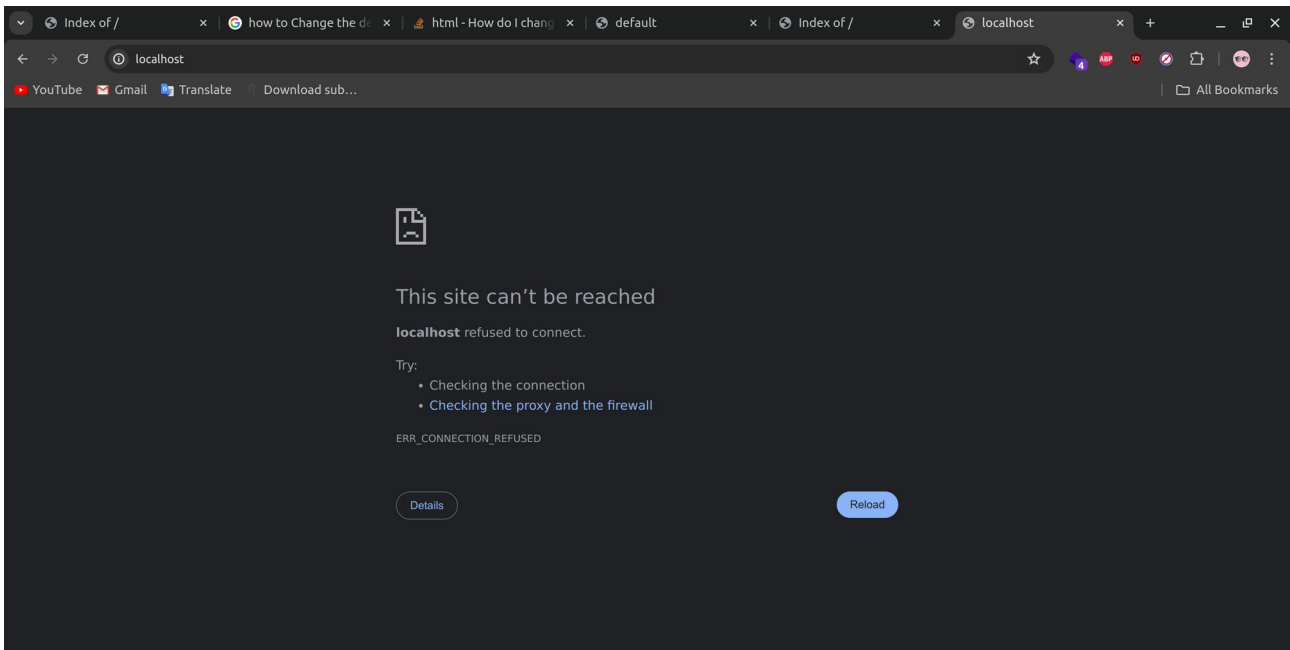
DirectoryIndex default.html index.html

```
sudo service apache2 restart
```




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

```
cd /etc/apache2
sudo vim ports.conf
# edit listen
8000
sudo service apache2 restart
# open
localhost:8000
```



Index of /

<a href="#">Name</a>	<a href="#">Last modified</a>	<a href="#">Size</a>	<a href="#">Description</a>
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 <a href="#">default.html</a>	2024-07-24 18:39	740	
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Apache/2.4.52 (Ubuntu) Server at localhost Port 8000

### 3. What is the importance of rewrite module?

The `mod_rewrite` module is an Apache module that allows you to rewrite URLs.

It can be used to optimize your URL structure, to apply access restrictions, or to create search engine friendly links.

It is a very powerful and flexible tool for directing and controlling traffic to your site.

#### 4. Configure apache to use Worker MPM

```
sudo a2enmod mpm_worker
```

```
cd /etc/apache2
```

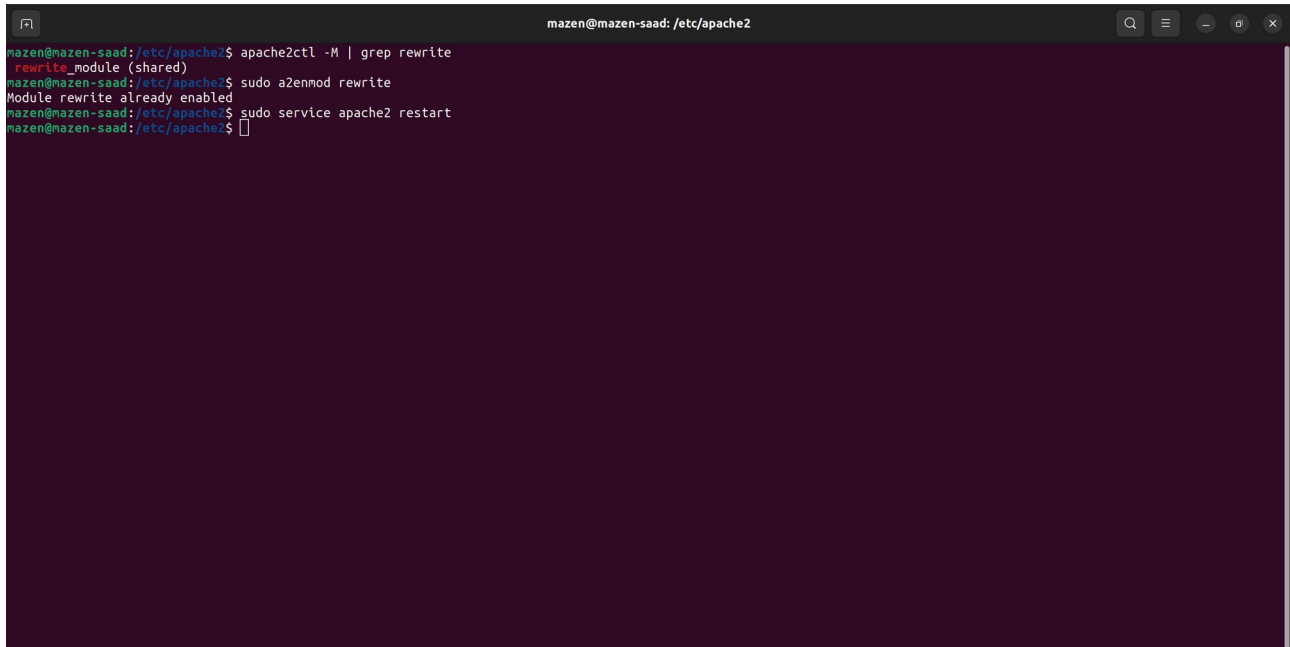
```
# edit file apache2.conf
```

```
sudo vim apache2.conf
```

```
<IfModule mpm_worker_module>  
    StartServers 2  
    MinSpareThreads 25  
    MaxSpareThreads 75  
    ThreadsPerChild 25  
    MaxRequestWorkers 150  
</IfModule>
```

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

```
apache2ctl -M | grep rewrite  
sudo a2enmod rewrite  
sudo service apache2 restart
```



```
mazen@mazen-saad: /etc/apache2  
mazen@mazen-saad:/etc/apache2$ apache2ctl -M | grep rewrite  
rewrite_module (shared)  
mazen@mazen-saad:/etc/apache2$ sudo a2enmod rewrite  
Module rewrite already enabled  
mazen@mazen-saad:/etc/apache2$ sudo service apache2 restart  
mazen@mazen-saad:/etc/apache2$
```

Bonus:

1- Write RewriteCond and RewriteRules for:

```
cd /etc/apache2/sites-enabled  
sudo vim 000-default.conf
```

```
sudo service apache2 restart
```

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

RewriteEngine on

```
RewriteCond "%{QUERY_STRING}" "^queryString=forbidden$"
```

```
RewriteRule ^/page - [F]
```



## Forbidden

You don't have permission to access this resource.

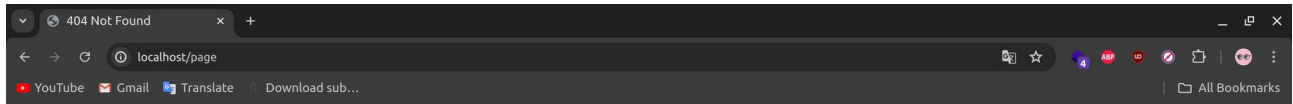
*Apache/2.4.52 (Ubuntu) Server at localhost Port 80*

## B. Remove the Query String

RewriteEngine on

RewriteCond "%{QUERY\_STRING}" "^queryString=forbidden\$"

RewriteRule ^/page /page? [R]



### Not Found

The requested URL was not found on this server.

*Apache/2.4.52 (Ubuntu) Server at localhost Port 80*



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 "%{QUERY_STRING}" "(var)=(val)"
RewriteRule ^/page1$ /page2 [R]
```



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

RewriteEngine on

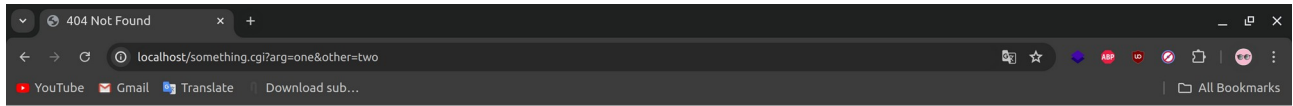
RewriteCond "%{QUERY\_STRING}" "^(var)=(val)\$"

RewriteRule ^/path\$ /path/var/val? [R]



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

RewriteEngine on  
RewriteRule `^/example/(one)/(two)$` `/something.cgi?`  
`arg=$1&other=$2` [R]



## Not Found

The requested URL was not found on this server.

*Apache/2.4.52 (Ubuntu) Server at localhost Port 80*

2- Create virtualhost for os.iti.gov.eg website

```
cd /etc/apache2/sites-available
```

```
sudo vim os.iti.gov.eg.conf
```

```
<VirtualHost *:80>  
    ServerAdmin "webmaster@os.iti.gov.eg"  
    ServerName os.iti.gov.eg  
    ServerAlias "os.iti.gov.eg"  
    DocumentRoot "var/www/html/os.iti.gov.eg"  
</VirtualHost>
```

```
sudo mkdir -p /var/www/html/os.iti.gov.eg
```

```
sudo a2ensite os.iti.gov.eg  
sudo service apache2 restart
```