1. Configure apache to use Worker MPM

```
sok /etc/apache2 16:32 sudo a2enmod mpm_worker
Considering conflict mpm_event for mpm_worker:
Considering conflict mpm_prefork for mpm_worker:
Module mpm_worker already enabled

sok /etc/apache2 16:32
```

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

```
sok /etc/apache2 16:34 sudo apachectl -M | grep rewrite [Fri Jan 26 16:34:52.593692 2024] [so:warn] [pid 9784:tid 13970508 AH00558: apache2: Could not reliably determine the server's fully sage rewrite_module (shared)

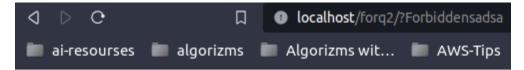
sok /etc/apache2 16:34 sudo a2enmod rwrite ERROR: Module rwrite does not exist!

sok /etc/apache2 16:35 sudo a2enmod rewrite Module rewrite already enabled

sok /etc/apache2 16:35 [
```

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

```
#Include conf-available/serve-cgi-bin.conf
RewriteEngine on
RewriteCond %{QUERY_STRING} ^.*forbidden.*$ [NC]
RewriteRule \. - [F]
ualHost>
```



Forbidden

You don't have permission to access this resource.

Apache/2.4.52 (Ubuntu) Server at localhost Port 80

3.b. Remove the Query String

```
RewriteEngine on
RewriteCond %{QUERY_STRING} .+
RewriteRule ^(.*)$ $1? [R]
/VirtualHost>
```

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

```
#Include conf-available/serve-cg1-bin.conf
RewriteEngine on
RewriteCond %{QUERY_STRING} "(.+)"
RewriteRule "^/page1.html" "/page2.html" [R]
tualHost>
```

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

```
RewriteEngine On
RewriteRule ^page1.html$ /page1.html/%{QUERY_STRING}/| [R]
tualHost>
```

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

```
#Include cont-available/serve-cgi-bin.conf
|
RewriteEngine On
RewriteRule ^(.+)/(.+)$ /something.cgi?arg=$1&other=$2 [QSA,L]
```

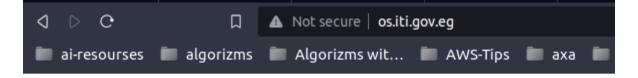
3.f Display a goodevening.html page if the time is after 6:00 PM and goodmooring.html page if the time is before that

```
RewriteEngine on
RewriteCond %{TIME_HOUR} >=18
RewriteRule (.*)$ /page1.html

RewriteCond %{TIME_HOUR} <18
RewriteRule (.*)$ /page2.html
```

4. Create a virtual host for os.iti.gov.eg to redirect to a local directory in your server

```
# vim: syntax=apache ts=4 sw=4 sts=4 sr noet
<VirtualHost *:80>
ServerName os.iti.gov.eg
DocumentRoot /var/www/new
</VirtualHost>
               localhost
127.0.0.1
127.0.1.1
               sok-HP-Compag-Pro-6300-MT
               os.iti.gov.eg
127.0.0.2
 The following lines are desirable for IPv6 capa
       ip6-localhost ip6-loopback
fe00::0 ip6-localnet
ff00::0 ip6-mcastprefix
ff02::1 ip6-allnodes
```



Welcome to iti Vhost