Task 1


```
(base) ami-meem@meem-VivoBook-ASUSLaptop-X512FL-X512FL:~$ sudo a2enmod rewrite Adding Authent
ication to Apache:
[sudo] password for ami-meem:
Enabling module rewrite.
ERROR: Module Adding does not exist!
ERROR: Module Authentication does not exist!
ERROR: Module to does not exist!
ERROR: Module Apache: does not exist!
To activate the new configuration, you need to run:
  systemctl restart apache2
(base) ami-meem@meem-VivoBook-ASUSLaptop-X512FL-X512FL:~$
```

```
  GNU nano 7.2              /etc/apache2/sites-available/example.com.conf *
<VirtualHost *:80>
ServerAdmin admin@example.com
ServerName example.com
ServerAlias www.example.com
DocumentRoot /var/www/example.com/html
ErrorLog ${APACHE_LOG_DIR}/error.log
CustomLog ${APACHE_LOG_DIR}/access.log combined

RewriteEngine On
RewriteCond %{HTTPS} off
RewriteRule ^(.*)$ https://%{SERVER_NAME}/$1 [R,L]

</VirtualHost>




File Name to Write: /etc/apache2/sites-available/example.com.conf
^G Help            M-D DOS Format      M-A Append        M-B Backup File
^C Cancel          M-M Mac Format      M-P Prepend       ^T Browse
```

Task 2

```
(base) ami-meem@meem-VivoBook-ASUSLaptop-X512FL-X512FL:~$ sudo a2enmod rewrite Adding Authent
ication to Apache:
[sudo] password for ami-meem:
Enabling module rewrite.
ERROR: Module Adding does not exist!
ERROR: Module Authentication does not exist!
ERROR: Module to does not exist!
ERROR: Module Apache: does not exist!
To activate the new configuration, you need to run:
  systemctl restart apache2
(base) ami-meem@meem-VivoBook-ASUSLaptop-X512FL-X512FL:~$ sudo nano /etc/apache2/sites-availa
ble/example.com.conf
(base) ami-meem@meem-VivoBook-ASUSLaptop-X512FL-X512FL:~$ sudo nano /etc/apache2/sites-availa
ble/example.com.conf
```

```
  GNU nano 7.2                 /etc/apache2/sites-available/example.com.conf *
<VirtualHost *:80>
ServerAdmin admin@example.com
ServerName example.com
ServerAlias www.example.com
DocumentRoot /var/www/example.com/html
ErrorLog ${APACHE_LOG_DIR}/error.log
CustomLog ${APACHE_LOG_DIR}/access.log combined

RewriteEngine On
RewriteCond %{HTTPS} off
RewriteRule ^(.*)$ https://%{SERVER_NAME}/$1 [R,L]

    <Directory "/var/www/html">
        AuthType Basic
        AuthName "Restricted Content"
        AuthUserFile /etc/apache2/.htpasswd
        Require valid-user
    </Directory>


</VirtualHost>




File Name to Write: /etc/apache2/sites-available/example.com.conf
^G Help          M-D DOS Format     M-A Append      M-B Backup File
^C Cancel        M-M Mac Format     M-P Prepend     ^T Browse
```

File   Edit   View   Bookmarks   Plugins   Settings   Help

```
(base) ami-meem@meem-VivoBook-ASUSLaptop-X512FL-X512FL:~$ sudo htpasswd -c /etc/apache2/.htpa
sswd meem
[sudo] password for ami-meem:
New password:
Re-type new password:
Adding password for user meem
(base) ami-meem@meem-VivoBook-ASUSLaptop-X512FL-X512FL:~$
```

Task 3

File   Edit   View   Bookmarks   Plugins   Settings   Help

```
  GNU nano 7.2                /etc/apache2/sites-available/example.com.conf *
RewriteCond %{HTTPS} off
RewriteRule ^(.*)$ https://%{SERVER_NAME}/$1 [R,L]

   <Directory "/var/www/html">
        AuthType Basic
        AuthName "Restricted Content"
        AuthUserFile /etc/apache2/.htpasswd
        Require valid-user
   </Directory>
   DBDriver mysql
   DBDParams "dbname=apache user=root pass=cse"
   DBDMin 4
   DBDKeep 8
   DBDMax 20
   DBDExptime 300
   <Directory "/var/www/example.com/html">
        AuthType Basic
        AuthName "My Server"
        AuthBasicProvider socache dbd
        AuthnCacheProvideFor dbd
        AuthnCacheContext my-server
        Require valid-user
        AuthDBDUserPWQuery "SELECT password FROM users WHERE username = %s"
   </Directory>

</VirtualHost>


^G Help        ^O Write Out    ^W Where Is    ^K Cut      ^T Execute    ^C Location
^X Exit        ^R Read File    ^\ Replace     ^U Paste    ^J Justify    ^/ Go To Line
```