

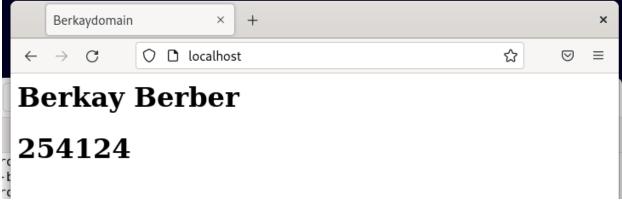
```
riocessing cityyeis for man-up (2.3.4-2) ...
root@Berkay:~# systemctl status apache2
apache2.service - The Apache HTTP Server
    Loaded: loaded (/lib/systemd/system/apache2.service; enabled; vendor prese
    Active: active (running) since Sun 2022-06-05 17:16:44 CEST; 2min 29s ago
      Docs: https://httpd.apache.org/docs/2.4/
  Main PID: 2805 (apache2)
     Tasks: 55 (limit: 9495)
    Memory: 10.7M
      CPU: 47ms
    CGroup: /system.slice/apache2.service
            -2805 /usr/sbin/apache2 -k start
            —2807 /usr/sbin/apache2 -k start
            └─2808 /usr/sbin/apache2 -k start
Jun 05 17:16:44 Berkay systemd[1]: Starting The Apache HTTP Server...
Jun 05 17:16:44 Berkay apachectl[2804]: AH00558: apache2: Could not reliably de
Jun 05 17:16:44 Berkay systemd[1]: Started The Apache HTTP Server.
lines 1-16/16 (END)
 ⊞
                                    berkay@Berkay: ~
                                                                                   ×
 GNU nano 5.4
                                /etc/apache2/apache2.conf
  "LogLevel info ssl:warn"
LogLevel warn
# Include module configuration:
IncludeOptional mods-enabled/*.load
IncludeOptional mods-enabled/*.conf
# Include list of ports to listen on
Include ports.conf
# Sets the default security model of the Apache2 HTTPD server. It does
# not allow access to the root filesystem outside of /usr/share and /var/www.
# The former is used by web applications packaged in Debian,
# the latter may be used for local directories served by the web server. If
<u># your system is se</u>rving content from a sub-directory in /srv you must allo<mark>w</mark>
# access here, or in any related virtual host.
<Directory />
        Options FollowSymLinks
                                                                    ^C Location
              `O Write Out ^W Where Is
                                         ^K Cut
^U Paste
                                                        Execute
^X Exit
             ^R Read File ^\ Replace
                                                          Justify
                                                                        Go To Line
TOO TOW GINGHEST
root@Berkay:~# systemctl start apache2
root@Berkay:~# systemctl stop apache2
root@Berkay:~# systemctl restart apache2
root@Berkav:~#
root@Berkay:~# mkdir -p /var/www/berkayfirstdomain.com/public
root@Berkay:~# chown -R $berkay:$berkay /var/www/berkayfirstdomain.com
root@Berkay:~# chmod 755 /var/www/berkayfirstdomain.com
```

root@Berkay:~#

```
root@Berkay:~# cd /var/www/berkayfirstdomain.com/public
root@Berkay:/var/www/berkayfirstdomain.com/public# ls
root@Berkay:/var/www/berkayfirstdomain.com/public# touch index.html
root@Berkay:/var/www/berkayfirstdomain.com/public# ls
index.html
root@Berkay:/var/www/berkayfirstdomain.com/public# nano index.html
root@Berkay:/var/www/berkayfirstdomain.com/public# #
```

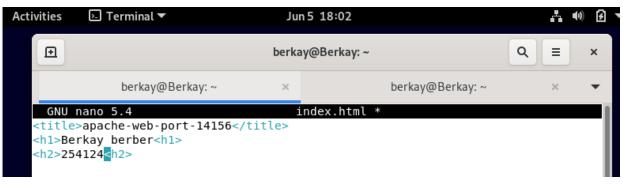
```
berkay@Berkay: ~
                                                  berkay@Berkay: ~
berkay@Berkay:~$ su
Password:
root@Berkay:/home/berkay# nano /etc/apache2/apache2.conf
root@Berkay:/home/berkay# cd /etc/apache2
root@Berkay:/etc/apache2# ls
apache2.conf
              conf-enabled magic
                                              mods-enabled sites-available
conf-available envvars
                              mods-available ports.conf
                                                            sites-enabled
root@Berkay:/etc/apache2# cd sites-available
root@Berkay:/etc/apache2/sites-available# touch berkayfirstdomain.com.conf
root@Berkay:/etc/apache2/sites-available# cp 000-default.conf berkayfirstdomain.
com.conf
root@Berkay:/etc/apache2/sites-available#
```

```
GNU nano 5.4
                             berkayfirstdomain.com.conf
<VirtualHost *:80>
       ServerName berkayfirstdomain.com
       ServerAlias www.berkayfirstdomain.com
       # The ServerName directive sets the request scheme, hostname and port t
       # the server uses to identify itself. This is used when creating
       # redirection URLs. In the context of virtual hosts, the ServerName
       # specifies what hostname must appear in the request's Host: header to
       # match this virtual host. For the default virtual host (this file) this
       # value is not decisive as it is used as a last resort host regardless.
       # However, you must set it for any further virtual host explicitly.
       #ServerName www.example.com
       ServerAdmin 254124@student.pwr.edu.pl
       DocumentRoot /var/www/berkayfirstdomain.com/public
       # Available loglevels: trace8, ..., trace1, debug, info, notice, warn,
       # error, crit, alert, emerg.
       # It is also possible to configure the loglevel for particular
       # modules, e.g.
       #LogLevel info ssl:warn
       ErrorLog ${APACHE LOG DIR}/error.log
                               [ Read 33 lines ]
             🛈 Write Out
                          W Where Is
                                                                  C Location
^G Help
                                        K Cut
                                                       Execute
^X Exit
             ^R Read File ^\
                                          Paste
                                                       Justify
                                                                    Go To Line
                            Replace
                                                                              ×
```



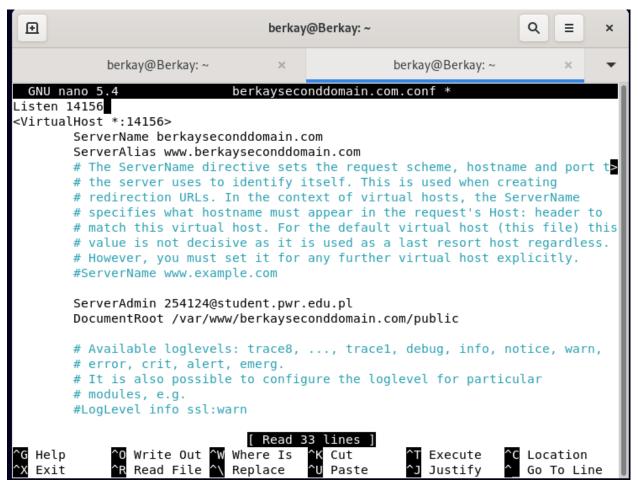
Fghjfd

```
root@Berkay:~# mkdir -p /var/www/berkayseconddomain.com/public
root@Berkay:~# chown -R $berkay:$berkay /var/www/berkayseconddomain.com
root@Berkay:~# chmod 755 /var/www/berkayseconddomain.com/
root@Berkay:~# touch /var/www/berkayseconddomain.com/public/index.html
root@Berkay:~#
```



root@Berkay:/etc/apache2/sites-available# touch berkayseconddomain.com.conf root@Berkay:/etc/apache2/sites-available# ls 000-default.conf berkayseconddomain.com.conf berkayfirstdomain.com.conf default-ssl.conf root@Berkay:/etc/apache2/sites-available#

root@Berkay:/etc/apache2/sites-available# cp 000-default.conf berkayseconddomain .com.conf root@Berkay:/etc/apache2/sites-available# nano berkayfirstdomain.com.conf root@Berkay:/etc/apache2/sites-available#



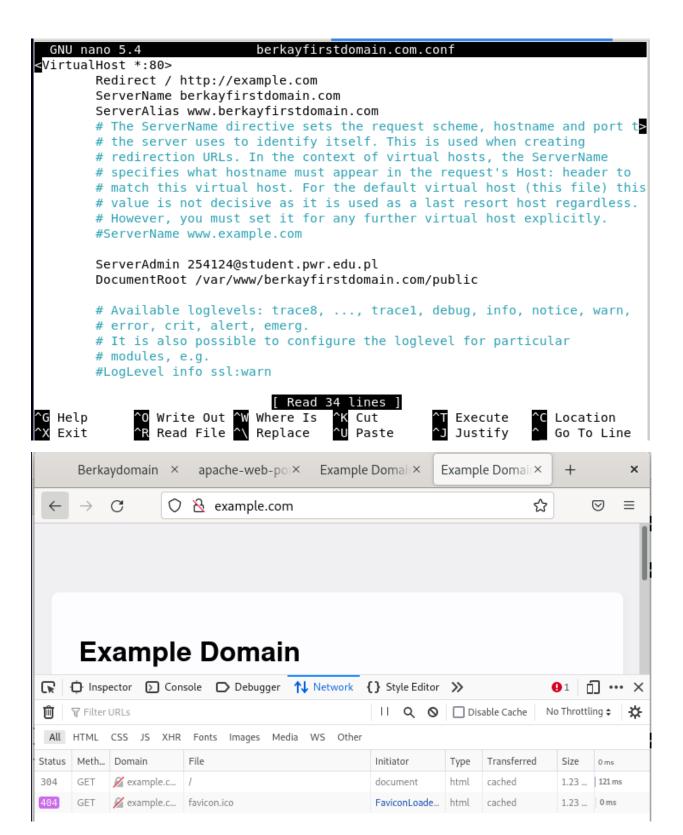
```
perkay@Berkay:~$ su -l root
password:
root@Berkay:~# a2ensite berkayseconddomain.com.conf
Enabling site berkayseconddomain.com.
Fo activate the new configuration, you need to run:
 systemctl reload apache2
root@Berkay:~# systemctl restart apache2
root@Berkay:~# cd /etc/apache2/sites-available
root@Berkay:/etc/apache2/sites-available# ls
000-default.conf
                            berkayseconddomain.com.conf
perkayfirstdomain.com.conf default-ssl.conf
root@Berkay:/etc/apache2/sites-available# nano berkayseconddomain.com.conf
root@Berkay:/etc/apache2/sites-available# nano berkayseconddomain.com.conf
root@Berkay:/etc/apache2/sites-available# cd
root@Berkay:~#
loaout
perkay@Berkay:~$ su -l root
assword:
root@Berkay:~# a2ensite berkayseconddomain.com.conf
Site berkayseconddomain.com already enabled
root@Berkay:~# systemctl restart apache2
root@Berkay:~# systemctl status apache2
                    The Anache HTTD Conver
     Berkaydomain
                             apache-web-port-14156
                                                                         ×
                O localhost:14156
                                                                        \equiv
 ← → C
                                                             ☆
                                                                     \odot
```

Berkay berber

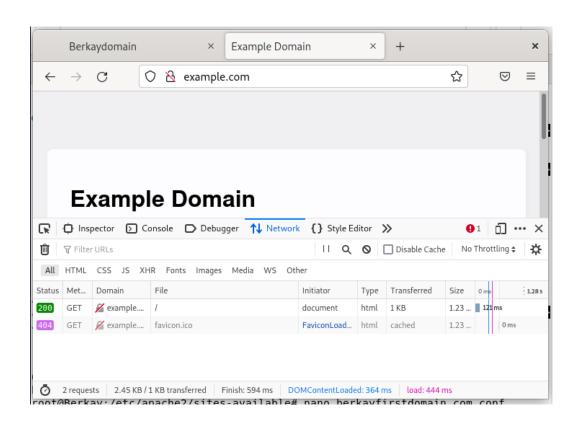
254124

Now on port80 we have berkayfirstdomain.com, and on port 14156 we have berkayseconddomain.com

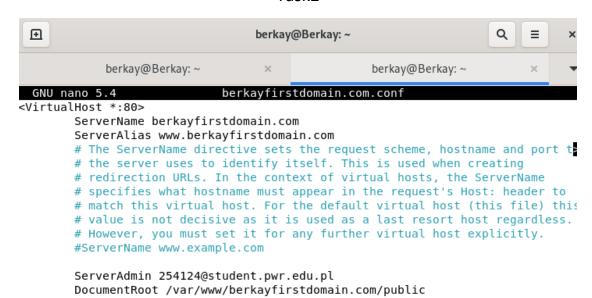
```
root@Berkay:~# cd /etc/apache2/sites-available
root@Berkay:/etc/apache2/sites-available# ls
000-default.conf berkayseconddomain.com.conf
berkayfirstdomain.com.conf default-ssl.conf
root@Berkay:/etc/apache2/sites-available# nano berkayfirstdomain.com.conf
root@Berkay:/etc/apache2/sites-available#
```

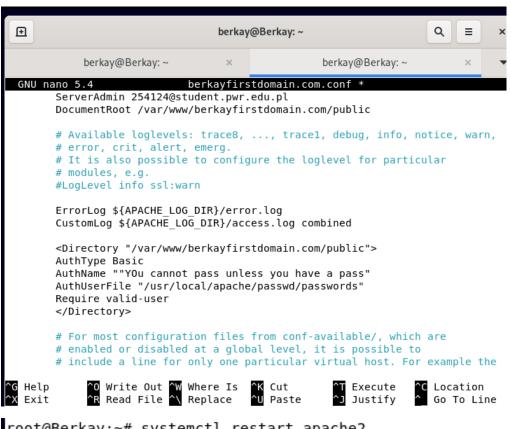


```
berkayfirstdomain.com.conf
 GNU nano 5.4
 VirtualHost *:80>
       Redirect 301 / http://example.com
       ServerName berkayfirstdomain.com
       ServerAlias www.berkayfirstdomain.com
       # The ServerName directive sets the request scheme, hostname and port to
       # the server uses to identify itself. This is used when creating
       # redirection URLs. In the context of virtual hosts, the ServerName
       # specifies what hostname must appear in the request's Host: header to
       # match this virtual host. For the default virtual host (this file) this
       # value is not decisive as it is used as a last resort host regardless.
       # However, you must set it for any further virtual host explicitly.
       #ServerName www.example.com
       ServerAdmin 254124@student.pwr.edu.pl
       DocumentRoot /var/www/berkayfirstdomain.com/public
       # Available loglevels: trace8, ..., trace1, debug, info, notice, warn,
       # error, crit, alert, emerg.
       # It is also possible to configure the loglevel for particular
       # modules, e.g.
       #LogLevel info ssl:warn
root@Berkay:~# systemctl restart apache2
root@Berkay:~# systemctl status apache2
apache2.service - The Apache HTTP Server
      Loaded: loaded (/lib/systemd/system/apache2.service; enabled; vendor prese
      Active: active (running) since Sun 2022-06-05 18:31:51 CEST; 7s ago
```



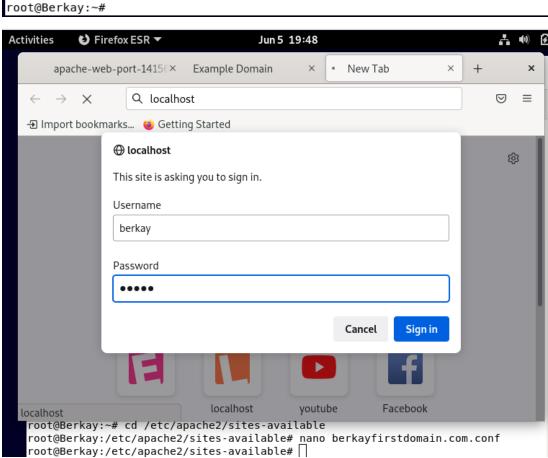
Task2

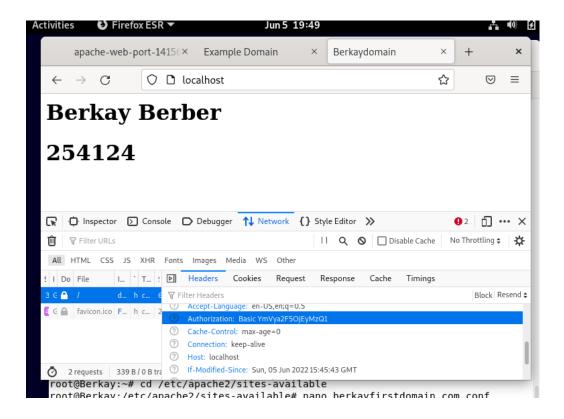




root@Berkay:~# systemctl restart apache2 root@Berkav:~# root@Berkay:/usr/local# cd apache
root@Berkay:/usr/local/apache# ls
root@Berkay:/usr/local/apache# mkdir passwd
root@Berkay:/usr/local/apache# ls
passwd
root@Berkay:/usr/local/apache# cd
root@Berkay:/usr/local/apache# cd
root@Berkay:~# htpasswd -c /usr/local/apache/passwd/passwords berkay
New password:
Re-type new password:

Adding password for user berkay



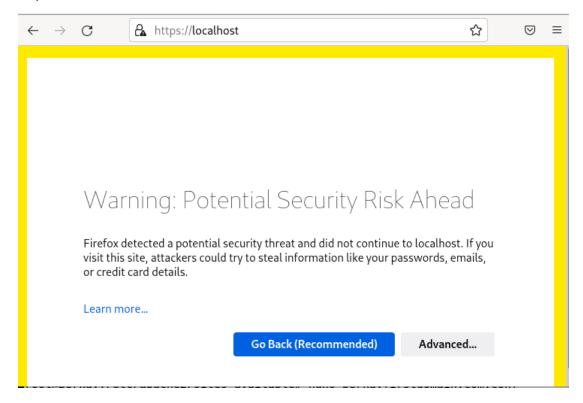


8. For safe purposes you can consider using HTTP Digest authentication, but it is also not completely safe. The most secure solution would be using SSL/TLS protocol which we will setup now.

```
root@Berkay:/etc/apache2# ls
apache2.conf
               conf-enabled magic
                                             mods-enabled sites-available
conf-available envvars
                             mods-available ports.conf
                                                           sites-enabled
root@Berkay:/etc/apache2# mkdir ssl
root@Berkay:/etc/apache2# openssl req -x509 -nodes -days 1095 -newkey rsa:2048 -
out /etc/apache2/ssl/server.crt -keyout /etc/apache2/ssl/server.key
Generating a RSA private key
. . . . . . . . . . . . . +++++
writing new private key to '/etc/apache2/ssl/server.key'
You are about to be asked to enter information that will be incorporated
into your certificate request.
What you are about to enter is what is called a Distinguished Name or a DN.
There are quite a few fields but you can leave some blank
For some fields there will be a default value,
If you enter '.', the field will be left blank.
Country Name (2 letter code) [AU]:PL
State or Province Name (full name) [Some-State]:
Locality Name (eg, city) []:
Organization Name (eg, company) [Internet Widgits Pty Ltd]:
Organizational Unit Name (eg, section) []:
Common Name (e.g. server FQDN or YOUR name) []:
Email Address []:
root@Berkay:/etc/apache2#
```

```
root@Berkay:~# ls /etc/apache2/ssl/
server.crt server.key
root@Berkay:~#
root@Berkay:~# a2enmod ssl
Considering dependency setenvif for ssl:
Module setenvif already enabled
Considering dependency mime for ssl:
Module mime already enabled
Considering dependency socache shmcb for ssl:
Enabling module socache shmcb.
Enabling module ssl.
See /usr/share/doc/apache2/README.Debian.gz on how to configure SSL and create s
elf-signed certificates.
To activate the new configuration, you need to run:
  systemctl restart apache2
root@Berkay:~#
                               berkay@Berkay: ~
                                                                   Q
                                                                        \equiv
         berkay@Berkay: ~
                                ×
                                                berkay@Berkay: ~
NU nano 5.4
                          berkayfirstdomain.com.conf *
rtualHost *:443>
    SSLEngine on
    SSLCertificateFile /etc/apache2/ssl/server.crt
    SSLCertificateKeyFile /etc/apache2/ssl/server.key
    ServerName berkayfirstdomain.com
    ServerAlias www.berkayfirstdomain.com
    # The ServerName directive sets the request scheme, hostname and port t
    # the server uses to identify itself. This is used when creating
    # redirection URLs. In the context of virtual hosts, the ServerName
    # specifies what hostname must appear in the request's Host: header to
    # match this virtual host. For the default virtual host (this file) this
     # value is not decisive as it is used as a last resort host regardless.
     # However, you must set it for any further virtual host explicitly.
    #ServerName www.example.com
    ServerAdmin 254124@student.pwr.edu.pl
    DocumentRoot /var/www/berkayfirstdomain.com/public
    # Available loglevels: trace8, ..., trace1, debug, info, notice, warn,
     # error, crit, alert, emerg.
     # It is also possible to configure the loglevel for particular
e modified buffer?
```

https://localhost

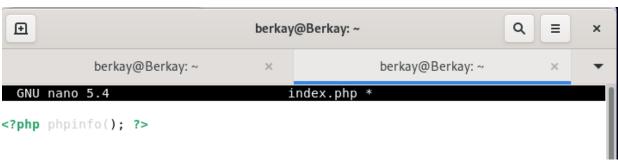


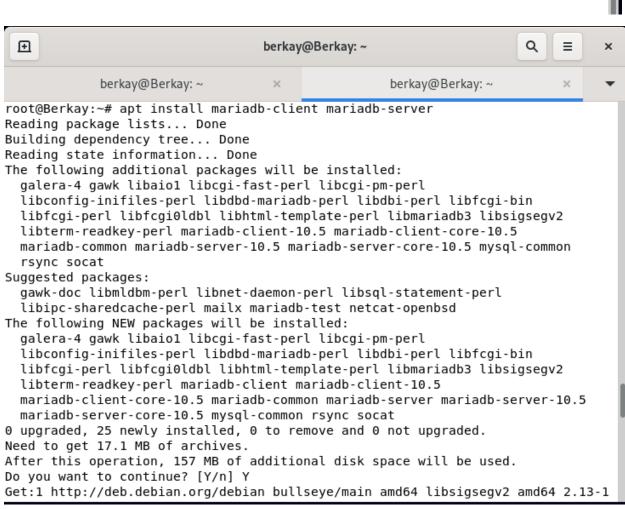
TASK3: Setting up websites using CMS WordPress

9 remove all websites currently running on server

```
root@Berkay:~# cd /etc/apache2/sites-available
root@Berkay:/etc/apache2/sites-available# ls
000-default.conf
                            berkavseconddomain.com.conf
berkayfirstdomain.com.conf default-ssl.conf
root@Berkay:/etc/apache2/sites-available# nano berkayfirstdomain.com.conf
root@Berkay:/etc/apache2/sites-available# cd
root@Berkay:~# a2dissite berkayfirstdomain.com.conf
Site berkayfirstdomain.com disabled.
To activate the new configuration, you need to run:
  systemctl reload apache2
root@Berkay:~# a2dissite berkayseconddomain.com.conf
Site berkayseconddomain.com disabled.
To activate the new configuration, you need to run:
  systemctl reload apache2
root@Berkay:~# systemctl restart apache2
root@Berkay:~# ls /etc/apache2/sites-enabled/
root@Berkay:~#
root@Berkay:~# systemctl restart apache2
root@Berkay:~# ls /etc/apache2/sites-enabled/
root@Berkay:~# mkdir -p /var/www/berkaywordpressdomain.com/public
root@Berkay:~# chown -R berkay:berkay /var/www/berkaywordpressdomain.com
root@Berkay:~# chmod 755 /var/www/berkaywordpressdomain.com
root@Berkav:~#
```

```
root@Berkay:~# cd /var/www/berkaywordpressdomain.com/public
root@Berkay:/var/www/berkaywordpressdomain.com/public# ls
root@Berkay:/var/www/berkaywordpressdomain.com/public# touch index.php
root@Berkay:/var/www/berkaywordpressdomain.com/public# nano index.php
```





```
root@Berkay:~# apt install php7.4 php7.4-mysql
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following additional packages will be installed:
  libapache2-mod-php7.4 php-common php7.4-cli php7.4-common php7.4-json
  php7.4-opcache php7.4-readline
Suggested packages:
  php-pear
The following NEW packages will be installed:
  libapache2-mod-php7.4 php-common php7.4 php7.4-cli php7.4-common php7.4-json
  php7.4-mysql php7.4-opcache php7.4-readline
0 upgraded, 9 newly installed, 0 to remove and 0 not upgraded.
Need to get 4,241 kB of archives.
After this operation, 18.4 MB of additional disk space will be used.
Do you want to continue? [Y/n] Y
Get:1 http://deb.debian.org/debian bullseye/main amd64 php-common all 2:76 [15.6
Get:2 http://deb.debian.org/debian bullseye/main amd64 php7.4-common amd64 7.4.2
8-1+deb11u1 [1,023 kB]
Get:3 http://deb.debian.org/debian bullseye/main amd64 php7.4-json amd64 7.4.28-
1+deb11u1 [19.3 kB]
Get:4 http://deb.debian.org/debian bullseye/main amd64 php7.4-opcache amd64 7.4.
28-1+deb11u1 [198 kB]
Get:5 http://deb.debian.org/debian bullseye/main amd64 php7.4-readline amd64 7.4
.28-1+deb11u1 [12.3 kB]
 root@Berkay:~# apt install libapache2-mod-php7.4
 Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
 libapache2-mod-php7.4 is already the newest version (7.4.28-1+deb11u1).
 libapache2-mod-php7.4 set to manually installed.
 O upgraded, O newly installed, O to remove and O not upgraded.
 root@Berkay:~#
```

Already installed

```
регкау@вегкау: ~
                                                                   регкау@вегкау: ~
 GNU nano 5.4
                                   berkaywordpressdomain.com.conf *
<VirtualHost *:80>
          ServerName berkaywordpressdomain.com
          ServerAlias www.berkaywordpressdomain.com
          # The ServerName directive sets the request scheme, hostname and port t
          # the server uses to identify itself. This is used when creating
          # redirection URLs. In the context of virtual hosts, the ServerName
          # specifies what hostname must appear in the request's Host: header to
          # match this virtual host. For the default virtual host (this file) this
          # value is not decisive as it is used as a last resort host regardless.
          # However, you must set it for any further virtual host explicitly.
          #ServerName www.example.com
          ServerAdmin 254124@student.pwr.edu.pl
          DocumentRoot /var/www/berkaywordpressdomain.com/public
          # Available loglevels: trace8, ..., trace1, debug, info, notice, warn,
          # error, crit, alert, emerg.
          # It is also possible to configure the loglevel for particular
          # modules, e.g.
          #LogLevel info ssl:warn
                                         Read
                    Write Out ^W
                                      Where Is
   Help
                                                       Cut
                                                                         Execute
                                                                                          Location
                                                       Paste
   Exit
                    Read File
                                      Replace
                                                                         Justify
                                                                                          Go To Line
Activities

    Firefox ESR ▼

                                               Jun 5 23:05
                                                                                            A 🕪 🖸
                               PHP 7.4.28 - phpinfo()
Apache2 Debian Default Page×
                                                             +
                                                                                                        ×
    \rightarrow
          C
                    O 🗅 localhost
                                                                                        ☆
                                                                                                 \odot
                                                                                                      \equiv
 PHP Version 7.4.28
 System
                                           Linux Berkay 5.10.0-14-amd64 #1 SMP Debian 5.10.113-1 (2022-04-29) x86
 Build Date
                                           Feb 17 2022 16:17:19
 Server API
                                           Apache 2.0 Handler
 Virtual Directory Support
                                           disabled
 Configuration File (php.ini) Path
                                           /etc/php/7.4/apache2
 Loaded Configuration File
                                           /etc/php/7.4/apache2/php.ini
 Scan this dir for additional .ini files
                                           /etc/php/7.4/apache2/conf.d
 Additional .ini files parsed
                                           /etc/php/7.4/apache2/conf.d/10-mysqlnd.ini, /etc/php/7.4/apache2/conf.d/10-
                                           /7.4/apache2/conf.d/10-pdo.ini, /etc/php/7.4/apache2/conf.d/20-calendar.ini, /
                                           /conf.d/20-ctype.ini, /etc/php/7.4/apache2/conf.d/20-exif.ini, /etc/php/7.4/apa
                                           /etc/php/7.4/apache2/conf.d/20-fileinfo.ini, /etc/php/7.4/apache2/conf.d/20-ft;
                                           /7.4/apache2/conf.d/20-gettext.ini, /etc/php/7.4/apache2/conf.d/20-iconv.ini, /
/conf.d/20-json.ini, /etc/php/7.4/apache2/conf.d/20-mysqli.ini, /etc/php/7.4/ap
pdo_mysql.ini, /etc/php/7.4/apache2/conf.d/20-phar.ini, /etc/php/7.4/apache2
                                           /etc/php/7.4/apache2/conf.d/20-readline.ini, /etc/php/7.4/apache2/conf.d/20-s
                                           /7.4/apache2/conf.d/20-sockets.ini, /etc/php/7.4/apache2/conf.d/20-sysvmsg.
                                           /7.4/apache2/conf.d/20-sysvsem.ini, /etc/php/7.4/apache2/conf.d/20-sysvshm
                                           /7.4/apache2/conf.d/20-tokenizer.ini
 ΡΗΡ ΔΡΙ
                                           20190902
```

```
root@Berkay:~# mysql -u root -p
Enter password:
Welcome to the MariaDB monitor. Commands end with ; or \g.
Your MariaDB connection id is 30
Server version: 10.5.15-MariaDB-0+deb11ul Debian 11
Copyright (c) 2000, 2018, Oracle, MariaDB Corporation Ab and others.
Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.
MariaDB [(none)] > CREATE USER 'wpuser'@'localhost' IDENTIFIED BY 'wppass';
Query OK, 0 rows affected (0.002 sec)
MariaDB [(none)] > CREATE DATABASE wp database;
Query OK, 1 row affected (0.000 sec)
MariaDB [(none)]> GRANT ALL PRIVILEGES ON wp database.* TO 'wpuser'@'localhost';
Query OK, 0 rows affected (0.005 sec)
MariaDB [(none)]> FLUSH PRIVILEGES
    -> Ctrl-C -- exit!
Aborted
root@Berkay:~# mysql -u root -p
Enter password:
Welcome to the MariaDB monitor. Commands end with ; or \g.
Your MariaDB connection id is 31
Postów: 14
```

Downloading worpress:

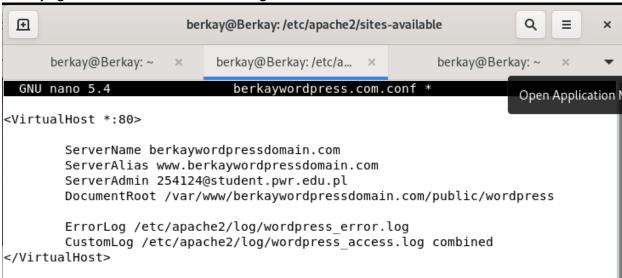
Unarchive files:

```
berkay@Berkay:~/Downloads$ tar xpf latest.tar.gz
berkay@Berkay:~/Downloads$
```

Copying files from wordpress folder to the server:

```
berkay@Berkay:~/Downloads$ cp -r wordpress/ /var/www/berkaywordpressdomain.com/p
ublic
berkay@Berkay:~/Downloads$
```

Modifying DocumentRoot in website configuration:



```
GNU nano 5.4
                           berkaywordpressdomain.com.conf
<VirtualHost *:80>
        ServerName berkaywordpressdomain.com
        ServerAlias www.berkaywordpressdomain.com
        # The ServerName directive sets the request scheme, hostname and port to
        # the server uses to identify itself. This is used when creating
        # redirection URLs. In the context of virtual hosts, the ServerName
        # specifies what hostname must appear in the request's Host: header to
        # match this virtual host. For the default virtual host (this file) this
        # value is not decisive as it is used as a last resort host regardless.
        # However, you must set it for any further virtual host explicitly.
        #ServerName www.example.com
        ServerAdmin 254124@student.pwr.edu.pl
        DocumentRoot /var/www/berkaywordpressdomain.com/public/wordpress
        # Available loglevels: trace8, ..., trace1, debug, info, notice, warn,
        # error, crit, alert, emerg.
        # It is also possible to configure the loglevel for particular
        # modules, e.g.
        #LogLevel info ssl:warn
                                [ Read 35 lines ]
             ^O Write Out ^W Where Is
^R Read File ^\ Replace
                                                                    C Location
  Help
                                         K Cut
                                                        Execute
                                                     ^J Justify
  Exit
                                        ^U Paste
                                                                     Go To Line
```

berkay@Berkay:/var/www/berkaywordpressdomain.com/public\$ ls
index.php wordpress
berkay@Berkay:/var/www/berkaywordpressdomain.com/public\$ rm -r index.php
rm: remove write-protected regular file 'index.php'? Y
berkay@Berkay:/var/www/berkaywordpressdomain.com/public\$ ls
wordpress
berkay@Berkay:/var/www/berkaywordpressdomain.com/public\$

root@Berkay:/home/berkay/Downloads# chown -R www-data:www-data /var/www/berkaywo
rdpressdomain.com/
root@Berkay:/home/berkay/Downloads# find /var/www/berkaywordpressdomain.com -typ
e d -exec chmod {}
latest.tar.gz wordpress/
root@Berkay:/home/berkay/Downloads# find /var/www/berkaywordpressdomain.com -typ
e d -exec chmod 755 {} \;
root@Berkay:/home/berkay/Downloads# find /var/www/berkaywordpressdomain.com -typ
e d -exec chmod 644 {} \;
root@Berkay:/home/berkay/Downloads#

