Ejercicios Tema 2

Instalación, configuración y documentación del entorno de desarrollo y del entorno de explotación

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Índice

Especificaciones del entorno

Nombre	das-used
Sistema Operativo	Ubuntu Server 22.04 LTS
Memoria RAM	4GB
Discos y particiones	1 disco de 500 GB dividido en 3 particiones • 150GB / • 4GB swap • 346GB /var
Usuario/password	Miadmin/paso Operadorweb/paso
Software	Apache PHP Xdebug
Configuración de red	IP 192.168.3.208/24 Gateway 192.168.3.1 DNS 192.168.20.20 8.8.8.8

Nombre	Das_wxed
Sistema Operativo	Windows 10 Professional
Discos y Particiones	1 disco de 500GB dividido en 2 particiones • C:\150GB • D:\350GB
Software	

Hostname

```
miadmin@das-used:/etc/php/8.1/apache2/conf.d$ hostname
das-used
```

Visualizar versión del sistema

Cat /etc/os-release

Lsb_release -a

```
miadmin@das-used:~$ lsb_release -a
No LSB modules are available.
Distributor ID: Ubuntu
Description:    Ubuntu 22.04.1 LTS
Release:        22.04
Codename:       jammy
```

Cat /etc/issue

```
miadmin@das-used:~$ cat /etc/issue
Ubuntu 22.04.1 LTS \n \l
```

Hostnamectl

```
miadmin@das-used:~$ hostnamectl
 Static hostname: das-used
       Icon name: computer-vm
         Chassis: vm
      Machine ID: f0673efc4c0e4482b3bb72ef471eec0c
         Boot ID: 2356e3643532498fad559b1dec36ec3a
  Virtualization: oracle
Operating System: Ubuntu 22.04.1 LTS
          Kernel: Linux 5.15.0-48-generic
    Architecture: x86-64
 Hardware Vendor: innotek GmbH
  Hardware Model: VirtualBox
```

Comprobar particiones

Fdisk -l

```
miadmin@das-used:~$ sudo fdisk -l
[sudo] password for miadmin:
Disk /dev/loop0: 63,22 MiB, 66293760 bytes, 129480 sectors
Units: sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O size (minimum/optimal): 512 bytes / 512 bytes


Disk /dev/loop1: 79,95 MiB, 83832832 bytes, 163736 sectors
Units: sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O size (minimum/optimal): 512 bytes / 512 bytes


Disk /dev/loop2: 102,98 MiB, 107986944 bytes, 210912 sectors
Units: sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O size (minimum/optimal): 512 bytes / 512 bytes


Disk /dev/loop3: 61,96 MiB, 64970752 bytes, 126896 sectors
Units: sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O size (minimum/optimal): 512 bytes / 512 bytes


Disk /dev/loop4: 46,96 MiB, 49242112 bytes, 96176 sectors
Units: sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O size (minimum/optimal): 512 bytes / 512 bytes


Disk /dev/loop5: 47,98 MiB, 50315264 bytes, 98272 sectors
Units: sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O size (minimum/optimal): 512 bytes / 512 bytes


Disk /dev/sda: 500 GiB, 536870912000 bytes, 1048576000 sectors
Disk model: VBOX HARDDISK
Units: sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O size (minimum/optimal): 512 bytes / 512 bytes
Disklabel type: gpt
Disk identifier: 194E989A-0A61-4308-8075-357DE90E504E

Device         Start        End   Sectors  Size Type
/dev/sda1       2048       4095      2048    1M BIOS boot
/dev/sda2       4096  314576895 314572800  150G Linux filesystem
/dev/sda3  314576896  322965503   8388608    4G Linux swap
/dev/sda4  322965504 1048573951 725608448  346G Linux filesystem
```

lsblk

```
miadmin@das-used:~$ lsblk
NAME   MAJ:MIN RM  SIZE RO TYPE MOUNTPOINTS
loop0    7:0    0 63,2M  1 loop /snap/core20/1623
loop1    7:1    0 79,9M  1 loop /snap/lxd/22923
loop2    7:2    0  103M  1 loop /snap/lxd/23541
loop3    7:3    0   62M  1 loop /snap/core20/1587
loop4    7:4    0   47M  1 loop /snap/snapd/16292
loop5    7:5    0   48M  1 loop /snap/snapd/17029
sda      8:0    0  500G  0 disk
├─sda1   8:1    0    1M  0 part
├─sda2   8:2    0  150G  0 part /
├─sda3   8:3    0    4G  0 part [SWAP]
└─sda4   8:4    0  346G  0 part /var
sr0     11:0    1 1024M  0 rom
```

Comprobamos ip

Ip a

```
miadmin@das-used:~$ ip a
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN group default qlen 1000
    link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00
    inet 127.0.0.1/8 scope host lo
       valid_lft forever preferred_lft forever
    inet6 ::1/128 scope host
       valid_lft forever preferred_lft forever
2: enp0s3: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc fq_codel state UP group default qlen 1000
    link/ether 08:00:27:dc:64:66 brd ff:ff:ff:ff:ff:ff
    inet 192.168.3.208/24 brd 192.168.3.255 scope global enp0s3
       valid_lft forever preferred_lft forever
    inet6 fe80::a00:27ff:fedc:6466/64 scope link
       valid_lft forever preferred_lft forever
```

Comprobar ruta

Ip r

```
miadmin@das-used:~$ ip r
default via 192.168.3.1 dev enp0s3 proto static
192.168.3.0/24 dev enp0s3 proto kernel scope link src 192.168.3.208
```

Comprobar dns

Resolvectl status

```
miadmin@das-used:~$ resolvectl status
Global
       Protocols: -LLMNR -mDNS -DNSOverTLS DNSSEC=no/unsupported
resolv.conf mode: stub

Link 2 (enp0s3)
    Current Scopes: DNS
         Protocols: +DefaultRoute +LLMNR -mDNS -DNSOverTLS DNSSEC=no/unsupported
Current DNS Server: 8.8.8.8
       DNS Servers: 192.162.20.20 8.8.8.8
```

Descargamos apache2

sudo apt-get install apache2

Crear usuario operadorweb

El home es /var/www/html

Pertenece al grupo www-data

Contraseña paso

Comandos creacion usuario

Sudo useradd -d /var/www/html -g www-data operadorweb

Sudo passwd operadorweb

Introducir nueva contraseña

Visualizar fichero /etc/passwd

En el fichero /etc/passwd se encuentran todos los usuarios aunque en nuestro caso solo necesitemos visualizar el usuario operadorweb

```
miadmin@das-used:~$ cat /etc/passwd| grep operadorweb
operadorweb:x:1001:33::/var/www/html:/bin/sh
```

Cambiar propietario /var/www/html

Cambiamos el propietario que ahora será el usuario operadorweb y el grupo www-data de la carpeta /var/www/html recursivamente con el comando abajo escrito

Sudo chown -R operadorweb:www-data /var/www/html

Cambiar permisos /var/www/html

Cambiamos los permisos de la carpeta /var/www/html recursivamente con el comando abajo escrito tiene permisos totales el usuario propietario y el grupo propietario, el resto solo tienen permisos de lectura y ejecucion (775) el 2 es el bit pegajoso(sticky bit) Su objetivo es que solo el usuario creador pueda eliminar o renombrar un archivo en sistemas donde todos los usuarios tienen permisos de lectura y escritura

Sudo chmod -R 2775 /var/www/html

Bit pegajoso

Tiene 2 valores 01 o 10 1 o 2 en octal

```
miadmin@das-used:~$ sudo chmod -R 2775 /var/www/html
miadmin@das-used:~$ ls -l /var/www
total 4
drwxrwsr-x 2 operadorweb www-data 4096 sep 29 09:33 html
```

Instalación php

Para la instalación de php en el servidor utilizaremos sudo apt install php

```
miadmin@das-used:~$ sudo apt install php
```

Comprobar versión php

Para comprobar la version de php en el servidor utilizaremos php -v

```
miadmin@das-used:~$ php -v
PHP 8.1.2 (cli) (built: Aug  8 2022 07:28:23) (NTS)
Copyright (c) The PHP Group
Zend Engine v4.1.2, Copyright (c) Zend Technologies
    with Zend OPcache v8.1.2, Copyright (c), by Zend Technologies
```

Comprobamos la estructura del directorio PHP ubicado en /etc/php

```
miadmin@das-used:~$ tree -d /etc/php
/etc/php
└── 8.1
    ├── apache2
    │   └── conf.d
    ├── cli
    │   └── conf.d
    └── mods-available

6 directories
```

Uso apt-cache

Apt-cache show modulo

```
miadmin@das-used:~$ apt-cache show xdebug
N: No se ha podido localizar el paquete xdebug
E: No se encontró ningún paquete
```

Para comprobar si existe un modulos de PHP en especifico utilizaremos el comando

apt-cache search modulo

```
miadmin@das-used:~$ apt-cache search xdebug
php-xdebug - Xdebug Module for PHP
php-xdebug-all-dev - Xdebug Module for PHP
php8.1-xdebug - Xdebug Module for PHP
php-composer-xdebug-handler - Restarts a process without Xdebug
```

Configurar php.ini

Configuracion inicial

Antes de empezar a programar necesitamos configurar el fichero /etc/php/8.1/apache2/php.ini

Hacemos una copia de seguridad del fichero /etc/php/8.1/apache2/php.ini

```
miadmin@das-used:~$ sudo cp /etc/php/8.1/apache2/php.ini /etc/php/8.1/apache2/php.ini.backup
[sudo] password for miadmin:
miadmin@das-used:~$ ls -l /etc/php/8.1/apache2
total 148
drwxr-xr-x 2 root root  4096 oct 11 15:33 conf.d
-rw-r--r-- 1 root root 72928 ago  8 07:28 php.ini
-rw-r--r-- 1 root root 72928 oct 11 16:06 php.ini.backup
```

Sudo nano /etc/php/8.1/apache2/php.ini y configuraremos las siguientes directivas

Permitiremos subir archivos

File-uploads= On

```
; Whether to allow HTTP file uploads.
; https://php.net/file-uploads
file_uploads = On
```

Allow_url_fopen= On

```
; Whether to allow the treatment of URLs (like http:// or ftp://) as files.
; https://php.net/allow-url-fopen
allow_url_fopen = On
```

Limitaremos la memoria de procesado a 256MB

Memory_limit= 256M

```
; Maximum amount of memory a script may consume
; https://php.net/memory-limit
memory_limit = 256M
```

Limitamos el tamaño maximo de los ficheros a subir a 100MB

Upload_max_filesize= 100M

```
; Maximum allowed size for uploaded files.
; https://php.net/upload-max-filesize
upload_max_filesize = 100M
```

Limitamos el tiempo de ejecucion a 360 segundos

Max_execution_time= 360

```
; Maximum execution time of each script, in seconds
; https://php.net/max-execution-time
; Note: This directive is hardcoded to 0 for the CLI SAPI
max_execution_time = 360
```

Estableceremos la zona horaria por defecto como la de Madrid

Date.timezone= Europe/Madrid

```
[Date]
; Defines the default timezone used by the date functions
; https://php.net/date.timezone
;date.timezone = Europe/Madrid
```

Mostrar Errores

Permitiremos mostrar errores tanto por pantalla como al arranque del servidor

```
; This directive controls whether or not and where PHP will output errors,
; notices and warnings too. Error output is very useful during development, but
; it could be very dangerous in production environments. Depending on the code
; which is triggering the error, sensitive information could potentially leak
; out of your application such as database usernames and passwords or worse.
; For production environments, we recommend logging errors rather than
; sending them to STDOUT.
; Possible Values:
;   Off = Do not display any errors
;   stderr = Display errors to STDERR (affects only CGI/CLI binaries!)
;   On or stdout = Display errors to STDOUT
; Default Value: On
; Development Value: On
; Production Value: Off
; https://php.net/display-errors
display_errors = On

; The display of errors which occur during PHP's startup sequence are handled
; separately from display_errors. We strongly recommend you set this to 'off'
; for production servers to avoid leaking configuration details.
; Default Value: On
; Development Value: On
; Production Value: Off
; https://php.net/display-startup-errors
display_startup_errors = On
```

Para hacer efectivos estos cambios guardamos el fichero y reiniciamos el servicio apache

```
miadmin@das-used:/etc/php/8.1/apache2$ sudo service apache2 restart
```

Instalar Xdebug

Xdebug es la herramienta de depuracion de codigo para php

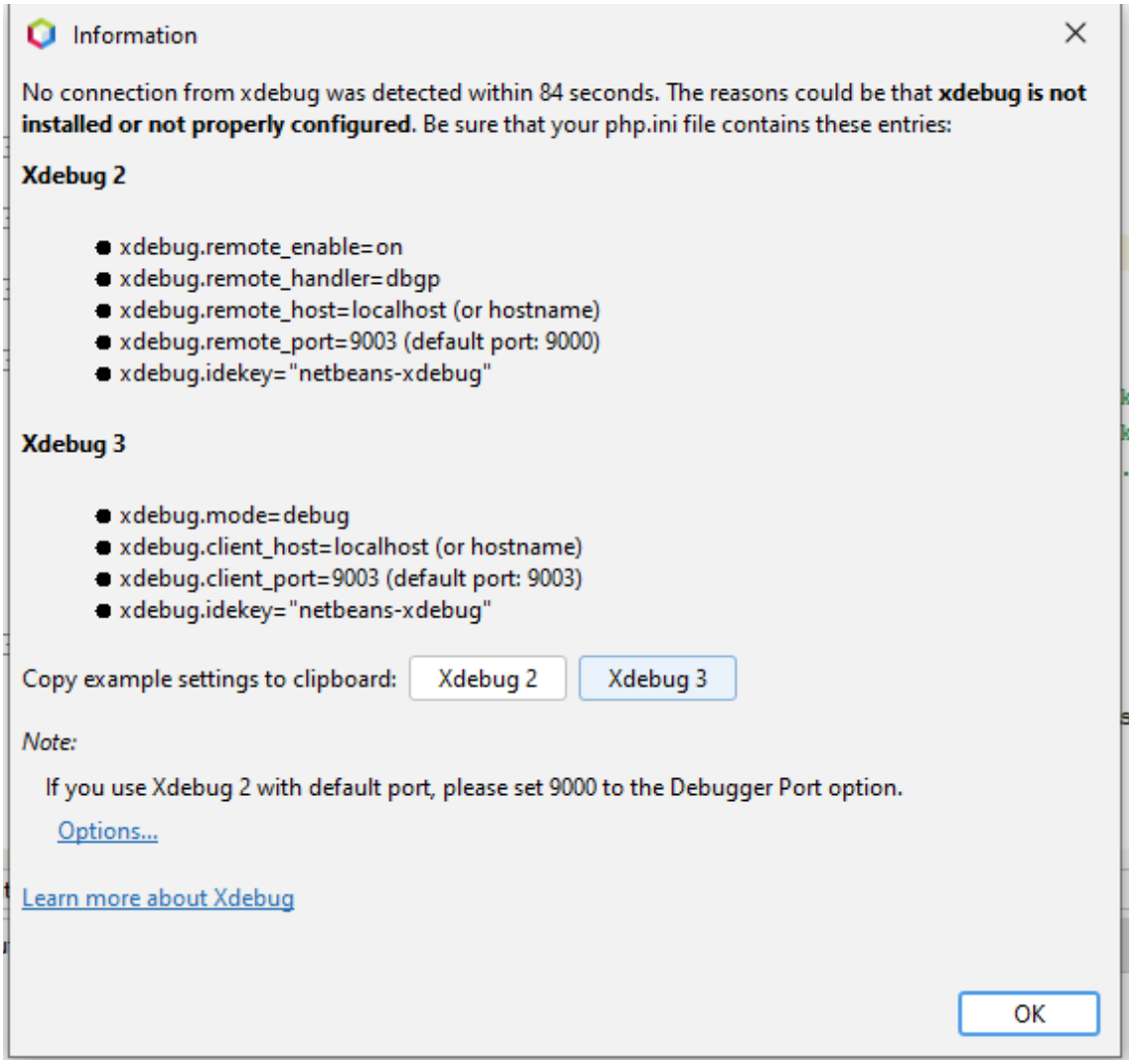
```
miadmin@das-used:/etc/php/8.1/apache2$ sudo apt install php-xdebug
```

Configurar Xdebug

Antes de configurar xdebug haremos una copia de seguridad

```
miadmin@das-used:/etc/php/8.1/apache2/conf.d$ sudo cp 20-xdebug.ini 20-xdebug.ini.bak
```

Netbeans nos da la configuracion de Xdebug (Yo en este caso he utilizado la configuracion de Xdebug 3)



Copiamos la configuración y cambiamos la IP del client_host a la ip de la maquina en la cual tenemos el IDE en el que vamos a debugear el código

```
  GNU nano 6.2                                          20-xdebug.ini
zend_extension=xdebug.so
xdebug.mode=debug
xdebug.client_host=192.168.3.7
xdebug.client_port=9003
xdebug.idekey="netbeans-xdebug"
xdebug.remote_connect_back=1
xdebug.discover_client_host=1
```

```
  GNU nano 6.2                                          20-xdebug.ini
zend_extension=xdebug.so
xdebug.mode=debug
xdebug.client_host=192.168.1.41
xdebug.client_port=9003
xdebug.idekey="netbeans-xdebug"
```

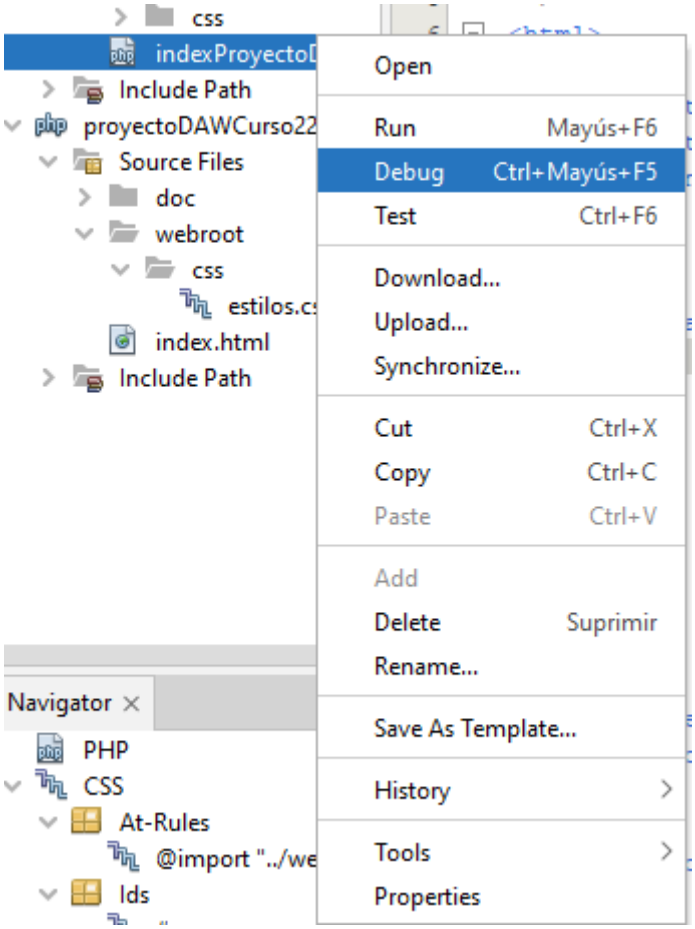
A continuación reiniciamos el servicio con sudo service apache2 restart

```
miadmin@das-used:/etc/php/8.1/apache2/conf.d$ sudo service apache2 restart
miadmin@das-used:/etc/php/8.1/apache2/conf.d$ sudo service apache2 status
● apache2.service - The Apache HTTP Server
     Loaded: loaded (/lib/systemd/system/apache2.service; enabled; vendor preset: enabled)
     Active: active (running) since Tue 2022-10-11 16:48:03 UTC; 6s ago
       Docs: https://httpd.apache.org/docs/2.4/
    Process: 1754 ExecStart=/usr/sbin/apachectl start (code=exited, status=0/SUCCESS)
   Main PID: 1759 (apache2)
      Tasks: 6 (limit: 2238)
     Memory: 10.1M
        CPU: 55ms
     CGroup: /system.slice/apache2.service
             ├─1759 /usr/sbin/apache2 -k start
             ├─1760 /usr/sbin/apache2 -k start
             ├─1761 /usr/sbin/apache2 -k start
             ├─1762 /usr/sbin/apache2 -k start
             ├─1763 /usr/sbin/apache2 -k start
             └─1764 /usr/sbin/apache2 -k start

oct 11 16:48:03 das-used systemd[1]: apache2.service: Deactivated successfully.
oct 11 16:48:03 das-used apachectl[1751]: AH00558: apache2: Could not reliably determine the server's fully qualifie
oct 11 16:48:03 das-used systemd[1]: Stopped The Apache HTTP Server.
oct 11 16:48:03 das-used systemd[1]: Starting The Apache HTTP Server...
oct 11 16:48:03 das-used apachectl[1758]: AH00558: apache2: Could not reliably determine the server's fully qualifie
oct 11 16:48:03 das-used systemd[1]: Started The Apache HTTP Server.
```

Abrimos el puerto 9003

```
miadmin@das-used:/etc/php/8.1/apache2/conf.d$ sudo ufw allow 9003
Rules updated
Rules updated (v6)
```

Comprobamos que Apache Netdeans debugea el código



Instalación Idiomas PHP

Usaremos el comando locale-gen

```
miadmin@das-used:~$ sudo locale-gen pt_PT.UTF-8
[sudo] password for miadmin:
Generating locales (this might take a while)...
  pt_PT.UTF-8... done
Generation complete.
```

En este caso he instalado el portugués ya que lo necesitaba para un ejercicio de DWES

Listado de idiomas

```
miadmin@das-used:~$ locale -a
C
C.utf8
es_ES.utf8
POSIX
pt_PT.utf8
```

Reiniciamos para que se apliquen los cambios

Cambios aplicados

La fecha y hora local en Oporto es : segunda, 17 do outubro do 2022 15:58:47

```php
<?php
ini_set("date.timezone", "Europe/Lisbon");
$locale="pt_PT.UTF-8";
setlocale(LC_ALL,$locale);
$fecha= strftime("%A, %d do %B do %G %T");
print 'La fecha y hora local en Oporto es : '. $fecha;
?>
```

Actualizamos el repositorio del sistema

```
miadmin@das-used:~$ sudo apt update
```

Esto se hace para actualizar las aplicaciones y modulos que hay en el repositorio

Instalamos mysql

```
miadmin@das-used:~$ sudo apt install mysql-server
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
Se instalarán los siguientes paquetes adicionales:
  libcgi-fast-perl libcgi-pm-perl libclone-perl libencode-locale-perl libevent-pthreads-2.1-7 libfcgi-bin libfcgi-perl
  libfcgi0ldbl libhtml-parser-perl libhtml-tagset-perl libhtml-template-perl libhttp-date-perl libhttp-message-perl
  libio-html-perl liblwp-mediatypes-perl libmecab2 libprotobuf-lite23 libtimedate-perl liburi-perl mecab-ipadic
  mecab-ipadic-utf8 mecab-utils mysql-client-8.0 mysql-client-core-8.0 mysql-common mysql-server-8.0
  mysql-server-core-8.0
Paquetes sugeridos:
  libdata-dump-perl libipc-sharedcache-perl libbusiness-isbn-perl libwww-perl mailx tinyca
Se instalarán los siguientes paquetes NUEVOS:
  libcgi-fast-perl libcgi-pm-perl libclone-perl libencode-locale-perl libevent-pthreads-2.1-7 libfcgi-bin libfcgi-perl
  libfcgi0ldbl libhtml-parser-perl libhtml-tagset-perl libhtml-template-perl libhttp-date-perl libhttp-message-perl
  libio-html-perl liblwp-mediatypes-perl libmecab2 libprotobuf-lite23 libtimedate-perl liburi-perl mecab-ipadic
  mecab-ipadic-utf8 mecab-utils mysql-client-8.0 mysql-client-core-8.0 mysql-common mysql-server mysql-server-8.0
  mysql-server-core-8.0
0 actualizados, 28 nuevos se instalarán, 0 para eliminar y 40 no actualizados.
Se necesita descargar 29,3 MB de archivos.
Se utilizarán 242 MB de espacio de disco adicional después de esta operación.
¿Desea continuar? [S/n] S
```

Comprobamos que mysql esta instalado y activo

```
miadmin@das-used:~$ sudo service mysql status
● mysql.service - MySQL Community Server
     Loaded: loaded (/lib/systemd/system/mysql.service; enabled; vendor preset: enabled)
     Active: active (running) since Tue 2022-11-01 20:17:57 UTC; 13min ago
    Process: 2750 ExecStartPre=/usr/share/mysql/mysql-systemd-start pre (code=exited, status=0/SUCCESS)
   Main PID: 2773 (mysqld)
     Status: "Server is operational"
      Tasks: 38 (limit: 2238)
     Memory: 363.9M
        CPU: 8.219s
     CGroup: /system.slice/mysql.service
             └─2773 /usr/sbin/mysqld

nov 01 20:17:55 das-used systemd[1]: Starting MySQL Community Server...
nov 01 20:17:57 das-used systemd[1]: Started MySQL Community Server.
```

Comprobamos versión

```
miadmin@das-used:~$ sudo mysql -u root -p
Enter password:
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 10
Server version: 8.0.31-0ubuntu0.22.04.1 (Ubuntu)
```

Comprobación puertos

```
miadmin@das-used:~$ ss -punta
Netid      State       Recv-Q      Send-Q           Local Address:Port           Peer Address:Port      Process
udp        UNCONN      0           0                127.0.0.53%lo:53                  0.0.0.0:*
tcp        LISTEN      0           4096             127.0.0.53%lo:53                  0.0.0.0:*
tcp        LISTEN      0           128                    0.0.0.0:22                  0.0.0.0:*
tcp        LISTEN      0           70                 127.0.0.1:33060                 0.0.0.0:*
tcp        LISTEN      0           151                127.0.0.1:3306                  0.0.0.0:*
tcp        ESTAB       0           0                192.168.3.208:22            192.168.3.8:54981
tcp        LISTEN      0           128                    [::]:22                     [::]:*
tcp        LISTEN      0           511                       *:80                        *:*
miadmin@das-used:~$ ss -puta
Netid      State       Recv-Q      Send-Q           Local Address:Port           Peer Address:Port      Process
udp        UNCONN      0           0                127.0.0.53%lo:domain              0.0.0.0:*
tcp        LISTEN      0           4096             127.0.0.53%lo:domain              0.0.0.0:*
tcp        LISTEN      0           128                    0.0.0.0:ssh                 0.0.0.0:*
tcp        LISTEN      0           70                 127.0.0.1:33060                 0.0.0.0:*
tcp        LISTEN      0           151                127.0.0.1:mysql                 0.0.0.0:*
tcp        ESTAB       0           52               192.168.3.208:ssh             192.168.3.8:54981
tcp        LISTEN      0           128                    [::]:ssh                    [::]:*
tcp        LISTEN      0           511                       *:http                      *:*
```

Abrimos el puerto 3306 que es el que usa mysql

```
miadmin@das-used:~$ sudo ufw allow 3306
Rule added
Rule added (v6)
miadmin@das-used:~$ sudo ufw status
Status: active

To                         Action      From
--                         ------      ----
22                         ALLOW       Anywhere
80                         ALLOW       Anywhere
9000                       ALLOW       Anywhere
9003                       ALLOW       Anywhere
3306                       ALLOW       Anywhere
22 (v6)                    ALLOW       Anywhere (v6)
80 (v6)                    ALLOW       Anywhere (v6)
9000 (v6)                  ALLOW       Anywhere (v6)
9003 (v6)                  ALLOW       Anywhere (v6)
3306 (v6)                  ALLOW       Anywhere (v6)
```

Comentar la línea bind-address del fichero /etc/mysql/mysql.conf.d/mysqld.cnf

```
  GNU nano 6.2                                    mysqld.cnf
#
# The MySQL database server configuration file.
#
# One can use all long options that the program supports.
# Run program with --help to get a list of available options and with
# --print-defaults to see which it would actually understand and use.
#
# For explanations see
# http://dev.mysql.com/doc/mysql/en/server-system-variables.html

# Here is entries for some specific programs
# The following values assume you have at least 32M ram

[mysqld]
#
# * Basic Settings
#
user            = mysql
# pid-file      = /var/run/mysqld/mysqld.pid
# socket        = /var/run/mysqld/mysqld.sock
# port          = 3306
# datadir       = /var/lib/mysql


# If MySQL is running as a replication slave, this should be
# changed. Ref https://dev.mysql.com/doc/refman/8.0/en/server-system-variables.html#sysvar_tmpdir
# tmpdir                = /tmp
#
# Instead of skip-networking the default is now to listen only on
# localhost which is more compatible and is not less secure.
# bind-address          = 127.0.0.1
# mysqlx-bind-address   = 127.0.0.1
#
# * Fine Tuning
```

Crear usuario

```
mysql> create user 'adminsql'@'%' identified by 'paso';
Query OK, 0 rows affected (0,02 sec)

mysql> grant all privileges on *.* to 'adminsql'@'%' with grant option;
Query OK, 0 rows affected (0,01 sec)
```

Instalar conector php-mysql

```
miadmin@das-used:~$ sudo apt-get install php-mysql
[sudo] password for miadmin:
Leyendo lista de paquetes... Hecho
Creando árbol de dependencias... Hecho
Leyendo la información de estado... Hecho
Se instalarán los siguientes paquetes adicionales:
  libapache2-mod-php8.1 php8.1-cli php8.1-common php8.1-mysql php8.1-opcache php8.1-readline
Paquetes sugeridos:
  php-pear
Se instalarán los siguientes paquetes NUEVOS:
  php-mysql php8.1-mysql
Se actualizarán los siguientes paquetes:
  libapache2-mod-php8.1 php8.1-cli php8.1-common php8.1-opcache php8.1-readline
5 actualizados, 2 nuevos se instalarán, 0 para eliminar y 22 no actualizados.
Se necesita descargar 5.235 kB de archivos.
Se utilizarán 475 kB de espacio de disco adicional después de esta operación.
¿Desea continuar? [S/n] s
```

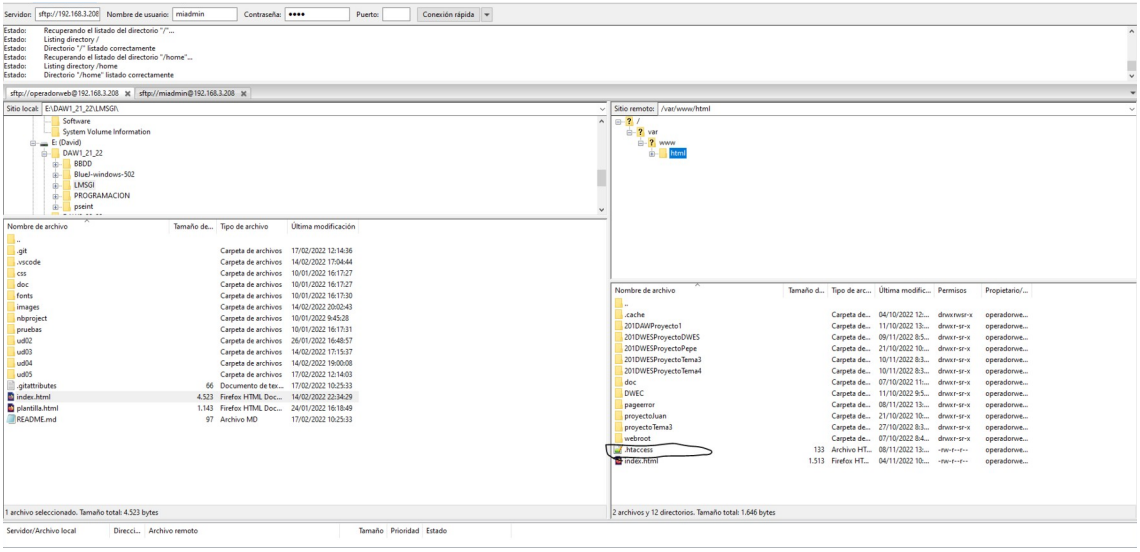
Al finalizar reiniciamos el servicio apache2

Configuración para el uso del fichero .htaccess

En /etc/apache2/apache2.conf configuramos la configuracion del directorio /var/www/

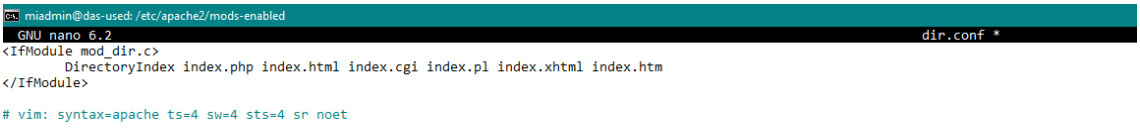
```
# Sets the default security model of the Apache2 HTTPD server. It does
# not allow access to the root filesystem outside of /usr/share and /var/www.
# The former is used by web applications packaged in Debian,
# the latter may be used for local directories served by the web server. If
# your system is serving content from a sub-directory in /srv you must allow
# access here, or in any related virtual host.
<Directory />
        Options FollowSymLinks
        AllowOverride None
        Require all denied
</Directory>

<Directory /usr/share>
        AllowOverride None
        Require all granted
</Directory>

<Directory /var/www/>
        Options Indexes FollowSymLinks
        AllowOverride All
        Require all granted
</Directory>

#<Directory /srv/>
#       Options Indexes FollowSymLinks
#       AllowOverride None
#       Require all granted
#</Directory>
```

El fichero ha de estar en el directorio arriba especificado



Desactivar indexes

Configurar eleccion de sitios por defecto



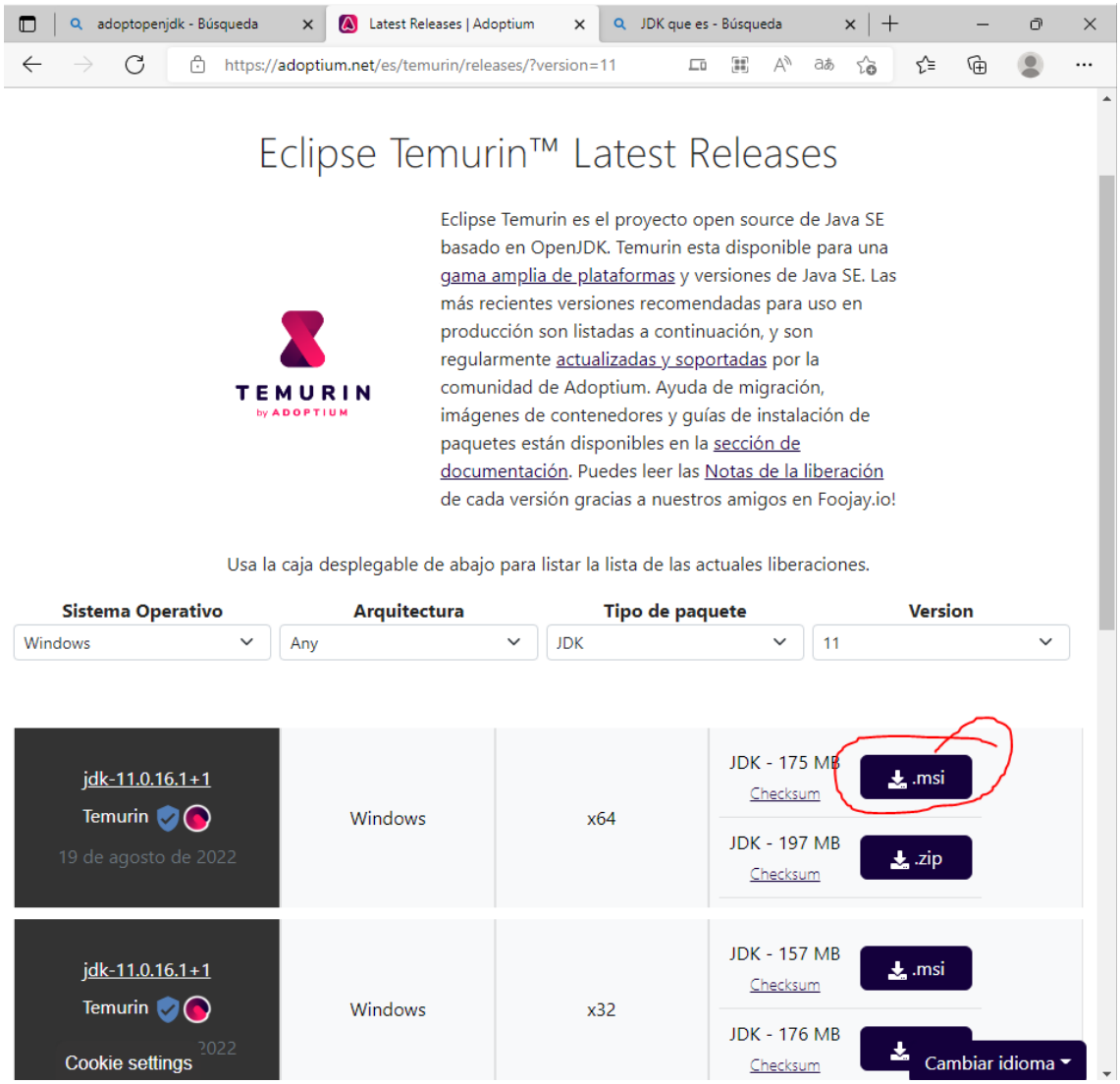
Instalacion netbeans 15.0

Instalacion JDK

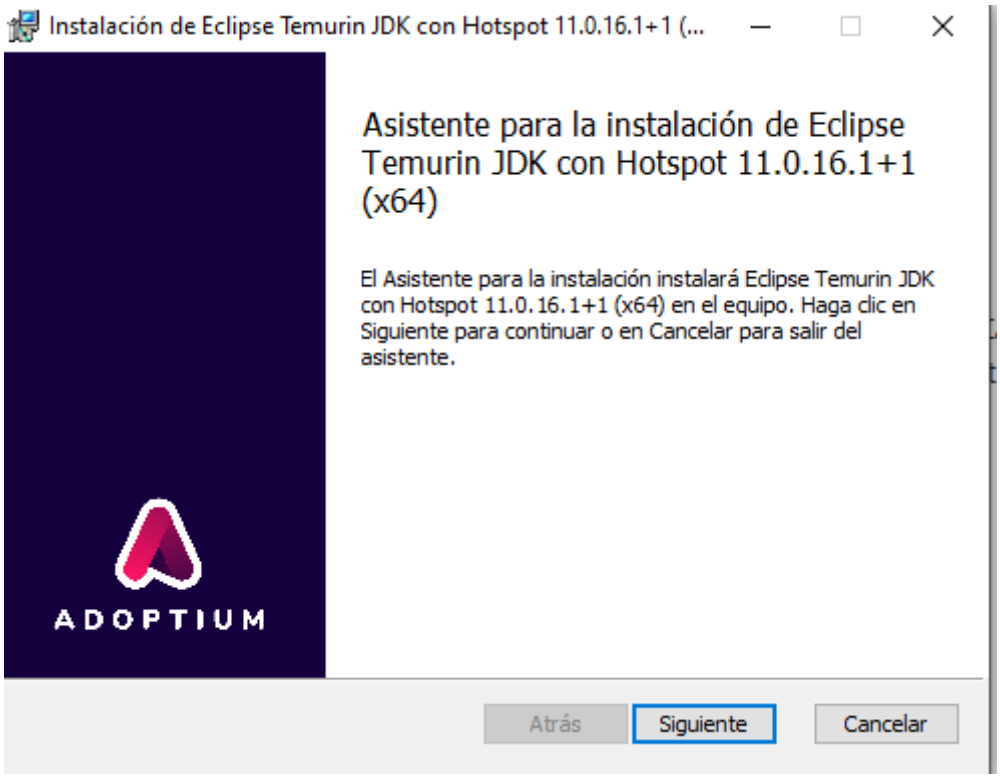
Para la instalacion de Netbeans 15.0 se necesita un JDK (Java Development kit)

Yo utilizare Adoptium JDK

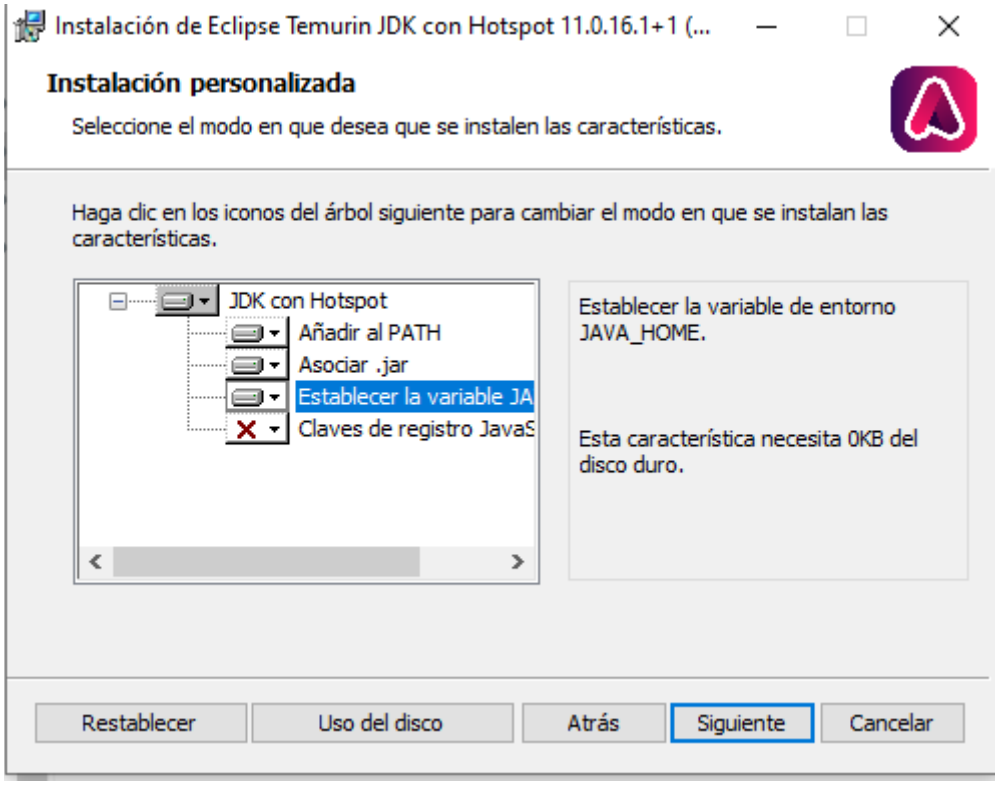
[Latest Releases | Adoptium]



Instalamos el JDK



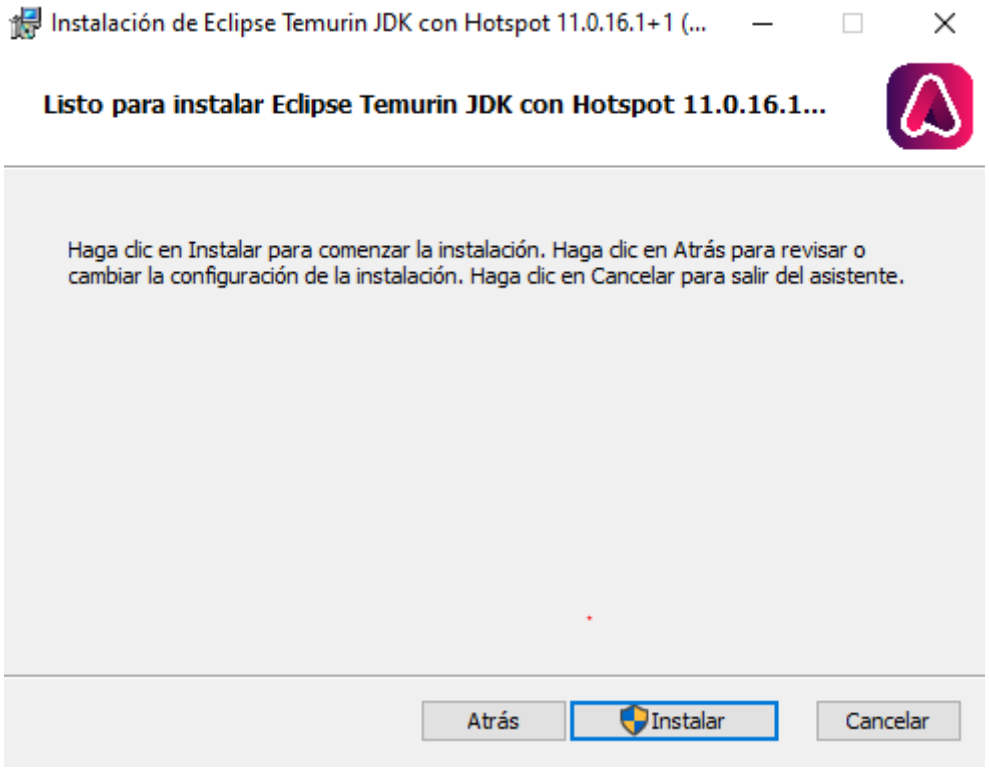
Pulsamos a siguiente



Lo instalaremos en C:\Program Files\Eclipse Adoptium\jdk-11.0.16.101-hotspot\

(No es lo mas recomendable instalar en el disco C:\)

Pulsamos siguiente



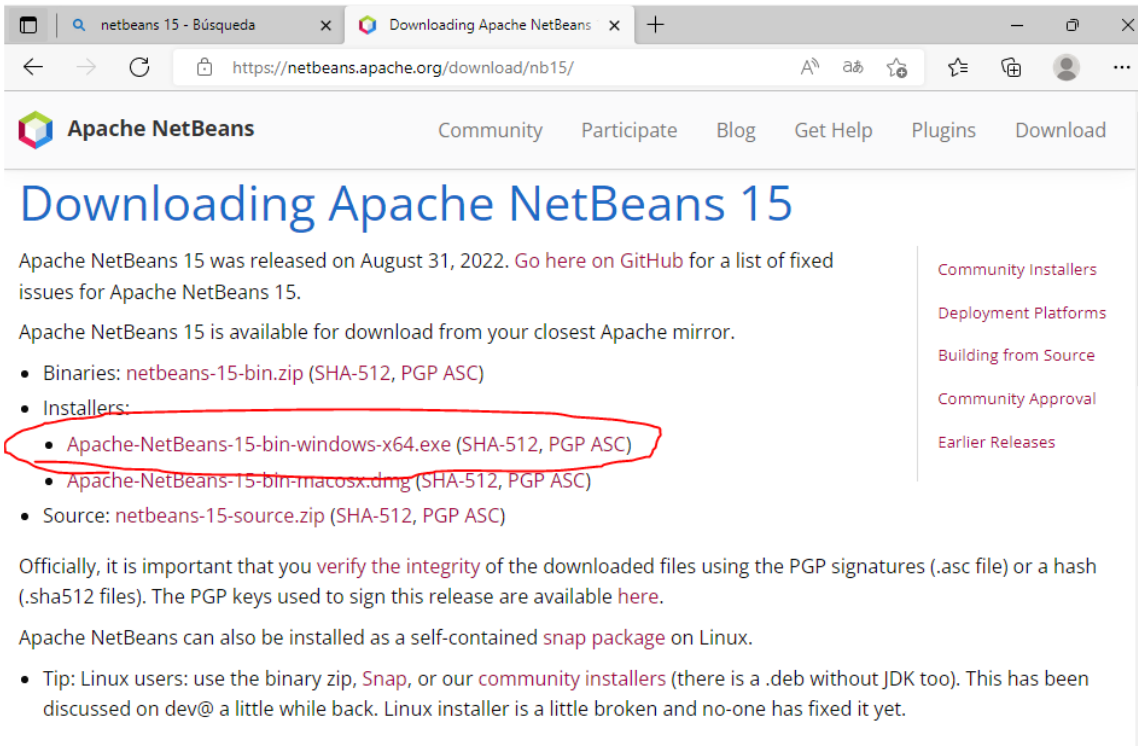
Pulsamos Instalar

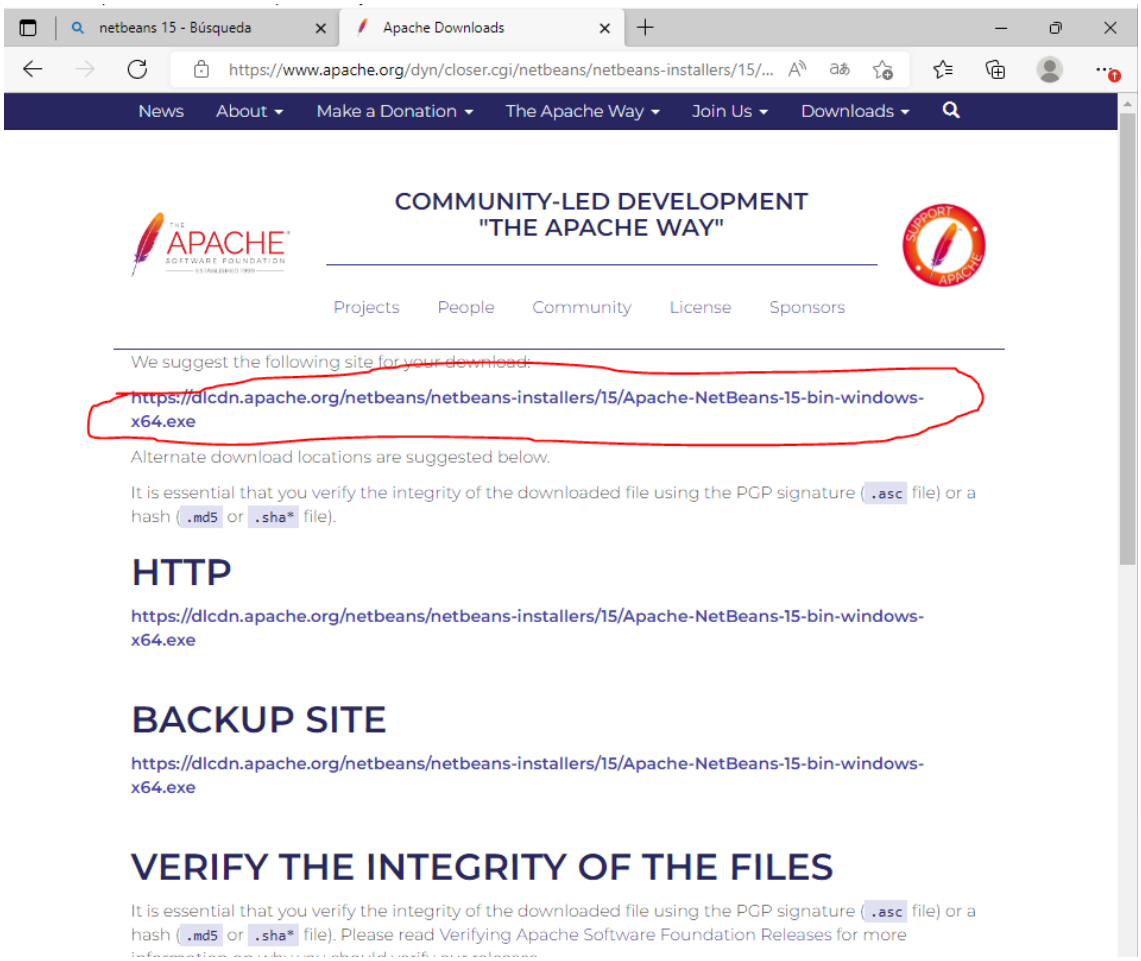
Instalación Netbeans

Una vez instalado el JDK procedemos a descargar e Instalar Apache NetBeans 15.0

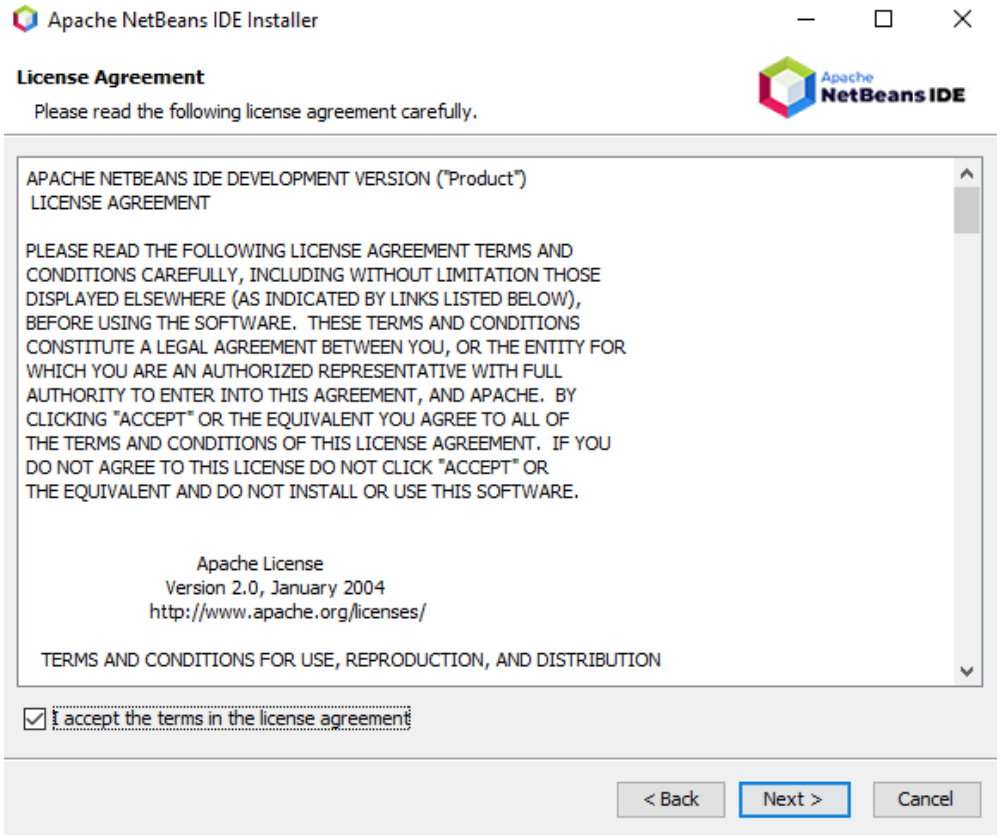
Pagina oficial Apache NetBeans

[Downloading Apache NetBeans 15]

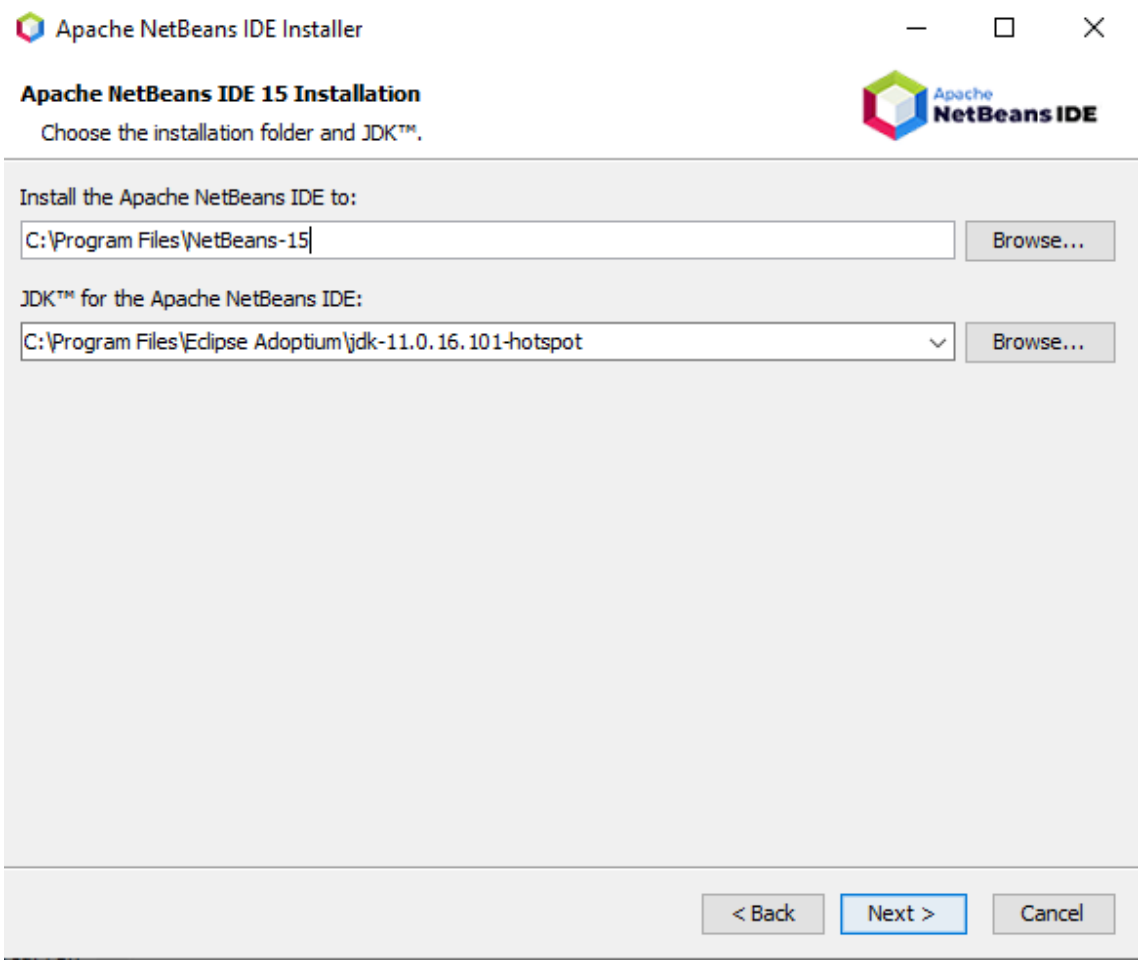

netbeans 15 - Búsqueda
Downloading Apache NetBeans
https://netbeans.apache.org/download/nb15/
Apache NetBeans
Community
Participate
Blog
Get Help
Plugins
Download
Downloading Apache NetBeans 15
Apache NetBeans 15 was released on August 31, 2022. Go here on GitHub for a list of fixed issues for Apache NetBeans 15.
Apache NetBeans 15 is available for download from your closest Apache mirror.
Binaries: netbeans-15-bin.zip (SHA-512, PGP ASC)
Installers:
Apache-NetBeans-15-bin-windows-x64.exe (SHA-512, PGP ASC)
Apache-NetBeans-15-bin-macosx.dmg (SHA-512, PGP ASC)
Source: netbeans-15-source.zip (SHA-512, PGP ASC)
Community Installers
Deployment Platforms
Building from Source
Community Approval
Earlier Releases
Officially, it is important that you verify the integrity of the downloaded files using the PGP signatures (.asc file) or a hash (.sha512 files). The PGP keys used to sign this release are available here.
Apache NetBeans can also be installed as a self-contained snap package on Linux.
Tip: Linux users: use the binary zip, Snap, or our community installers (there is a .deb without JDK too). This has been discussed on dev@ a little while back. Linux installer is a little broken and no-one has fixed it yet.


netbeans 15 - Búsqueda
Apache Downloads
https://www.apache.org/dyn/closer.cgi/netbeans/netbeans-installers/15/...
News
About
Make a Donation
The Apache Way
Join Us
Downloads
COMMUNITY-LED DEVELOPMENT "THE APACHE WAY"
Projects
People
Community
License
Sponsors
We suggest the following site for your download:
https://dlcdn.apache.org/netbeans/netbeans-installers/15/Apache-NetBeans-15-bin-windows-x64.exe
Alternate download locations are suggested below.
It is essential that you verify the integrity of the downloaded file using the PGP signature (.asc file) or a hash (.md5 or .sha* file).
HTTP
https://dlcdn.apache.org/netbeans/netbeans-installers/15/Apache-NetBeans-15-bin-windows-x64.exe
BACKUP SITE
https://dlcdn.apache.org/netbeans/netbeans-installers/15/Apache-NetBeans-15-bin-windows-x64.exe
VERIFY THE INTEGRITY OF THE FILES
It is essential that you verify the integrity of the downloaded file using the PGP signature (.asc file) or a hash (.md5 or .sha* file). Please read Verifying Apache Software Foundation Releases for more

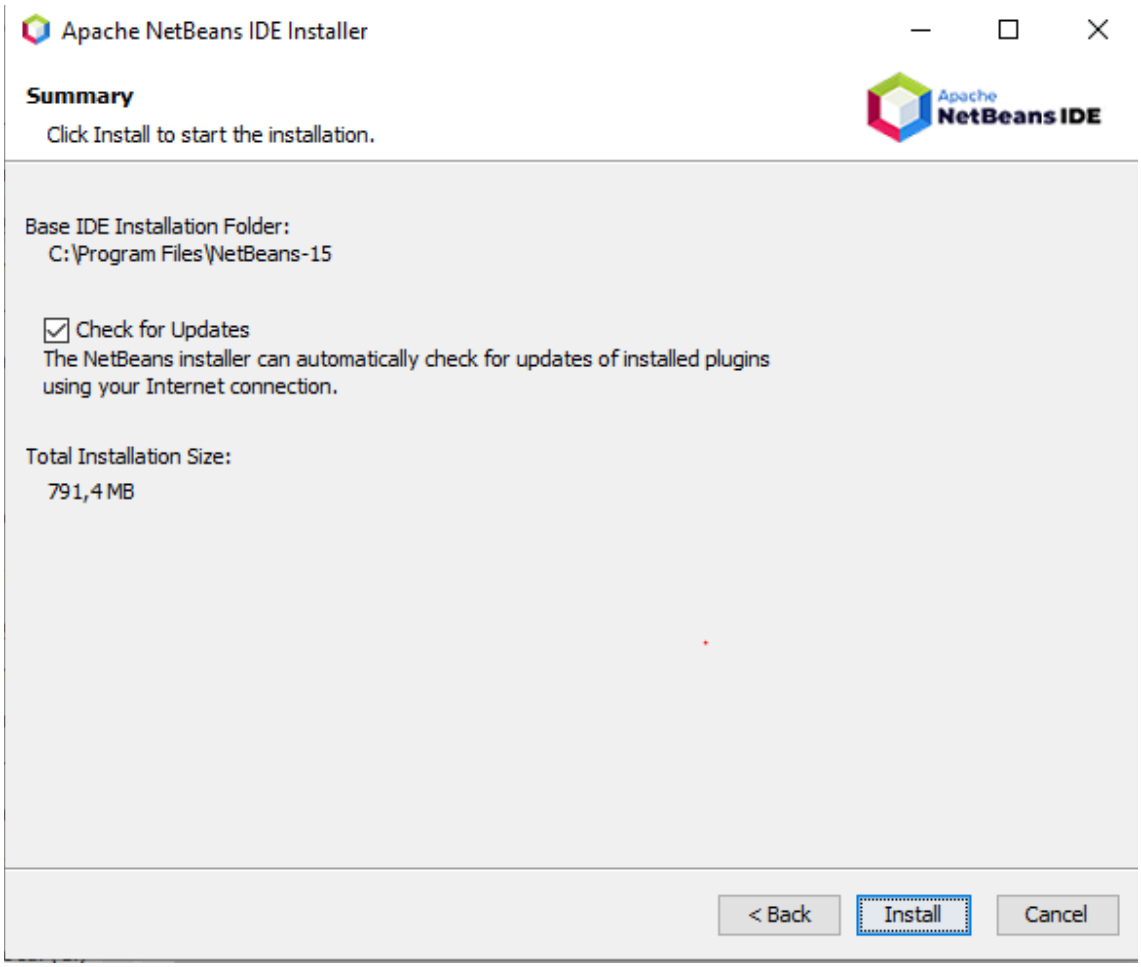
Aceptamos los teminos de la licencia y aceptamos



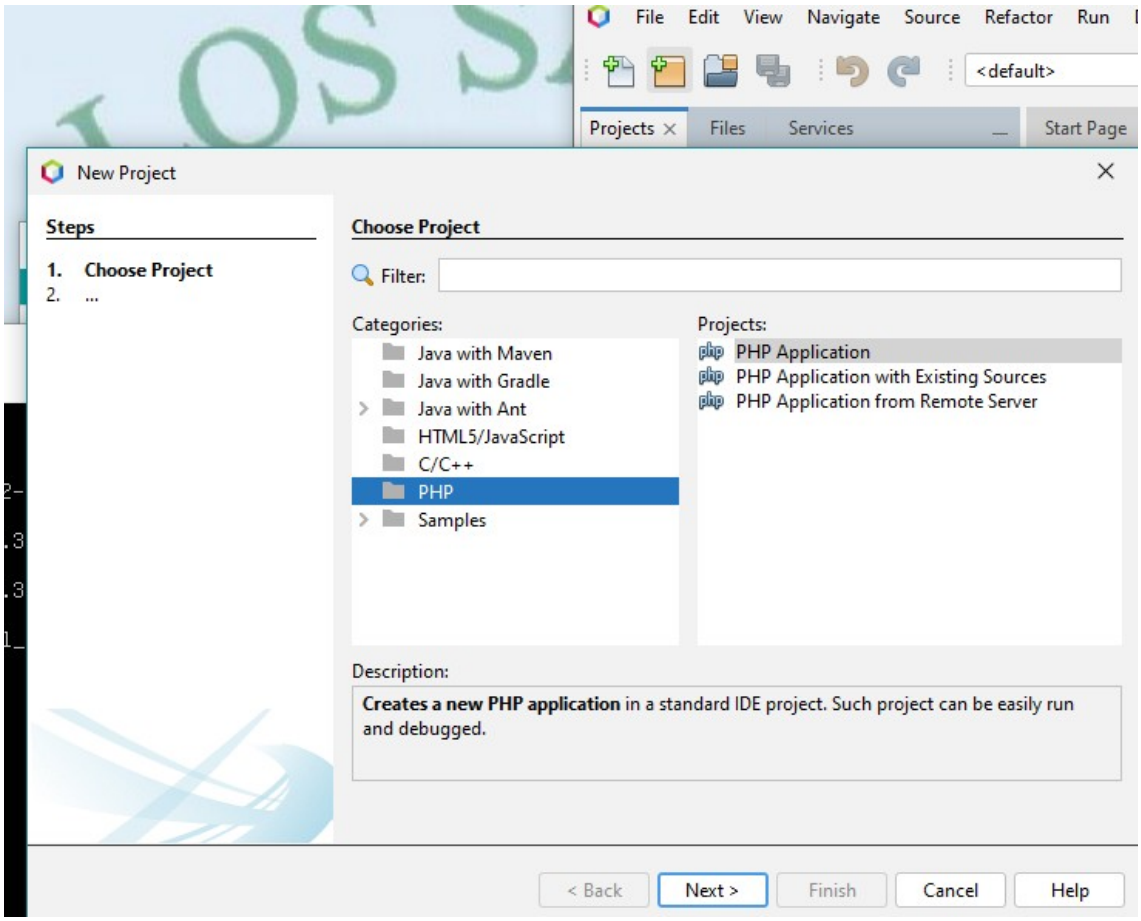
Seleccionamos donde queremos instalar el IDE y la ubicación donde está instalado el JDK


Apache NetBeans IDE Installer
Apache NetBeans IDE 15 Installation
Choose the installation folder and JDK™.
Apache NetBeans IDE
Install the Apache NetBeans IDE to:
C:\Program Files\NetBeans-15
Browse...
JDK™ for the Apache NetBeans IDE:
C:\Program Files\Eclipse Adoptium\jdk-11.0.16.101-hotspot
Browse...
< Back
Next >
Cancel

Resumen de la instalacion del IDE

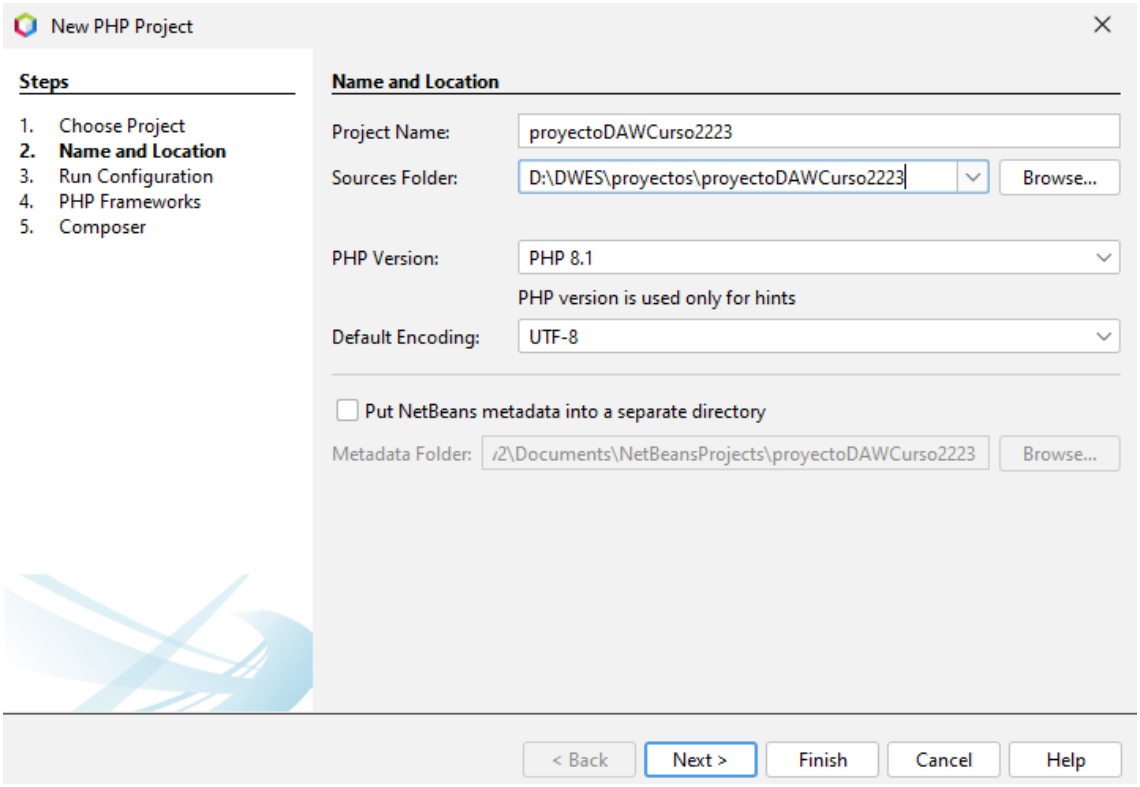


Creamos nuevo proyecto netbeans



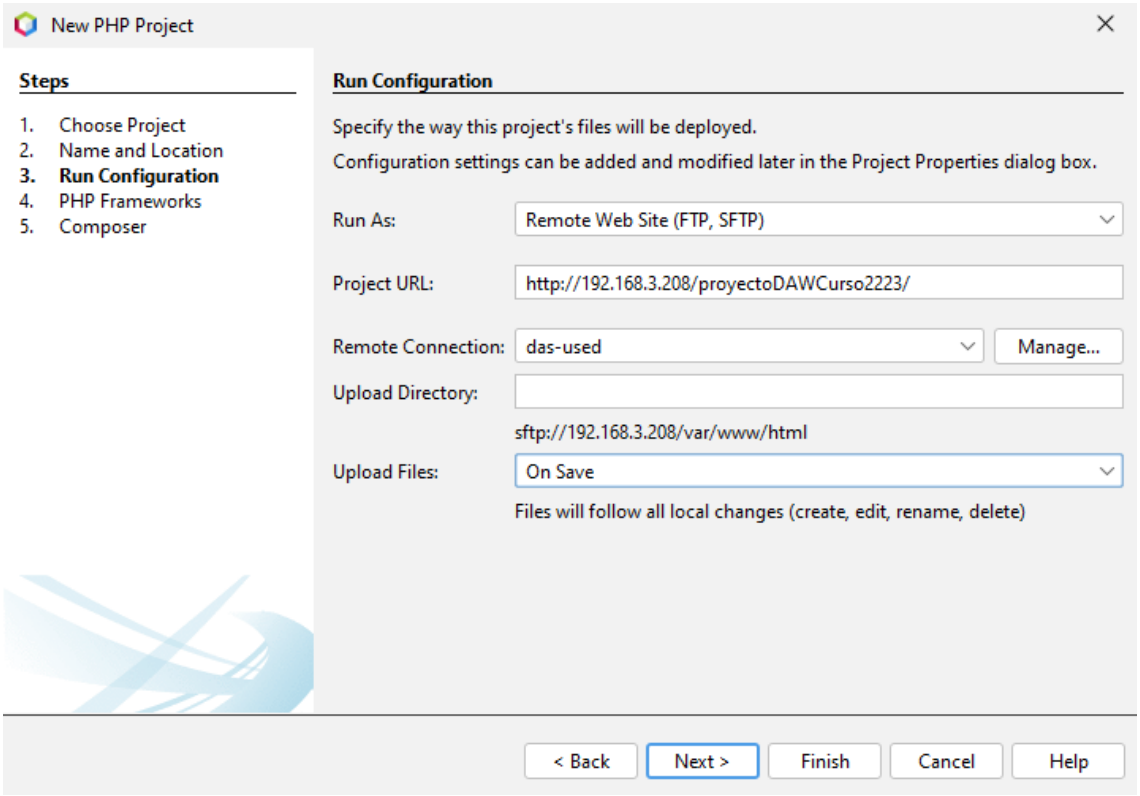
Creamos nuevo proyecto de PHP que en este caso será una aplicación PHP

Damos nombre al fichero



Le damos como nombre proyectoDAWCurso2223 y utilizaremos la version 8.1 de PHP con una codificación UTF-8

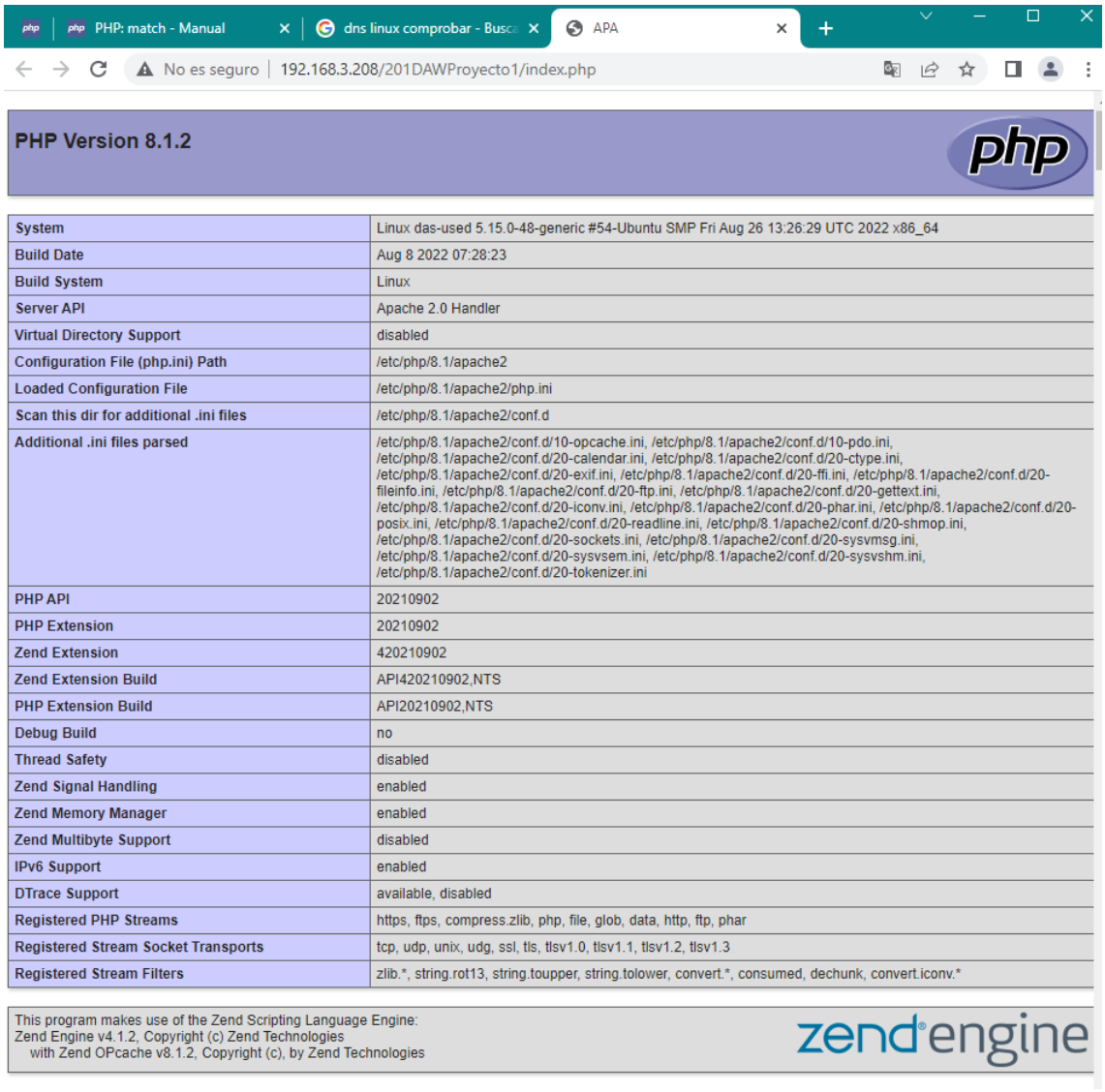
Configuramos sFTP y la url del proyecto y finalizamos



La aplicación se subirá mediante sFTP al servidor 192.168.3.208 (en este caso mi servidor de clase) en una carpeta que se llamará igual que el proyecto(no es necesario que se llame la carpeta igual que el proyecto) y subiremos los archivos automaticamente cada vez que guardemos los cambios

Informacion de php

```
<!DOCTYPE html>
<!--
Click nbfs://nbhost/SystemFileSystem/Te
Click nbfs://nbhost/SystemFileSystem/Te
-->
<html>
    <head>
        <meta charset="UTF-8">
        <title>APA</title>
    </head>
    <body>
        <?php
        phpinfo();
        ?>
        <p>APA</p>
        <img src="img/losSauces.jpg"/>
    </body>
</html>
```

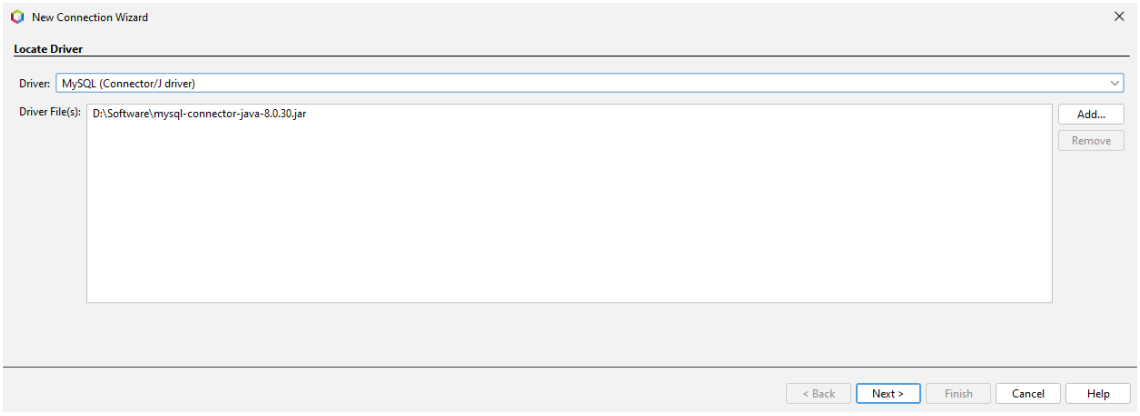

PHP: match - Manual
dns linux comprobar - Busca
APA
No es seguro | 192.168.3.208/201DAWProyecto1/index.php
PHP Version 8.1.2
php
System | Linux das-used 5.15.0-48-generic #54-Ubuntu SMP Fri Aug 26 13:26:29 UTC 2022 x86_64
Build Date | Aug 8 2022 07:28:23
Build System | Linux
Server API | Apache 2.0 Handler
Virtual Directory Support | disabled
Configuration File (php.ini) Path | /etc/php/8.1/apache2
Loaded Configuration File | /etc/php/8.1/apache2/php.ini
Scan this dir for additional .ini files | /etc/php/8.1/apache2/conf.d
Additional .ini files parsed | /etc/php/8.1/apache2/conf.d/10-opcache.ini, /etc/php/8.1/apache2/conf.d/10-pdo.ini, /etc/php/8.1/apache2/conf.d/20-calendar.ini, /etc/php/8.1/apache2/conf.d/20-ctype.ini, /etc/php/8.1/apache2/conf.d/20-exif.ini, /etc/php/8.1/apache2/conf.d/20-ffi.ini, /etc/php/8.1/apache2/conf.d/20-fileinfo.ini, /etc/php/8.1/apache2/conf.d/20-ftp.ini, /etc/php/8.1/apache2/conf.d/20-gettext.ini, /etc/php/8.1/apache2/conf.d/20-iconv.ini, /etc/php/8.1/apache2/conf.d/20-phar.ini, /etc/php/8.1/apache2/conf.d/20-posix.ini, /etc/php/8.1/apache2/conf.d/20-readline.ini, /etc/php/8.1/apache2/conf.d/20-shmop.ini, /etc/php/8.1/apache2/conf.d/20-sockets.ini, /etc/php/8.1/apache2/conf.d/20-sysvmsg.ini, /etc/php/8.1/apache2/conf.d/20-sysvsem.ini, /etc/php/8.1/apache2/conf.d/20-sysvshm.ini, /etc/php/8.1/apache2/conf.d/20-tokenizer.ini
PHP API | 20210902
PHP Extension | 20210902
Zend Extension | 420210902
Zend Extension Build | API420210902,NTS
PHP Extension Build | API20210902,NTS
Debug Build | no
Thread Safety | disabled
Zend Signal Handling | enabled
Zend Memory Manager | enabled
Zend Multibyte Support | disabled
IPv6 Support | enabled
DTrace Support | available, disabled
Registered PHP Streams | https, ftps, compress.zlib, php, file, glob, data, http, ftp, phar
Registered Stream Socket Transports | tcp, udp, unix, udg, ssl, tls, tlsv1.0, tlsv1.1, tlsv1.2, tlsv1.3
Registered Stream Filters | zlib.*, string.rot13, string.toupper, string.tolower, convert.*, consumed, dechunk, convert.iconv.*
This program makes use of the Zend Scripting Language Engine:
Zend Engine v4.1.2, Copyright (c) Zend Technologies
with Zend OPcache v8.1.2, Copyright (c), by Zend Technologies
zend engine

Crear un Hola mundo en PHP

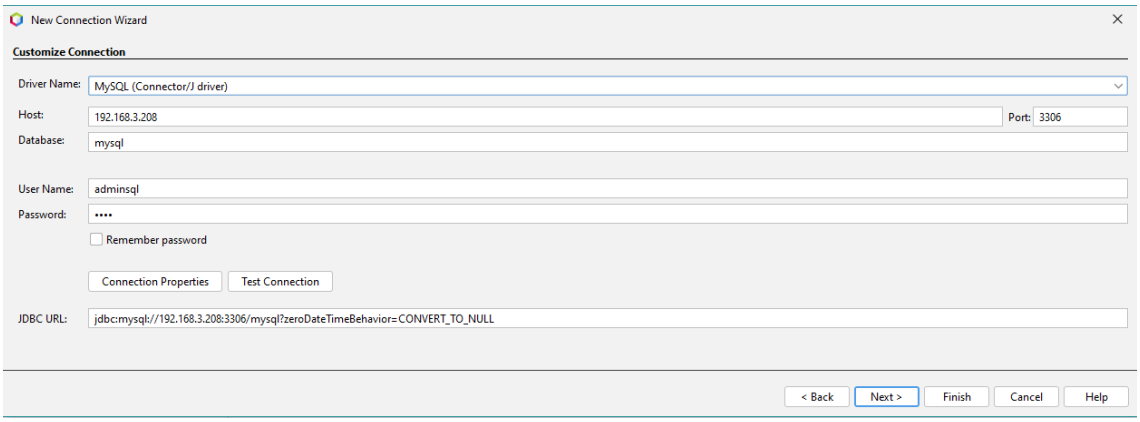
```
<!DOCTYPE html>
<!--
Click nbfs://nbhost/SystemFileS
Click nbfs://nbhost/SystemFileS
-->
<html>
    <head>
        <meta charset="UTF-8">
        <title>APA</title>
    </head>
    <body>
        <?php
        echo 'Hola mundo';
        ?>
    </body>
</html>
```

Hola mundo

Nueva conexión base de datos desde NetBeans



Especificamos donde está el conector de MySQL para NetBeans



Especificamos el host ,la base de datos ,el usuario y la contraseña