



**Análisis y desarrollo de sistemas de información –ADSI-**

**Informe de pruebas - Sistema de información para la gestión de la producción avícola de  
traspasio urbana y periurbana con vocación de postura.**

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## Tabla de contenido

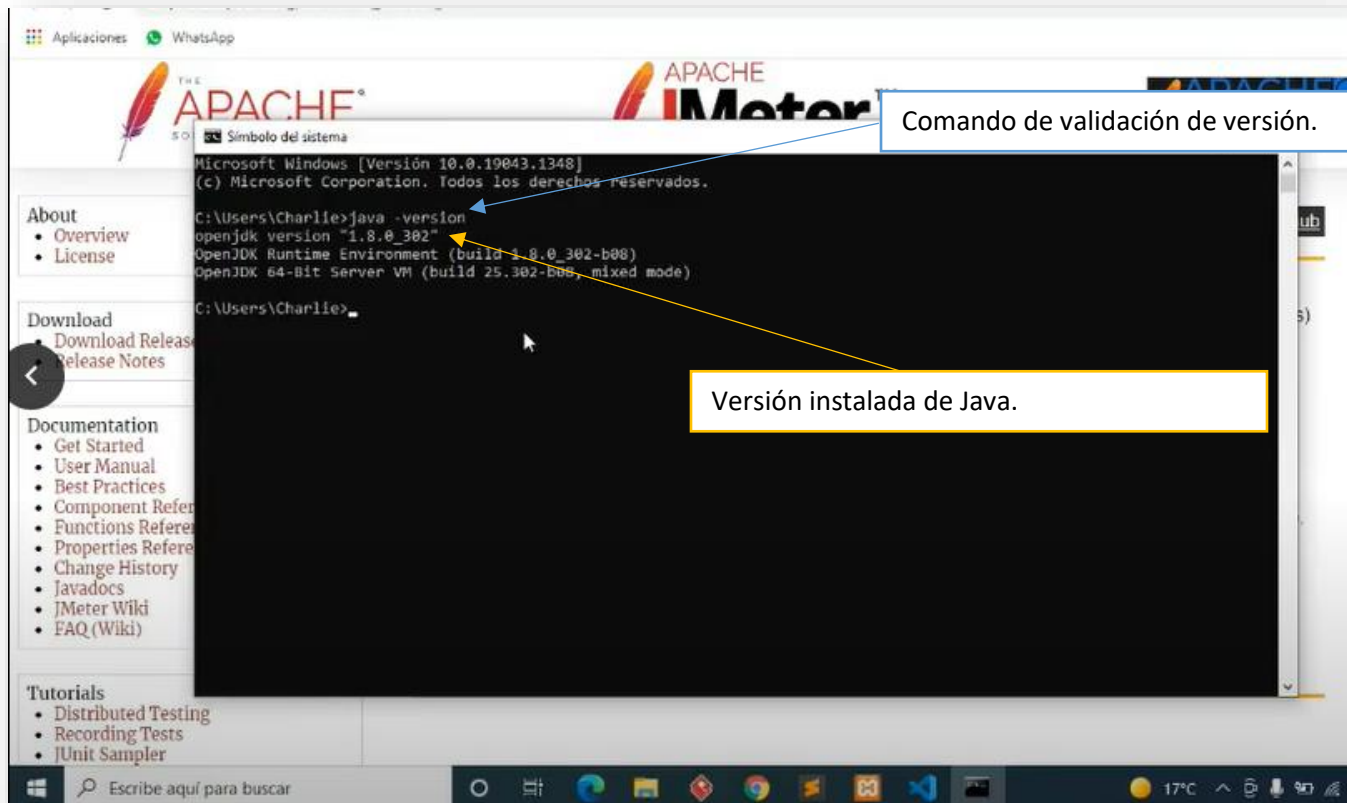
<b>Pruebas de caja blanca .....</b>	<b>3</b>
<b>Validación de prerequisites .....</b>	<b>3</b>
<b>Configuración del JMeter .....</b>	<b>5</b>
<b>Ejecución y creación del ambiente de pruebas .....</b>	<b>7</b>
<b>Pruebas de caja negra .....</b>	<b>13</b>
<b>Validación de prerequisites .....</b>	<b>13</b>
<b>Ejecución y creación del ambiente de pruebas .....</b>	<b>16</b>
<b>Rendimiento de Base de datos .....</b>	<b>20</b>



## Pruebas de caja blanca

## Validación de prerequisites

Imagen 1. Validación de versión del Java



A través de la consola CMD:

- Insertamos el comando: "java -version"
- Verificamos la versión instalada de java.



Imagen 2. Validación de la versión de phpMyadmin.

The image shows the XAMPP Control Panel v3.3.0 interface. The 'Modules' section lists services like Apache, MySQL, FileZilla, Mercury, and Tomcat. The 'Actions' column for MySQL shows 'Admin', 'Config', and 'Logs' buttons. A log window at the bottom shows the status of the services. Overlaid on the right is the phpMyAdmin web interface, which displays the 'XAMPP Apache + MariaDB + PHP + Perl' header and a 'Welcome to XAMPP for Windows 8.0.10' message. Below this, there is a list of links for phpMyAdmin, including 'Acerca de esta versión: 5.1.1 (actualizada)', 'Documentación', 'Página oficial de phpMyAdmin', 'Contribuir', 'Obtener soporte', 'Lista de cambios', and 'Licencia'.

#### A través del Xampp:

- Ingresamos por la opción admin de MySQL
- Seleccionamos posteriormente la pestaña phpMyAdmin
- Validamos la versión.



## Configuración del JMeter

### Imagen 3. Descarga del JMeter

A screenshot of the Apache JMeter 5.4.1 download page. The page has a left sidebar with navigation links and a main content area. The main content area has a header "Apache JMeter 5.4.1 (Requires Java 8+)" followed by three sections: "Binaries", "Source", and "Archives". In the "Binaries" section, there are two links: "apache-jmeter-5.4.1.tgz.sha512.pgp" and "apache-jmeter-5.4.1.zip.sha512.pgp". A green arrow points from a text box on the right to the ".zip" link. The text box contains the text "Descarga del 'binarie .zip'".

Aplicaciones WhatsApp

- FAQ (Wiki)

**Tutorials**

- Distributed Testing
- Recording Tests
- JUnit Sampler
- Access Log Sampler
- Extending JMeter

**Community**

- Issue Tracking
- Security
- Mailing Lists
- Source Repositories
- Building and Contributing
- Project info at Apache
- Contributors

**Foundation**

- The Apache Software Foundation (ASF)
- Get Involved in the ASF
- Sponsorship
- Thanks

## Apache JMeter 5.4.1 (Requires Java 8+)

### Binaries

[apache-jmeter-5.4.1.tgz.sha512.pgp](#)  
[apache-jmeter-5.4.1.zip.sha512.pgp](#)

### Source

[apache-jmeter-5.4.1\\_src.tgz.sha512.pgp](#)  
[apache-jmeter-5.4.1\\_src.zip.sha512.pgp](#)

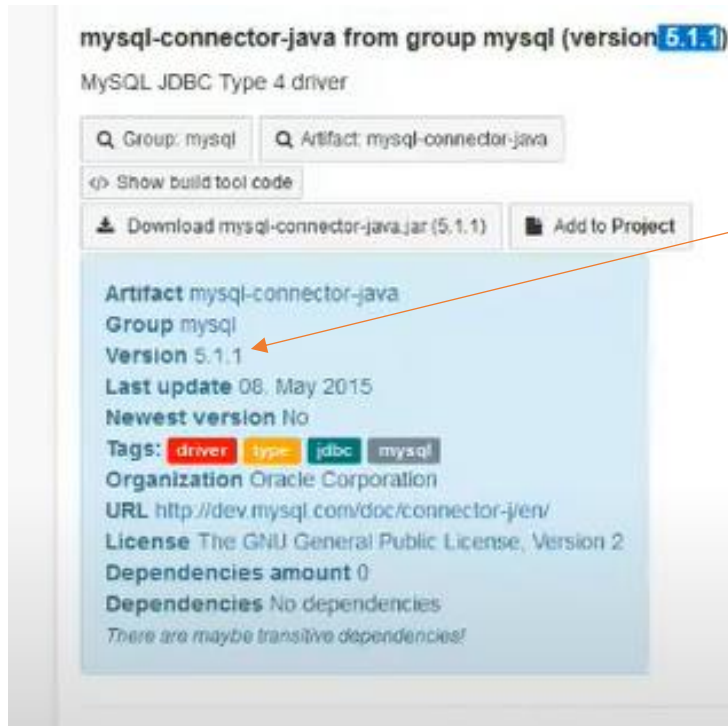
### Archives

Older releases can be obtained from the archives.

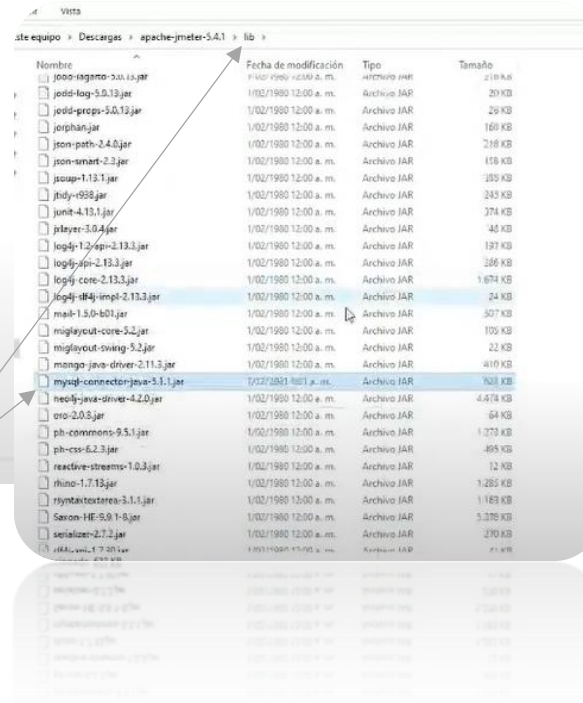
- [browse download area](#)
- [Apache JMeter archives](#)

Descarga del "binarie .zip"

Imagen 4. Descarga de la librería mysql-connector



Descarga de la librería compatible con phpMyadmin

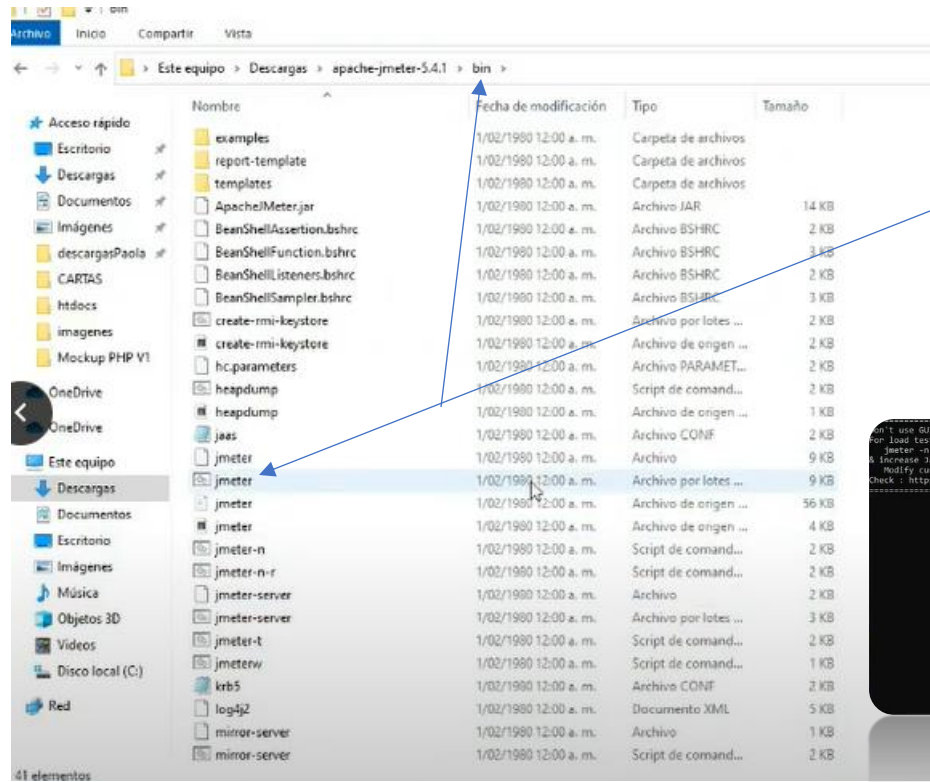


Copia de la librería dentro de la carpeta "lib"



## Ejecución y creación del ambiente de pruebas

Imagen 5. Ejecución del JMeter

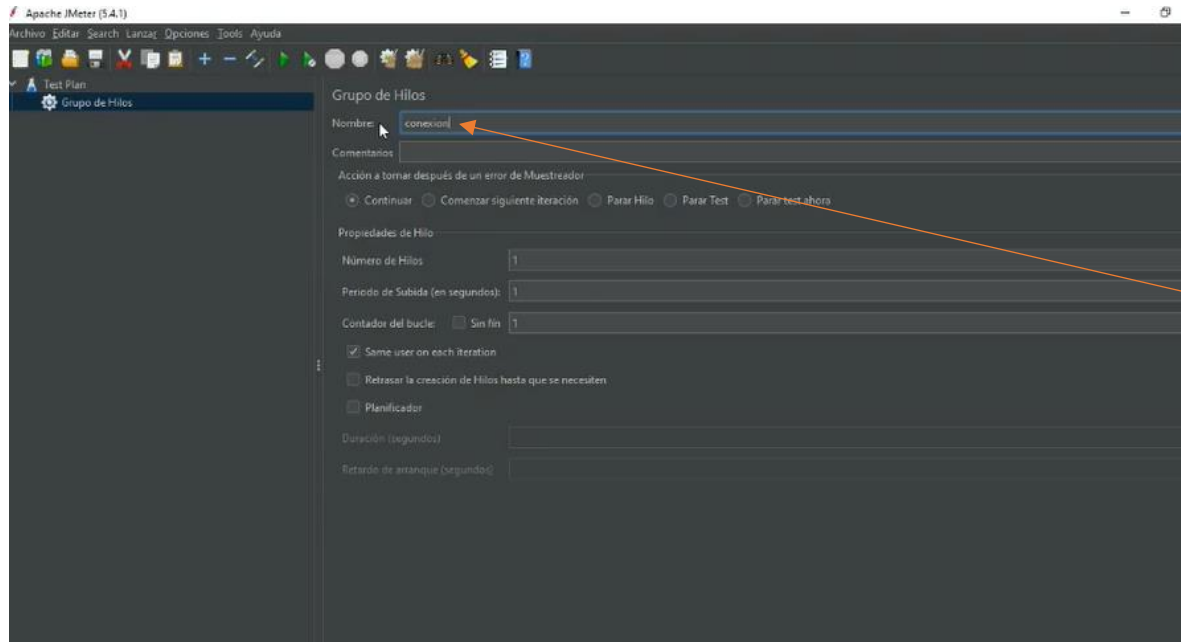


Ejecutar el JMeter mediante el archivo JMeter.bat, ubicado en la carpeta bin.





Imagen 6. Montaje del ambiente de pruebas



Asignar un nombre





Imagen 7. Uso de la librería para prueba sobre DB

Selección de la librería

Registro de parámetros para la conexión con la db

conexión.jmx (C:\Users\Charlie\Desktop\conexión.jmx) - Apache JMeter (5.4.1)

Test Plan

- conexión
- Configuración de la Conexión JDBC
- Petición JDBC
- Reporte resumen
- Response Time Graph

Configuración de la Conexión JDBC

Nombre: Configuración de la Conexión JDBC

Comentarios:

Nombre Variable Enlazado al Pool:

Nombre de Variable: BasicDatos

Configuración del Pool de Conexiones

Número Máximo de Conexiones: 10

Timeout del Pool: 10000

Intervalo de Limpieza por Inactividad (ms): 60000

Auto Commit: True

Transaction Isolation: DEFAULT

Pretest Pool: False

Validación de Conexión por Pool

Keep-Alive: True

Edad máxima de las Conexiones (ms): 5000

Query de Validación:

Configuración de la Conexión a Base de Datos

URL de la Base de Datos: jdbc:mysql://sql101.ljyethost10.com:3306/h10\_30419729\_ajgual

Clase del Driver JDBC: com.mysql.jdbc.Driver

Nombre de Usuario: root

Contraseña:

Connection Properties:



Imagen 8. Uso de la librería para consulta mediante Query

The image displays the Apache JMeter 5.4.1 interface. The main window shows the configuration for a 'Petición JDBC' sampler. The 'Query SQL' field contains the SQL statement: `select * from proveedor where ciudad_idciudad = 522;`. A green arrow points from a text box to this query. Below the main window, a smaller inset shows the 'Library' menu, with the 'JDBC Request' option highlighted. An orange arrow points from a text box to this option.

Consulta para la realización de la prueba

Seleccionar la librería



Imagen 9. Establecimiento del ambiente de reportes

The image shows the Apache JMeter 5.4.1 interface. On the left, the 'Reportes' menu is open, with 'Reporte resumen' selected. An orange arrow points from the text 'Seleccionar el receptor' to the 'Reporte resumen' option. On the right, the 'Reporte resumen' window is displayed, showing a table with performance metrics. A blue arrow points from the text 'Ambiente de reportes' to the table in the 'Reporte resumen' window.

Seleccionar el receptor

Ambiente de reportes

Etiqueta	# Muestras	Media	Min	Máx	Desv. Estándar	% Error	Rendimiento	Kb/sec	Send Kb/sec	Media de Bytes
Total	0	0	0	0	0.00	0.00%	0/hour	0.00	0.00	0




Imagen 10. Establecimiento de reportes mediante gráficos

The image shows the Apache JMeter 3.4.1 interface. The 'Receptor' (Receiver) menu is open, and the 'Response Time Graph' option is selected. A callout box labeled 'Seleccionar el receptor' (Select the receiver) points to the 'Receptor' menu. Another callout box labeled 'Ambiente de reporte grafico' (Graphic report environment) points to the 'Response Time Graph' window. The 'Response Time Graph' window displays a line graph titled 'Response Time Graph' showing response time in milliseconds over time. The graph shows a linear increase in response time from approximately 2,000 ms at 19:44:00 to 20,000 ms at 21:44:00. The Y-axis is labeled 'Resp. (ms)' and ranges from 0 to 20,000. The X-axis shows timestamps from 19:44:00 to 21:44:00. The legend indicates 'Petición JDBC'.

Seleccionar el receptor

Ambiente de reporte grafico

PHP Version 8.0.12


System	Windows NT DESKTOP-DBDVFK8 10.0 build 22000 (Windows 10) AMD64
Build Date	Oct 19 2021 11:17:33
Build System	Microsoft Windows Server 2019 Datacenter [10.0.17763]
Compiler	Visual C++ 2019
Architecture	x64
Configure Command	cmdscript /nologo ie:jscrip configure.js "--enable-snapshot-build" "--enable-debug-pack" "--with-pdo-oci=\\.\\.\\instantclient\\sdk\\shared" "--with-oci8-19c=\\.\\.\\instantclient\\sdk\\shared" "--enable-object-out-dir=.\\obj\\" "--enable-com-dotnet=shared" "--without-analyzer" "--with-pgo"
Server API	Apache 2.0 Handler
Virtual Directory Support	enabled
Configuration File (php.ini) Path	no value
Loaded Configuration File	C:\xampp\php\php.ini
Scan this dir for additional .ini files	(none)
Additional .ini files parsed	(none)
PHP API	20200930
PHP Extension	20200930
Zend Extension	42020930
Zend Extension Build	API42020930,TS,VS16
PHP Extension Build	API20200930,TS,VS16
Debug Build	no
Thread Safety	enabled
Thread API	Windows Threads
Zend Signal Handling	disabled
Zend Memory Manager	enabled
Zend Multibyte Support	provided by mbstring
IPv6 Support	enabled
DTrace Support	disabled
Registered PHP Streams	php, file, glob, data, http, ftp, zip, compress, zlib, compress, bzip2, https, ftps, phar
Registered Stream Socket Transports	tcp, udp, ssl, tls, tlsv1.0, tlsv1.1, tlsv1.2, tlsv1.3
Registered Stream Filters	convert.iconv.*, string.rot13, string.toupper, string.tolower, convert.*, consumed, dechunk, zlib.*, bzip2.*

}

Validamos la versión del php (Xampp)

This program makes use of the Zend Scripting Language Engine:

Zend Engine v4.0.12, Copyright (c) Zend Technologies

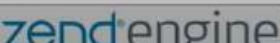




Imagen 12. Descarga del composer

To programmatically install specific versions you can use the `--1` or `--2` flag. Example:

```
php composer-setup.php --preview
```

### Manual Download

If you prefer to download the phar manually, here are the available versions:

[Latest Stable \(sha256 / sha256sum / asc\)](#)  
[Latest Preview \(alpha/beta/RC\) \(sha256 / sha256sum / asc\)](#)  
[Latest Snapshot \(sha256 / sha256sum\)](#)  
[Latest 1.x \(sha256 / sha256sum\)](#)  
[Latest 2.x \(sha256 / sha256sum / asc\)](#)

Composer (composer.phar) versions history					
2.2.0-RC1	2021-12-08	sha256sum	c86b1e37ecb73aa19306a6db8693ed002a202d16604f9f2093d6321ceb23afca	asc	changelog
2.1.14	2021-11-30	sha256sum	d44e904520f9aa766e8b4b05d2d9a766ed9a6f03fa1e48518224aad703061a4	asc	changelog
2.1.12	2021-11-09	sha256sum	ae3ec292dd04b4e468aea1e5db40885f169d8a803aaeb99707f69e9454bf218	asc	changelog
2.1.11	2021-11-02	sha256sum	fdb587131f8a11fcd475c9949ca340cc58a4b50cce6833caa8118b759a4ad1a3	asc	changelog
2.1.10	2021-10-29	sha256sum	cb8b04cc6a6fb167403f7495e8539650eb555657aa48873f115383bcd8f0b18d	asc	changelog
2.1.9	2021-10-05	sha256sum	4d00b70e146c17d663ad2f9a21ebb4c9d52b021b1ac15f648bd4d371c040648ba	asc	changelog
2.1.8	2021-09-15	sha256sum	77b8aca1b41174a6727be066558f8a96f489916f4cdd2bead3cab6a3f33590	asc	changelog
2.1.7	2021-09-14	sha256sum	2936567a1babafa50d15eac9f9fe775e025ed2e1f051c61acd3fa4f6ef7720e94	asc	changelog
2.1.6	2021-08-19	sha256sum	72524cccebcb071968eb83284507225f0ba59f223719b2b3f333d76c8a9ac6072	asc	changelog
2.1.5	2021-07-23	sha256sum	be95557cc36eeb020b0f4340a469bad56b57f742d2891892dcb2f8b0179790ec	asc	changelog
2.1.4	2021-07-22	sha256sum	3c8f521888ccb51becae522e263dbfd17169bf3d4716685858b2c7e7684f4ae	asc	changelog

Composer Setup

**Installation Options**

Choose your installation type.

Setup will install Composer to a fixed location for all users. This includes a Control Panel uninstaller and is the recommended option. Click Next to use it.

☐ Developer mode

Take control and just install Composer. An uninstaller will not be included.

Next Cancel

Composer Setup

**Settings Check**

We need to check your PHP and other settings.

Choose the command-line PHP you want to use:

C:\xampp\php\php.exe Browse...

☐ Add this PHP to your path?

Confirm to continue. The access control of this location is your responsibility and is particularly important if other people use this computer.

Back Next Cancel

Descargamos el aplicativo composer e instalamos.



Imagen 13. Instalación de composer

```
Simbolo del sistema
Microsoft Windows [Versión 10.0.22000.318]
(c) Microsoft Corporation. Todos los derechos reservados.

C:\Users\Juan Carlos Suarez>composer
```

```
Simbolo del sistema
info          Shows information about packages.
init          Creates a basic composer.json file in current directory.
install       Installs the project dependencies from the composer.lock file if present, or falls back on the co
composer.json.
licenses      Shows information about licenses of dependencies.
list          Lists commands
outdated      Shows a list of installed packages that have updates available, including their latest version.
prohibits     Shows which packages prevent the given package from being installed.
reinstall     Uninstalls and reinstalls the given package names
remove        Removes a package from the require or require-dev.
require       Adds required packages to your composer.json and installs them.
run           Runs the scripts defined in composer.json.
run-script    Runs the scripts defined in composer.json.
search        Searches for packages.
self-update   Updates composer.phar to the latest version.
selfupdate    Updates composer.phar to the latest version.
show          Shows information about packages.
status        Shows a list of locally modified packages.
suggests      Shows package suggestions.
u             Upgrades your dependencies to the latest version according to composer.json, and updates the comp
osser.lock file.
update        Upgrades your dependencies to the latest version according to composer.json, and updates the comp
osser.lock file.
upgrade       Upgrades your dependencies to the latest version according to composer.json, and updates the comp
osser.lock file.
validate      Validates a composer.json and composer.lock.
why           Shows which packages cause the given package to be installed.
why-not       Shows which packages prevent the given package from being installed.

C:\Users\Juan Carlos Suarez>
```

Instalamos el composer mediante la consola del sistema





## Ejecución y creación del ambiente de pruebas

Imagen 14. Configuración del ambiente de pruebas

Realizamos los ajustes y la creación del ambiente de pruebas

File Explorer View:

Nombre	Fecha de modificación	Tipo	Tamaño
app	30/11/2021 11:19 a. m.	Carpetas de archivos	
tests	2/12/2021 11:26 a. m.	Carpetas de archivos	
vendor	2/12/2021 7:38 p. m.	Carpetas de archivos	
.phpunit.result.cache	2/12/2021 8:06 p. m.	Archivo CACHE	1 KB
composer.json	2/12/2021 11:35 a. m.	Archivo de origen ...	1 KB
composer.lock	2/12/2021 7:38 p. m.	Archivo LOCK	95 KB
phpunit.xml	2/12/2021 11:36 a. m.	Documento XML	1 KB

composer.json:

```
1 {
2     "require": {
3         "phpunit/phpunit": "^9.5",
4         "guzzlehttp/guzzle": "^7.4"
5     },
6     "autoload": {
7         "psr-4": {
8             "App\\": "app"
9         }
10    }
11 }
```

phpunit.xml:

```
1 <?xml version="1.0" encoding="utf-8" ?>
2 <phpunit bootstrap="vendor/autoload.php"
3     colors="true"
4     verbose="true"
5     stopOnFailure="false">
6     <testsuites>
7         <testsuite name="Test suite">
8             <directory>pruebasphp</directory>
9         </testsuite>
10    </testsuites>
11 </phpunit>
```





Imagen 15. Instalación del phpUnit

The image shows the Packagist website interface. The top section displays the package **phpunit/phpunit** with the description "The PHP Unit Testing framework." Below this, the "Maintainers" section lists **sebastianbergmann** with a link to [phpunit.de/sponsors.html](https://phpunit.de/sponsors.html). The "Details" section provides links to the GitHub repository, homepage, source, and issues. The "Fund package maintenance!" section lists statistics: Installs (318 972 825), Dependents (109 185), Suggesters (190), Security (1), Stars (18 043), Watchers (343), Forks (2 048), and Open Issues (161).

Below the main package information, a search bar is visible with the text "Search packages...". The search results show the package **guzzlehttp/guzzle** with the description "Guzzle is a PHP HTTP client library".

Arrows from the text box point to the `composer require phpunit/phpunit` command in the Packagist package details and the `composer require guzzlehttp/guzzle` command in the search results. Another arrow points to the PowerShell terminal window, which shows the command being executed:

```
Windows PowerShell
Copyright (c) Microsoft Corporation. Todos los derechos reservados.

Instale la versión más reciente de PowerShell para obtener nuevas características y mejoras. https://aka.ms/PSWindows

PS C:\Users\Juan Carlos Suarez> cd C:\xampp\htdocs\pruebasphp
PS C:\xampp\htdocs\pruebasphp> composer require phpunit/phpunit
Using version ^9.0 for phpunit/phpunit
./composer.json has been created
```

Realizamos la instalación del phpUnit y guzzle a través de la consola powershell



Imagen 15. Ejecución de las pruebas

```
File Edit Selection Find View Goto Tools Project Preferences Help
OPEN FILES
  composer.json
  prueba.php
FOLDERS
  pruebasphp
    app
    pruebas
    vendor
  /4 composer.lock
  composer.lock
  phpunit.xml
  pruebas

1 <?php
2
3 class PruebaTest extends \PHPUnit\Framework\TestCase
4 {
5     /** @test */
6     public function
7     test_probar_que_dos_mas_dos_es_cuatro() {
8         $res = 12 + 2;
9         $this->assertEquals(14, $res);
10    }
11
12 ?>
```

```
Windows PowerShell
Copyright (C) Microsoft Corporation. Todos los derechos reservados.

Instale la versión más reciente de PowerShell para obtener nuevas características y mejoras. https://aka.ms/PSWindows

PS C:\Users\Juan Carlos Suarez> cd C:\xampp\htdocs\pruebasphp
PS C:\xampp\htdocs\pruebasphp> composer update
Loading composer repositories with package information
Updating dependencies
Lock file operations: 0 installs, 4 updates, 0 removals
- Upgrading guzzlehttp/guzzle (7.4.0 => 7.4.1)
- Upgrading phpspec/prophecy (1.14.0 => v1.15.0)
- Upgrading phpunit/php-code-coverage (9.2.9 => 9.2.10)
- Upgrading symfony/deprecation-contracts (v2.5.0 => v3.0.0)
Writing lock file
Installing dependencies from lock file (including require-dev)
Package operations: 0 installs, 4 updates, 0 removals
- Downloading symfony/deprecation-contracts (v3.0.0)
- Downloading guzzlehttp/guzzle (7.4.1)
- Downloading phpunit/php-code-coverage (9.2.10)
- Downloading phpspec/prophecy (v1.15.0)
- Upgrading symfony/deprecation-contracts (v2.5.0 => v3.0.0): Extracting archive
- Upgrading guzzlehttp/guzzle (7.4.0 => 7.4.1): Extracting archive
- Upgrading phpunit/php-code-coverage (9.2.9 => 9.2.10): Extracting archive
- Upgrading phpspec/prophecy (1.14.0 => v1.15.0): Extracting archive
Generating autoload files
30 packages you are using are looking for funding.
see the 'composer fund' command to find out more!
PS C:\xampp\htdocs\pruebasphp> composer dump-autoload
Generating autoload files
Generated autoload files
```

- Configuramos la prueba a realizar.
- Posteriormente y en powershell ejecutamos los comandos:
  1. composer update
  2. composer dump-autoload
  3. .\vendor\bin\phpunit



Imagen 16. Resultado de las pruebas

```
PS C:\xampp\htdocs\pruebasphp> .\vendor\bin\phpunit
PHPUnit 9.5.10 by Sebastian Bergmann and contributors.

Runtime:    PHP 8.0.12
Configuration: C:\xampp\htdocs\pruebasphp\phpunit.xml

.
1 / 1 (100%)

Time: 00:00.005, Memory: 6.00 MB
OK (1 test, 1 assertion)
PS C:\xampp\htdocs\pruebasphp>
```

Validamos el resultado de las pruebas

```
PS C:\xampp\htdocs\pruebasphp> .\vendor\bin\phpunit
PHPUnit 9.5.10 by Sebastian Bergmann and contributors.

Runtime:    PHP 8.0.12
Configuration: C:\xampp\htdocs\pruebasphp\phpunit.xml

F
1 / 1 (100%)

Time: 00:00.006, Memory: 6.00 MB

There was 1 failure:

1) PruebaTest::test_probar_que_dos_mas_dos_es_cuatro
Failed asserting that 4 matches expected 33.

C:\xampp\htdocs\pruebasphp\tests\PruebaTest.php:8

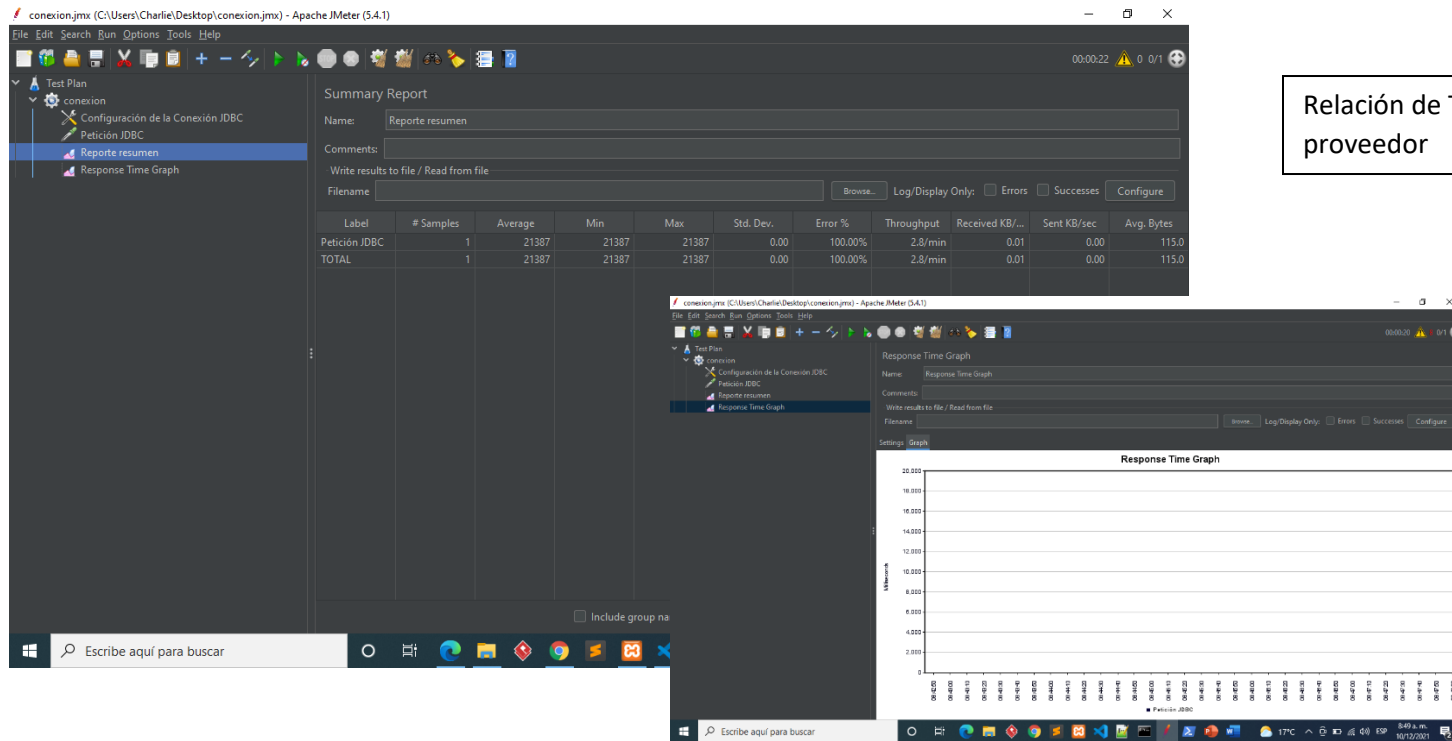
FAILURES!
Tests: 1, Assertions: 1, Failures: 1.
PS C:\xampp\htdocs\pruebasphp>
```



## Rendimiento de Base de datos

### Imagen 17. Prueba para tipo Insumo

SELECT \* FROM `tipoinsumo` WHERE proveedor\_IdProveedor = 2;

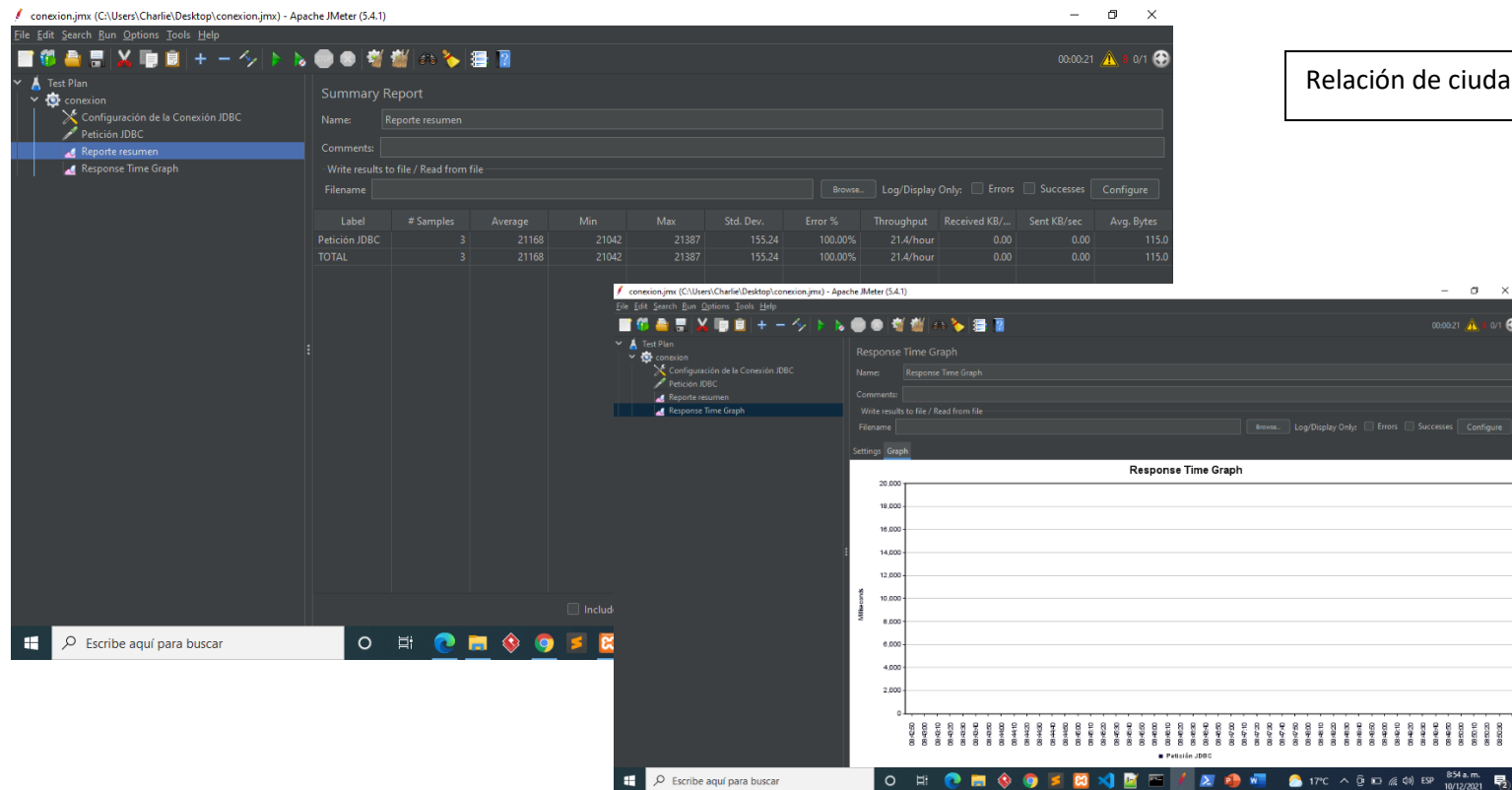


Relación de Tipo Insumo y proveedor



Imagen 18. Pruebas para Proveedor

SELECT \* FROM proveedor WHERE ciudad\_IdCiudad = 522;



Relación de ciudad y proveedor



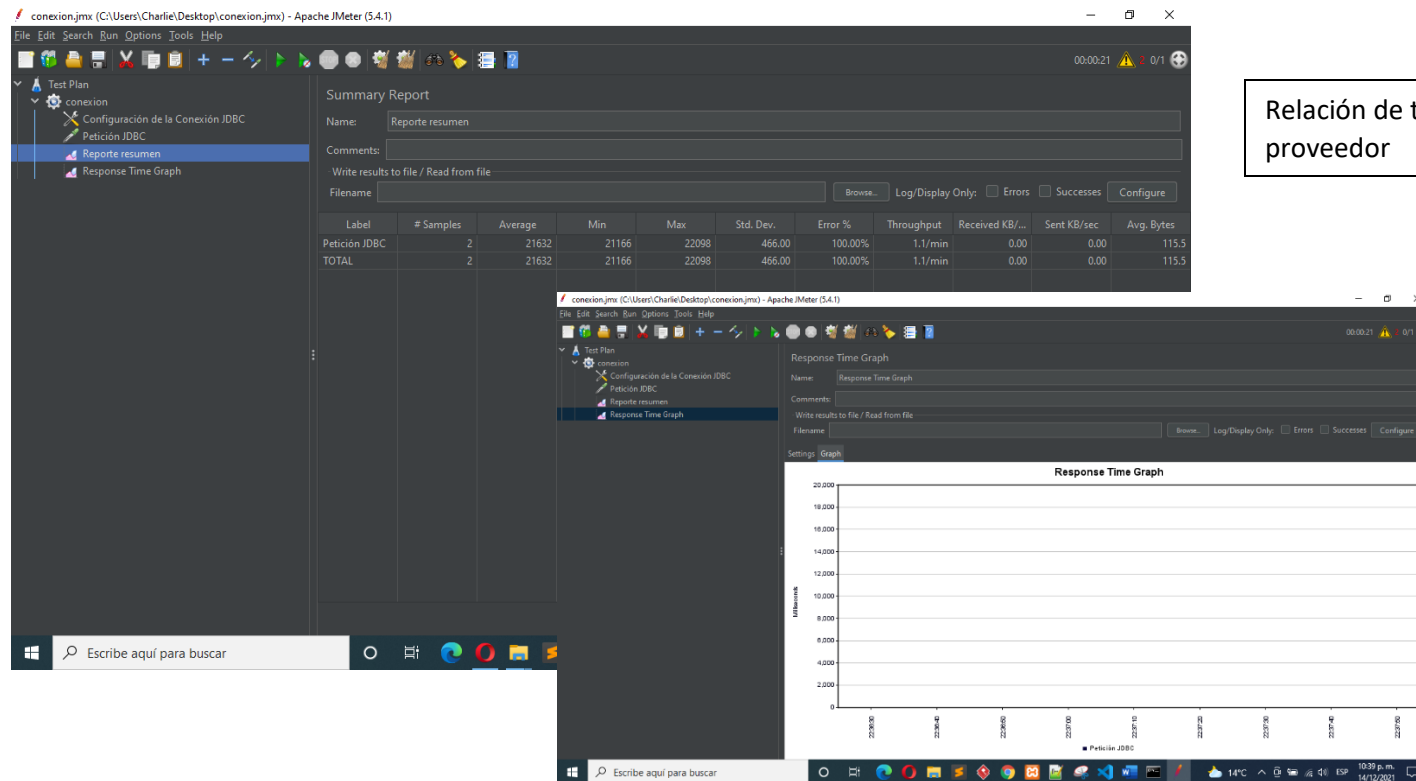
## Imagen 19. Pruebas tipo insumo con unión Proveedor

SELECT \*, nombreInsumo,descripcion,valor

FROM tipoInsumo

INNER JOIN proveedor

on producto.idProducto = proveedor.idProveedor



Relación de tipo Insumo y proveedor



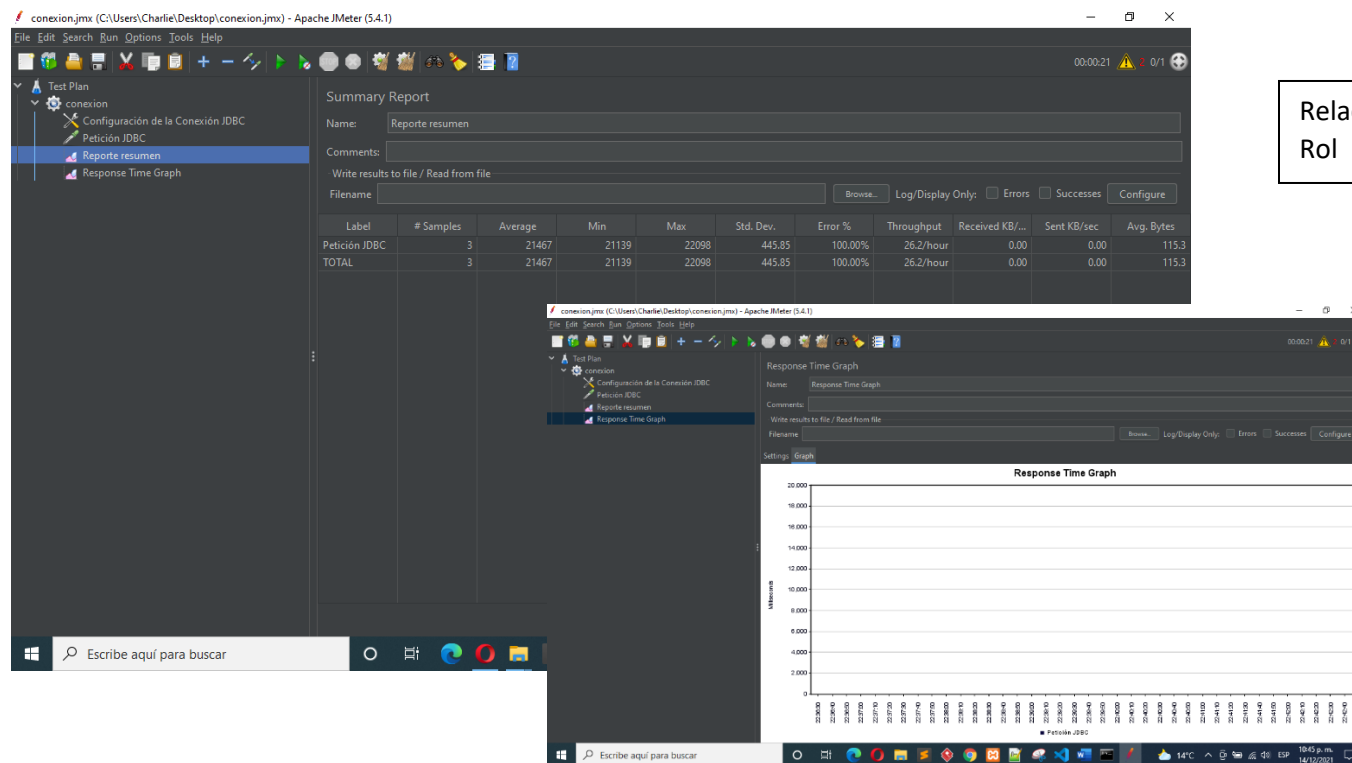
## Imagen 20. Pruebas de registro usuario con unión de rol

SELECT\*, registrouuario.nombre, registrouuario.apellido,registrouuario.correoElectronico, registrouuario.numeroTelefonico, rol.idRol, rol.NombreRol

FROM registrouuario

LEFT JOIN rol

ON registrouuario.Rol\_idRol = rol.idRol



Relación entre Registro Usuario y Rol