Development Environment Setup

Disclaimer: вы смотрите просто запись лекции, это **НЕ** специально подготовленный видеокурс!

There are several approaches…

Basic	Just a text editor
Typical	IDE, debugger
Advanced	IDE, debugger, GIT, ssh, etc…

Basic approach – you just need a text editor

1	Put your files in DocumentRoot folder
2	Edit them in Notepad++, Sublime Text, etc…
3	Open them in any browser

/var/www/**app/test.php**	http://192.168.56.101/**app/test.php**
C:/WebData/**app/test.php**	http://192.168.56.102/**app/test.php**

Typical approach – you just need an IDE and a debugger

1	IDE: PhpStorm	https://www.jetbrains.com/phpstorm/
2	Debugger: Xdebug	https://xdebug.org/

Typical approach: installing PhpStorm

In case you use Linux as your basic OS with GUI.

For Linux:

```
sudo snap install phpstorm --classic
```

For Windows:

https://www.jetbrains.com/phpstorm/download

Just run the installer and follow instructions ☺.

Typical approach: installing Xdebug

Go to this page:

```
https://xdebug.org/wizard
```

Follow instructions ☺.

Don’t forget to restart web servers!

Typical approach: installing Xdebug on Linux, step 1

Install Xdebug:

```
sudo apt-get install php-xdebug
```

Restart web servers and php-fpm:

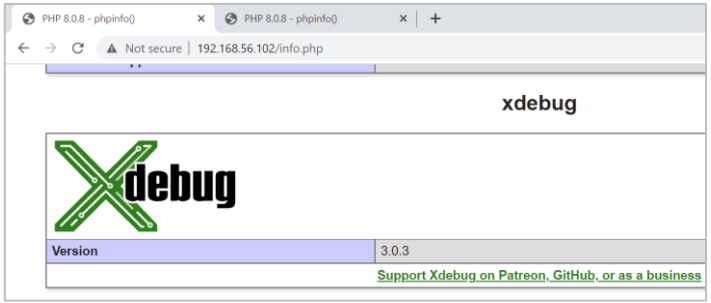
```
sudo systemctl restart apache2
sudo systemctl restart nginx
sudo systemctl restart php8.1-fpm
```

Check the version!

Typical approach: installing Xdebug on Linux, step 2

Open your “phpinfo” file and check:

http://192.168.56.102/info.php
http://192.168.56.102:81/info.php



Typical approach: installing Xdebug on Windows, step 1

Or just use wizard (mentioned earlier) to get explicit link.

Download Xdebug:

```
https://xdebug.org/download
```

Put downloaded file to:

```
C:/WebSoft/PHP/ext
```

Rename the file to:

```
php_xdebug.dll
```

Typical approach: installing Xdebug on Windows, step 2

In php.ini add this line to the end of the file:

```
zend_extension = xdebug
```

Restart Apache httpd service:

```
net stop Apache2.4
net start Apache2.4
```

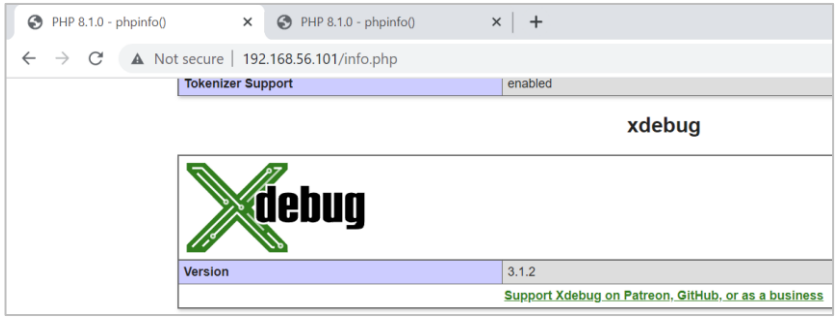
Check the version!

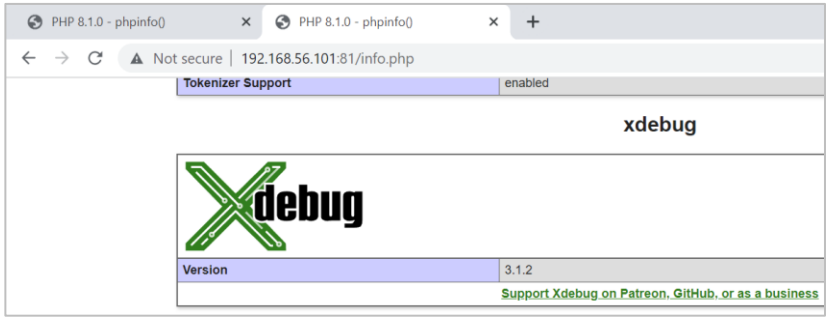
Run your Nginx cmd-file.

Typical approach: installing Xdebug on Windows, step 3

Open your “phpinfo” file and check:

http://192.168.56.101/info.php
http://192.168.56.101:81/info.php





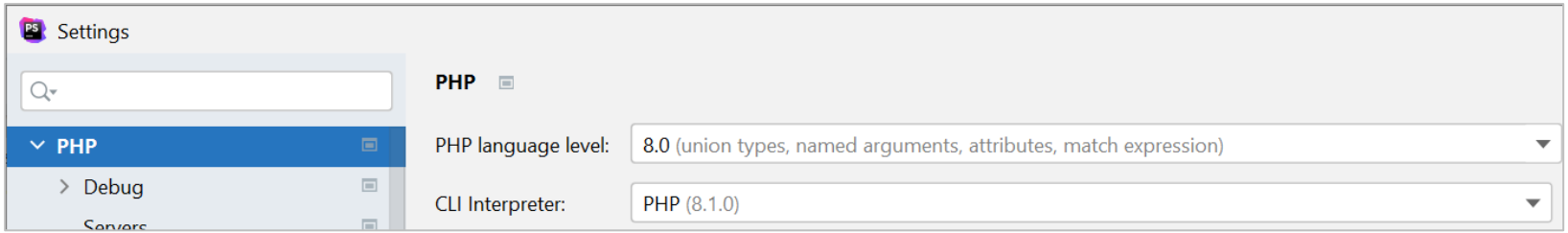
Disclaimer

From now on we assume that:

1. You are using Windows as your basic OS.
2. You are running PhpStorm on that Windows.
3. Your “servers” are VMs with the following IPs:
   - Windows VM: 192.168.56.101
   - Linux VM: 192.168.56.102
4. You have also installed PHP and Xdebug in your basic OS (for convenience).
5. [optional] You may even install the whole WAMP/WEMP locally to speedup the development/testing process.

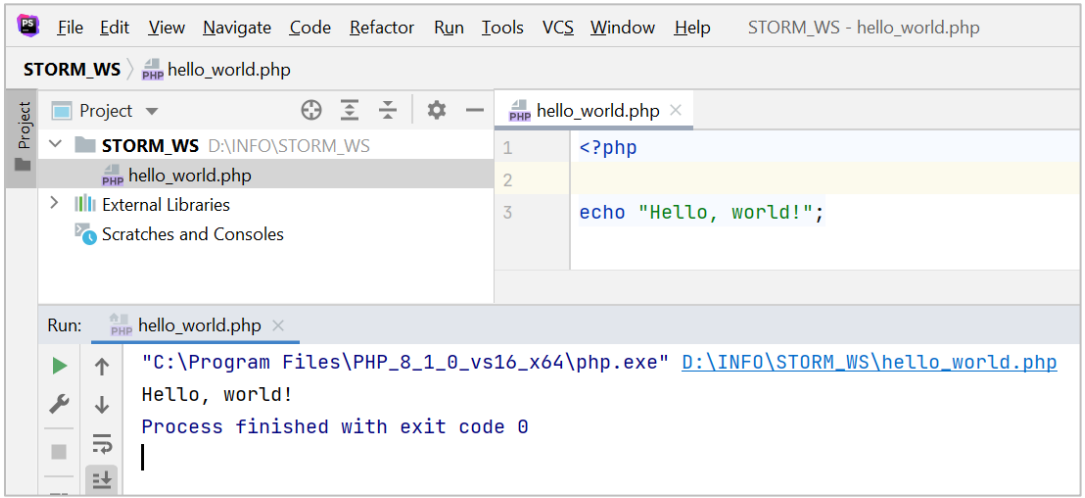
Typical approach: PhpStorm basic configuration

Edit language level and set CLI interpreter:



Typical approach: PhpStorm basic configuration

From now on you may use Alt+Shift+F10 to run files from your current project with CLI:



Typical approach: PhpStorm simple debug demo

Create a file with the following code:

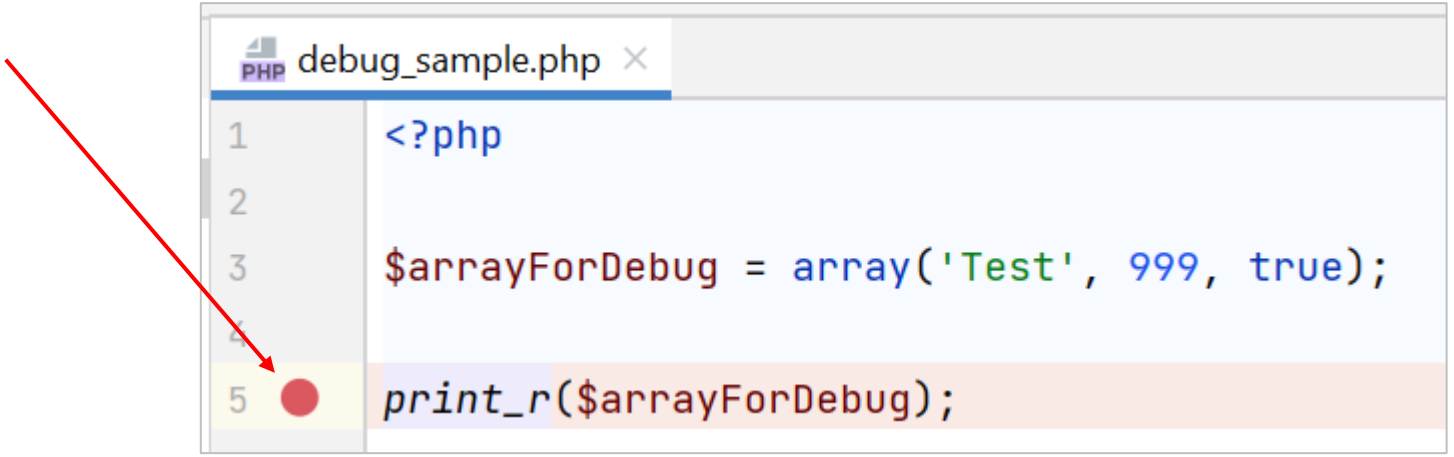
```php
<?php

$arrayForDebug = array('Test', 999, true);

print_r($arrayForDebug);
```

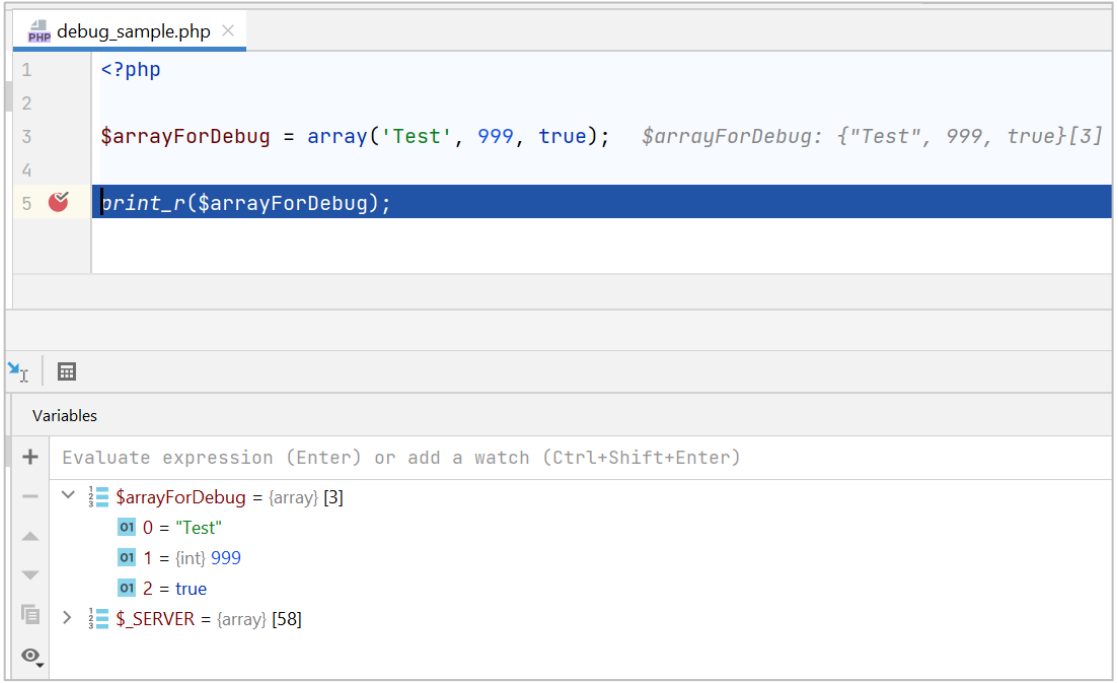
Typical approach: PhpStorm simple debug demo

Click right to the line number (set breakpoint):



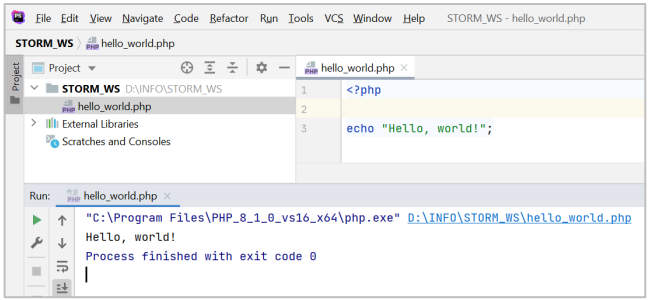
Typical approach: PhpStorm simple debug demo

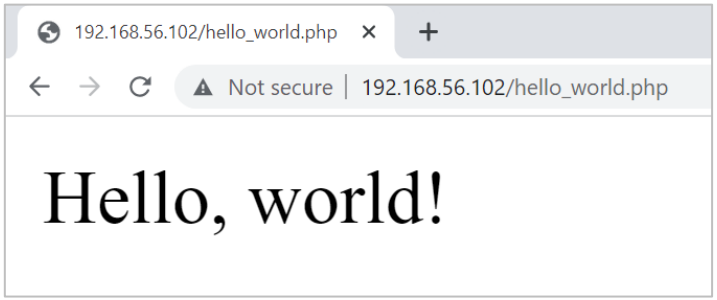
Use Shift+Alt+F9 to run debug session:



Typical approach: almost done…

You may also either copy your application to your “server”, or install local web server and run/debug your applications locally, and then upload them to your “server”.





Typical approach: useful

You may need to make some adjustments on Linux side:

```
sudo usermod -a -G www-data vmuser
sudo chown -R www-data:www-data /var/www
sudo find /var/www -type d -exec chmod g+wx {} \;
```

Typical approach: useful

It is also convenient to use vsftpd:

```
sudo apt install vsftpd
```

These are some hints on vsftpd configuration:

```
anonymous_enable=NO
local_enable=YES
write_enable=YES
local_umask=0022
anon_upload_enable=YES
anon_mkdir_write_enable=YES
chown_uploads=YES
chown_username=vmuser
```

Once you've added "vmuser" to "www-data" group (see previous slide), you'll have write permissions to /var/www.

Typical approach: useful

You may also configure deploy to remote server:

https://www.jetbrains.com/help/phpstorm/tutorial-deployment-in-product.html

You may skip this step for now, but for everyday work it’s useful.

Typical approach: conclusion

1	Create, edit, debug your project locally
2	Upload new version to the remote server
3	Open and test your application in any browser

Advanced approach – only basic ideas here

1	IDE: PhpStorm	https://www.jetbrains.com/phpstorm/
2	Debugger: Xdebug	https://xdebug.org/
3	SSH/FTP/etc…	It depends on your workflow…
4	GIT	It depends on your workflow…

Sorry, this approach is way out of scope of this training, still we'll see a bit of some actions lately.

Development Environment Setup

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