TEK-UP Private Higher School of Technology & Engineering

Labs
(Symfony)

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A.Y. 2025-2026

Lab 1

Preparing the environment + Creating a project

Outline

- I.0. Prerequisite
- I.1. Environment Variable
- I.2. Creating a project
- I.3. Project Configuration
- I.4. Project Execution

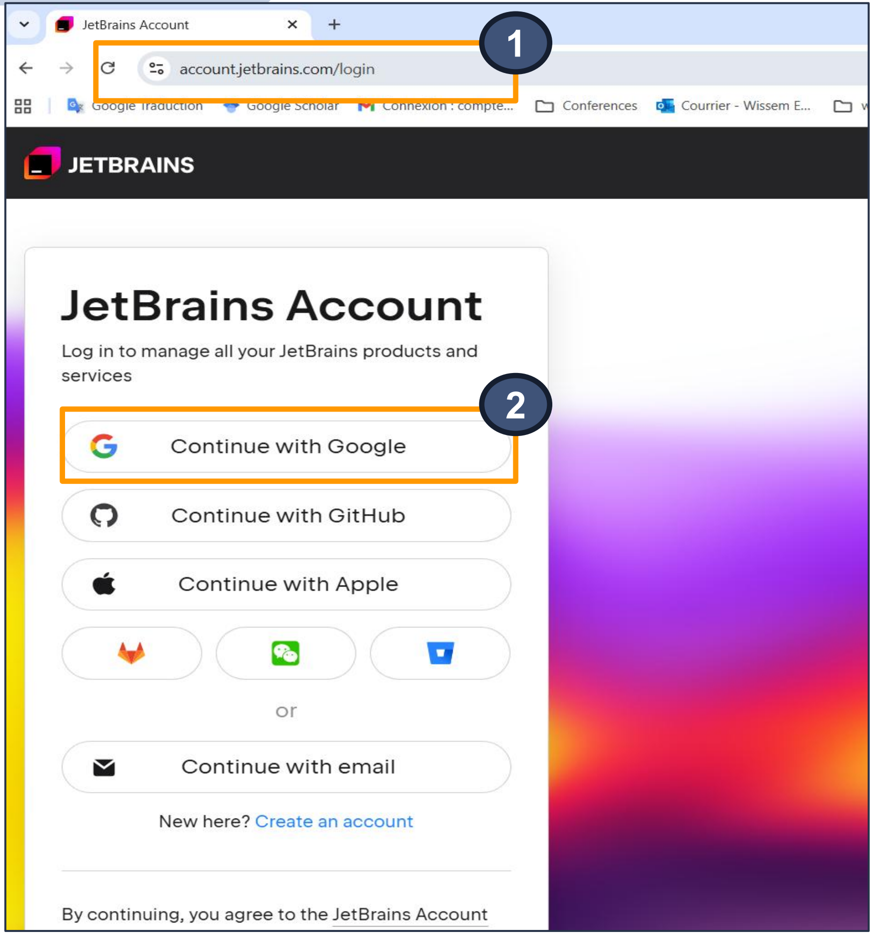
I.0. Prerequisite

- WampServer or Xampp installed
- Add PHP as an environment variable
- IDE: PHPStorm (or other)

- Use a PHP version greater than or equal to PHP 8.1
- Using Symfony version **6.4.x (or 7.4.x)**

I.0. Prerequisite

PHPStorm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Google Traduction
Google Scholar
Connexion : compte...
Conferences
Courrier - Wissem E...
JETBRAINS
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Continue with Google
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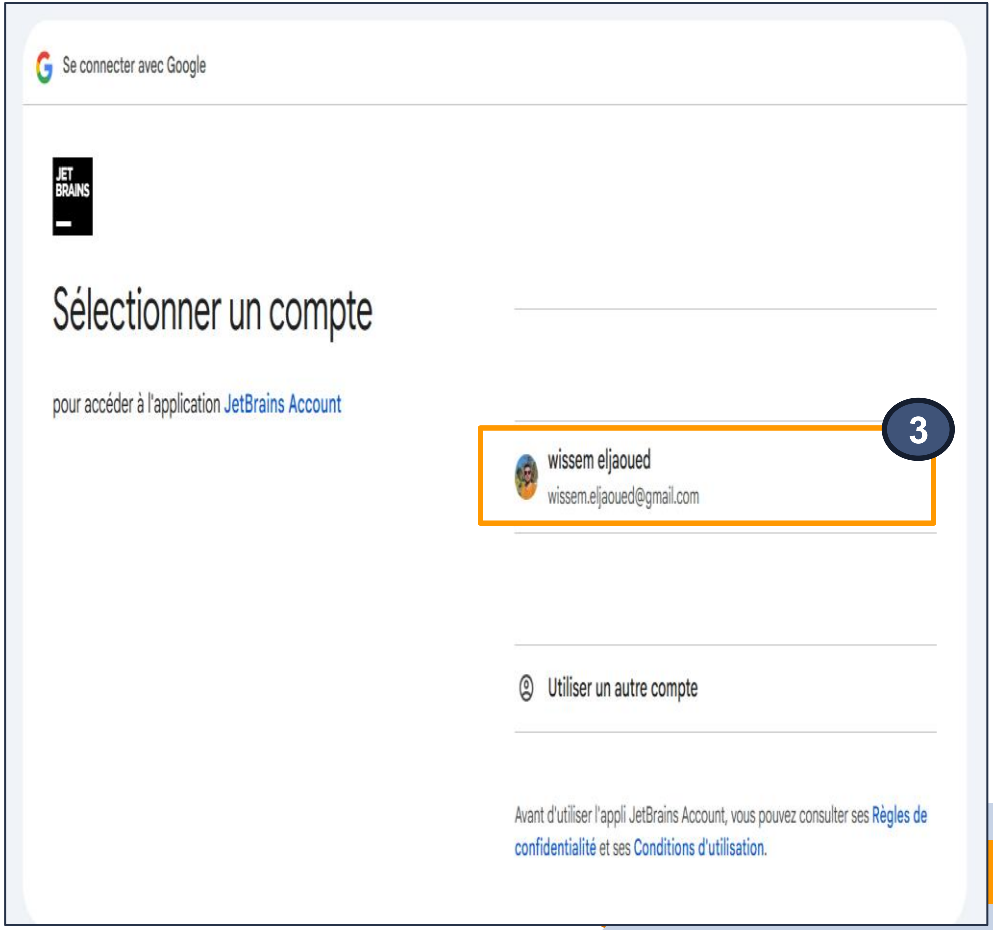
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3
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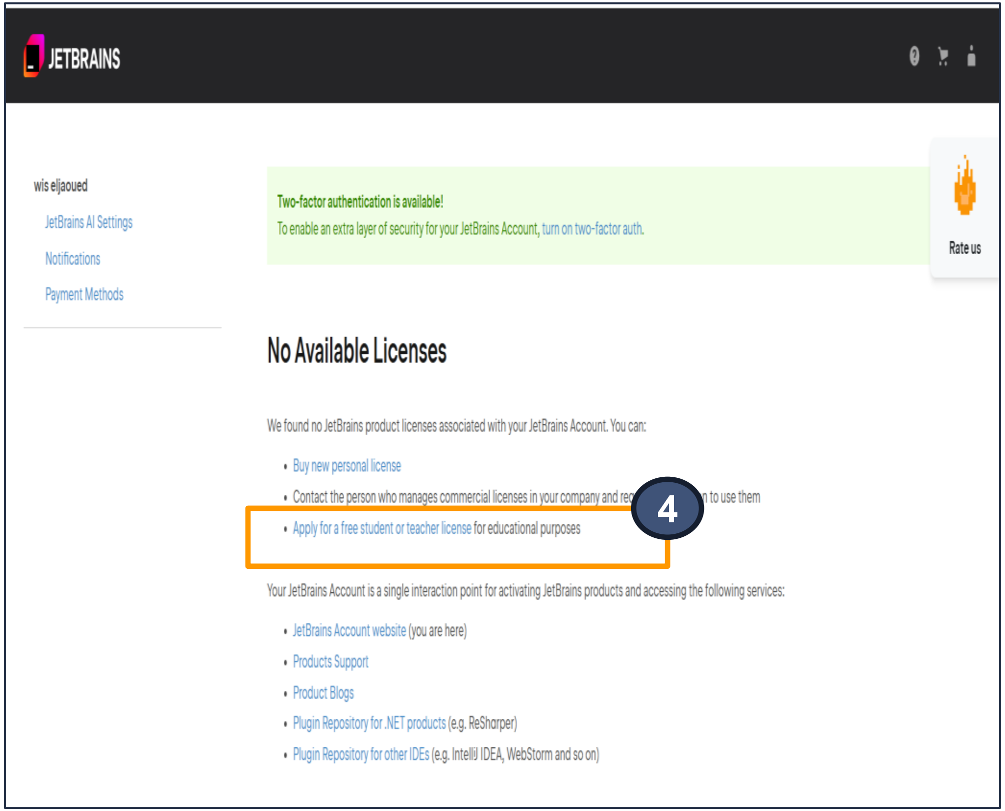
I.0. Prerequisite

PHPStorm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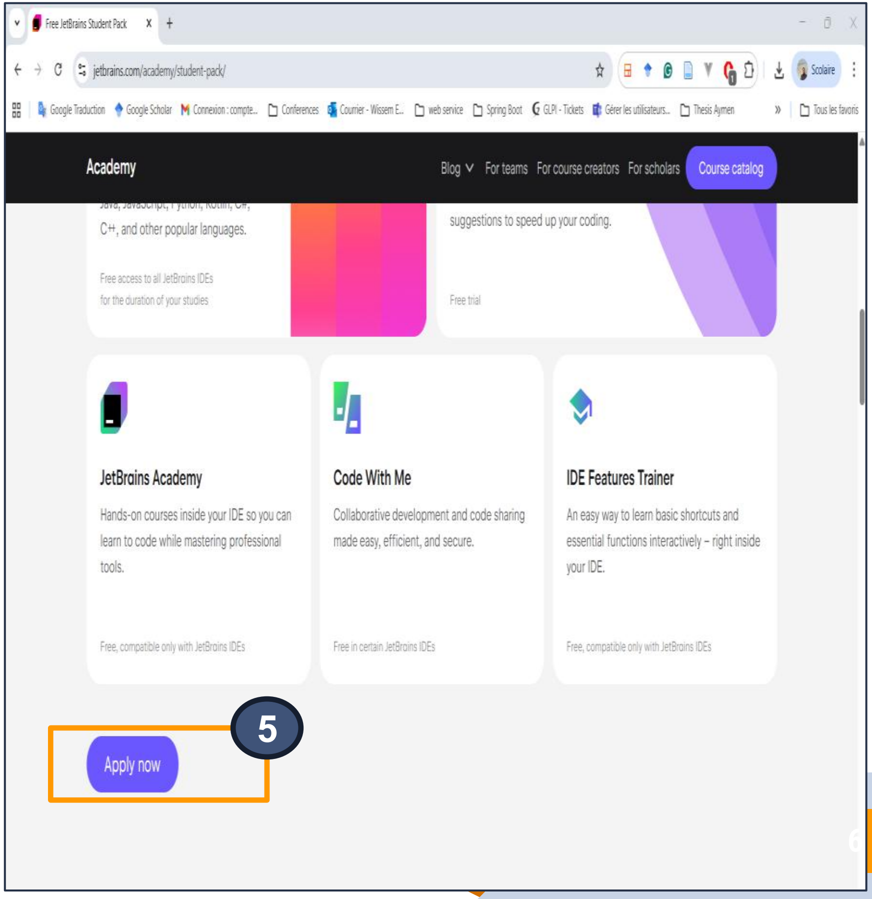
Free JetBrains Student Pack
jetbrains.com/academy/student-pack/
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An easy way to learn basic shortcuts and essential functions interactively – right inside your IDE.
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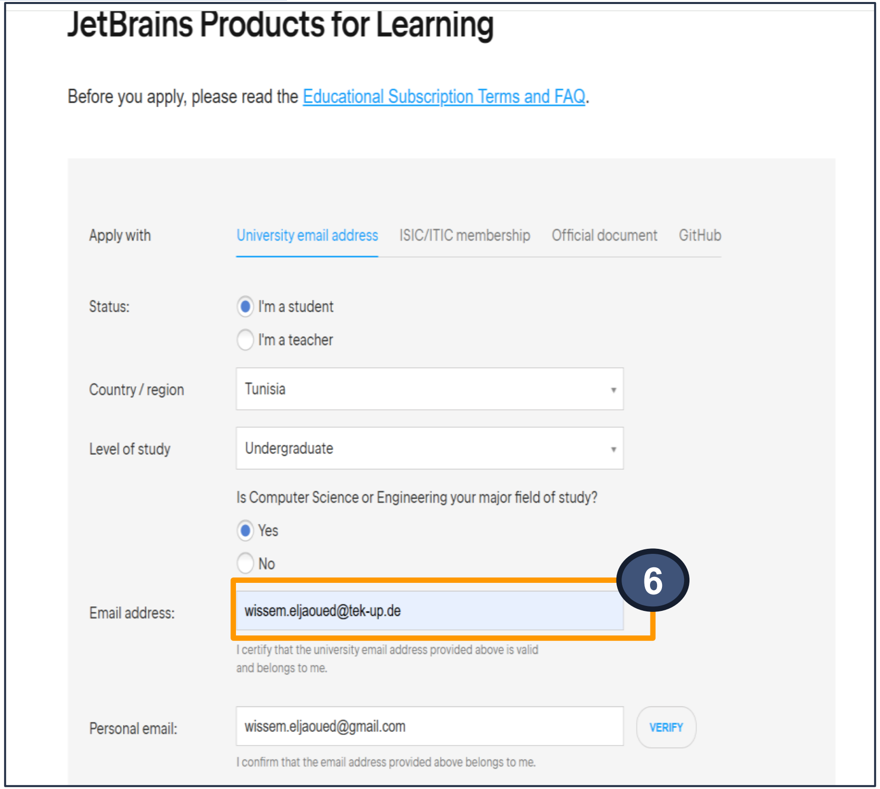
5

I.0. Prerequisite

PHPStorm



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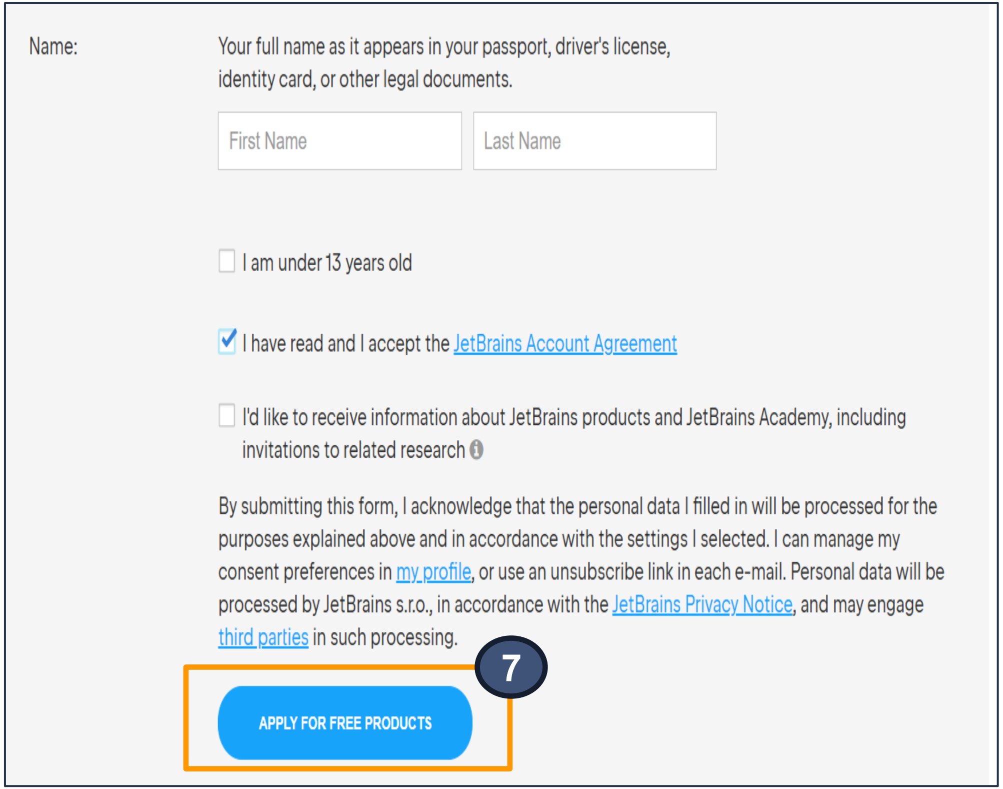
I confirm that the email address provided above belongs to me.



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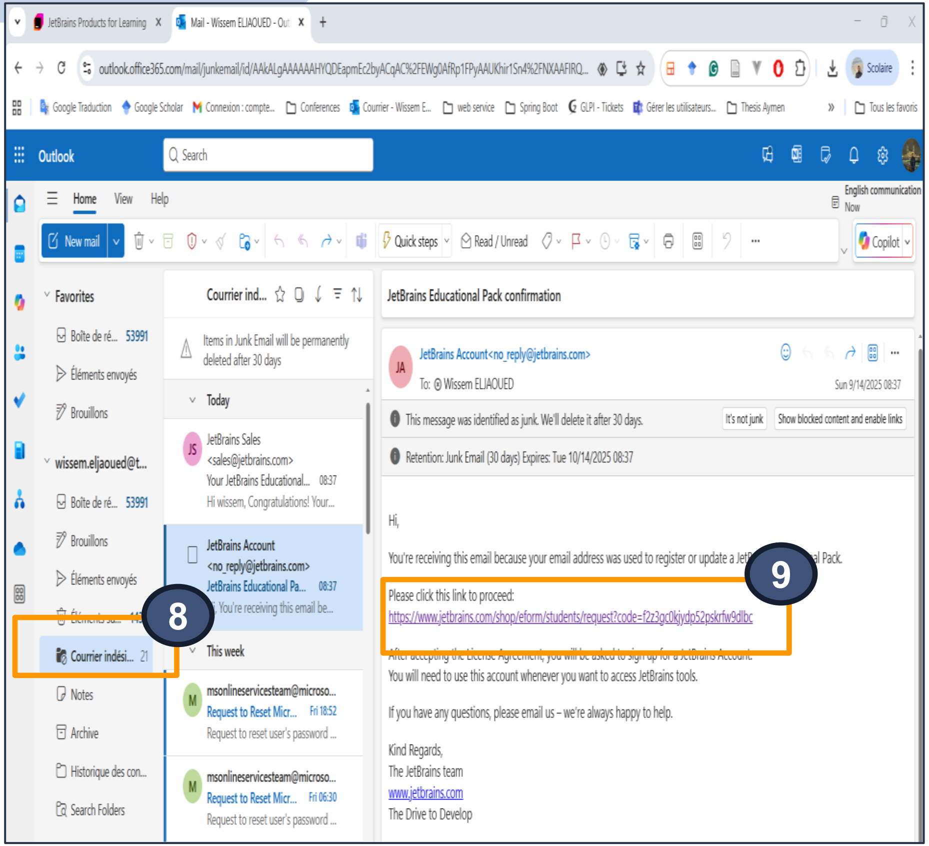
I.0. Prerequisite

PHPStorm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Scolaire
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Courrier - Wissem E...
web service
Spring Boot
GLPI - Tickets
Gérer les utilisateurs...
Thesis Aymen
Tous les favoris
Outlook
Search
Home
View
Help
English communication
Now
New mail
Quick steps
Read / Unread
Copilot
Favorites
Boîte de ré... 53991
Éléments envoyés
Brouillons
wissem.eljaoued@t...
Boîte de ré... 53991
Brouillons
Éléments envoyés
Éléments su...
8
Courrier indési... 21
Notes
Archive
Historique des con...
Search Folders
Courrier ind...
Today
This week
9

Items in Junk Email will be permanently deleted after 30 days

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Your JetBrains Educational... 08:37
Hi wissem, Congratulations! Your...

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JetBrains Educational Pa... 08:37
You're receiving this email be...

msonlineservicesteam@microso...
Request to Reset Micr... Fri 18:52
Request to reset user's password ...

msonlineservicesteam@microso...
Request to Reset Micr... Fri 06:30
Request to reset user's password ...

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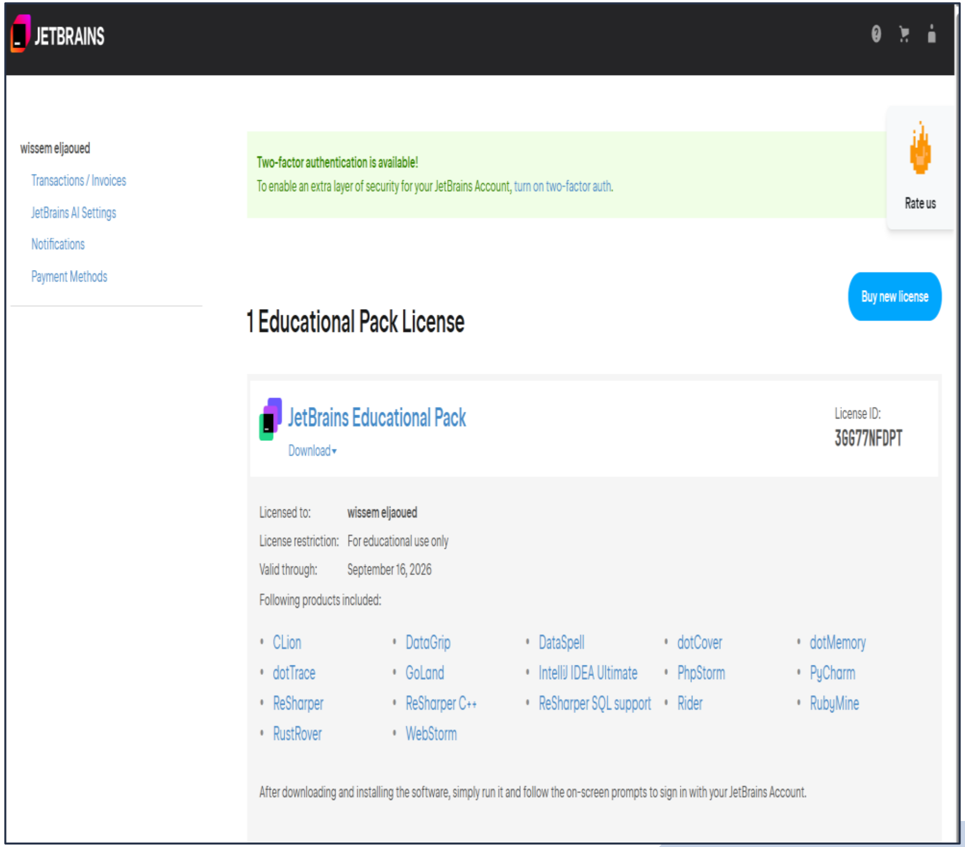
Kind Regards,
The JetBrains team
www.jetbrains.com
The Drive to Develop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- DataGrip
- DataSpell
- dotCover
- dotMemory
- dotTrace
- GoLand
- IntelliJ IDEA Ultimate
- PhpStorm
- PyCharm
- ReSharper
- ReSharper C++
- ReSharper SQL support
- Rider
- RubyMine
- RustRover
- WebStorm

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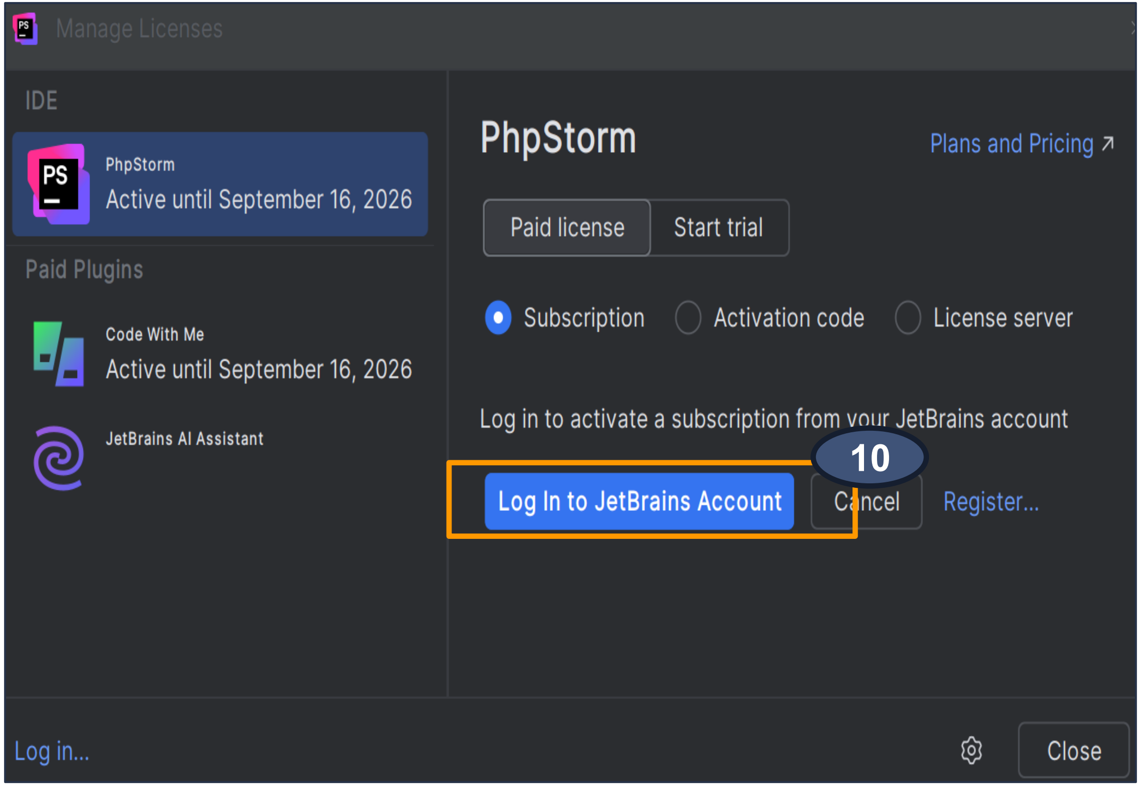
I.0. Prerequisite

PHPStorm

Go to PHPStorm



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IDE

PhpStorm
Active until September 16, 2026

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PhpStorm

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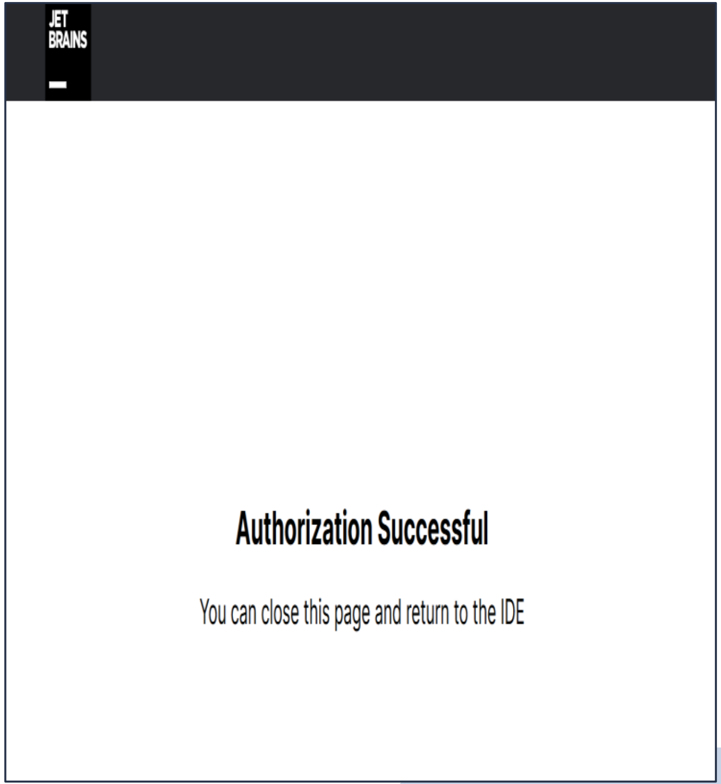
Register...
Log in...
Close



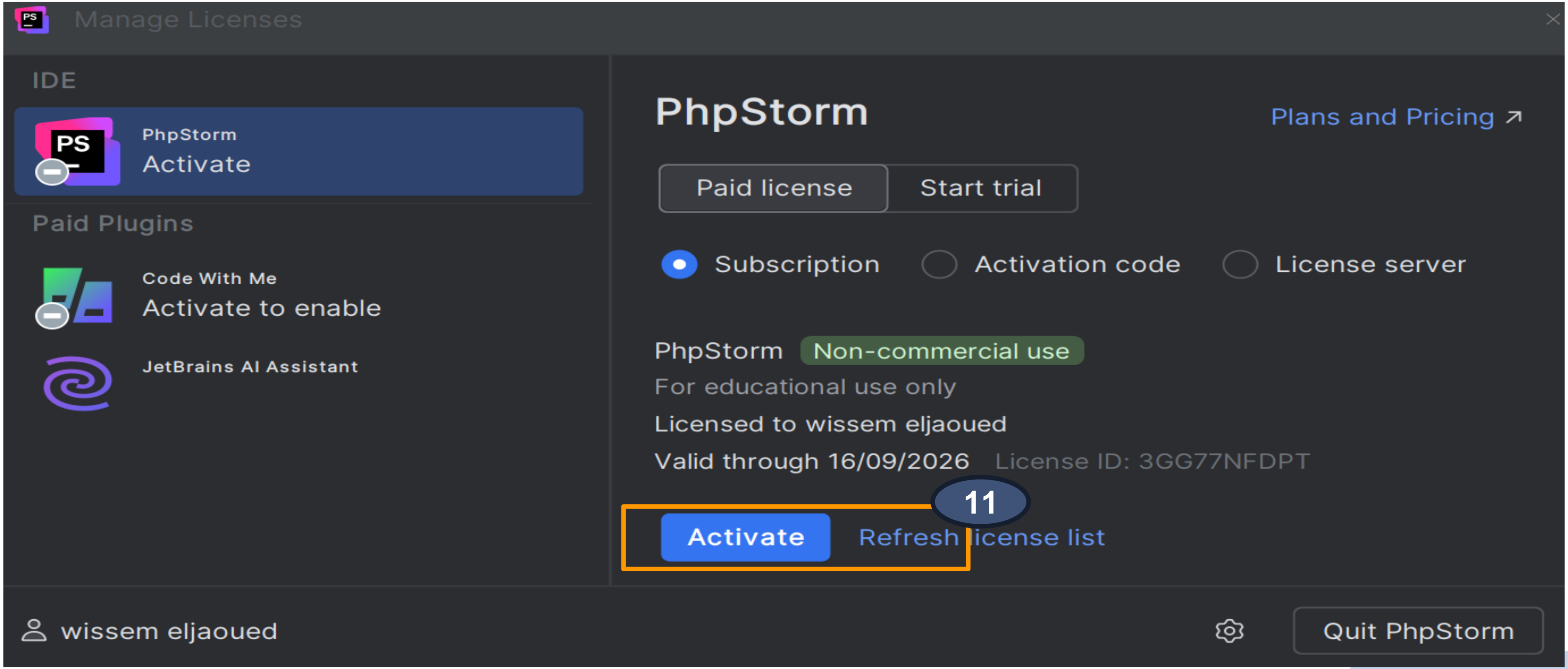
Authorization Successful

You can close this page and return to the IDE

10 Visit the link, then open your jetbrains account again (using your google account)

I.0. Prerequisite

PHPStorm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Activate
Paid Plugins
Code With Me
Activate to enable
JetBrains AI Assistant
Plans and Pricing ↗
Paid license
Start trial
Activate
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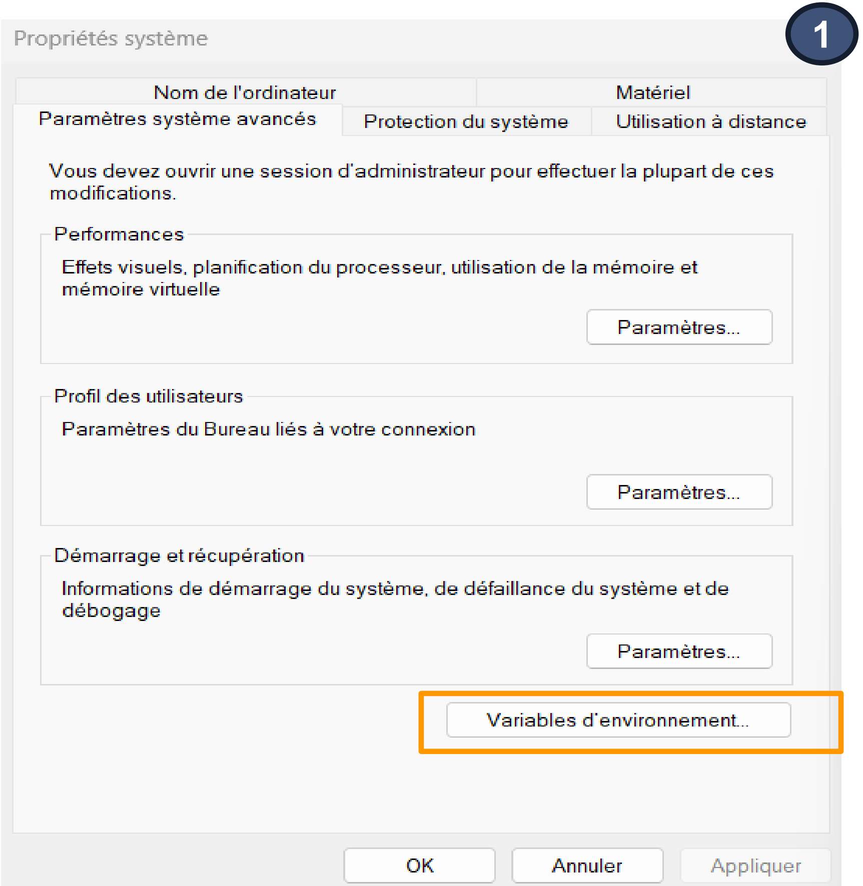
Outline

- I.0. Prerequisite
- I.1. Environment Variable
- I.2. Creating a project
- I.3. Project Configuration
- I.4. Project Execution

I.1. Environment Variable

1


Nom de l'ordinateur
Matériel
Paramètres système avancés
Protection du système
Utilisation à distance
Paramètres...
Paramètres...
Paramètres...
Variables d'environnement...
OK
Annuler
Appliquer

Propriétés système

Vous devez ouvrir une session d'administrateur pour effectuer la plupart de ces modifications.

Performances

Effets visuels, planification du processeur, utilisation de la mémoire et mémoire virtuelle

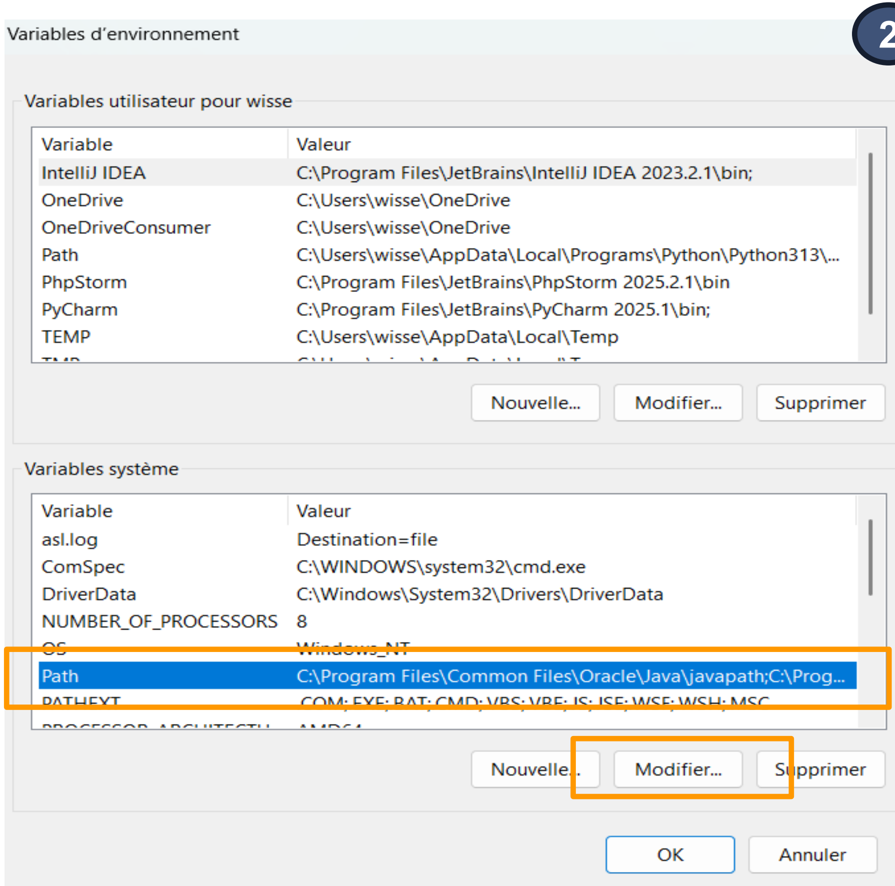
Profil des utilisateurs

Paramètres du Bureau liés à votre connexion

Démarrage et récupération

Informations de démarrage du système, de défaillance du système et de débogage

2


Nouvelle...
Modifier...
Supprimer
Nouvelle...
Modifier...
Supprimer
OK
Annuler

Variables d'environnement

Variables utilisateur pour wisse

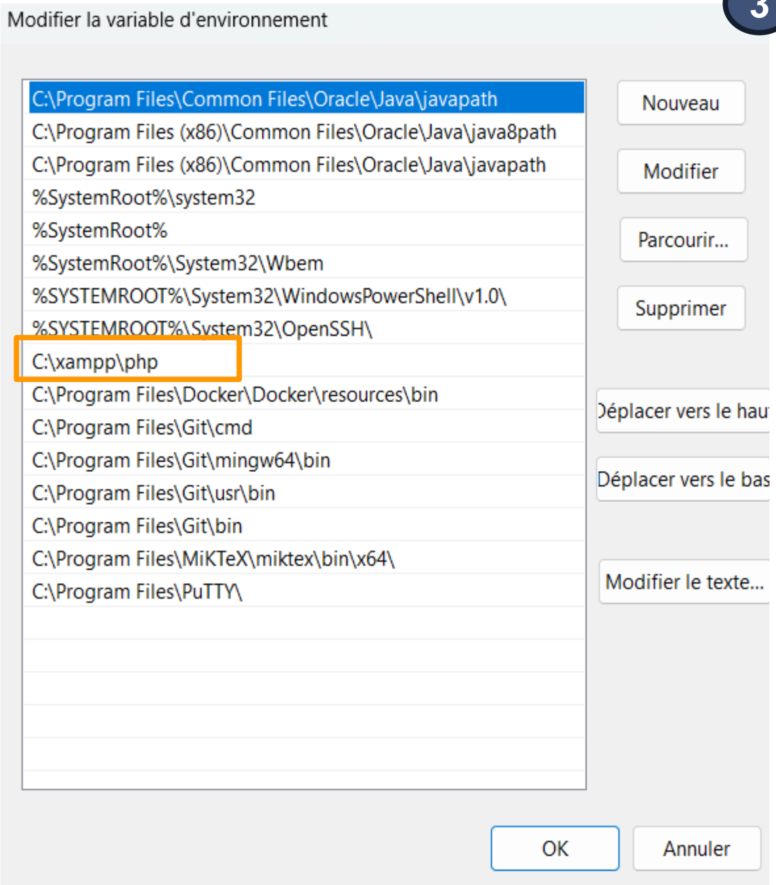
Variable	Valeur
IntelliJ IDEA	C:\Program Files\JetBrains\IntelliJ IDEA 2023.2.1\bin;
OneDrive	C:\Users\wisse\OneDrive
OneDriveConsumer	C:\Users\wisse\OneDrive
Path	C:\Users\wisse\AppData\Local\Programs\Python\Python313\...
PhpStorm	C:\Program Files\JetBrains\PhpStorm 2025.2.1\bin
PyCharm	C:\Program Files\JetBrains\PyCharm 2025.1\bin;
TEMP	C:\Users\wisse\AppData\Local\Temp

Variables système

Variable	Valeur
asl.log	Destination=file
ComSpec	C:\WINDOWS\system32\cmd.exe
DriverData	C:\Windows\System32\Drivers\DriverData
NUMBER_OF_PROCESSORS	8
OS	Windows_NT
Path	C:\Program Files\Common Files\Oracle\Java\javapath;C:\Prog...
PATHEXT	.COM;.EXE;.BAT;.CMD;.VBS;.VBE;.JS;.JSE;.WSF;.WSH;.MSC

I.1. Environment Variable

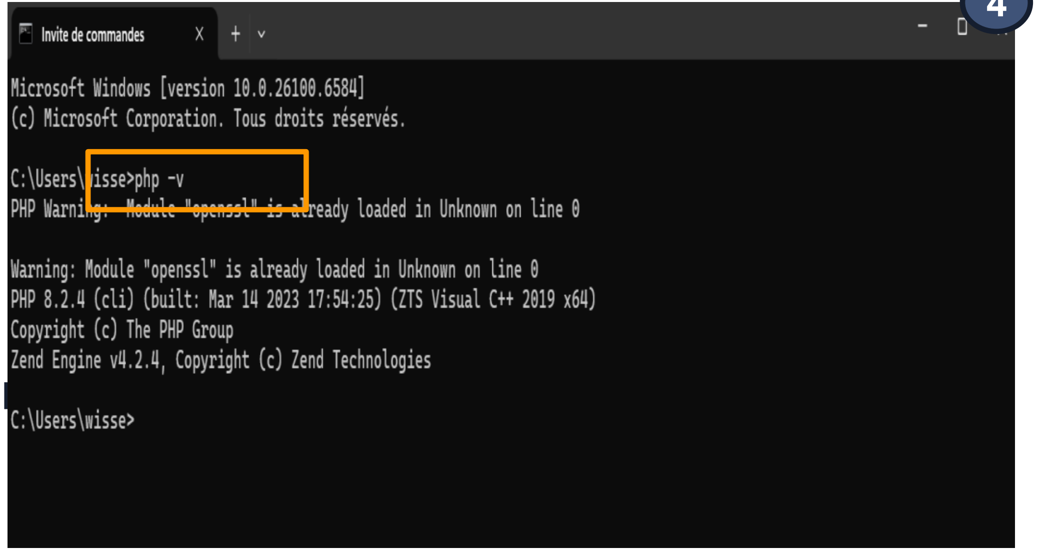
3


Modifier la variable d'environnement

C:\Program Files\Common Files\Oracle\Java\javapath
C:\Program Files (x86)\Common Files\Oracle\Java\java8path
C:\Program Files (x86)\Common Files\Oracle\Java\javapath
%SystemRoot%\system32
%SystemRoot%
%SystemRoot%\System32\Wbem
%SYSTEMROOT%\System32\WindowsPowerShell\v1.0\
%SYSTEMROOT%\System32\OpenSSH\
C:\xampp\php
C:\Program Files\Docker\Docker\resources\bin
C:\Program Files\Git\cmd
C:\Program Files\Git\mingw64\bin
C:\Program Files\Git\usr\bin
C:\Program Files\Git\bin
C:\Program Files\MiKTeX\miktex\bin\x64\
C:\Program Files\PuTTY\

Nouveau
Modifier
Parcourir...
Supprimer
Déplacer vers le hau
Déplacer vers le bas
Modifier le texte...
OK
Annuler

4


Invite de commandes

```
Microsoft Windows [version 10.0.26100.6584]
(c) Microsoft Corporation. Tous droits réservés.

C:\Users\wisse>php -v
PHP Warning:  Module "openssl" is already loaded in Unknown on line 0

Warning: Module "openssl" is already loaded in Unknown on line 0
PHP 8.2.4 (cli) (built: Mar 14 2023 17:54:25) (ZTS Visual C++ 2019 x64)
Copyright (c) The PHP Group
Zend Engine v4.2.4, Copyright (c) Zend Technologies

C:\Users\wisse>
```

Outline

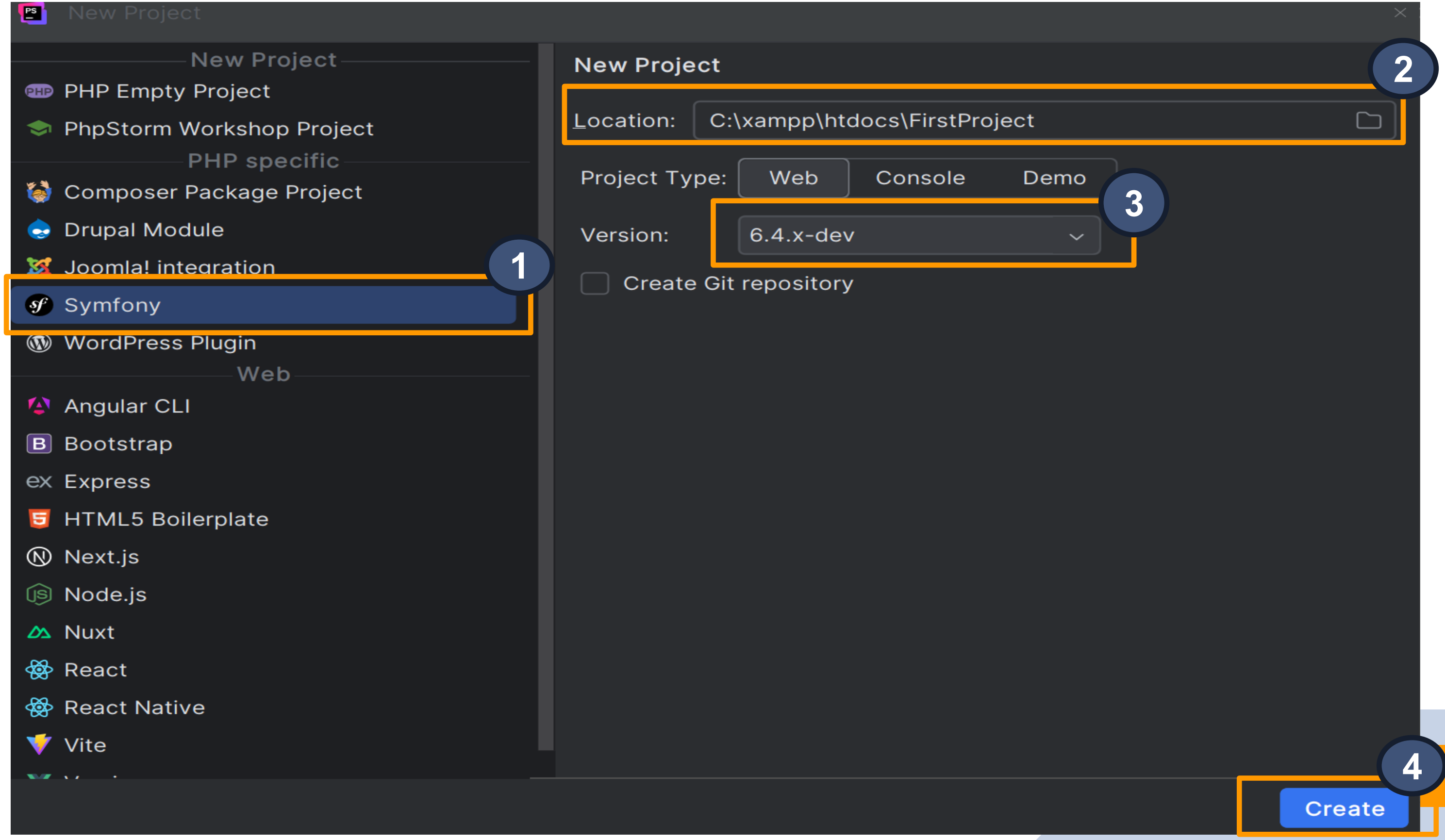
- I.0. Prerequisite
- I.1. Environment Variable
- I.2. Creating a project
- I.3. Project Configuration
- I.4. Project Execution

Method 1: Using PHPStorm (Symfony)

I.2. Creating a project

Method 1: Using PHPStorm

- 1- Open PHPStorm
- 2- New Project



New Project
New Project
PHP Empty Project
PhpStorm Workshop Project
PHP specific
Composer Package Project
Drupal Module
Joomla! integration
Symfony
WordPress Plugin
Web
Angular CLI
Bootstrap
Express
HTML5 Boilerplate
Next.js
Node.js
Nuxt
React
React Native
Vite
New Project
1
2
3
4
Create

Location: C:\xampp\htdocs\FirstProject

Project Type: Web | Console | Demo

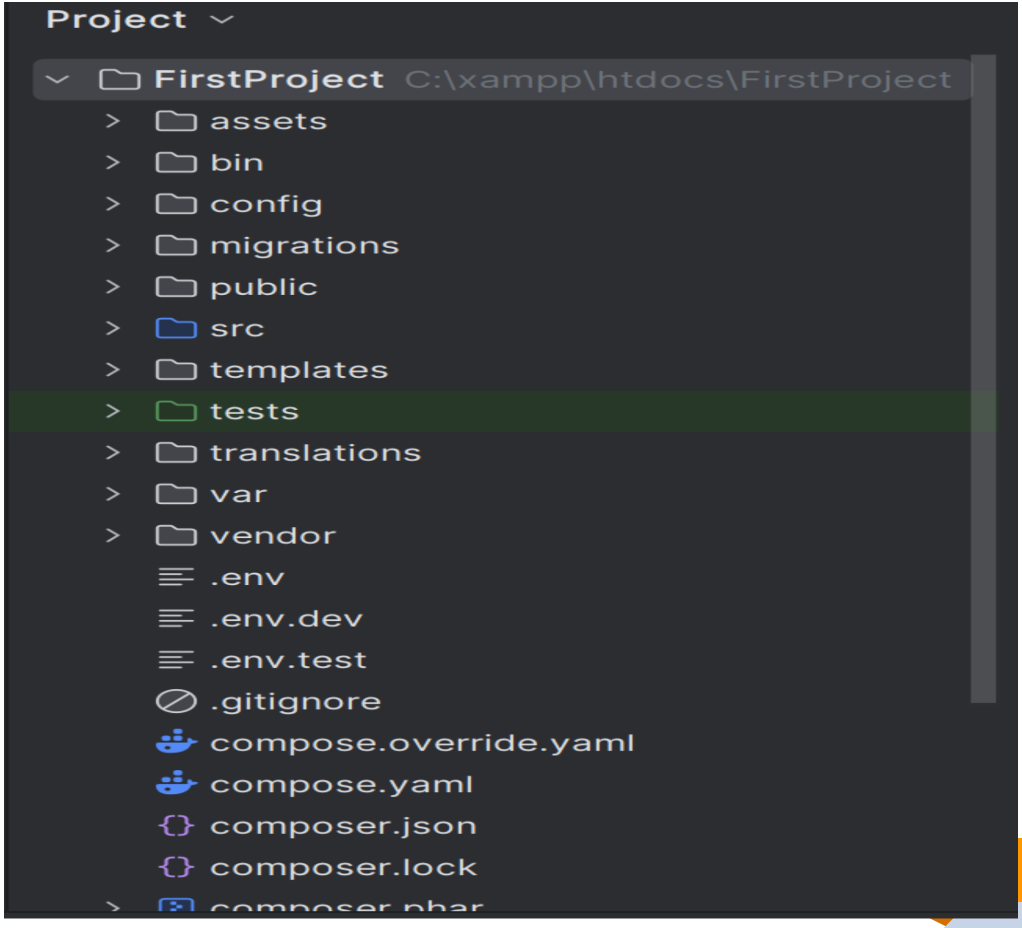
Version: 6.4.x-dev

☐ Create Git repository

I.2. Creating a project

Method 1: Using PHPStorm

- Project Structure



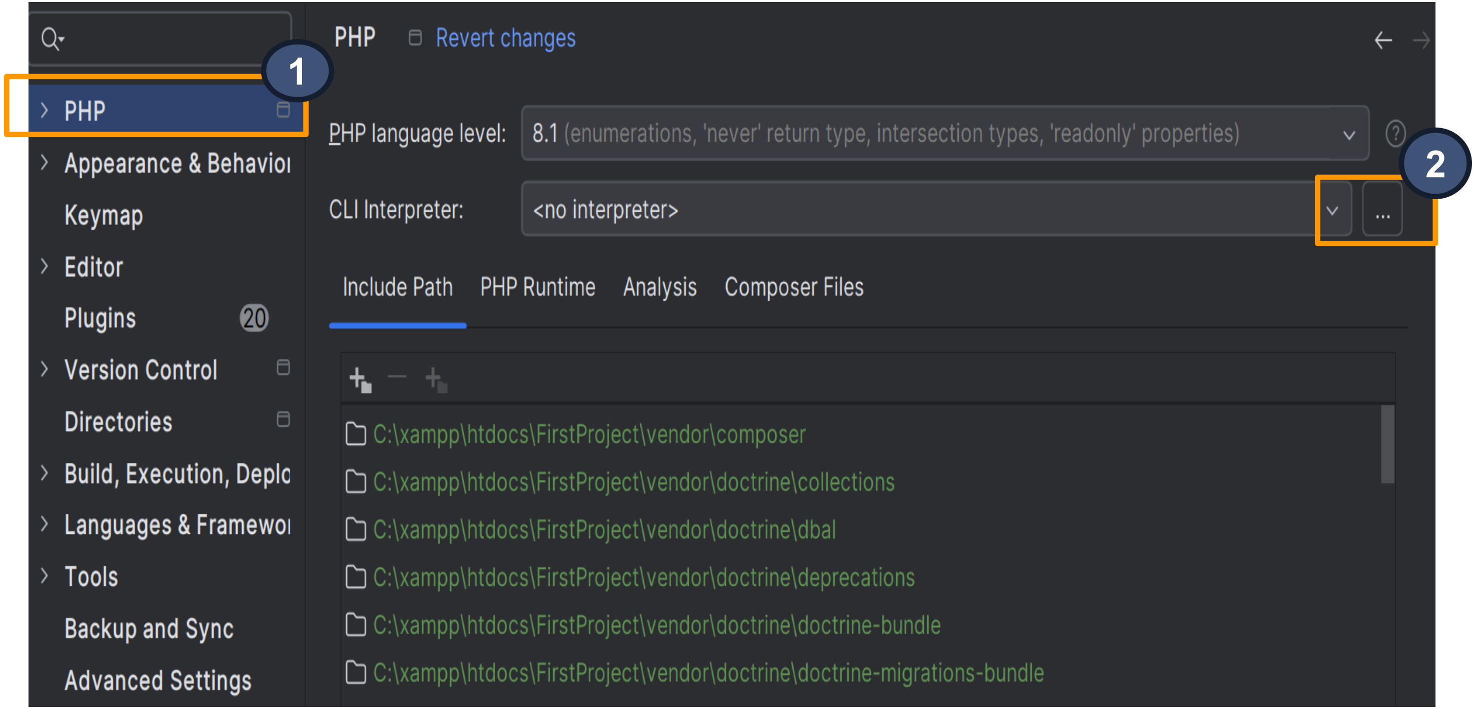
Project

FirstProject C:\xampp\htdocs\FirstProject
- assets
- bin
- config
- migrations
- public
- src
- templates
- tests
- translations
- var
- vendor
- .env
- .env.dev
- .env.test
- .gitignore
- compose.override.yaml
- compose.yaml
- composer.json
- composer.lock
- composer.phar

I.2. Creating a project

Method 1: Using PHPStorm

- **3-** Open Settings
- **4-** Add PHP



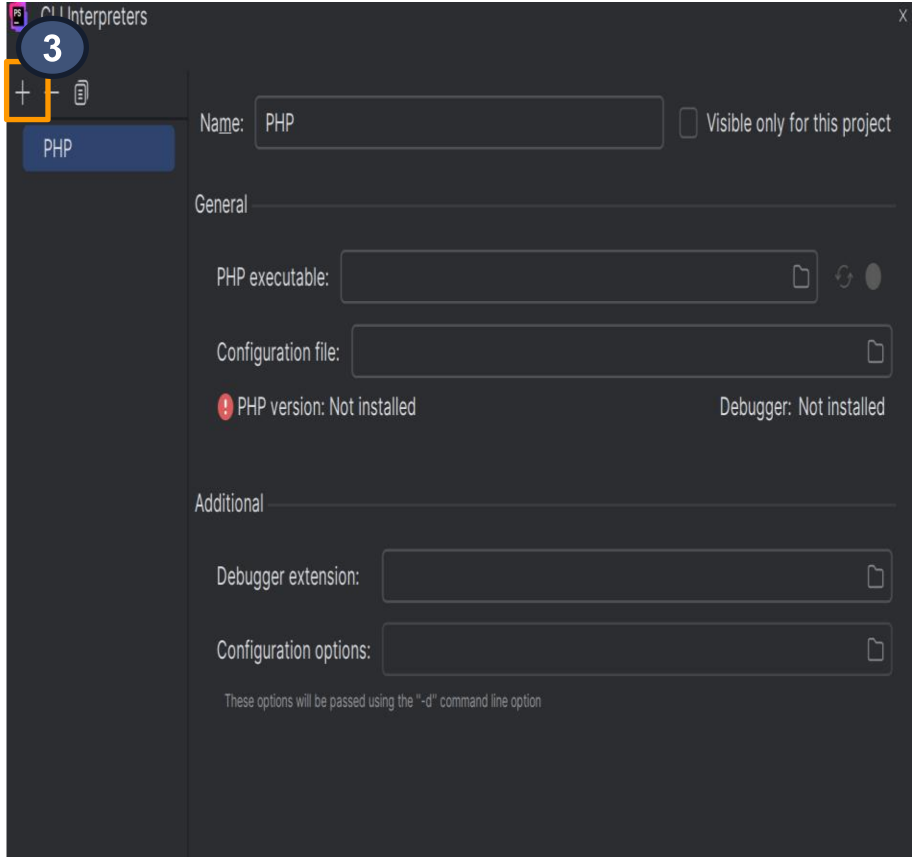
PHP language level: 8.1 (enumerations, 'never' return type, intersection types, 'readonly' properties)

CLI Interpreter: <no interpreter>

1
2
PHP
Revert changes
PHP
Appearance & Behavior
Keymap
Editor
Plugins
20
Version Control
Directories
Build, Execution, Deplo
Languages & Framewo
Tools
Backup and Sync
Advanced Settings
Include Path
PHP Runtime
Analysis
Composer Files
...
C:\xampp\htdocs\FirstProject\vendor\composer
C:\xampp\htdocs\FirstProject\vendor\doctrine\collections
C:\xampp\htdocs\FirstProject\vendor\doctrine\dbal
C:\xampp\htdocs\FirstProject\vendor\doctrine\deprecations
C:\xampp\htdocs\FirstProject\vendor\doctrine\doctrine-bundle
C:\xampp\htdocs\FirstProject\vendor\doctrine\doctrine-migrations-bundle

I.2. Creating a project

Method 1: Using PHPStorm



Name: PHP ☐ Visible only for this project

General

PHP executable:

Configuration file:

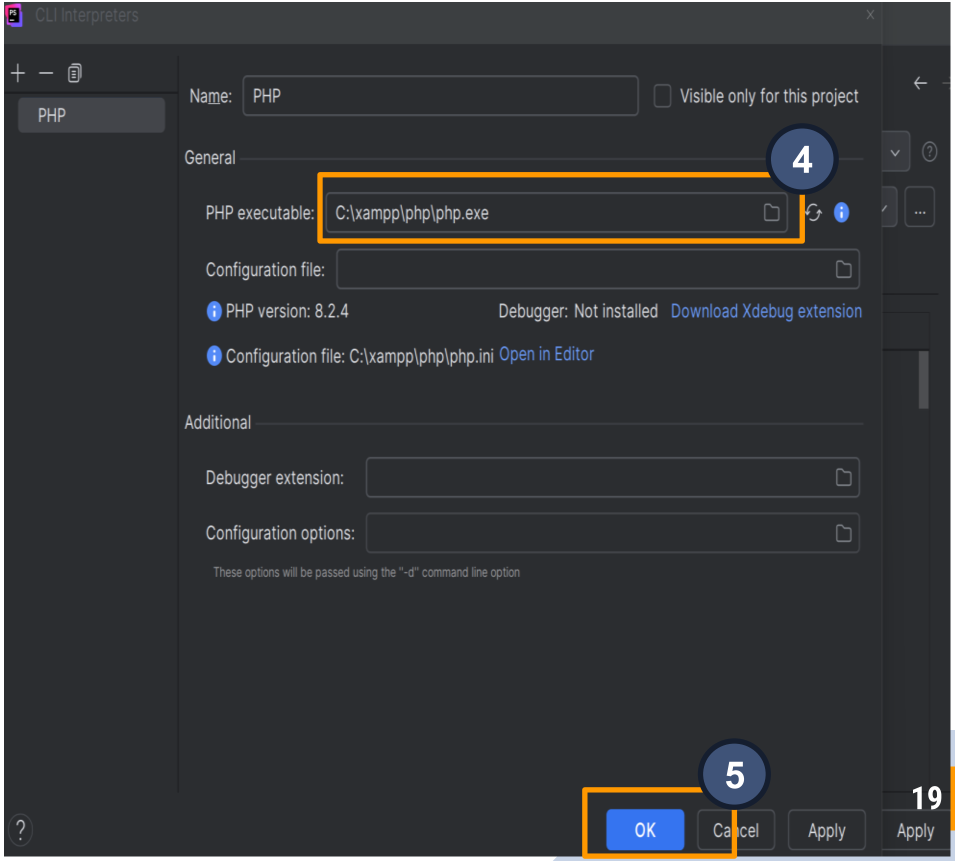
PHP version: Not installed Debugger: Not installed

Additional

Debugger extension:

Configuration options:

These options will be passed using the "-d" command line option



Name: PHP ☐ Visible only for this project

General

PHP executable: C:\xampp\php\php.exe

Configuration file:

PHP version: 8.2.4 Debugger: Not installed Download Xdebug extension

Configuration file: C:\xampp\php\php.ini Open in Editor

Additional

Debugger extension:

Configuration options:

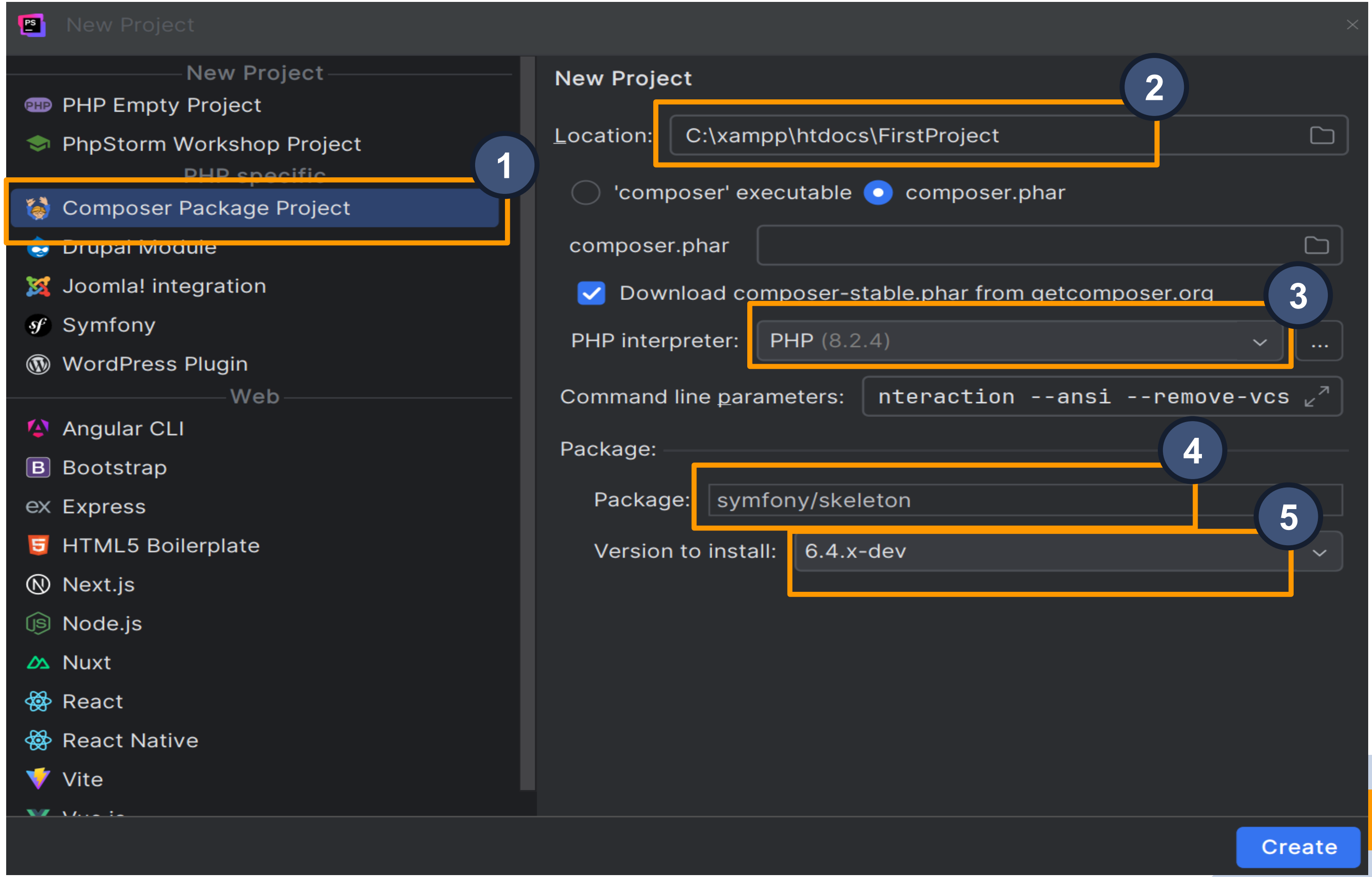
These options will be passed using the "-d" command line option

I.2. Creating a project

Method 2: Using Composer

I.2. Creating a project

Method 2: Using Composer



New Project

Location: C:\xampp\htdocs\FirstProject

○ 'composer' executable ● composer.phar

composer.phar:

☑ Download composer-stable.phar from getcomposer.org

PHP interpreter: PHP (8.2.4)

Command line parameters: `nteraction --ansi --remove-vcs`

Package:

Package: symfony/skeleton

Version to install: 6.4.x-dev

New Project
New Project
PHP Empty Project
PhpStorm Workshop Project
PHP specific
Composer Package Project
Drupal Module
Joomla! integration
Symfony
WordPress Plugin
Web
Angular CLI
Bootstrap
Express
HTML5 Boilerplate
Next.js
Node.js
Nuxt
React
React Native
Vite
1
2
3
4
5
...
Create

Method 3: Using Symfony Command Line Interface (CLI)

Method 3: Using Symfony CLI

❖ What is Symfony CLI ?

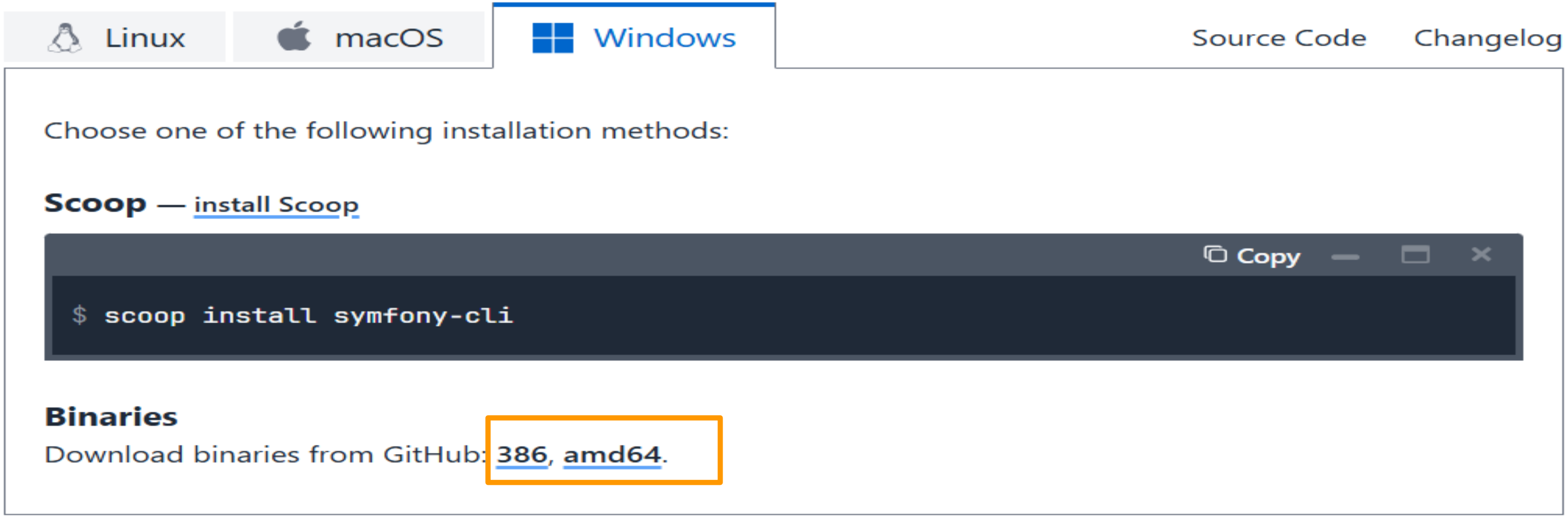
The Symfony CLI is a command-line tool that helps you:

- Create new Symfony projects quickly
- Run a local web server (***symfony serve***)
- Manage environment variables and deployments
- Check requirements and fix common issues

Method 3: Using Symfony CLI

Symfony CLI Installation

- 1- Download composer from: https://getcomposer.org/download/
- 2- Download the installer from: https://symfony.com/download
- 3- Run the **.exe** and follow the steps.
- 4- It will install symfony.exe and add it to your PATH automatically.



Choose one of the following installation methods:

Scoop — install Scoop

```
$ scoop install symfony-cli
```

Binaries

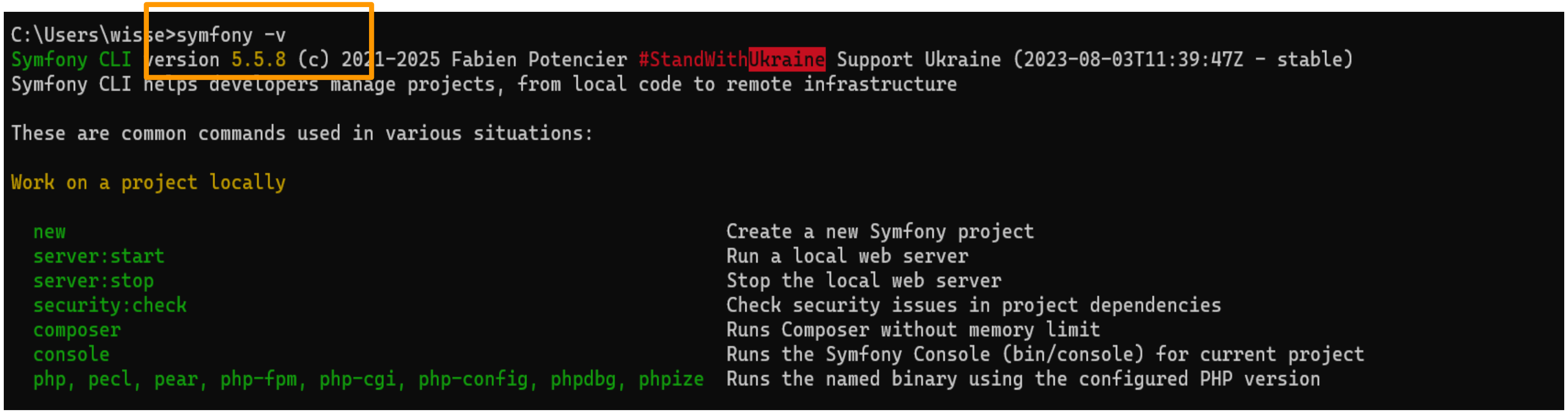
Download binaries from GitHub: 386, amd64.

I.2. Creating a project

Method 3: Using Symfony CLI

❖ Verify Symfony CLI Installation

Run : **symfony -v**

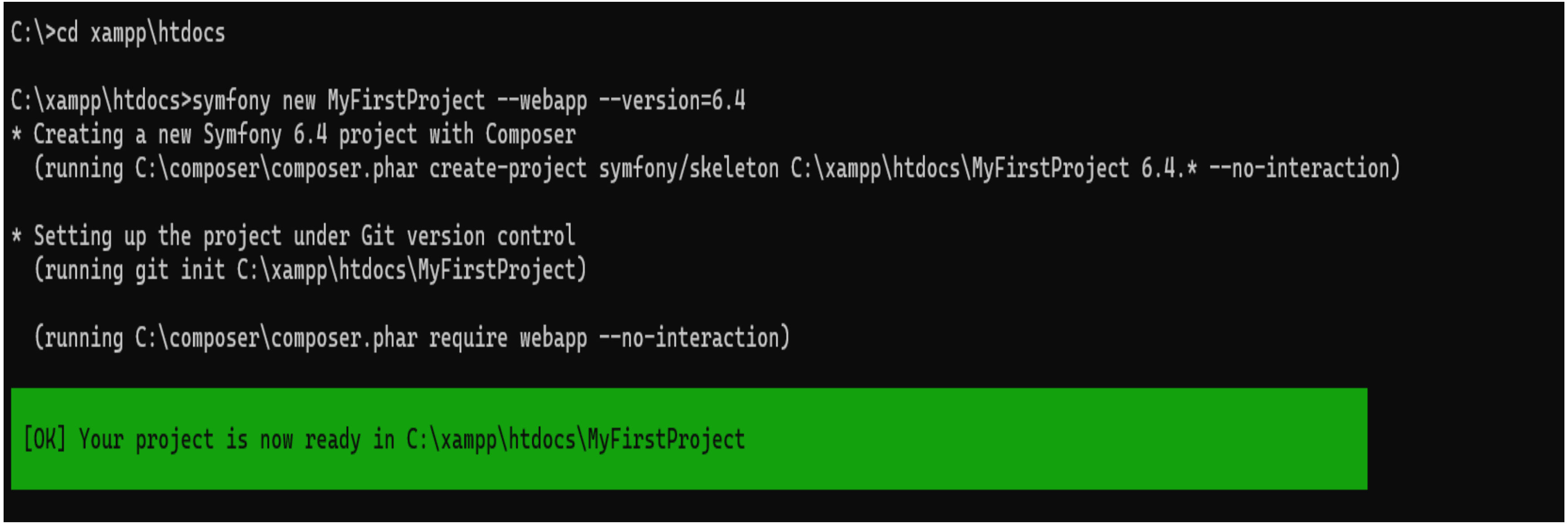


```
C:\Users\wisse>symfony -v
Symfony CLI version 5.5.8 (c) 2021-2025 Fabien Potencier #StandWithUkraine Support Ukraine (2023-08-03T11:39:47Z - stable)
Symfony CLI helps developers manage projects, from local code to remote infrastructure

These are common commands used in various situations:

Work on a project locally

  new                                                            Create a new Symfony project
  server:start                                                   Run a local web server
  server:stop                                                    Stop the local web server
  security:check                                                 Check security issues in project dependencies
  composer                                                       Runs Composer without memory limit
  console                                                        Runs the Symfony Console (bin/console) for current project
  php, pecl, pear, php-fpm, php-cgi, php-config, phpdbg, phpize  Runs the named binary using the configured PHP version
```

I.2. Creating a project

Method 3: Using Symfony CLI

Run : **symfony new MyFirstProject --webapp --version=6.4**



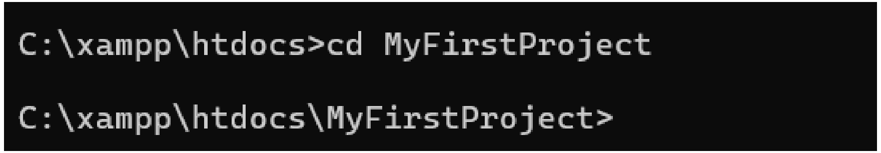
```
C:\>cd xampp\htdocs

C:\xampp\htdocs>symfony new MyFirstProject --webapp --version=6.4
* Creating a new Symfony 6.4 project with Composer
  (running C:\composer\composer.phar create-project symfony/skeleton C:\xampp\htdocs\MyFirstProject 6.4.* --no-interaction)

* Setting up the project under Git version control
  (running git init C:\xampp\htdocs\MyFirstProject)

  (running C:\composer\composer.phar require webapp --no-interaction)


 [OK] Your project is now ready in C:\xampp\htdocs\MyFirstProject

```

I.2. Creating a project

Method 3: Using Symfony CLI

Run the Local Web Server

- **1-** Go inside your project folder: run: **cd MyFirstProject**



```
C:\xampp\htdocs>cd MyFirstProject

C:\xampp\htdocs\MyFirstProject>
```

- **2-** Run: **symfony serve**
- **3-** access to http://127.0.0.1:8000

Outline

- I.0. Prerequisite
- I.1. Environment Variable
- I.2. Creating a project
- **I.3. Project Configuration**
- I.4. Project Execution

I.3. Project configuration

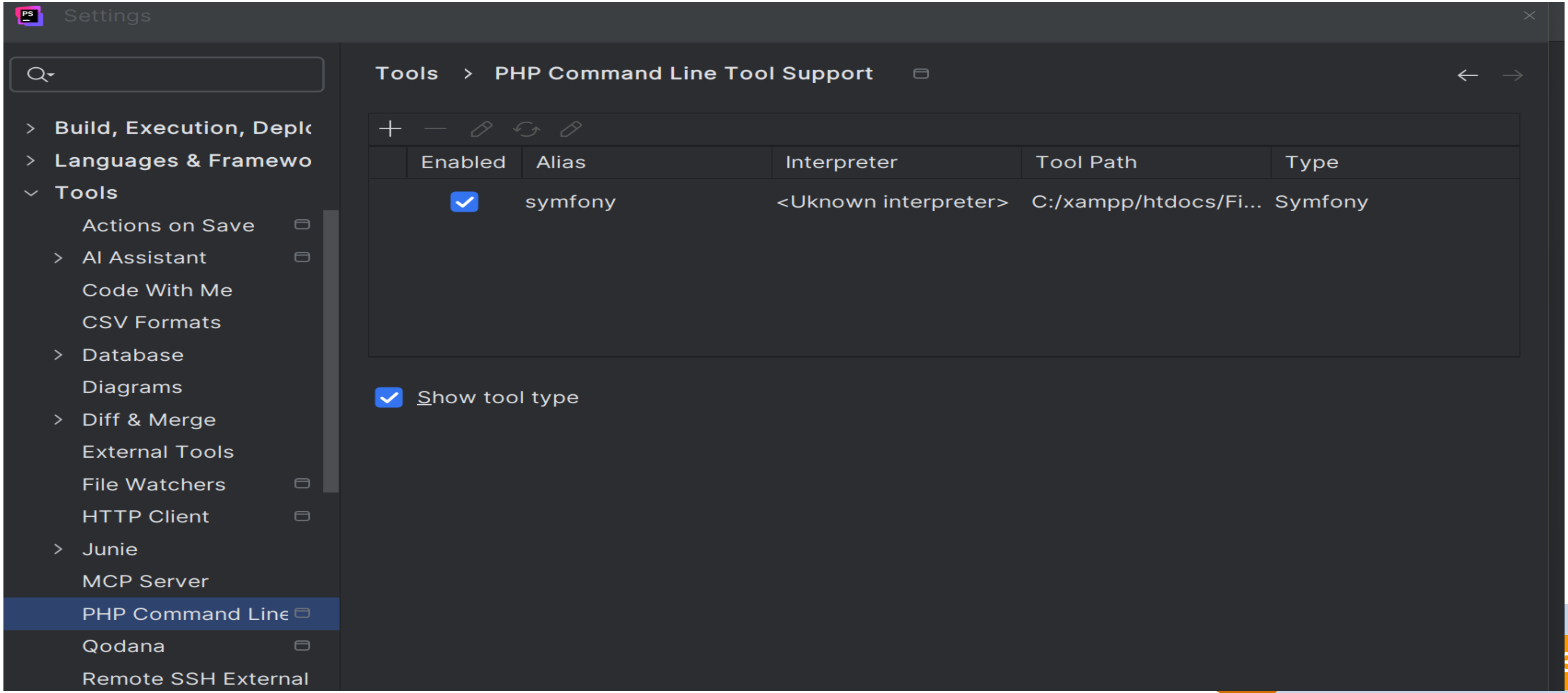
Adding Symfony Commands

- In this part we will see how to use the PHPStorm console that we will use it in our Symfony projects
- Symfony includes a utility that allows us to type command lines that we will use in all Symfony workbenches.
- In PHPStorm we have to configure the Line Tools Console command (which is displayed by pressing Ctrl-Shift-X or double click on Ctrl) through which we will execute the Symfony commands.

I.3. Project configuration

Adding Symfony Commands

1. To configure this console, go to ☰ **->Settings->Tools->PHP Commande Line Tool Support**



Settings
Build, Execution, Deplo
Languages & Framewo
Tools
Actions on Save
AI Assistant
Code With Me
CSV Formats
Database
Diagrams
Diff & Merge
External Tools
File Watchers
HTTP Client
Junie
MCP Server
PHP Command Line
Qodana
Remote SSH External

Tools > PHP Command Line Tool Support

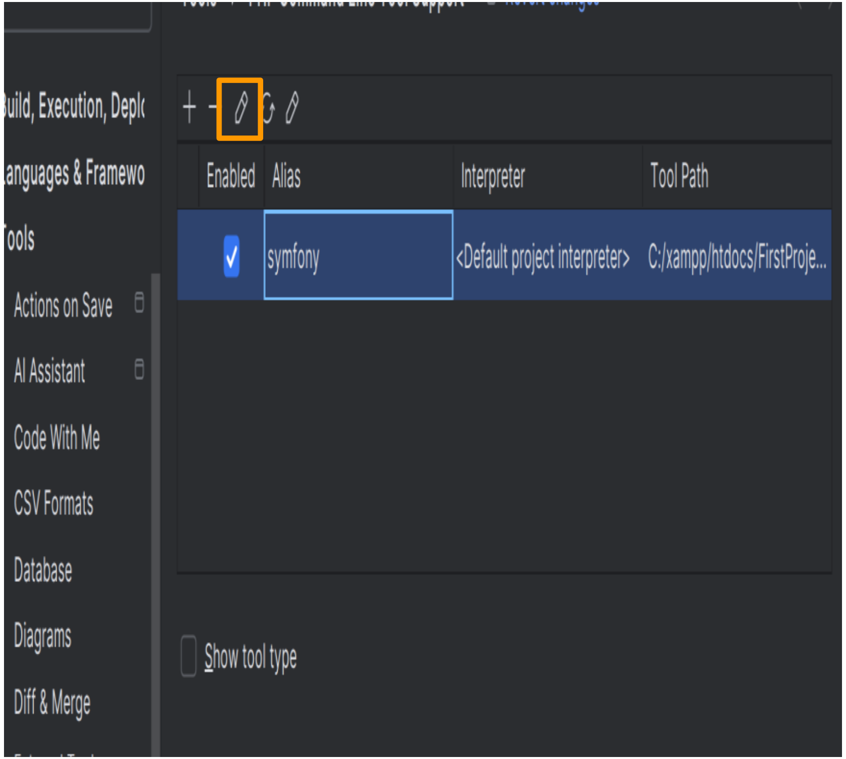
Enabled	Alias	Interpreter	Tool Path	Type
☑	symfony	<Uknown interpreter>	C:/xampp/htdocs/Fi...	Symfony

☑ Show tool type

I.3. Project configuration

Adding Symfony Commands

2. You need to specify the PHP interpreter for Symfony, so press the edit button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anguages & Framewo
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Actions on Save
AI Assistant
Code With Me
CSV Formats
Database
Diagrams
Diff & Merge
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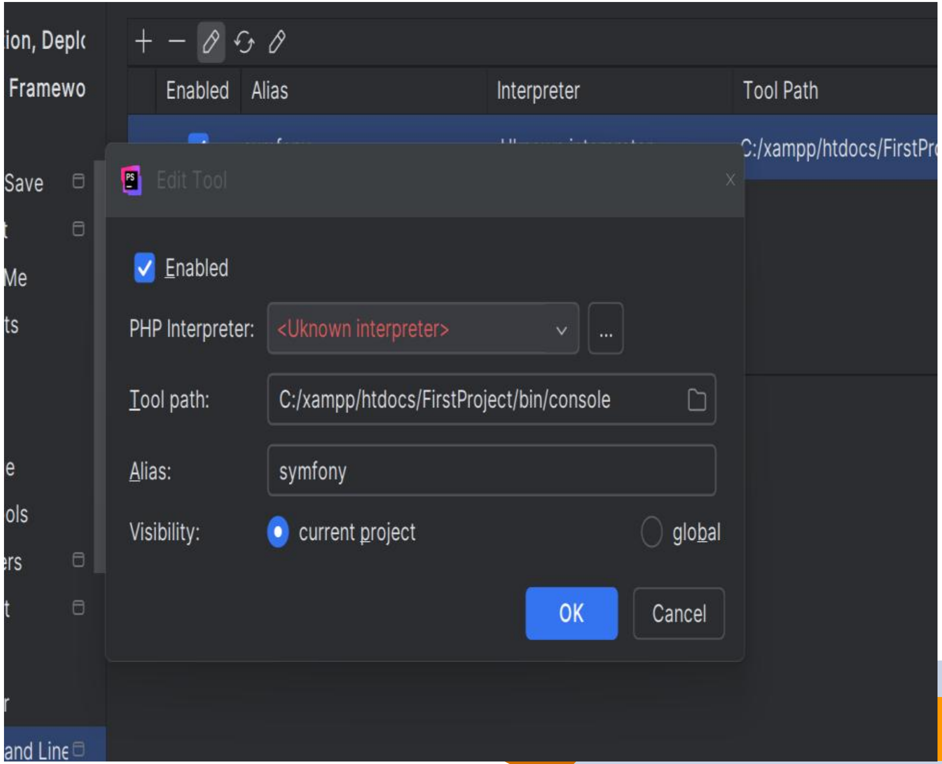
Enabled	Alias	Interpreter	Tool Path
☑	symfony	<Default project interpreter>	C:/xampp/htdocs/FirstProje...

☐ Show tool type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and Line
+ − ✎ ↻ ✎
Enabled
Alias
Interpreter
Tool Path
C:/xampp/htdocs/FirstPro
Edit Tool
OK
Cancel

☑ Enabled

PHP Interpreter: <Uknown interpreter>

Tool path: C:/xampp/htdocs/FirstProject/bin/console

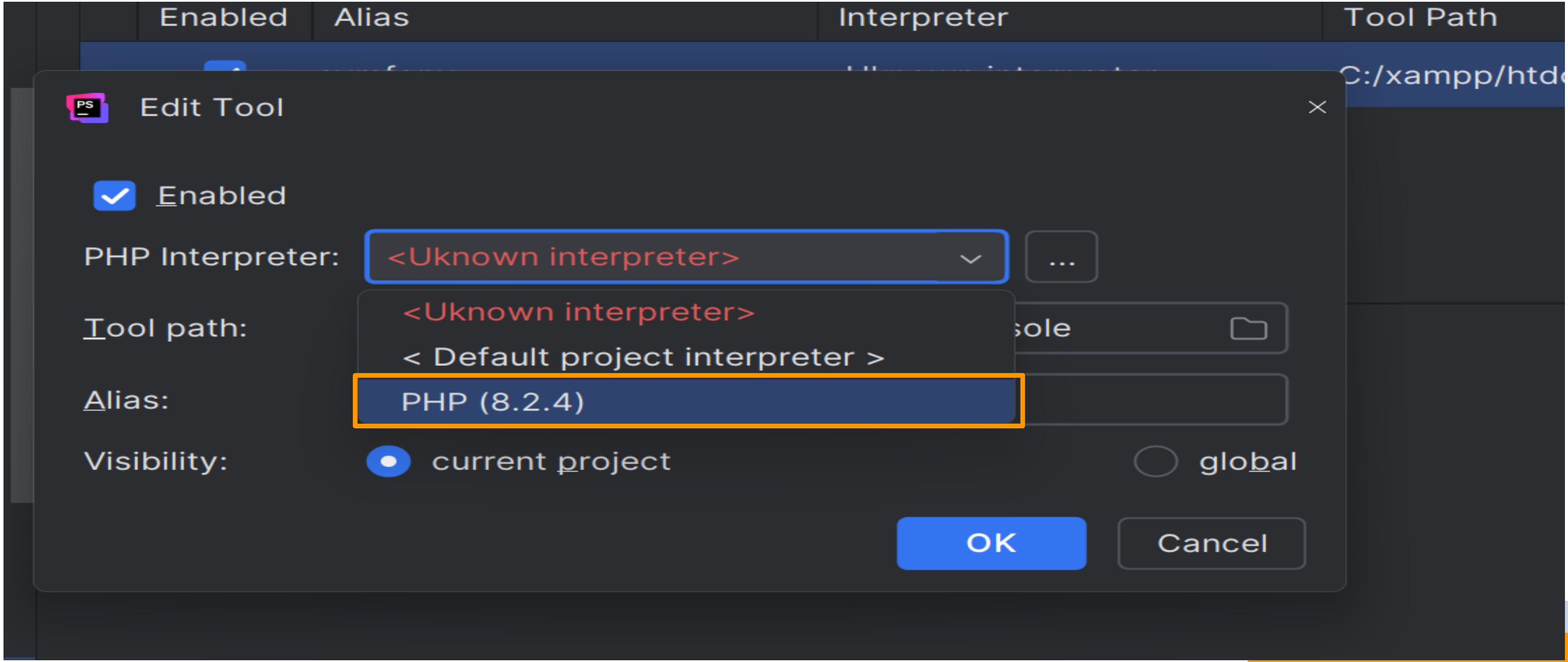
Alias: symfony

Visibility: ● current project ○ global

I.3. Project configuration

Adding Symfony Commands

3. Select the PHP interpreter


Enabled
Alias
Interpreter
Tool Path
C:/xampp/htd
Edit Tool

☑ Enabled

PHP Interpreter: <Uknown interpreter>

<Uknown interpreter>
< Default project interpreter >
PHP (8.2.4)

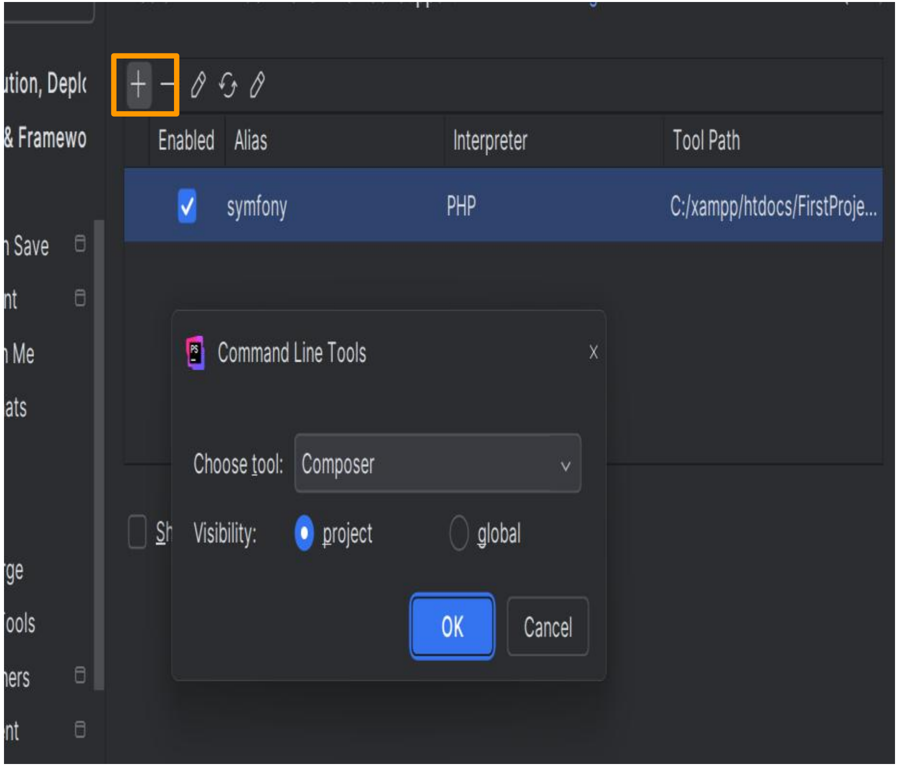
Tool path: sole

Alias:

Visibility: ● current project ○ global

OK
Cancel

4. Add ***Composer***



Enabled	Alias	Interpreter	Tool Path
☑	symfony	PHP	C:/xampp/htdocs/FirstProje...

Command Line Tools

Choose tool: Composer

Visibility: ● project ○ global

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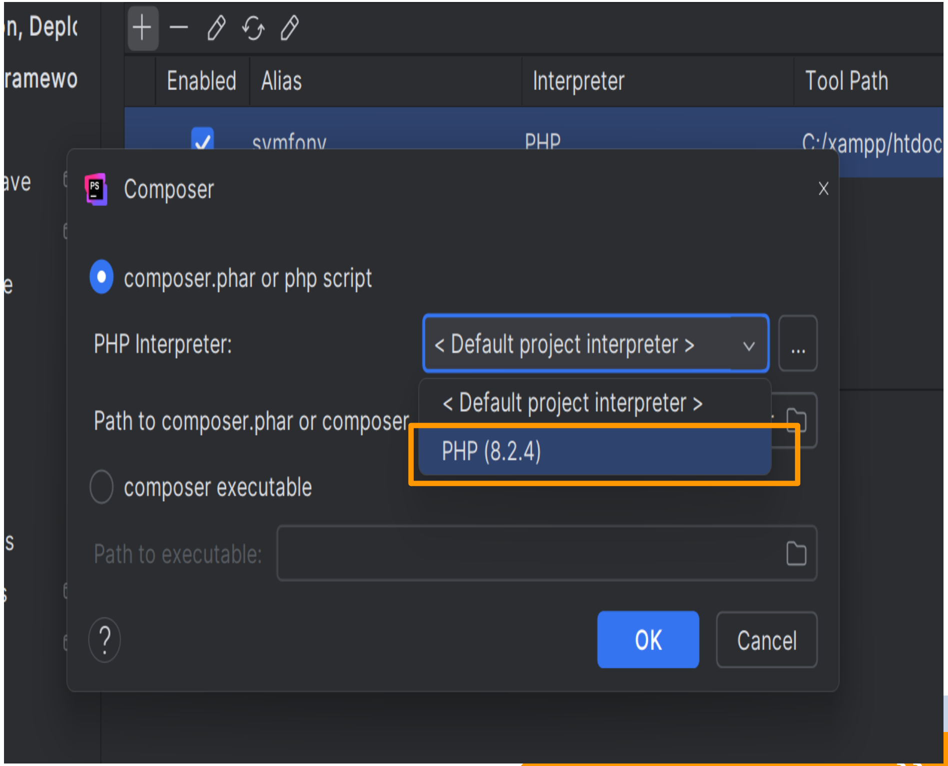
Sh
OK
Cancel



Enabled	Alias	Interpreter	Tool Path
☑	symfony	PHP	C:/xampp/htdoc

Composer

● composer.phar or php script

PHP Interpreter: < Default project interpreter >

Path to composer.phar or composer

○ composer executable

Path to executable:

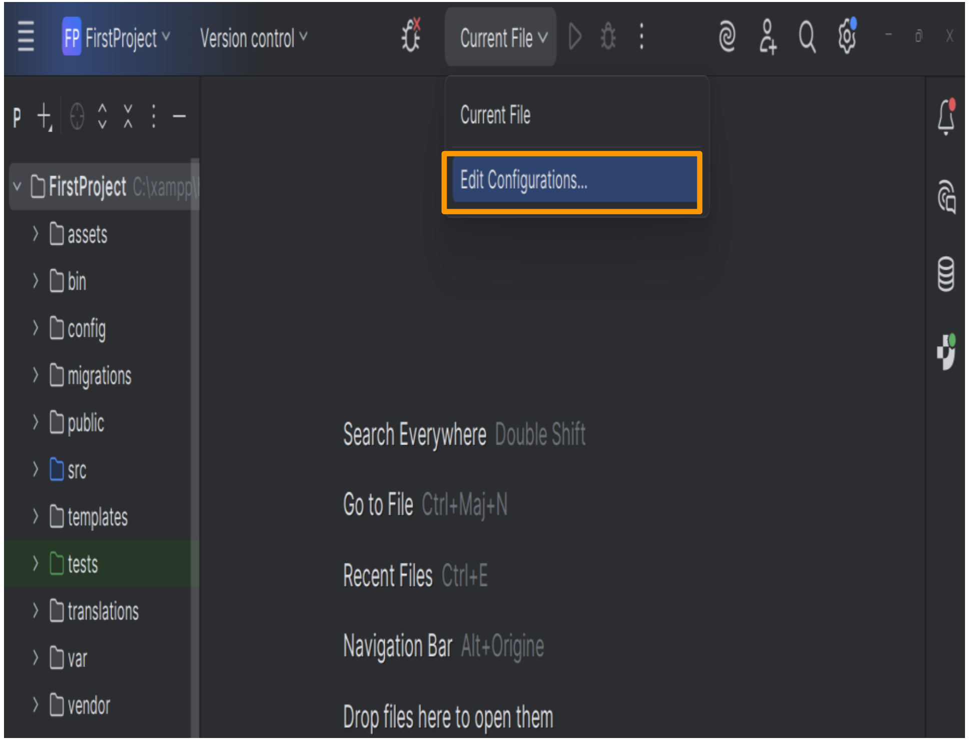
n, Depl
ramewo
ave
< Default project interpreter >
PHP (8.2.4)
?
OK
Cancel

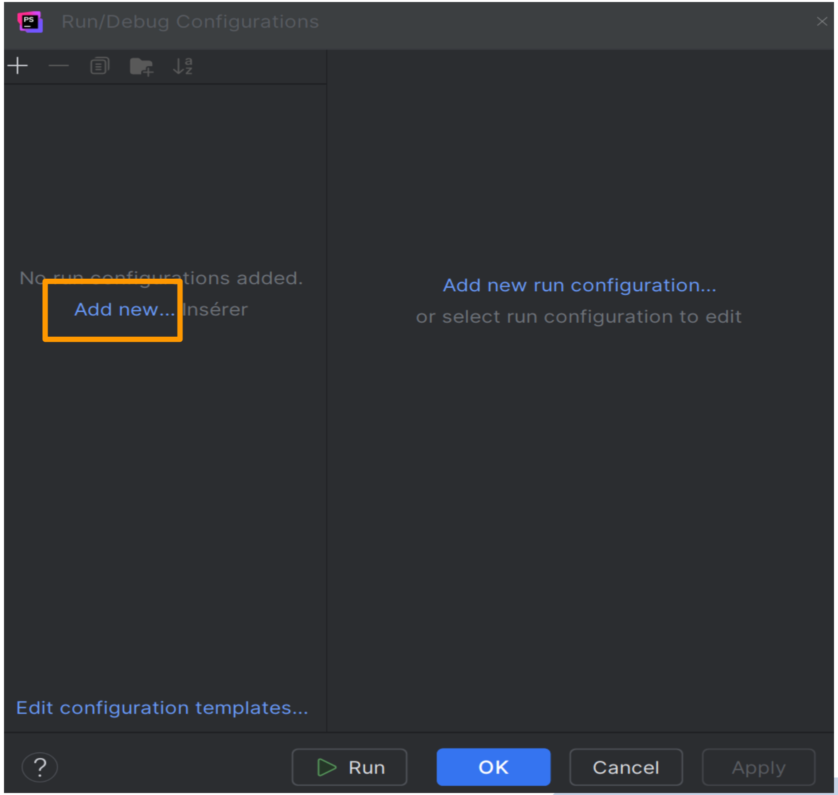
Outline

- I.0. Prerequisite
- I.1. Environment Variable
- I.2. Creating a project
- I.3. Project Configuration
- **I.4. Project Execution**

I.4. Project execution

Adding Run Config


FP FirstProject
Version control
Current File
Current File
Edit Configurations...
P
FirstProject C:\xampp\
assets
bin
config
migrations
public
src
templates
tests
translations
var
vendor
Search Everywhere Double Shift
Go to File Ctrl+Maj+N
Recent Files Ctrl+E
Navigation Bar Alt+Origine
Drop files here to open them


Run/Debug Configurations

No run configurations added.

Add new... Insérer

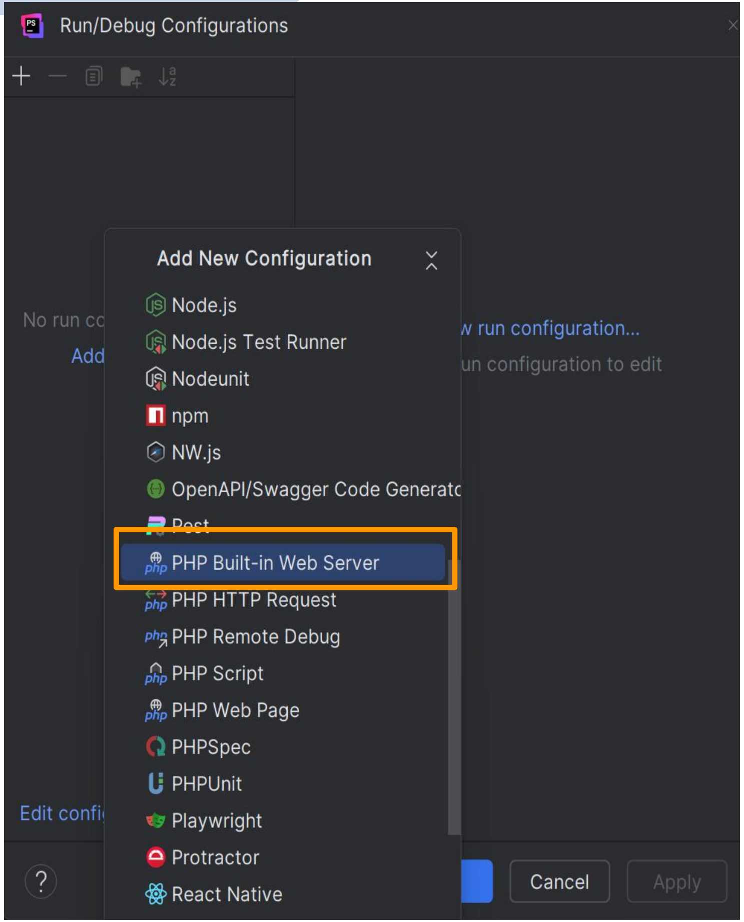
Add new run configuration...

or select run configuration to edit

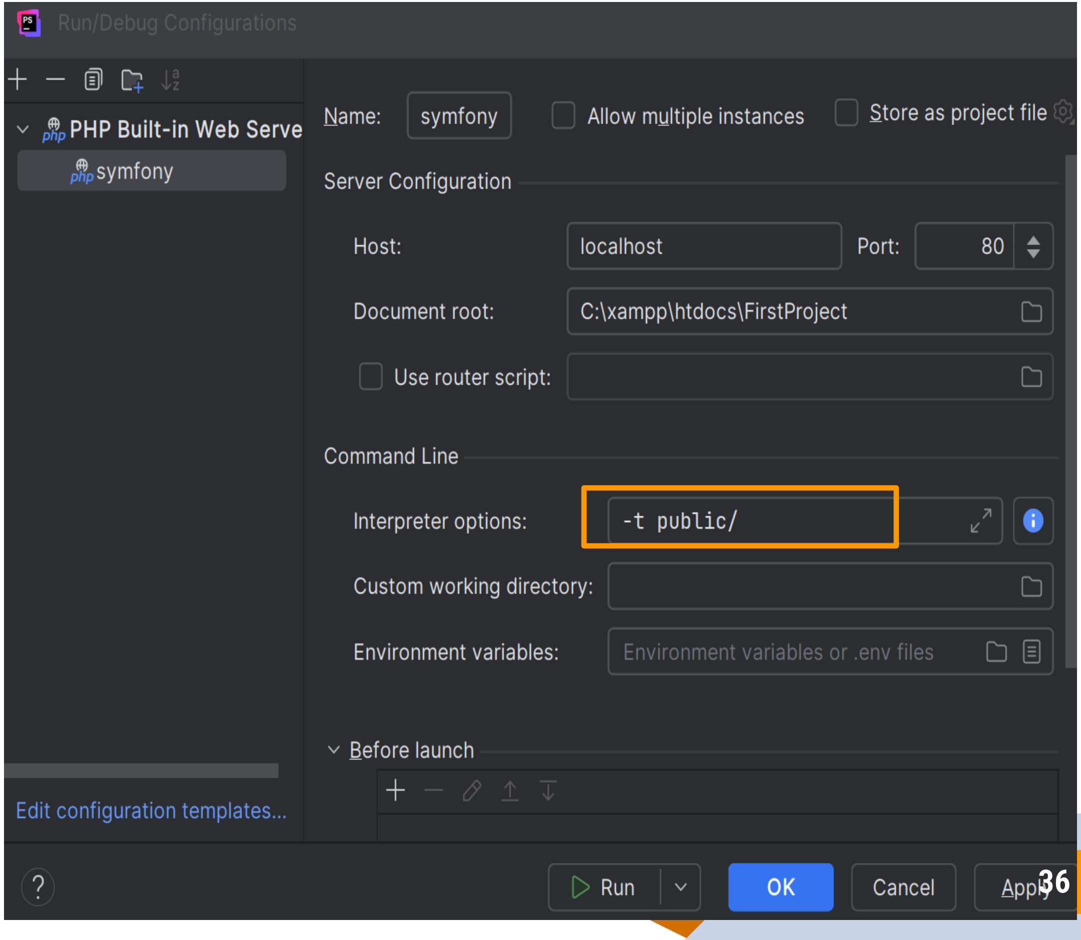
Edit configuration templates...
?
Run
OK
Cancel
Apply

I.4. Project execution

Adding Run Config



Run/Debug Configurations
No run co
Add
w run configuration...
un configuration to edit
Add New Configuration
Node.js
Node.js Test Runner
Nodeunit
npm
NW.js
OpenAPI/Swagger Code Generatc
Post
PHP Built-in Web Server
PHP HTTP Request
PHP Remote Debug
PHP Script
PHP Web Page
PHPSpec
PHPUnit
Playwright
Protractor
React Native
Edit confi
?
Cancel
Apply


Name: symfony

☐ Allow multiple instances

☐ Store as project file

Server Configuration

Host: localhost

Port: 80

Document root: C:\xampp\htdocs\FirstProject

☐ Use router script:

Command Line

Interpreter options: `-t public/`

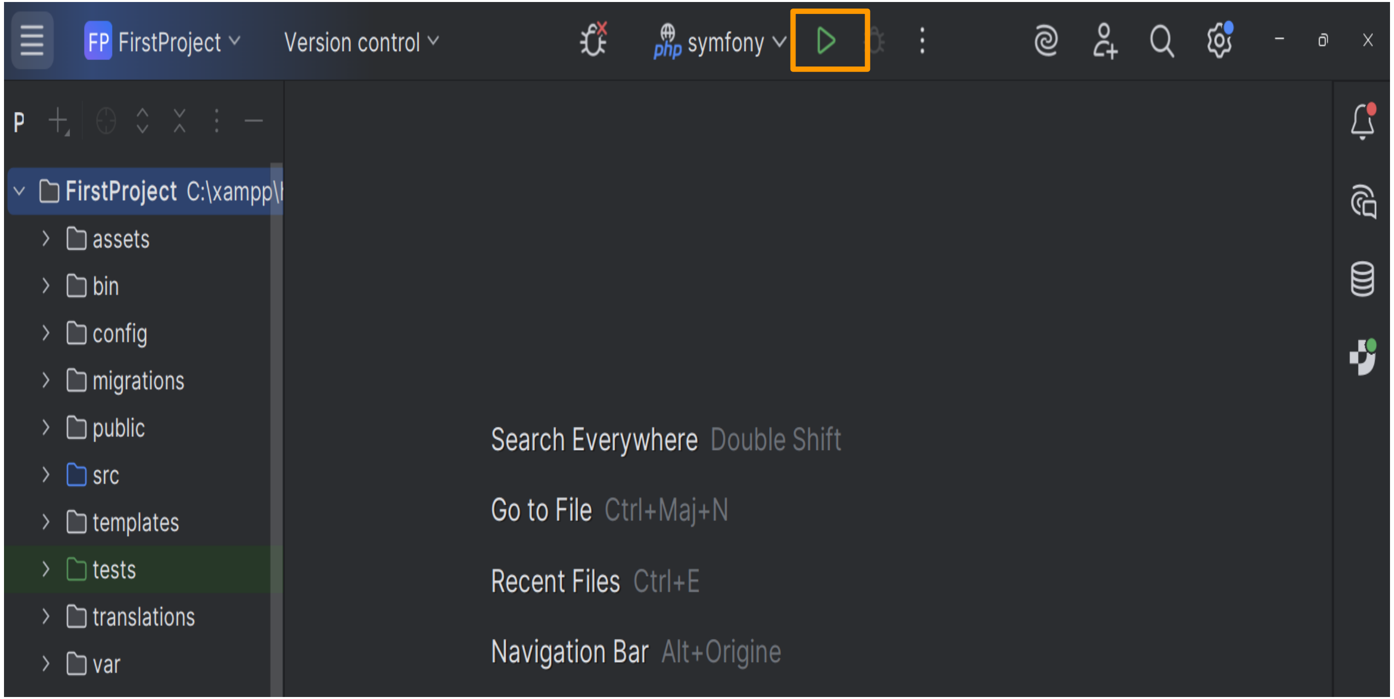
Custom working directory:

Environment variables:

Run/Debug Configurations
PHP Built-in Web Serve
symfony
Environment variables or .env files
Before launch
Edit configuration templates...
?
Run
OK
Cancel
Apply

I.4. Project execution

Run



FP FirstProject
Version control
symfony
P
FirstProject C:\xampp\
assets
bin
config
migrations
public
src
templates
tests
translations
var

Search Everywhere Double Shift

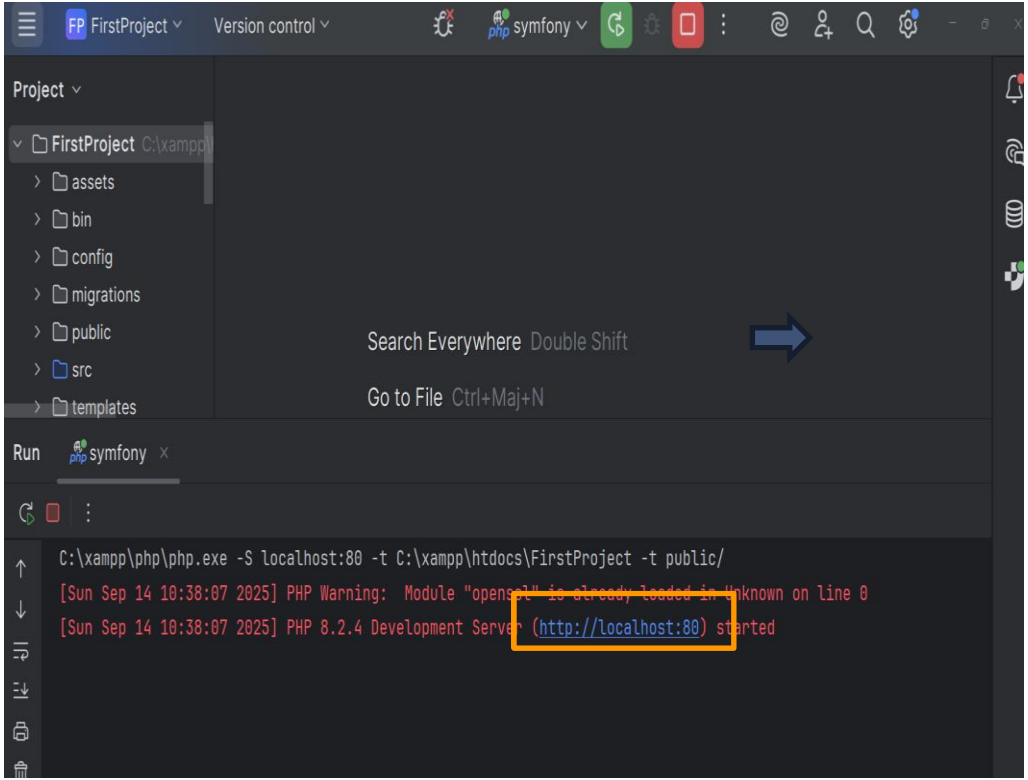
Go to File Ctrl+Maj+N

Recent Files Ctrl+E

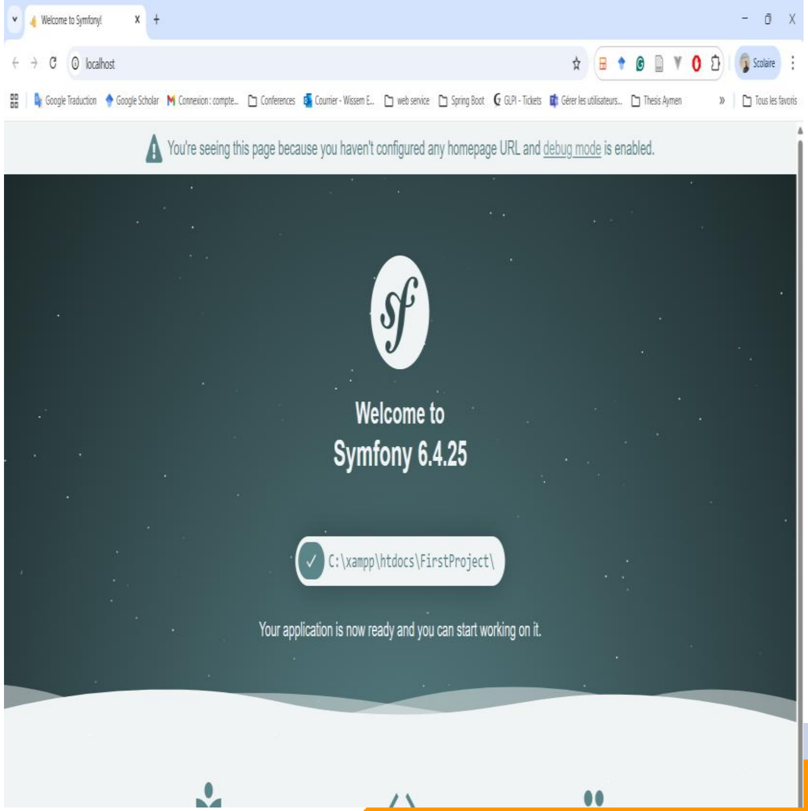
Navigation Bar Alt+Origine

I.4. Project execution

Run


FP FirstProject
Version control
symfony
Project
FirstProject C:\xampp\
assets
bin
config
migrations
public
src
templates
Search Everywhere Double Shift
Go to File Ctrl+Maj+N
Run
symfony

```
C:\xampp\php\php.exe -S localhost:80 -t C:\xampp\htdocs\FirstProject -t public/
[Sun Sep 14 10:38:07 2025] PHP Warning:  Module "openssl" is already loaded in Unknown on line 0
[Sun Sep 14 10:38:07 2025] PHP 8.2.4 Development Server (http://localhost:80) started
```


Welcome to Symfony!
localhost
Scolaire
Google Traduction
Google Scholar
Connexion : compte...
Conferences
Courier - Wissem E...
web service
Spring Boot
GLPI - Tickets
Gérer les utilisateurs...
Thesis Aymen
Tous les favoris

You're seeing this page because you haven't configured any homepage URL and debug mode is enabled.

Welcome to
Symfony 6.4.25

✓ C:\xampp\htdocs\FirstProject\

Your application is now ready and you can start working on it.