

**Prosper Yong**

Posted on 10 sept. 2021

# How to Debug PHP Using Xdebug On Vscode

#php #vscode #xdebug #devops

## Introduction

It's important to keep a few things in mind while developing web apps.

When it comes to building large and powerful applications, a competent developer will always follow best practices. Testing, debugging, performance, and security of websites or apps are some of these techniques.

Using VSCode and the PHP xDebug module, you'll enable full-featured functional debugging throughout your whole application.

## Prerequisites

The following criteria must be met in order to follow along with this guide:

- A PHP development environment that runs at least PHP 7.0.
- An appropriate version of [Visual Studio Code](#) for your operating system

## Step 1 — How to Download and Install the XDebug Tool

Real-time debugging is made possible using Xdebug, a PHP extension. On the other hand, it can be useful for troubleshooting server-side problems. Since it shouldn't be active on most requests, Xdebug isn't enabled in the same manner as the other extensions are. You would install it following the steps below:


### Windows

Xdebug provides a wizard tool for Windows users to obtain a .dll file. In order to do this, first create a PHP file in a folder, and then add the following code line:

```
<?php
phpinfo();
?>
```

Use your browser to launch the `index.php` file . This will provide the information

displayed in the image below.

PHP Version 7.4.19 	
System	Windows NT YOMA-PC 6.1 build 7600 (Windows 7 Ultimate Edition) AMD64
Build Date	May 4 2021 14:18:00
Compiler	Visual C++ 2017
Architecture	x64
Configure Command	cscript /nologo /e:javascript configure.js "--enable-snapshot-build" "--enable-debug-pack" "--with-pdo-oci=c:\php-snap-build\deps_aux\oracle\x64\instantclient_12_1\sdk,shared" "--with-oci8-12c=c:\php-snap-build\deps_aux\oracle\x64\instantclient_12_1\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:\Varagon\bin\php\php-7.4.19-Win32-vc15-x64\php.ini
Scan this dir for additional .ini files	(none)
Additional .ini files parsed	(none)
PHP API	20190902
PHP Extension	20190902
Zend Extension	320190902
Zend Extension Build	API320190902,TS,VC15
PHP Extension Build	API20190902,TS,VC15
Debug Build	no
Thread Safety	enabled
Thread API	Windows Threads
Zend Signal Handling	disabled
Zend Memory Manager	enabled

- Select and copy all information on the page.
- You'll next need to go to the XDebug [Wizard tool](#) and paste the information into a Text Box input field.
- Look for 'Analyze my phpinfo() output' and click it.

Xdebug running. Please paste the **full** output of `phpinfo()` (either a copy & paste of the HTML version, the HTML source or `php -i` output) and submit the form to receive tailored download and installation instructions.

```
Ilia Alshanetsky, Joerg Behrens, Antony Dovgal, Stefan Esser, Moriyoshi
Koizumi, Magnus Maatta, Sebastian Nohn, Derick Rethans, Melvyn Sopacua,
Pierre-Alain Joye, Dmitry Stogov, Felipe Pena, David Soria Parra, Stanislav
Malyshev, Julien Pauli, Stephen Zarkos, Anatol Belski, Remi Collet, Ferenc
Kovacs
Websites and Infrastructure team
PHP Websites Team      Rasmus Lerdorf, Hannes Magnusson, Philip Olson,
Lukas Kahwe Smith, Pierre-Alain Joye, Kalle Sommer Nielsen, Peter Cowburn,
Adam Harvey, Ferenc Kovacs, Levi Morrison
Event Maintainers      Damien Seguy, Daniel P. Brown
Network Infrastructure  Daniel P. Brown
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```

The information that you upload will not be stored. The script will only use a few regular expressions to analyse the output and provide you with instructions. You can see the code [here](#).

Analyse my phpinfo() output

- There is a module that may be downloaded under Instructions, number 1. As you can see in the image below:

## Instructions

1. Download `php_xdebug-3.0.4-7.4-vc15-x86_64.dll`
2. Move the downloaded file to `C:\laragon\bin\php\php-7.4.19-Win32-vc15-x64\ext`
3. Update `C:\laragon\bin\php\php-7.4.19-Win32-vc15-x64\php.ini` and add the line:  
`zend_extension = xdebug`
4. Restart the Apache Webserver

Please note that the path to the directory in this example may be different from yours, so please pay attention to the directions in the image above.

## MAC

You can install PHP7 Xdebug using pecl extension:

```
pecl install xdebug
```

## Linux

On Linux distribution like fedora 32, you can use Sudo to install Xdebug in PHP:

```
sudo yum install php-xdebug
```

you can refer to the [xdebug](#) docs if you use other linux distribution.

It's time to enable Xdebug by adding the following code to file `xdebug.ini` under `etc/php/7.0/mods-available/`

```
xdebug.profiler_enable_trigger = 1
xdebug.profiler_enable = 0
xdebug.remote_enable = 1
xdebug.profiler_output_dir = "/tmp"
```

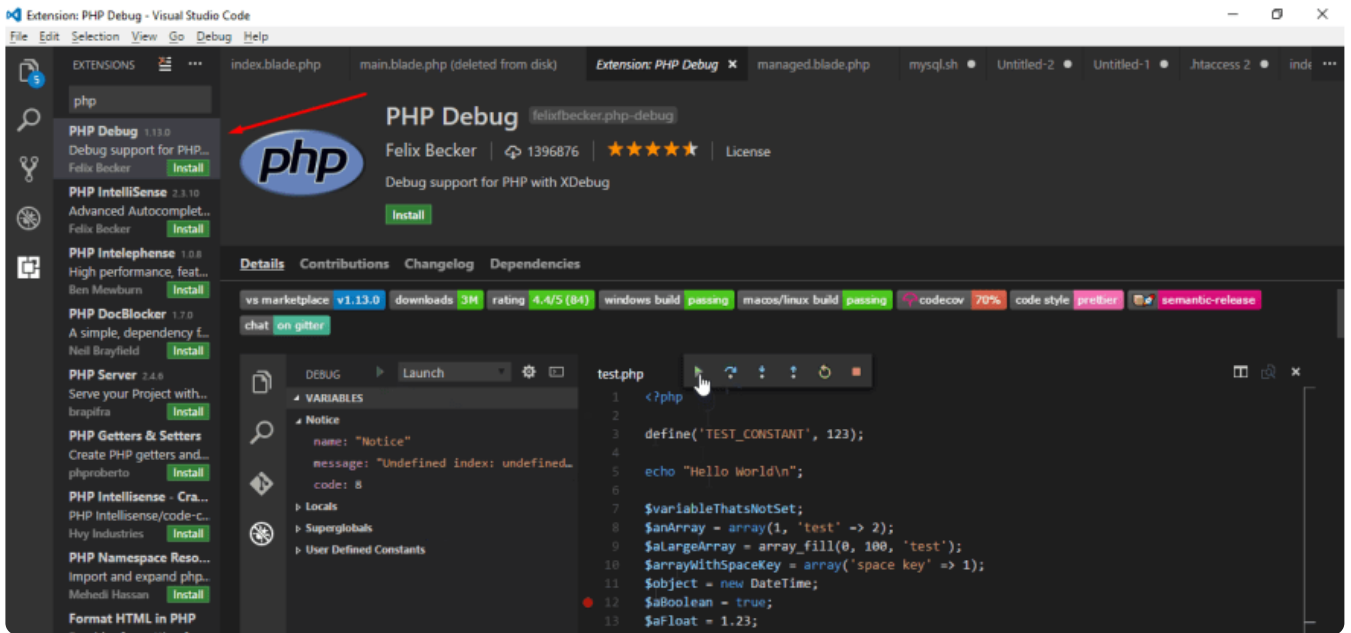
Now restart your server.

## Step 2 — Enabling the XDebug extension in PHP

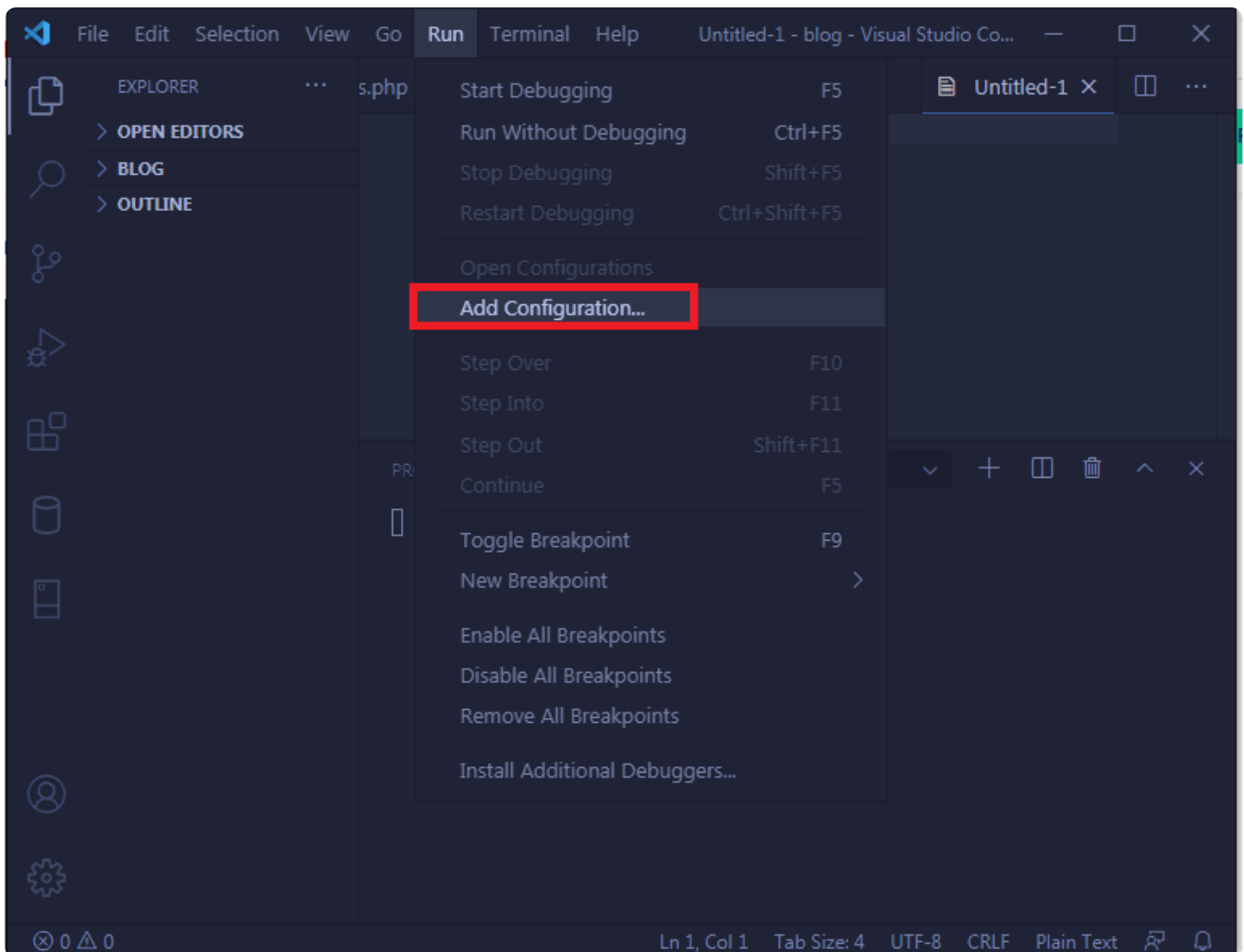
Microsoft's Visual Studio Code (VS Code) is a free open source text editor. VS Code is available for Windows, Linux, and Mac. There are significant features in the editor that make VS Code one of the most popular programming environments in recent years, despite its size.

First

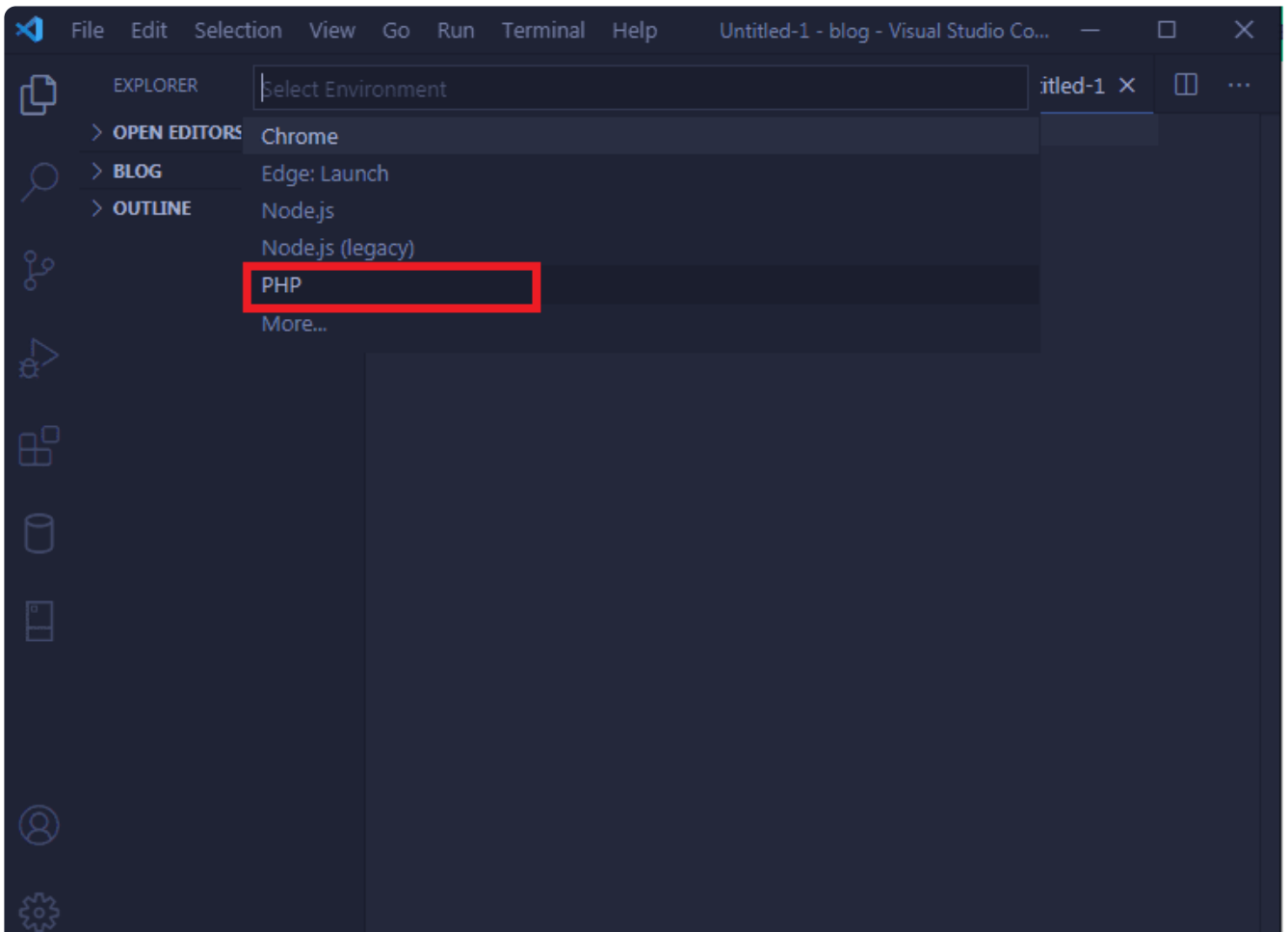
- Launch VS Code
- Install the Felix Becker PHP Debug extension. The PHP Debug extension may be found in VSCode's Extensions tab by searching for it.



- Click on the **Run** tab and click on add configuration.



Now, you'll need to pick the PHP environment. A new `launch.json` file will be added to the root directory by VSCode.

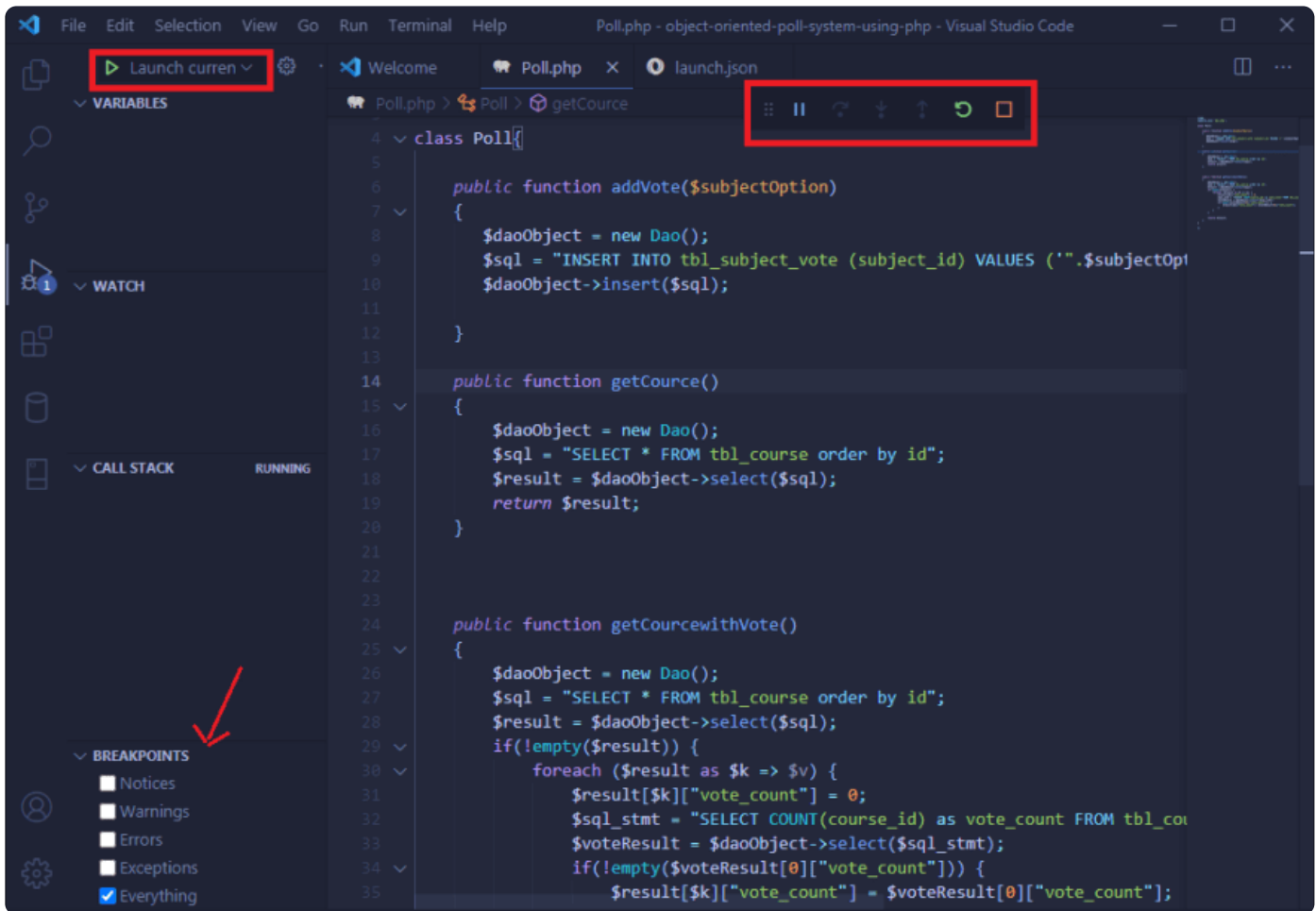


Finally, add the `runtimeExecutable` property to the list after port replacing `path_to_php_executable` with the path to your php executable:

```
"runtimeExecutable": "path_to_php_executable"
```

```
"configurations": [  
  {  
    "name": "Listen for Xdebug",  
    "type": "php",  
    "request": "launch",  
    "port": 9003  
  },  
  {  
    "name": "Launch currently open script",  
    "type": "php",  
    "request": "launch",  
    "program": "${file}",  
    "cwd": "${fileDirname}",  
    "port": 0,  
    "runtimeExecutable": "C:\\\\laragon\\\\bin\\\\php\\\\php-7.4.19-Win32-vc15-x64\\\\php.exe",  
    "runtimeArgs": [  
      "-dxdebug.start_with_request=yes"  
    ],  
    "env": {  
      "XDEBUG_MODE": "debug,develop",  
      "XDEBUG_CONFIG": "client_port=${port}"  
    }  
  },  
  {  
    "name": "Launch Built-in web server",  
    "type": "php",  
    "request": "launch",  
    "runtimeArgs": [  
      "-dxdebug.mode=debug",  
      "-S0.0.0.0:8080"
```

Please save the file `launch.json`. Start debugging by opening the debug mode tab and clicking the green debug button.



You will now see several options in the window, via which you can pick what logs Xdebugger will show like:

- Notices
- Warnings
- Errors
- Exceptions
- Everything

Access the Debug Console, which displays error information and debug execution buttons at the top.

You have the option to make your selections. What I'm going to tell you now is something I've previously addressed in the early stage breakpoints. A breakpoint on a line of code is now available. It's important to note that Xdebug will display the PHP debug script name and line number in the bottom left area.

In order to debug the application correctly you may launch it in the browser and then go through the code line-by-line to spot the issues and fix them. A few shortcut keys for



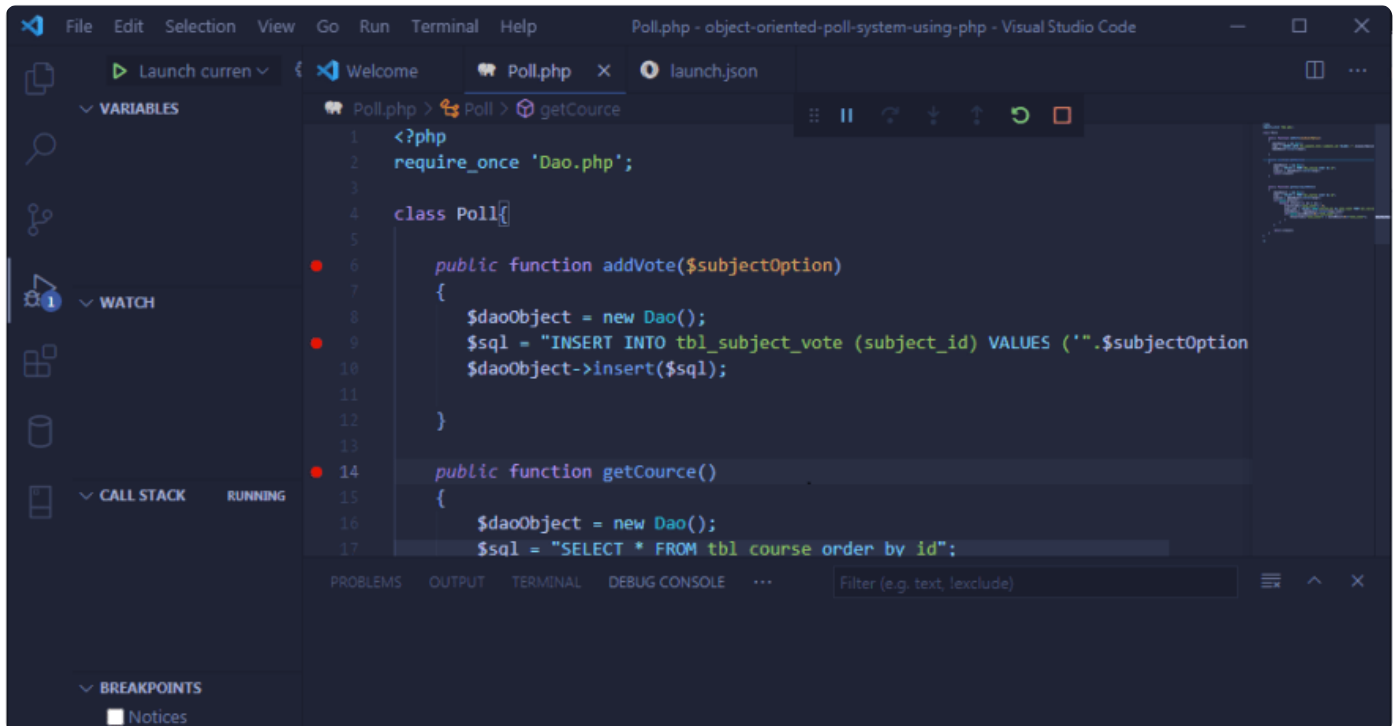
go through the code line-by-line to spot the issues and fix them. A few shortcut keys for functions and lines of codes should also be remembered:

F5 : Continue Debugging

F10 : Step Over

F11 : Step into

Shift + F11 : Step out



## Conclusion

Software development is never complete without debugging.

You can't tell what's wrong with the code without it.

A PHP debugger that identifies problems and warning signals fast is a fantastic idea if you're working on an application with thousands of lines of code and you want to be sure you've set up your debugging environment before you start writing code.

In this article, you learnt how to enable PHP debugging with Xdebug and setup it in VSCode. IDEs like as Eclipse, PHPstorm, and others can also be used to incorporate it.

## Discussion (2)



Daniel R. Przybylski • Apr 9



Where it talks about "runtimeExecutable": "path\_to\_php\_executable", do I do this for

Linux or just Windows, because your example is Windows?



Prosper Yong • Apr 21



it's the same. sorry its comming late

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19 août 2021

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