Git Setup & Laravel Installation

1. Getting Started

> Make sure to install all these applications according to the specified order. Skipping any installation steps might cause you trouble later (some of the apps are dependent on the other app).

1.1. Install Git

> Assuming you have not yet installed Git in your local machine. It is used to track changes in your source code.

1. Download Git via https://git-scm.com/download/win
2. In the Command Prompt, you may check whether Git is installed by executing the following command.

```
git -v
```

1.2. Install GitHub Desktop

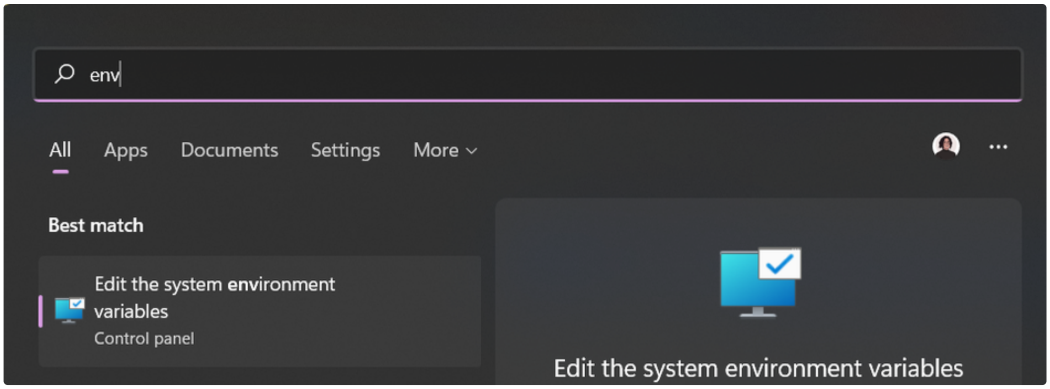
> Assuming you have an account on GitHub but not yet installed GitHub Desktop. It is used to interact with GitHub using a GUI instead of the command line.

1. Download GitHub Desktop via https://desktop.github.com
2. Login to GitHub and authorize desktop.

1.3. Install XAMPP

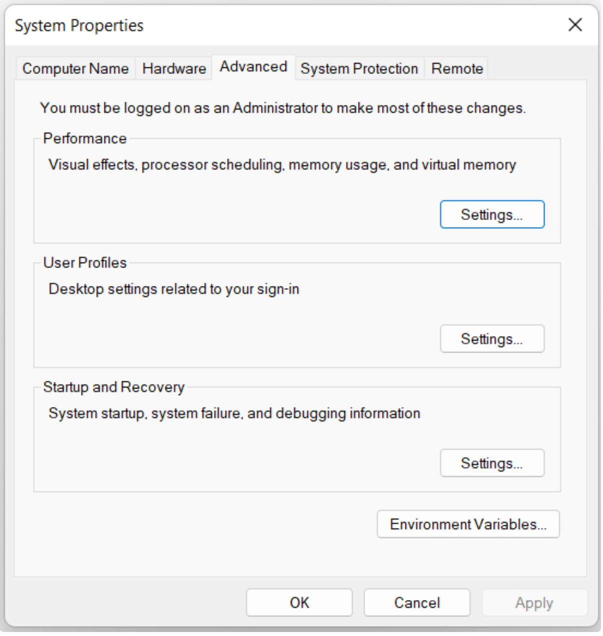
> Assuming you have not yet installed MySQL database and PHP in your local machine.

1. Download XAMPP via https://www.apachefriends.org/download.html
2. Go to search bar and search for “env” then click “Edit the system environment variables”.



env
All
Apps
Documents
Settings
More
Best match
Edit the system environment variables
Control panel
Edit the system environment variables

3. Click Environment Variables located at the bottom.



You must be logged on as an Administrator to make most of these changes.

Performance

Visual effects, processor scheduling, memory usage, and virtual memory

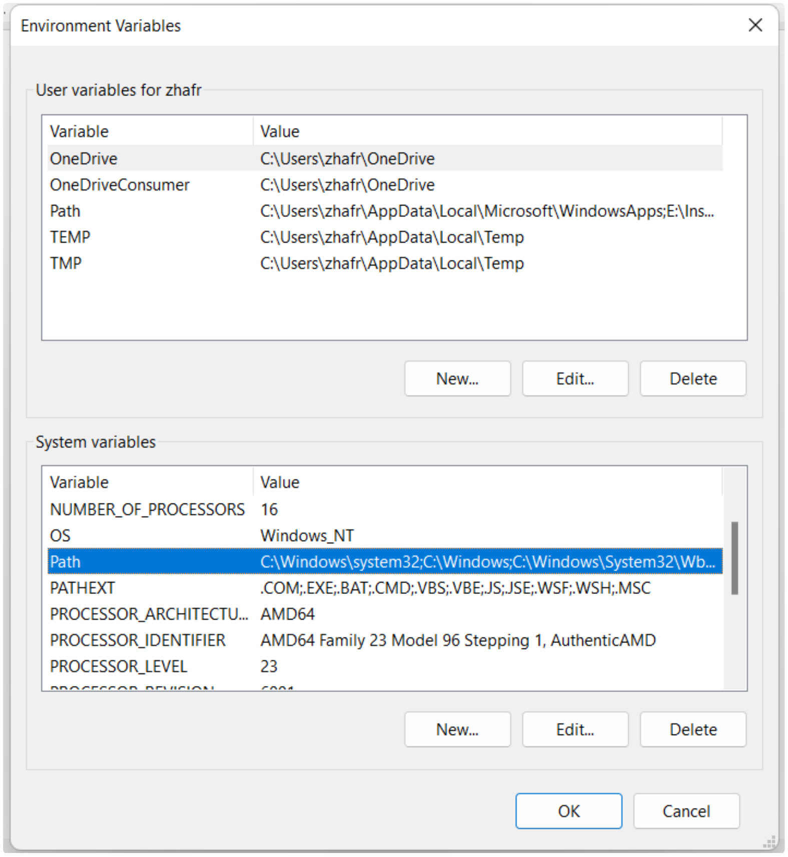
User Profiles

Desktop settings related to your sign-in

Startup and Recovery

System startup, system failure, and debugging information

4. Under System variables, click Path then click Edit.



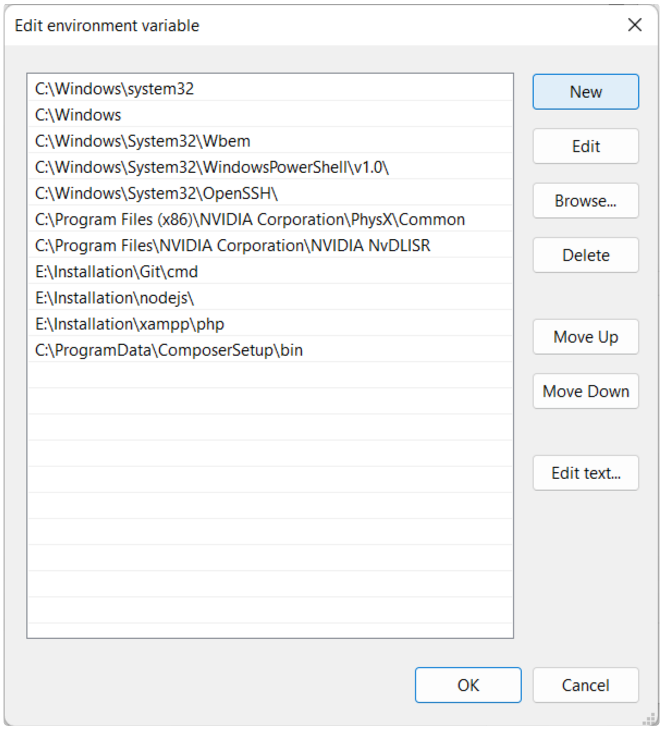
User variables for zhafr

Variable	Value
OneDrive	C:\Users\zhafr\OneDrive
OneDriveConsumer	C:\Users\zhafr\OneDrive
Path	C:\Users\zhafr\AppData\Local\Microsoft\WindowsApps;E:\Ins...
TEMP	C:\Users\zhafr\AppData\Local\Temp
TMP	C:\Users\zhafr\AppData\Local\Temp

System variables

Variable	Value
NUMBER_OF_PROCESSORS	16
OS	Windows_NT
Path	C:\Windows\system32;C:\Windows;C:\Windows\System32\Wb...
PATHEXT	.COM;.EXE;.BAT;.CMD;.VBS;.VBE;.JS;.JSE;.WSF;.WSH;.MSC
PROCESSOR_ARCHITECTU...	AMD64
PROCESSOR_IDENTIFIER	AMD64 Family 23 Model 96 Stepping 1, AuthenticAMD
PROCESSOR_LEVEL	23

5. Click New and paste the directory path for php under xampp folder installed in your local machine then click OK.



```
C:\Windows\system32
C:\Windows
C:\Windows\System32\Wbem
C:\Windows\System32\WindowsPowerShell\v1.0\
C:\Windows\System32\OpenSSH\
C:\Program Files (x86)\NVIDIA Corporation\PhysX\Common
C:\Program Files\NVIDIA Corporation\NVIDIA NvDLISR
E:\Installation\Git\cmd
E:\Installation\nodejs\
E:\Installation\xampp\php
C:\ProgramData\ComposerSetup\bin
```

6. In the Command Prompt, you may check whether PHP is installed by executing the following command.

```
php -v
```

1.4. Install Visual Studio Code

Assuming you have not yet installed VS Code. It is a lightweight but powerful source code editor.

1. Download VS Code via https://code.visualstudio.com/download
2. Open VS Code.
3. On the left side bar, click Extensions (Shortcut: Ctrl + Shift + X).
4. In the search bar, search for PHP.
5. Install PHP Extension Pack.

1.5. Install Composer

> Assuming you have not yet installed Composer. It helps with dependency management in PHP.

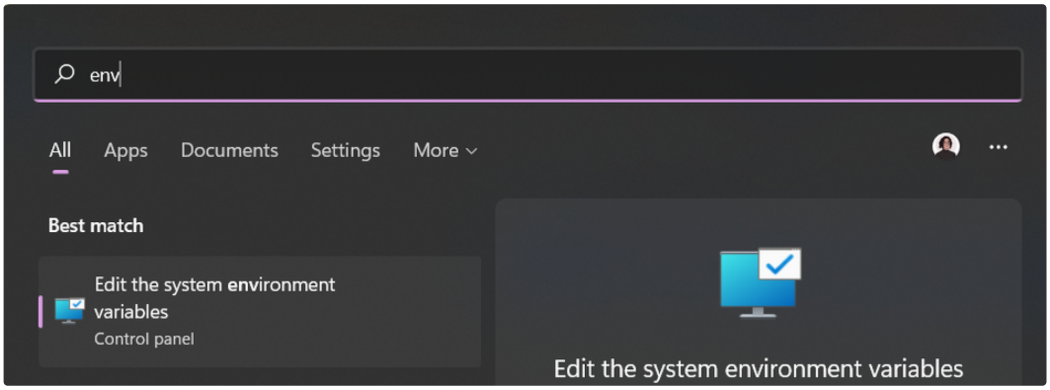
1. Download Composer via https://getcomposer.org/Composer-Setup.exe
2. In the Command Prompt, you may check whether Composer is installed by executing the following command.

```
composer -V
```

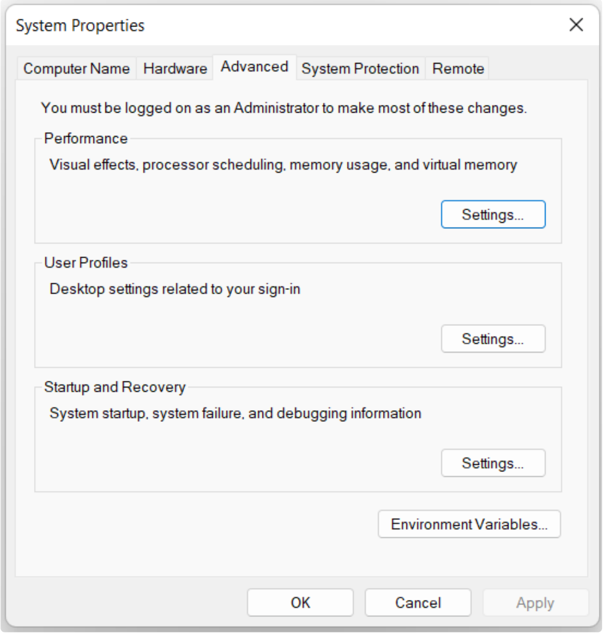
1.6. Install Node

> Assuming you have not yet installed Node. It renders JavaScript content before delivering to a web browser.

1. Download Node.js installer via https://nodejs.org/dist/v16.17.0/node-v16.17.0-x64.msi
2. Go to search bar and search for “env” then click “Edit the system environment variables”.


env
All
Apps
Documents
Settings
More
Best match
Edit the system environment variables
Control panel
Edit the system environment variables

3. Click Environment Variables located at the bottom.



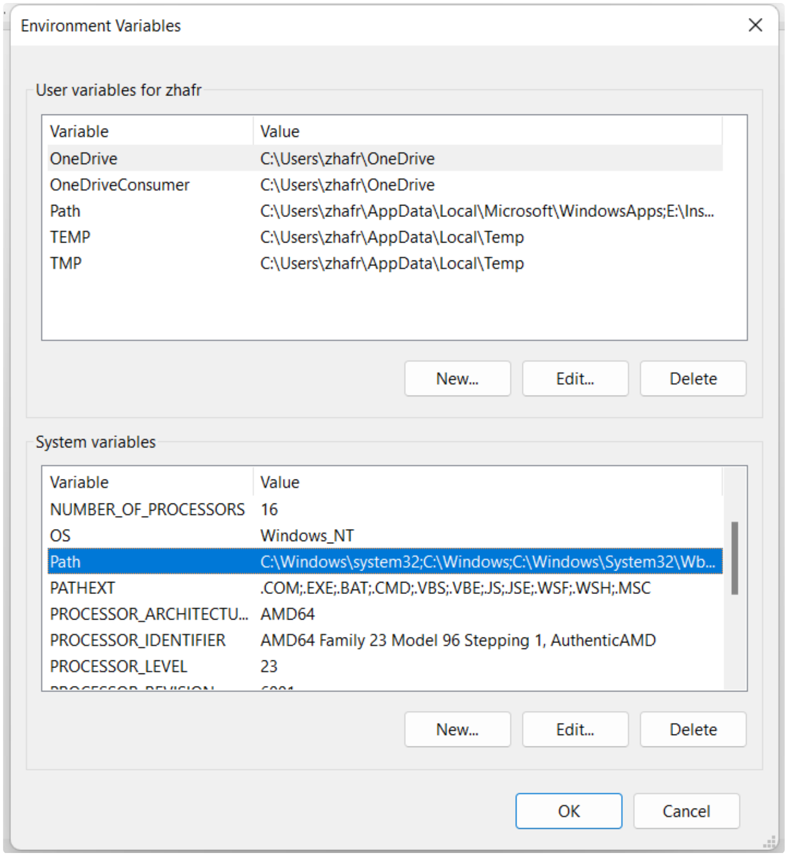
You must be logged on as an Administrator to make most of these changes.

Visual effects, processor scheduling, memory usage, and virtual memory

Desktop settings related to your sign-in

System startup, system failure, and debugging information

4. Under System variables, click Path then click Edit.



User variables for zhafr

Variable	Value
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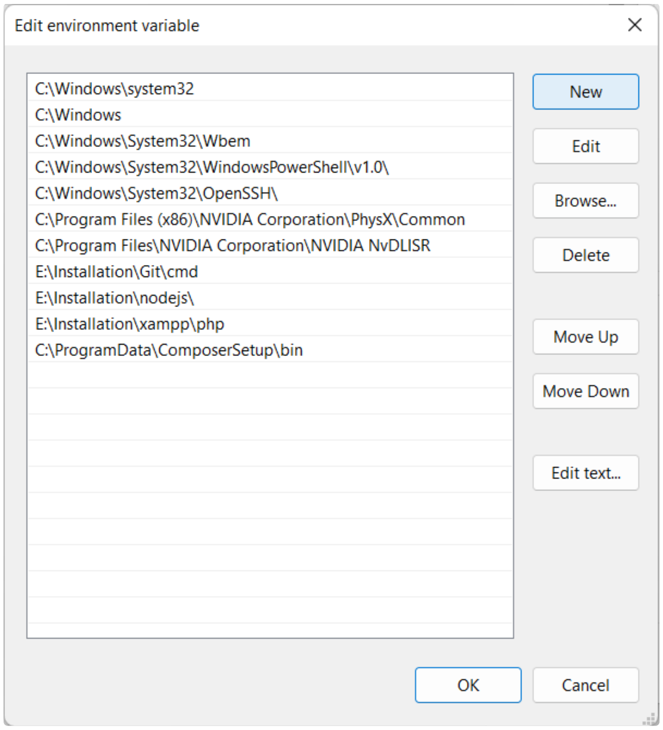
Path	C:\Users\zhafr\AppData\Local\Microsoft\WindowsApps;E:\Ins...
TEMP	C:\Users\zhafr\AppData\Local\Temp
TMP	C:\Users\zhafr\AppData\Local\Temp

System variables

Variable	Value
NUMBER_OF_PROCESSORS	16
OS	Windows_NT
Path	C:\Windows\system32;C:\Windows;C:\Windows\System32\Wb...
PATHEXT	.COM;.EXE;.BAT;.CMD;.VBS;.VBE;.JS;.JSE;.WSF;.WSH;.MSC
PROCESSOR_ARCHITECTU...	AMD64
PROCESSOR_IDENTIFIER	AMD64 Family 23 Model 96 Stepping 1, AuthenticAMD
PROCESSOR_LEVEL	23

5. Click New and paste the directory path for nodejs file installed in your local machine then click OK.



C:\Windows\system32
C:\Windows
C:\Windows\System32\Wbem
C:\Windows\System32\WindowsPowerShell\v1.0\
C:\Windows\System32\OpenSSH\
C:\Program Files (x86)\NVIDIA Corporation\PhysX\Common
C:\Program Files\NVIDIA Corporation\NVIDIA NvDLISR
E:\Installation\Git\cmd
E:\Installation\nodejs\
E:\Installation\xampp\php
C:\ProgramData\ComposerSetup\bin

6. In the Command Prompt, you may check whether Node is installed by executing the following command.

```
node -v
```

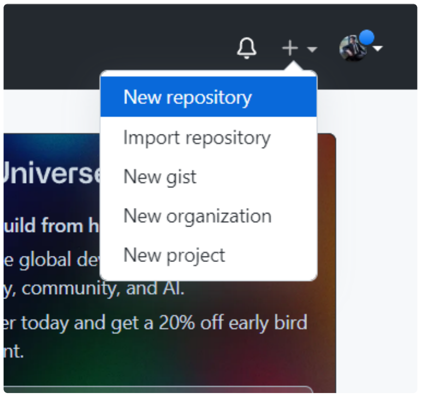
7. In the Command Prompt, you may check whether NPM is installed by executing the following command.

```
npm -v
```

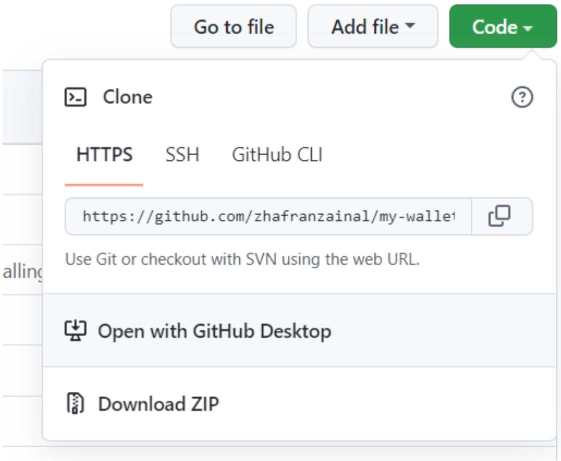
2. Setting Up App

2.1. Create and clone a repository

1. Access GitHub in the browser via https://github.com
2. Login to GitHub.
3. On the right of the top bar, select ‘+’ > New repository.



4. Complete the fields such as repository name (in this case is my-wallet).
5. Check Add a README file.
6. Click Create repository.
7. Just upper-right corner of the files list, select Code > Open with GitHub Desktop.



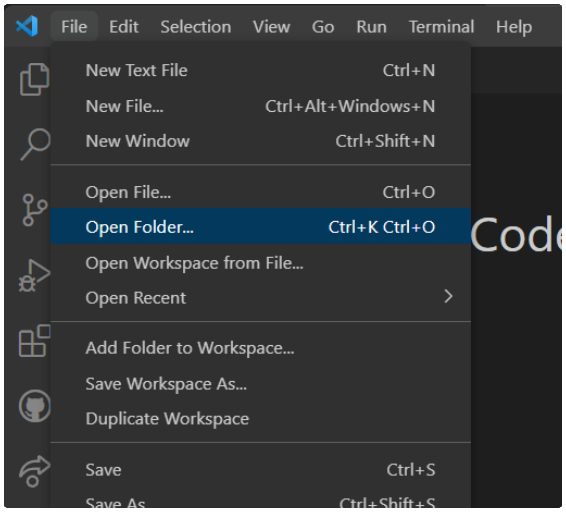
```
https://github.com/zhafranzainal/my-wallet
```

Use Git or checkout with SVN using the web URL.

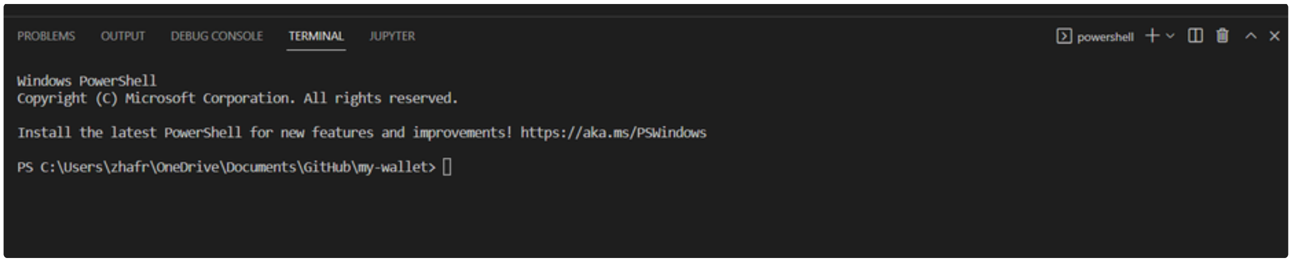
8. Click Clone.

2.2. Create a new project

1. Open VS Code.
2. On the top bar, select File > Open Folder and browse to Documents\GitHub\my-wallet.



3. Open terminal (Shortcut: Ctrl + ` key).



```
Windows PowerShell
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PS C:\Users\zhafr\OneDrive\Documents\GitHub\my-wallet> 
```
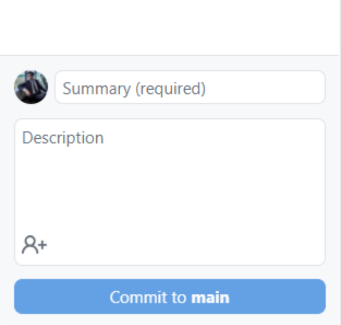
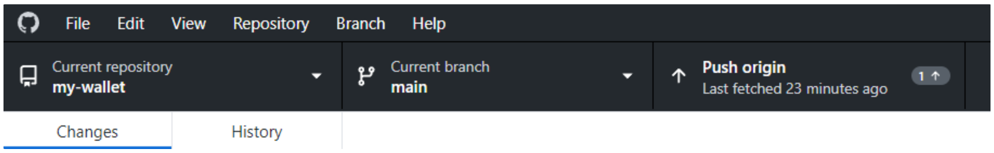

4. Create a new Laravel project via the Composer by executing the create-project command. Replace “example-app” with your desired app name (which is my-wallet in this case).

```
composer create-project laravel/laravel example-app
```

5. Go to GitHub Desktop and complete the Summary field.



6. Click Commit to main.
7. On the right of the top bar, click Push origin.



2.3. Install dependencies

1. Go to VS Code’s terminal.
2. Install libraries that go in node_modules folder for front-end purpose by executing the following command.

```
npm install
```

3. Install libraries that go in vendor folder for back-end purpose by executing the following command.

```
composer install
```

4. Update dependencies for composer by executing the following command.

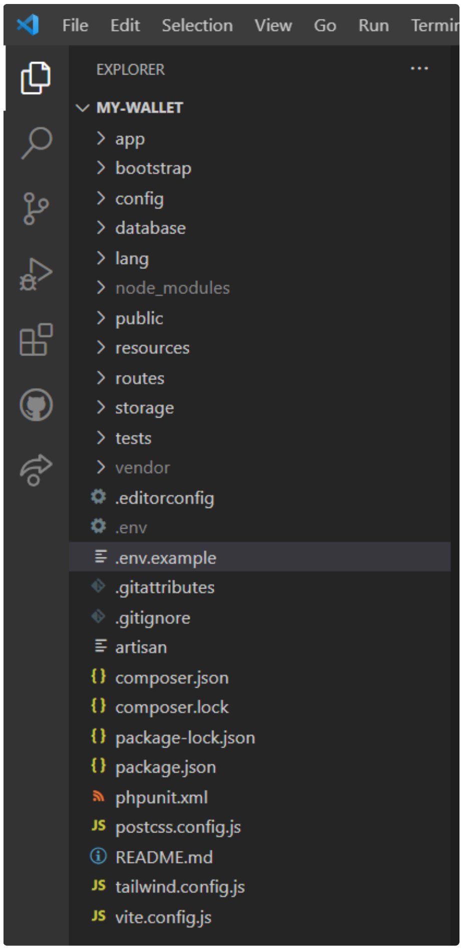
```
composer update
```

5. Go to GitHub Desktop and complete the Summary field.
6. Click Commit to main.
7. On the right of the top bar, click Push origin.

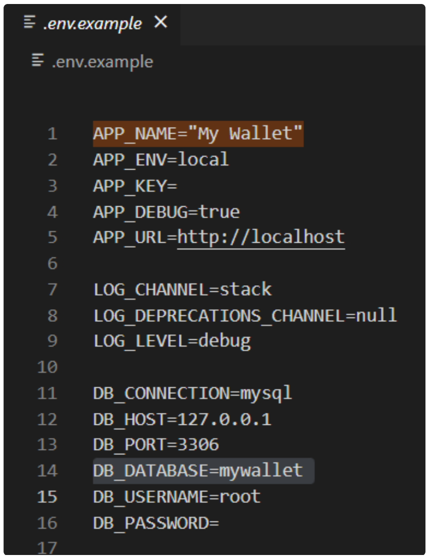
2.4. Setup database

In order to avoid access violation: 1071 (specified key was too long) in production later, go to config\database.php and add to 'mysql.engine' as 'InnoDB'.

1. On the left sidebar of VS Code, select ".env.example" file which contains configuration for your environment variables such as database name.



2. Change APP_NAME to "My Wallet" and DB_DATABASE to mywallet then save (Shortcut: Ctrl + s).



```
APP_NAME="My Wallet"
APP_ENV=local
APP_KEY=
APP_DEBUG=true
APP_URL=http://localhost

LOG_CHANNEL=stack
LOG_DEPRECATIONS_CHANNEL=null
LOG_LEVEL=debug

DB_CONNECTION=mysql
DB_HOST=127.0.0.1
DB_PORT=3306
DB_DATABASE=mywallet
DB_USERNAME=root
DB_PASSWORD=
```

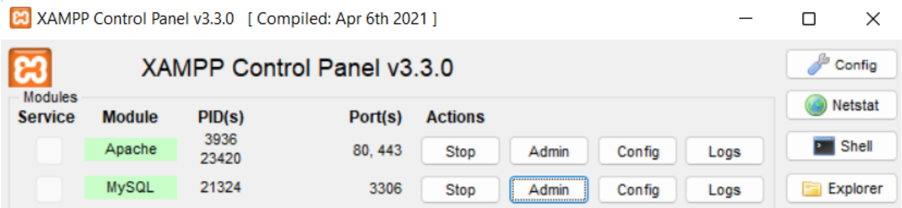
3. Go to VS Code's terminal.
4. Copy the ".env.example" file to ".env" file by executing the following command.

```
cp .env.example .env
```

5. Generate the application key by executing the following command.

```
php artisan key:generate
```

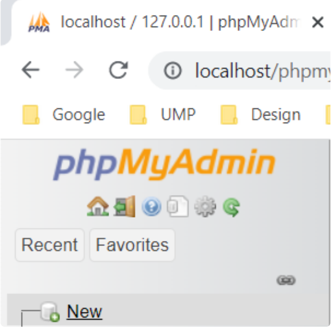
6. Go to XAMPP Control Panel, start Apache and MySQL then click Admin (MySQL).



XAMPP Control Panel v3.3.0 [Compiled: Apr 6th 2021]
XAMPP Control Panel v3.3.0
Config
Netstat
Shell
Explorer
Modules

Service	Module	PID(s)	Port(s)	Actions			
□	Apache	3936 23420	80, 443	Stop	Admin	Config	Logs
□	MySQL	21324	3306	Stop	Admin	Config	Logs

7. On the left sidebar, click New and create database named mywallet.



8. Go to VS Code's terminal.
9. Run the migrations by executing the following command.

```
php artisan migrate:fresh --seed
```

10. Go to GitHub Desktop and complete the Summary field.
11. Click Commit to main.
12. On the right of the top bar, click Push origin.

2.5. Implement app's login and registration

ⓘ Learn more about Jetstream via https://jetstream.laravel.com/2.x/introduction.html

1. Go to VS Code's terminal.
2. Install Jetstream into the project via the Composer by executing the require command.

```
composer require laravel/jetstream
```

3. Install Jetstream with Livewire by executing the following command.

```
php artisan jetstream:install livewire
```

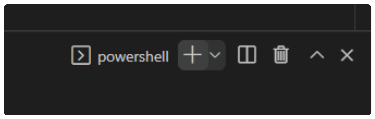
4. Install and build NPM dependencies then migrate database by executing the following command.

```
npm install
npm run build
php artisan migrate:fresh --seed
```

5. Go to GitHub Desktop and complete the Summary field.
6. Click Commit to main.
7. On the right of the top bar, click Push origin.

2.6. Run application

1. Add new terminal in the VS Code (Shortcut: Ctrl + Shift + `).



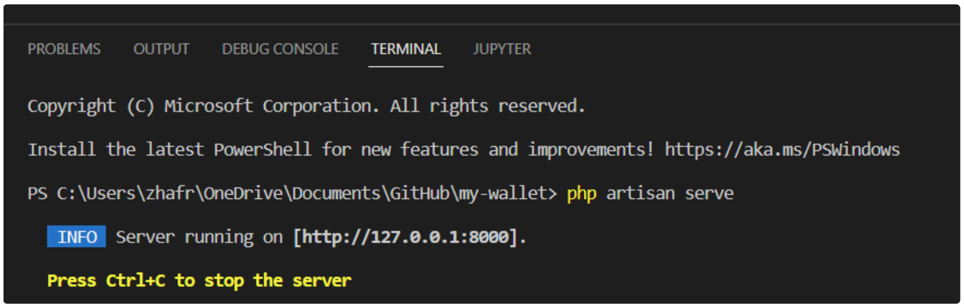
2. Run the dev script defined in the project's "package.json" file by executing the following command in the new terminal.

```
npm run dev
```

3. Start Laravel's local development server by executing the following command in the other terminal.

```
php artisan serve
```

4. Follow server link provided (Shortcut: Ctrl + click).



```
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PS C:\Users\zhafr\OneDrive\Documents\GitHub\my-wallet> php artisan serve

  INFO  Server running on [http://127.0.0.1:8000].

  Press Ctrl+C to stop the server
```

3. Getting Started (API Development)

3.1. Install Postman

ℹ Assuming you have not yet installed Postman app. It is used to build and test APIs by reading their responses.

1. Download Postman via https://dl.pstmn.io/download/latest/win64
2. Login to Postman.

Related articles

- Git Setup & Laravel Installation
- API Testing

- Deploy Laravel Project to Server
- Clone/Create New Project
- Laravel Commands Dictionary