DBWT
Laragon Setup

with Composer, PostgreSQL, NPM, Apache, Redis, Laravel

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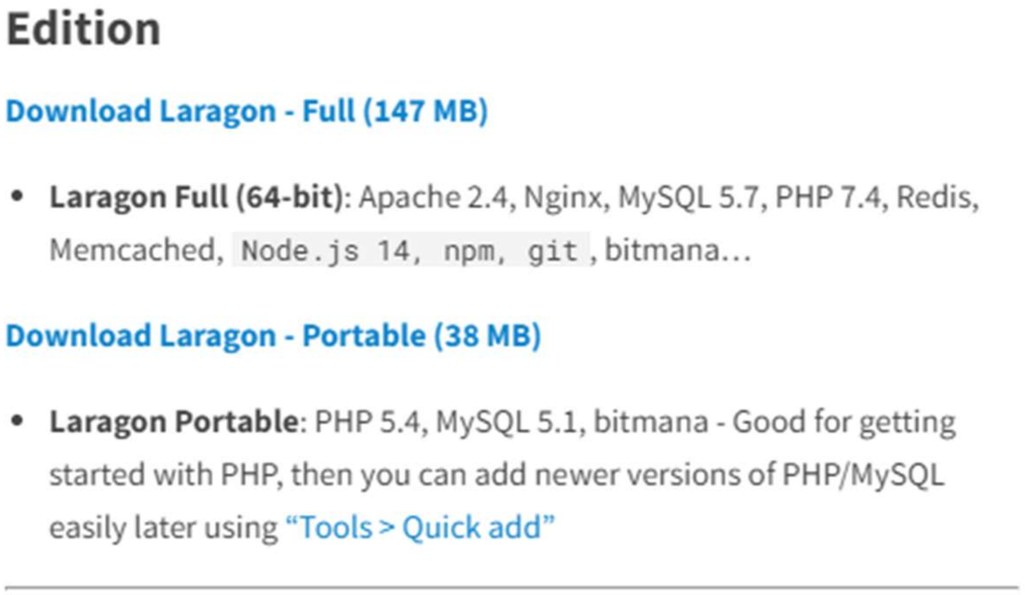
Disclaimer

- There are many different ways to setup Laravel on a machine
- Laragon offers a wide variety of development tools that can be also installed separately but is intended to ease the development process
- You do not have to use every part of Laragon if you already use a separate installation of a particular module

Laragon
Installation

- You can download the „Full-Version‟ of Laragon with the link below: https://laragon.org/download/



Edition

Download Laragon - Full (147 MB)

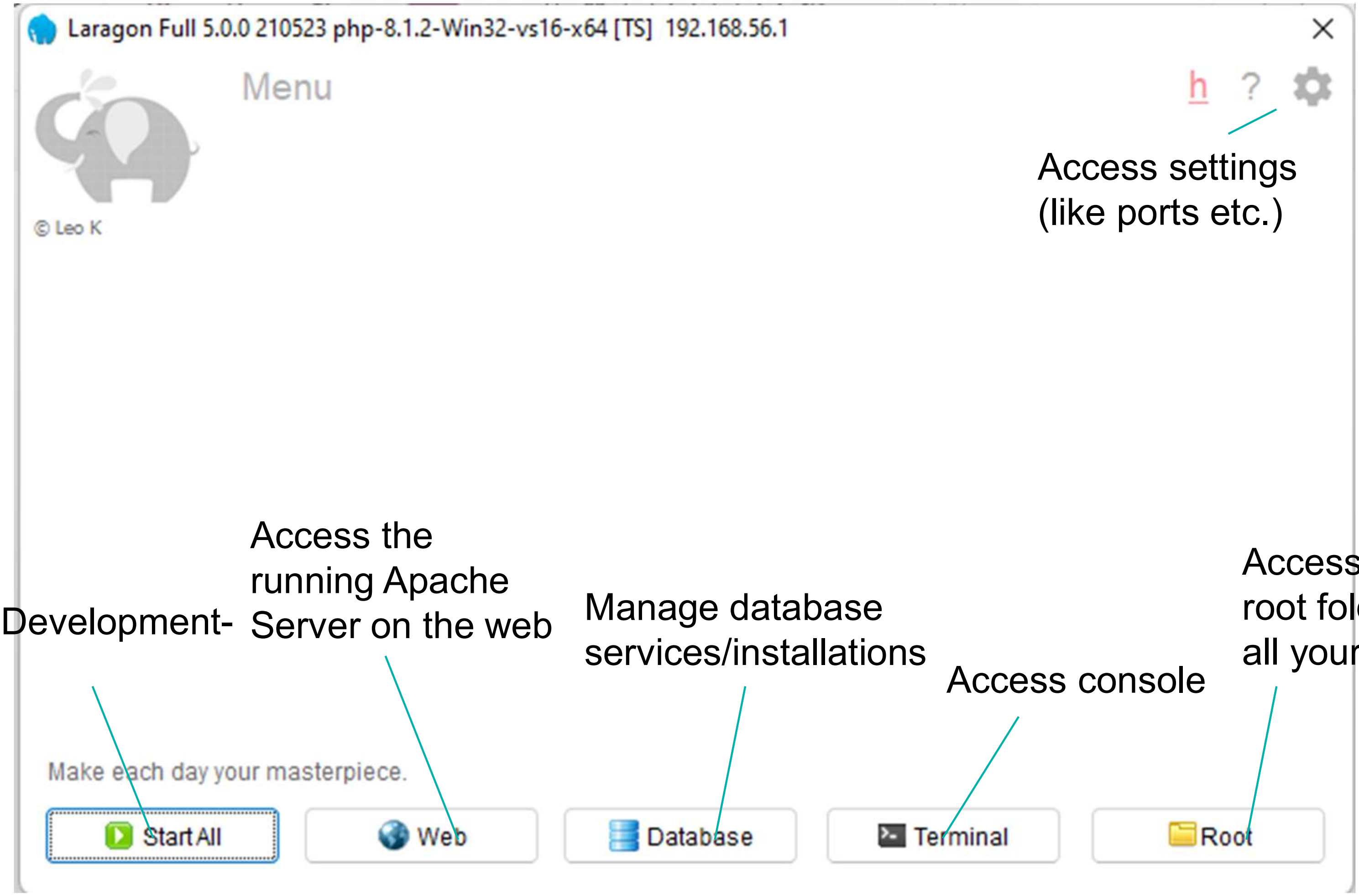
- **Laragon Full (64-bit)**: Apache 2.4, Nginx, MySQL 5.7, PHP 7.4, Redis, Memcached, `Node.js 14, npm, git`, bitmana...

Download Laragon - Portable (38 MB)

- **Laragon Portable**: PHP 5.4, MySQL 5.1, bitmana - Good for getting started with PHP, then you can add newer versions of PHP/MySQL easily later using "Tools > Quick add"

Laragon
Installation

- Once installed, here is a quick preview of the Home-Panel:



Laragon Full 5.0.0 210523 php-8.1.2-Win32-vs16-x64 [TS] 192.168.56.1

Make each day your masterpiece.

Access settings (like ports etc.)

Start all Development-Servers

Access the running Apache Server on the web

Manage database services/installations

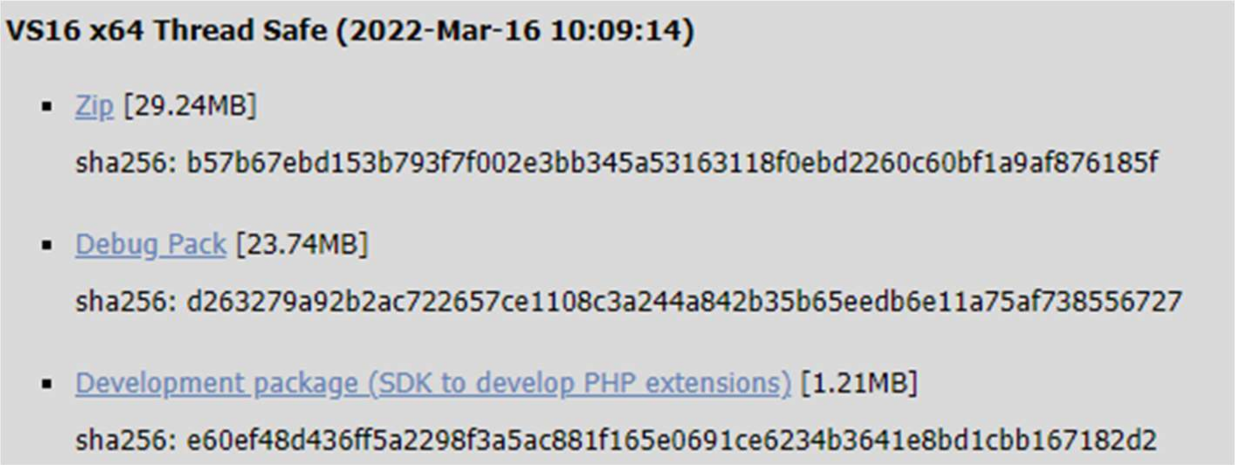
Access console

Access the root folder of all your projects

PHP Upgrade

Preparing for Laravel 9

- Per default, Laragon comes with a PHP installation of version 7.4
- Since the release of Laravel 9 we require at least a version of 8.0
- If you already have the newest version installed, you can skip this part
- https://windows.php.net/download



VS16 x64 Thread Safe (2022-Mar-16 10:09:14)

- Zip [29.24MB]

  sha256: b57b67ebd153b793f7f002e3bb345a53163118f0ebd2260c60bf1a9af876185f

- Debug Pack [23.74MB]

  sha256: d263279a92b2ac722657ce1108c3a244a842b35b65eedb6e11a75af738556727

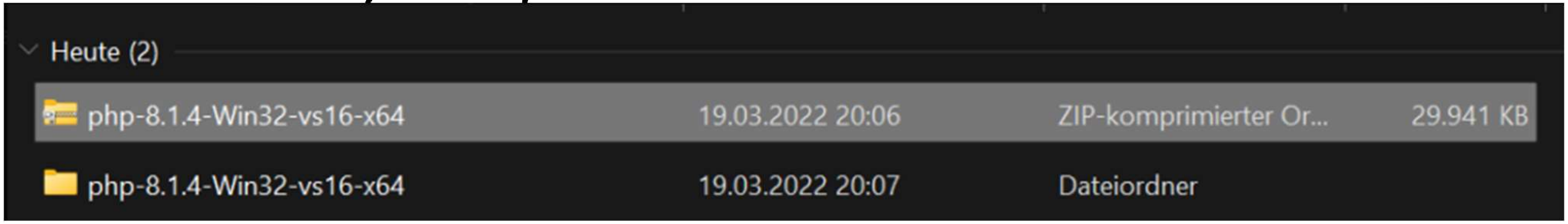
- Development package (SDK to develop PHP extensions) [1.21MB]

  sha256: e60ef48d436ff5a2298f3a5ac881f165e0691ce6234b3641e8bd1cbb167182d2

Generally, you should Download a Thread Safe Version

PHP Upgrade
Preparing for Laravel 9

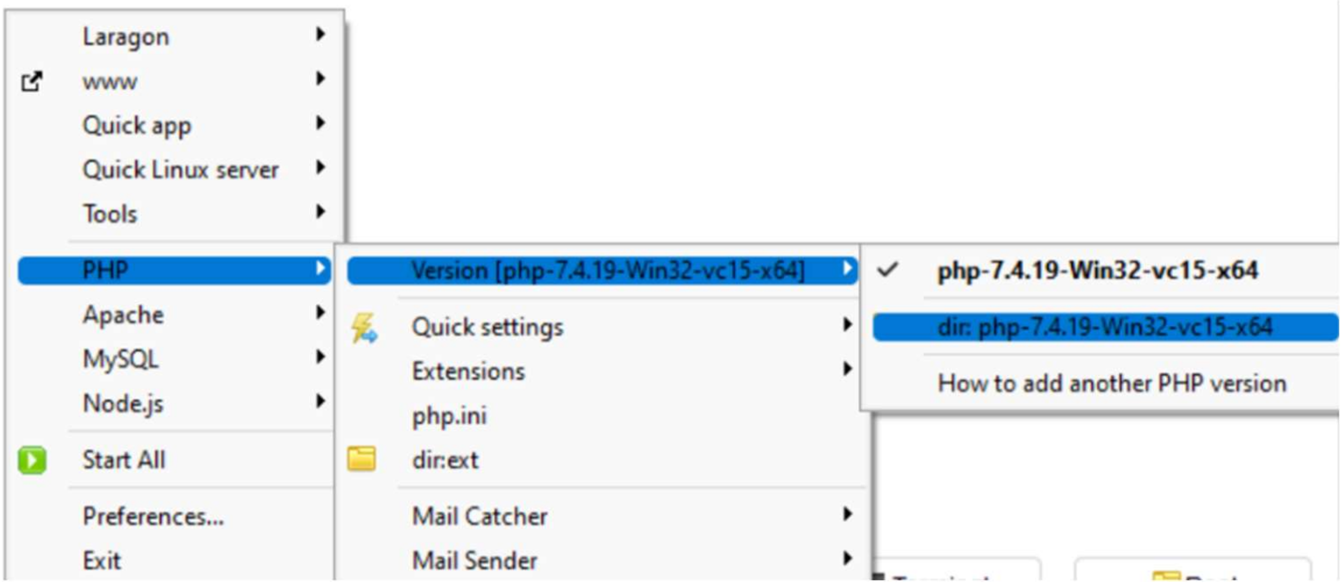
- Once downloaded you can extract the zip to a location of your preference



Heute (2)

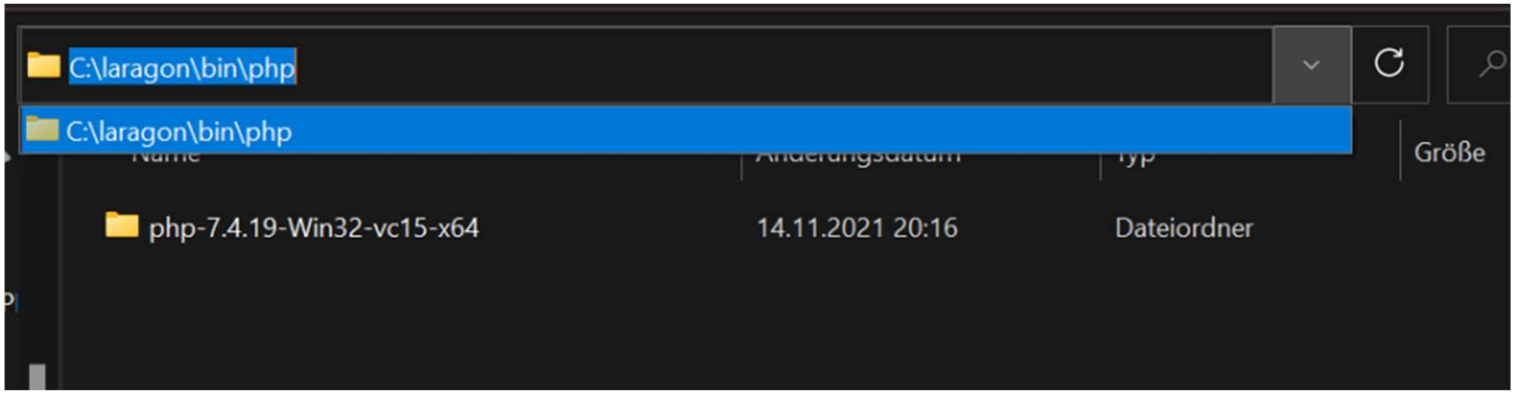
php-8.1.4-Win32-vs16-x64	19.03.2022 20:06	ZIP-komprimierter Or...	29.941 KB
php-8.1.4-Win32-vs16-x64	19.03.2022 20:07	Dateiordner	

- Right click at the home panel to access your current PHP-Folder



PHP Upgrade
Preparing for Laravel 9

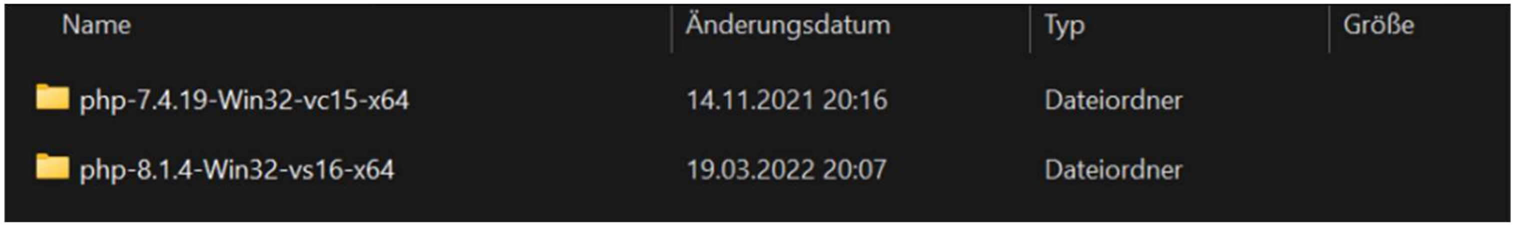
- In your „Laragon\bin\php" directory you can paste the newly downloaded version of PHP



C:\laragon\bin\php

C:\laragon\bin\php

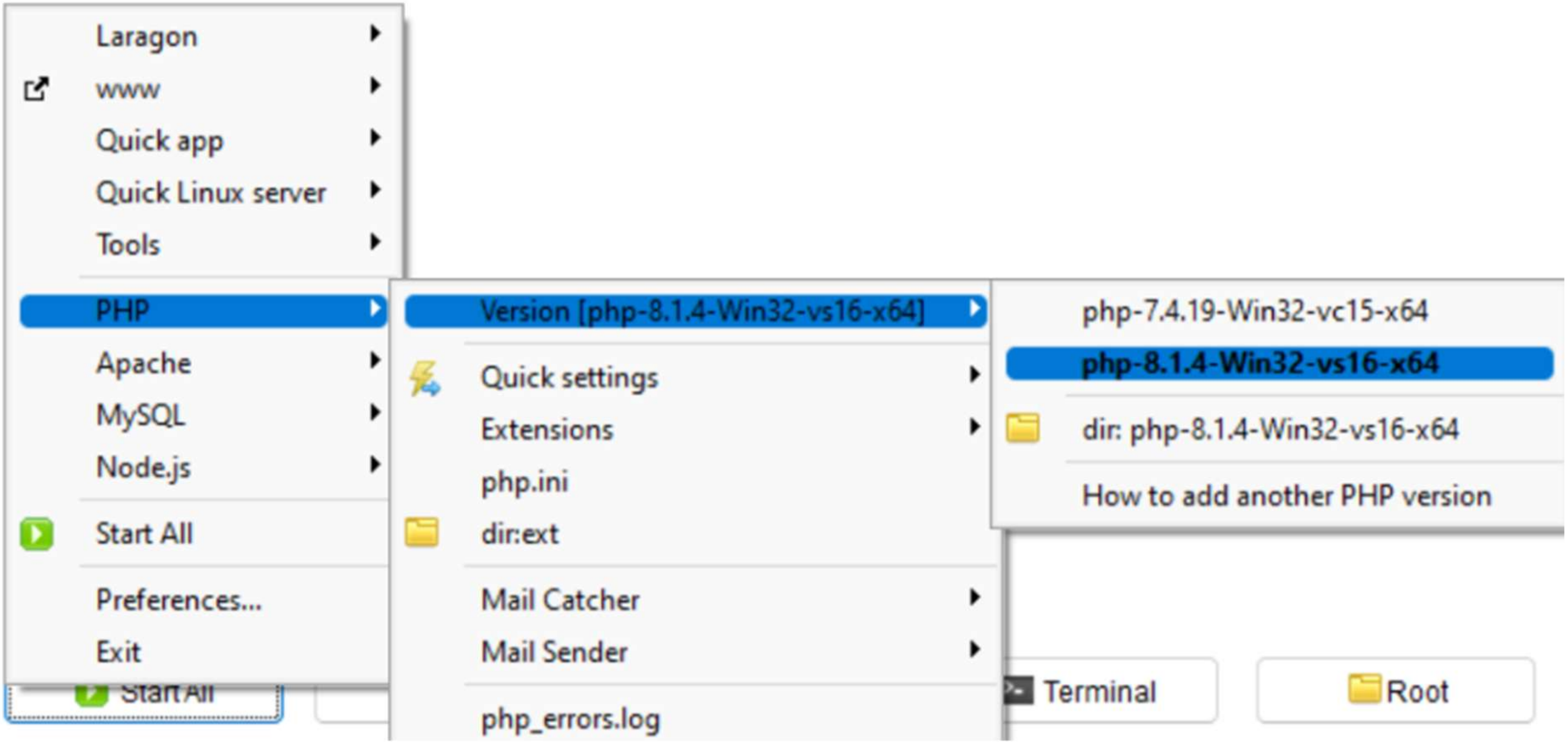
Name	Änderungsdatum	Typ	Größe
php-7.4.19-Win32-vc15-x64	14.11.2021 20:16	Dateiordner	



Name	Änderungsdatum	Typ	Größe
php-7.4.19-Win32-vc15-x64	14.11.2021 20:16	Dateiordner	
php-8.1.4-Win32-vs16-x64	19.03.2022 20:07	Dateiordner	

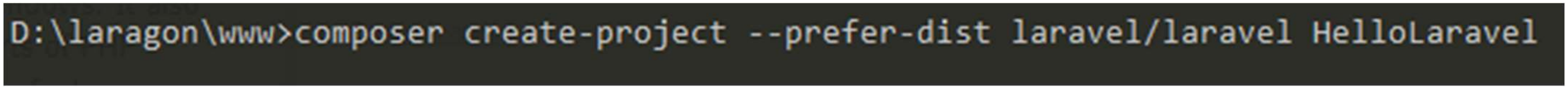
PHP Upgrade
Preparing for Laravel 9

- Now all we need to do is to select the new version at the home panel (right click again)



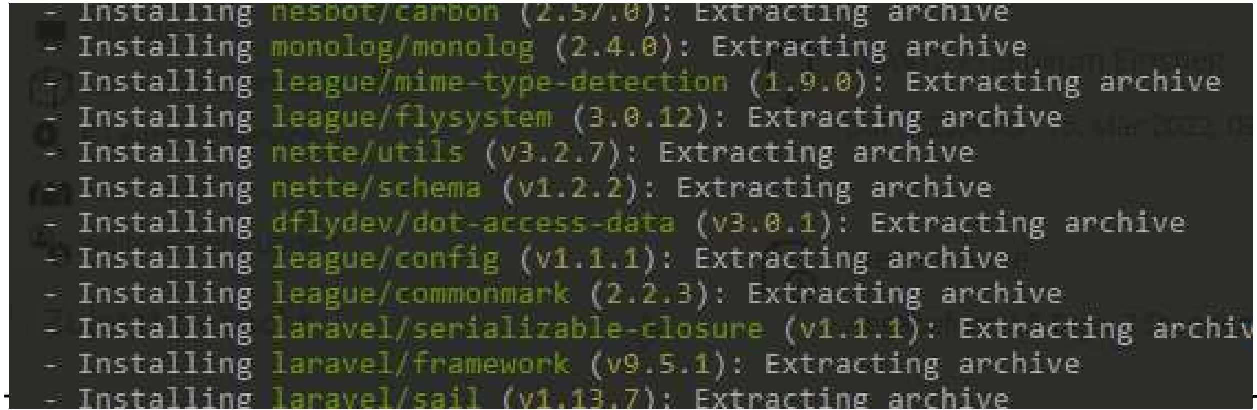
Laravel Setup
Setup your first Laravel Project

- To create our first project open the console and type in following line to install a project called „HelloLaravel“ (You can use another name)
- The option „prefer-dist“ tries to download and unzip archives of the dependencies using GitHub or another API when available



```
D:\laragon\www>composer create-project --prefer-dist laravel/laravel HelloLaravel
```

- This might take a while …

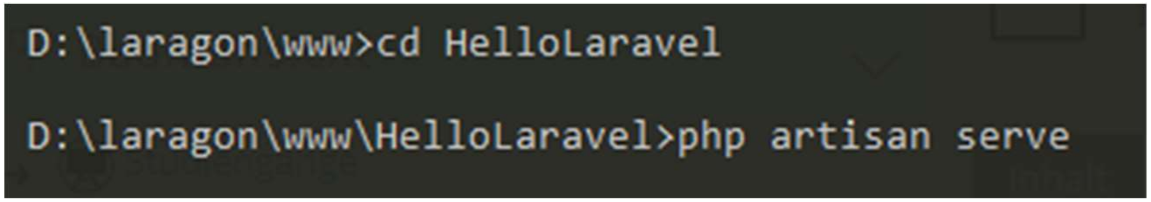


```
  - Installing nesbot/carbon (2.57.0): Extracting archive
  - Installing monolog/monolog (2.4.0): Extracting archive
  - Installing league/mime-type-detection (1.9.0): Extracting archive
  - Installing league/flysystem (3.0.12): Extracting archive
  - Installing nette/utils (v3.2.7): Extracting archive
  - Installing nette/schema (v1.2.2): Extracting archive
  - Installing dflydev/dot-access-data (v3.0.1): Extracting archive
  - Installing league/config (v1.1.1): Extracting archive
  - Installing league/commonmark (2.2.3): Extracting archive
  - Installing laravel/serializable-closure (v1.1.1): Extracting archiv
  - Installing laravel/framework (v9.5.1): Extracting archive
  - Installing laravel/sail (v1.13.7): Extracting archive
```

Laravel Setup

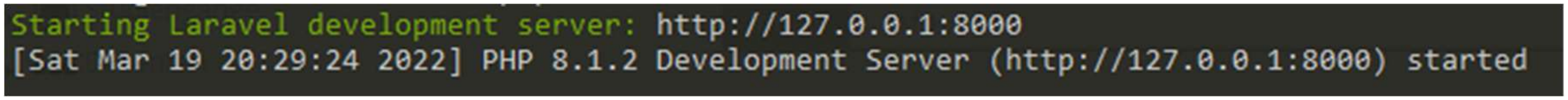
Setup your first Laravel Project

- Change the directory to the new project and start the Development-Server



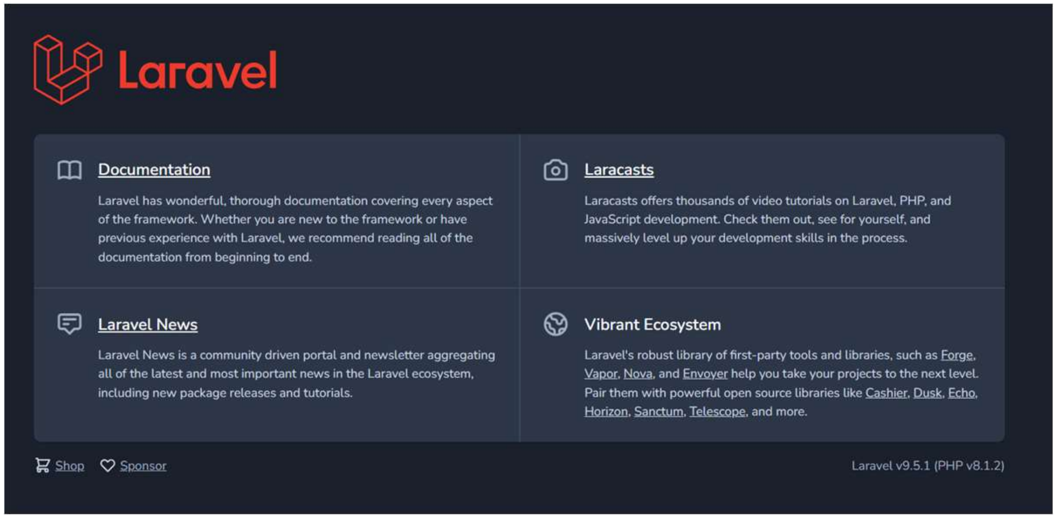
```
D:\laragon\www>cd HelloLaravel

D:\laragon\www\HelloLaravel>php artisan serve
```



```
Starting Laravel development server: http://127.0.0.1:8000
[Sat Mar 19 20:29:24 2022] PHP 8.1.2 Development Server (http://127.0.0.1:8000) started
```

- Access the Server in your browser with http://127.0.0.1:8000 and your good to go
- You can also stop the Server with Ctrl+C



Documentation

Laravel has wonderful, thorough documentation covering every aspect of the framework. Whether you are new to the framework or have previous experience with Laravel, we recommend reading all of the documentation from beginning to end.

Laracasts

Laracasts offers thousands of video tutorials on Laravel, PHP, and JavaScript development. Check them out, see for yourself, and massively level up your development skills in the process.

Laravel News

Laravel News is a community driven portal and newsletter aggregating all of the latest and most important news in the Laravel ecosystem, including new package releases and tutorials.

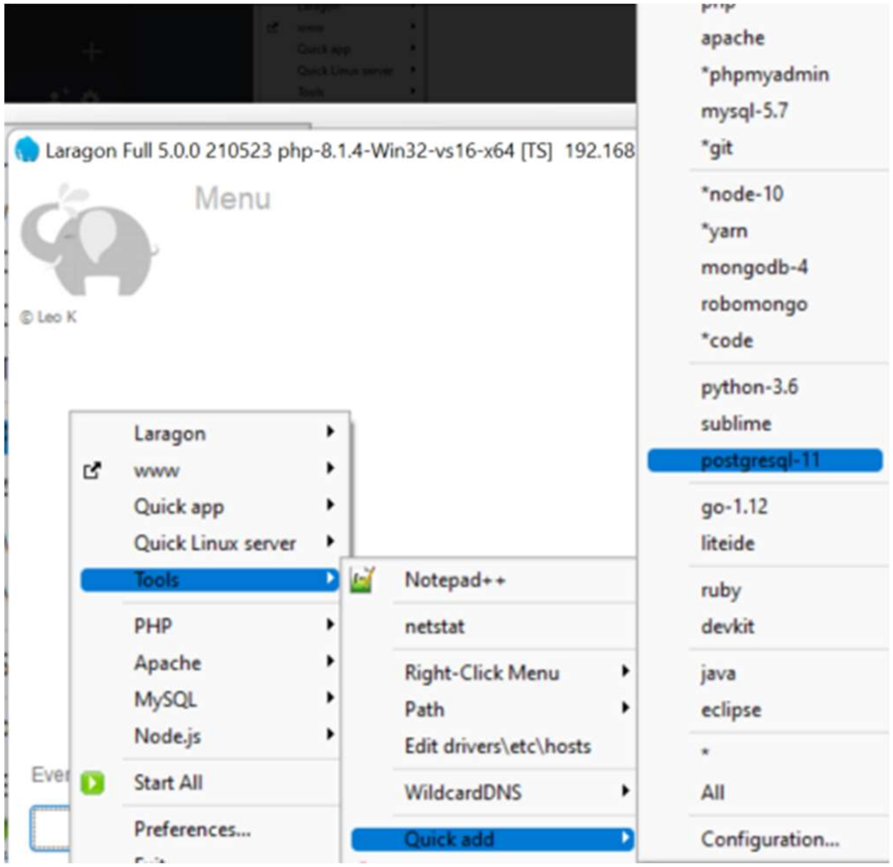
Vibrant Ecosystem

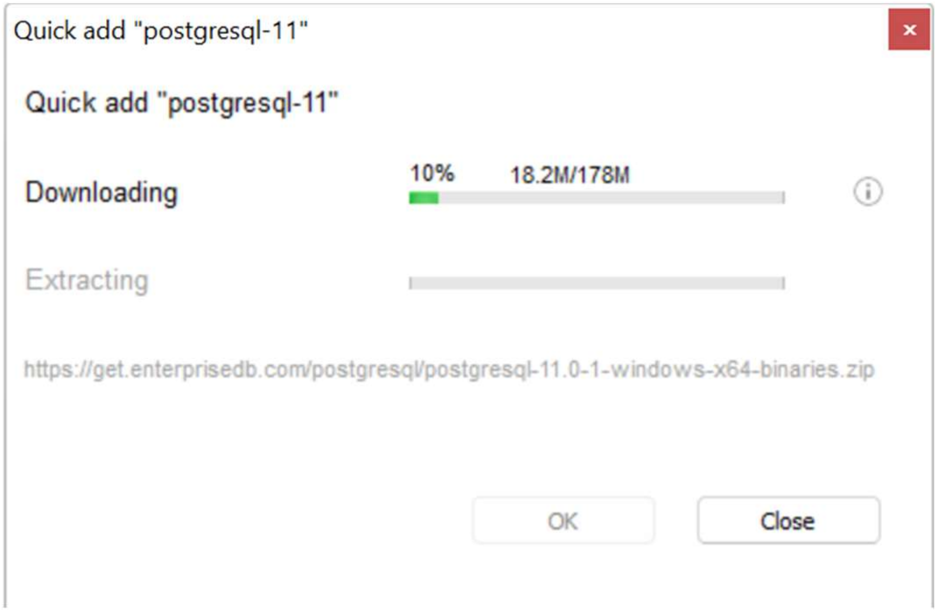
Laravel's robust library of first-party tools and libraries, such as Forge, Vapor, Nova, and Envoyer help you take your projects to the next level. Pair them with powerful open source libraries like Cashier, Dusk, Echo, Horizon, Sanctum, Telescope, and more.

Laravel v9.5.1 (PHP v8.1.2)

PostgreSQL
Setup a Database-Connection

- If you choose to use another DBMS like PostgreSQL you can easily set it up with Laragon as well (Tools->Quick add ->postgresql-11)




Quick add "postgresql-11"

Quick add "postgresql-11"

Downloading 10% 18.2M/178M

Extracting

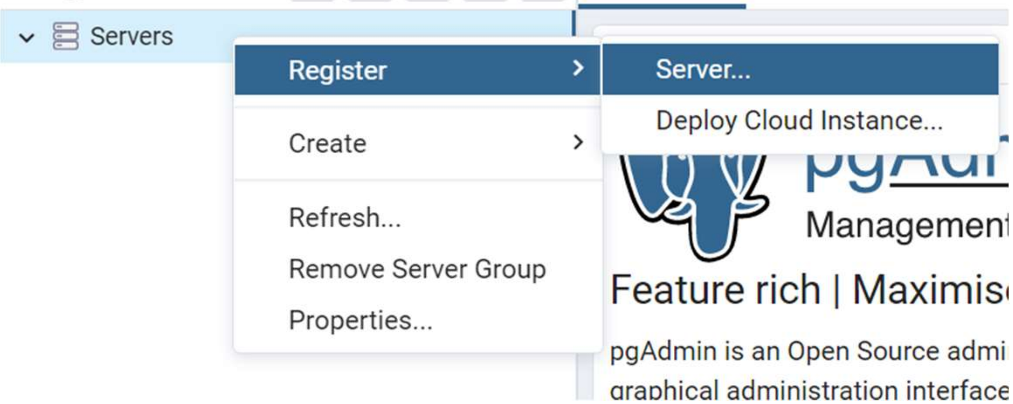
https://get.enterprisedb.com/postgresql/postgresql-11.0-1-windows-x64-binaries.zip

PostgreSQL
Setup a Database-Connection

- With the options „Start All“ the PostgreSQL Server will be started as well
- We can use Pgadmin to manage our PostgreSQL databases:
  https://www.pgadmin.org/download/pgadmin-4-windows/
- Next we will create a server on pgadmin so that it can recognize the running instance of PostgreSQL

PostgreSQL
Setup Pgadmin

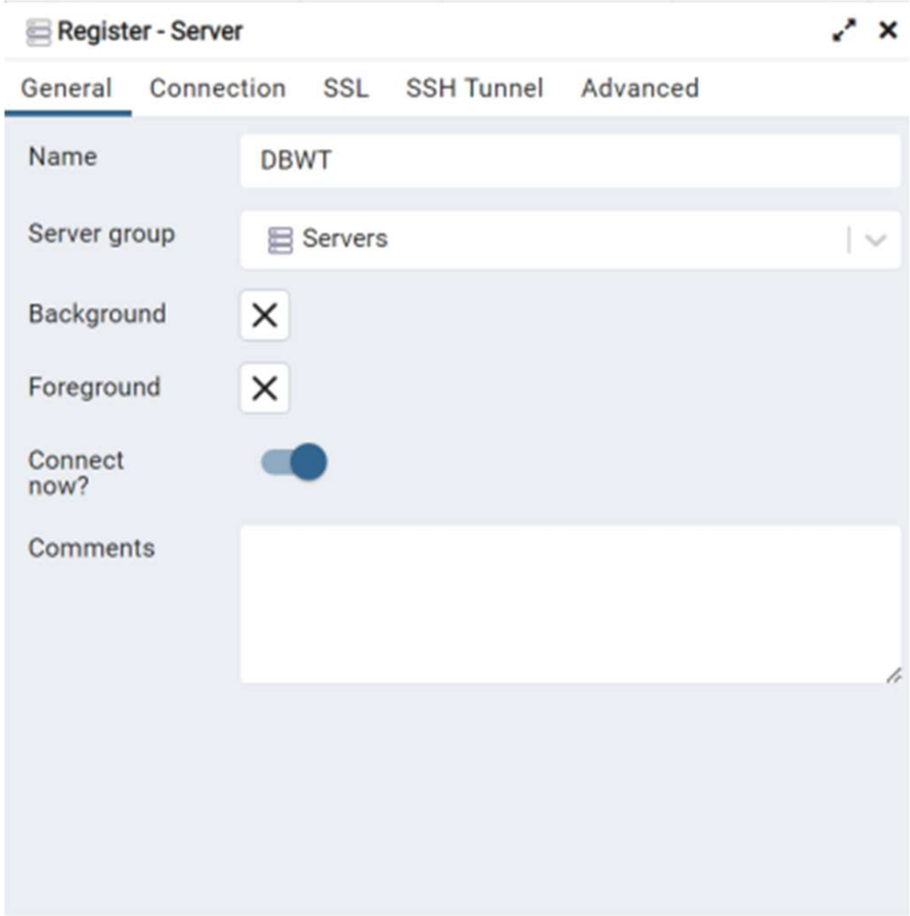
- Right click on „Servers“ to register a new Server



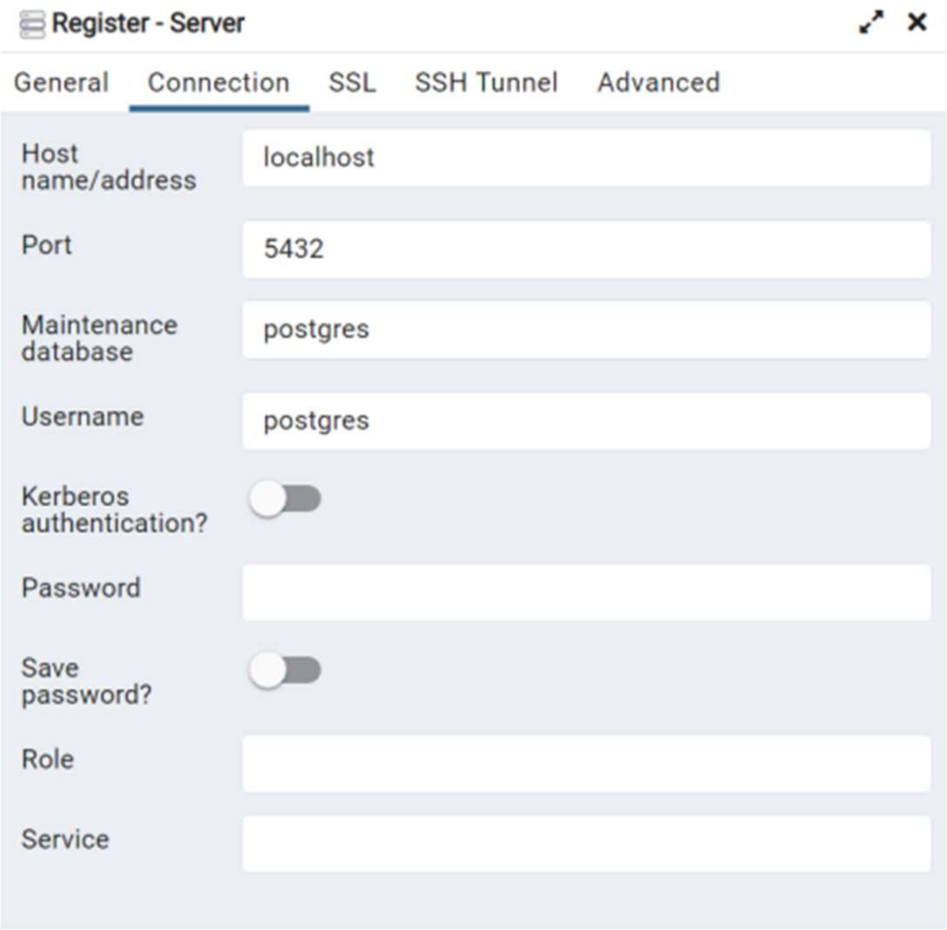
pgAdmin
Management
Feature rich | Maximis
pgAdmin is an Open Source admi
graphical administration interface

- Here you give your server a name and under „Connection“ the hostname/address „localhost“ (the port should be 5432 per default)

PostgreSQL
Setup Pgadmin



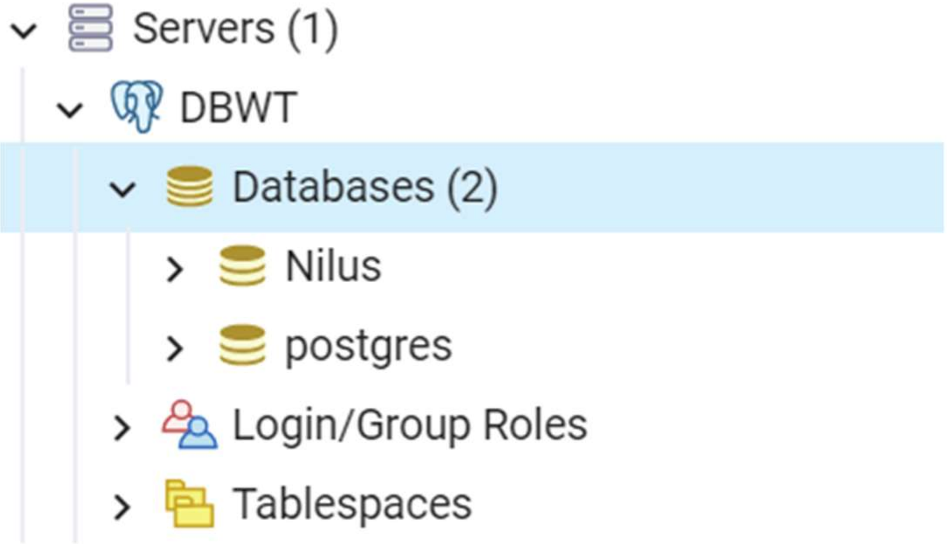
Name	DBWT
Server group	Servers
Background	☒
Foreground	☒
Connect now?	●
Comments	

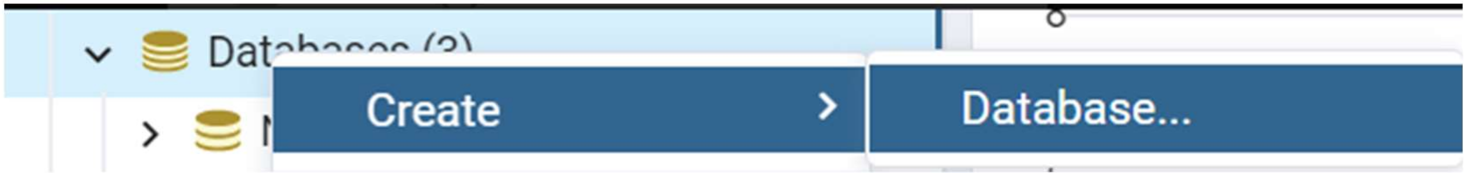


Host name/address	localhost
Port	5432
Maintenance database	postgres
Username	postgres
Kerberos authentication?	○
Password	
Save password?	○
Role	
Service	

PostgreSQL
Setup Pgadmin

- Now you can create a database for the laravel project



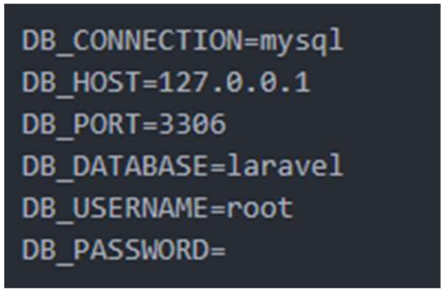


- I have called my database „hellolaravel"

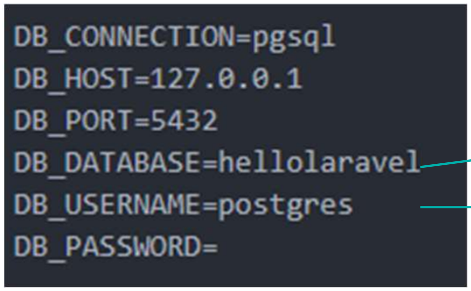
PostgreSQL
Connecting with the application

- In the .env file of your project you can now setup the database connection
- (if you use VSCode you can open the File Directory in VSCode directly by typing „code .“ in the console)

- In the .env file we will change the settings from mysql to pgsql



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



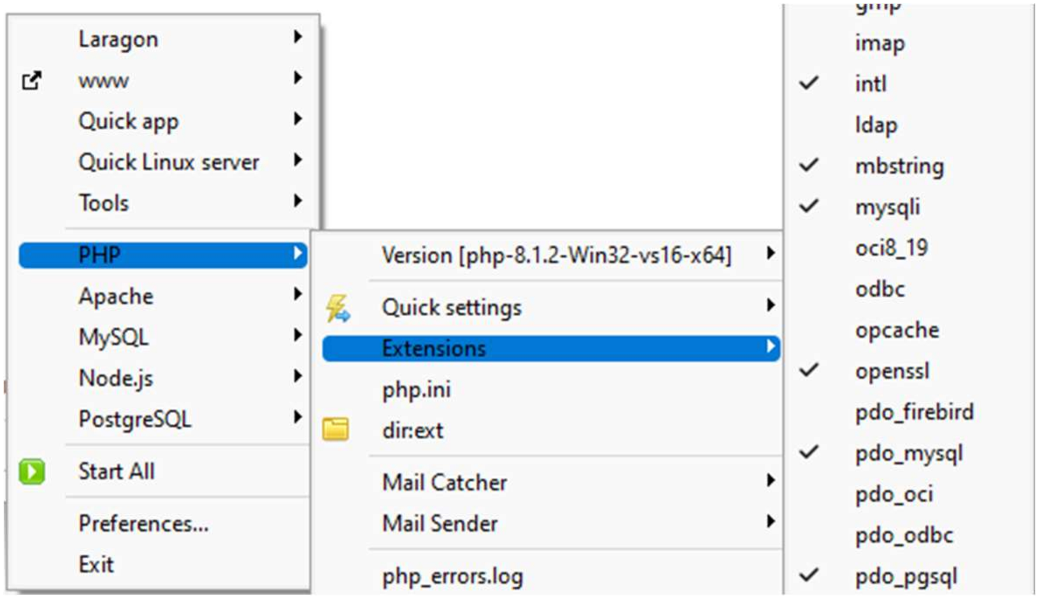
```
DB_CONNECTION=pgsql
DB_HOST=127.0.0.1
DB_PORT=5432
DB_DATABASE=hellolaravel
DB_USERNAME=postgres
DB_PASSWORD=
```

Databasename

Username

PostgreSQL
Enabling Extensions

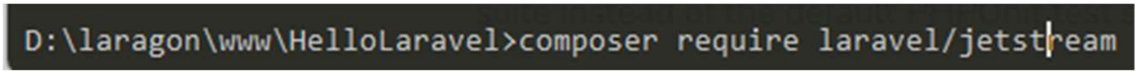
- Before trying to migrate tables in Laravel you need to make sure, that the extensions **pdo_pgsql** and **openssl** are enabled in php
- Otherwise you might get an error when migrating, denoting that a driver couldnt been found



Once again Rightclick at the Homepanel

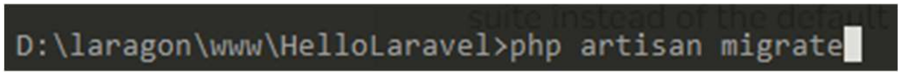
PostgreSQL
Connecting with the application

- To test our database connection we can simply run migrations
- Since I will not create any migrations-files i will use a laravel authentication package called „jetstream“ which comes with a user-migration
- To install jetstream run:



```
D:\laragon\www\HelloLaravel>composer require laravel/jetstream
```

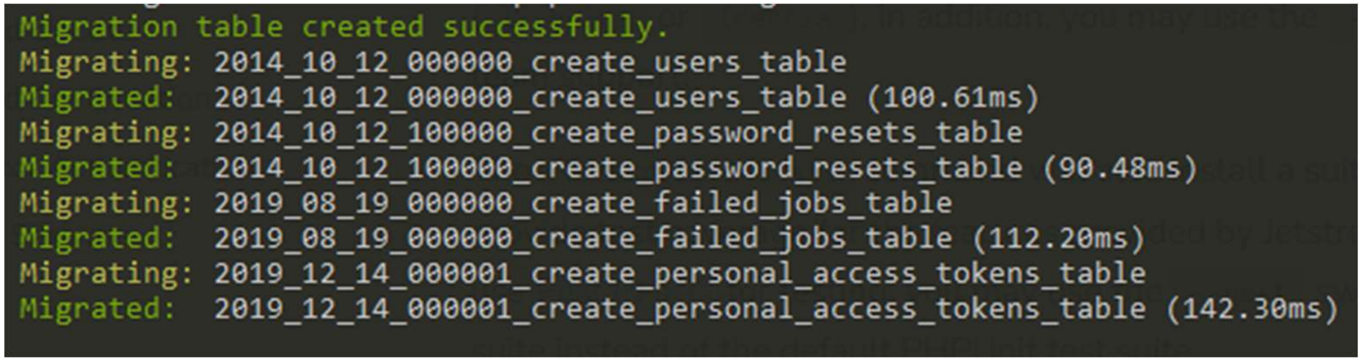
- Now lets migrate our user table:



```
D:\laragon\www\HelloLaravel>php artisan migrate
```

PostgreSQL
Connecting with the application

- If the database connection is properly setup the migrations should run flawlessly without error

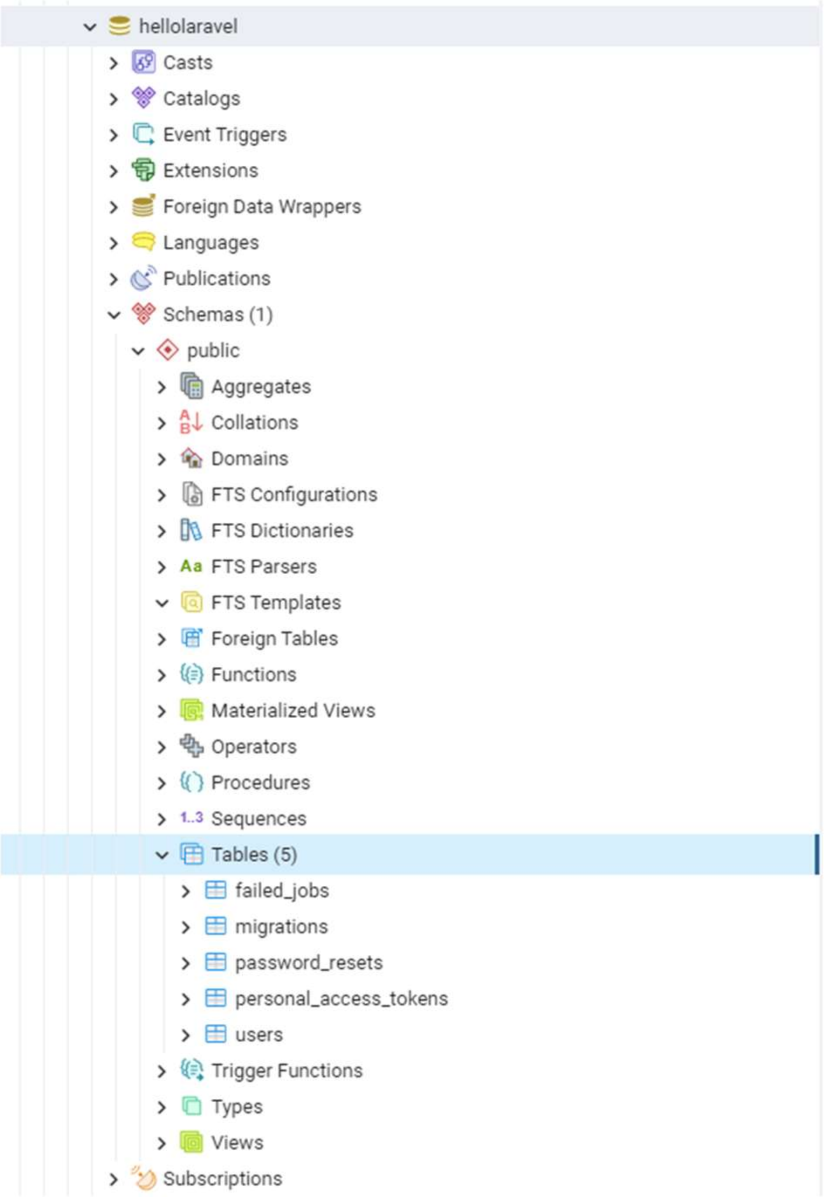


```
Migration table created successfully.
Migrating: 2014_10_12_000000_create_users_table
Migrated:  2014_10_12_000000_create_users_table (100.61ms)
Migrating: 2014_10_12_100000_create_password_resets_table
Migrated:  2014_10_12_100000_create_password_resets_table (90.48ms)
Migrating: 2019_08_19_000000_create_failed_jobs_table
Migrated:  2019_08_19_000000_create_failed_jobs_table (112.20ms)
Migrating: 2019_12_14_000001_create_personal_access_tokens_table
Migrated:  2019_12_14_000001_create_personal_access_tokens_table (142.30ms)
```

- Check pgadmin for a „users_table‟

PostgreSQL

Connecting with the application



- hellolaravel
  - Casts
  - Catalogs
  - Event Triggers
  - Extensions
  - Foreign Data Wrappers
  - Languages
  - Publications
  - Schemas (1)
    - public
      - Aggregates
      - Collations
      - Domains
      - FTS Configurations
      - FTS Dictionaries
      - FTS Parsers
      - FTS Templates
      - Foreign Tables
      - Functions
      - Materialized Views
      - Operators
      - Procedures
      - Sequences
      - Tables (5)
        - failed_jobs
        - migrations
        - password_resets
        - personal_access_tokens
        - users
      - Trigger Functions
      - Types
      - Views
  - Subscriptions

The table “user” has been successfully migrated and the application connected to the database

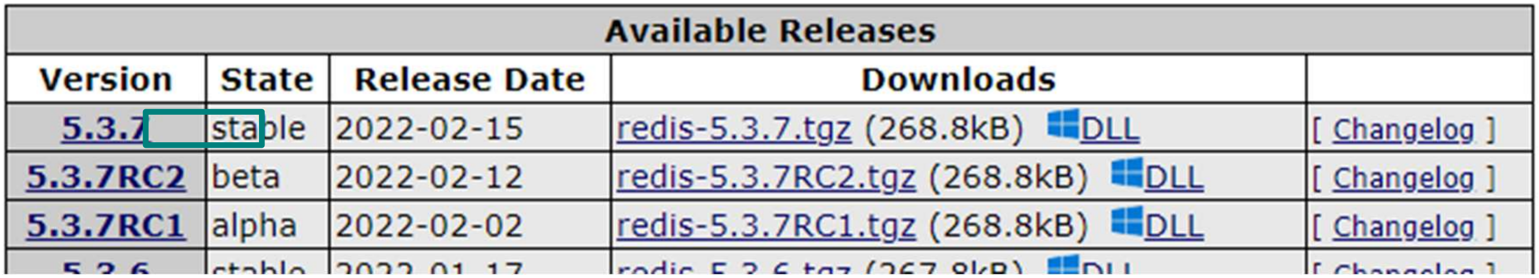
NPM
Installing precompiled webpackages

- Node Package Manager manages JavaScript-packages using Node.js
- Laragon also comes with a version of node preinstalled
- Just run „npm install" in the console to setup the package.json file with npm
- To find out more about compiling assets in laravel with npm have a look at the Laravel-Documentation: https://laravel.com/docs/9.x/mix

Redis

Enabling Redis in Laragon

- If you right-click the Home Panel and check php->extensions, you will not find redis because it does not come up with Laragon by default, so you have to add it manually.
- Go to https://pecl.php.net/package/redis and find your current PHP version and the lateset stable available

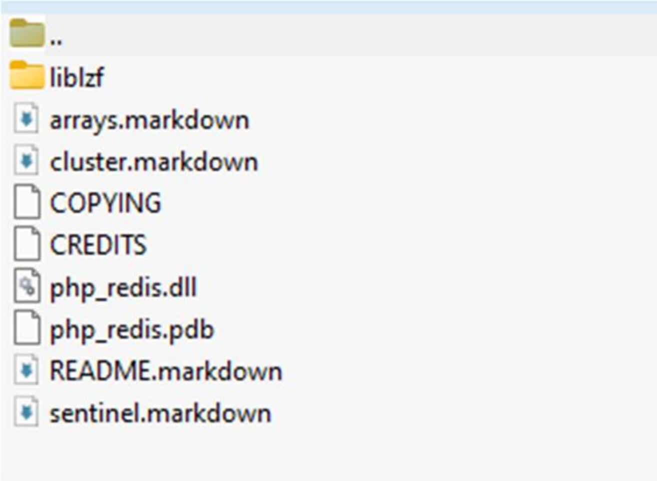


Available Releases				
Version	State	Release Date	Downloads	
5.3.7	stable	2022-02-15	redis-5.3.7.tgz (268.8kB) DLL	[Changelog]
5.3.7RC2	beta	2022-02-12	redis-5.3.7RC2.tgz (268.8kB) DLL	[Changelog]
5.3.7RC1	alpha	2022-02-02	redis-5.3.7RC1.tgz (268.8kB) DLL	[Changelog]
5.3.6	stable	2022-01-17	redis-5.3.6.tgz (267.8kB) DLL	[Changelog]

- Click the Windows icon DLL to get the available distribution for your PHP version

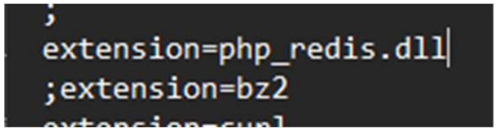
Redis
Enabling Redis in Laragon

- After the download, you should find the „php_redis.dll“ file



```
..
liblzf
arrays.markdown
cluster.markdown
COPYING
CREDITS
php_redis.dll
php_redis.pdb
README.markdown
sentinel.markdown
```

- Copy or move the file to „D:\laragon\bin\php\php-8.1.2-Win32-vs16-x64\ext “ (replace with you own path) and add the line „extension=php_redis.dll to the „D:\laragon\bin\php\php-8.1.2-Win32-vs16-x64\php.ini“ php.ini file

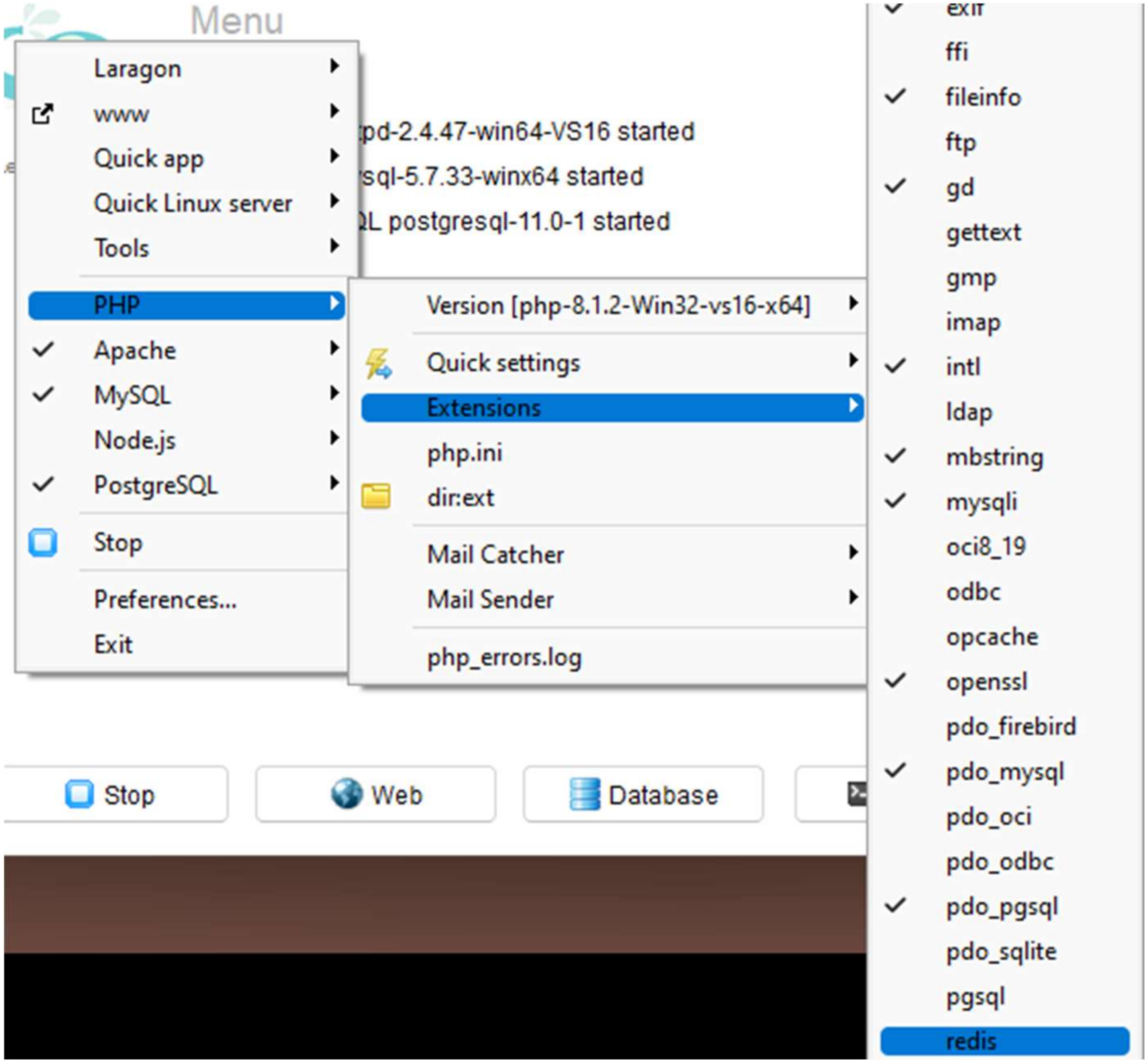


```
;
extension=php_redis.dll
;extension=bz2
extension=curl
```

- You should see that the Redis extension is available now

Redis

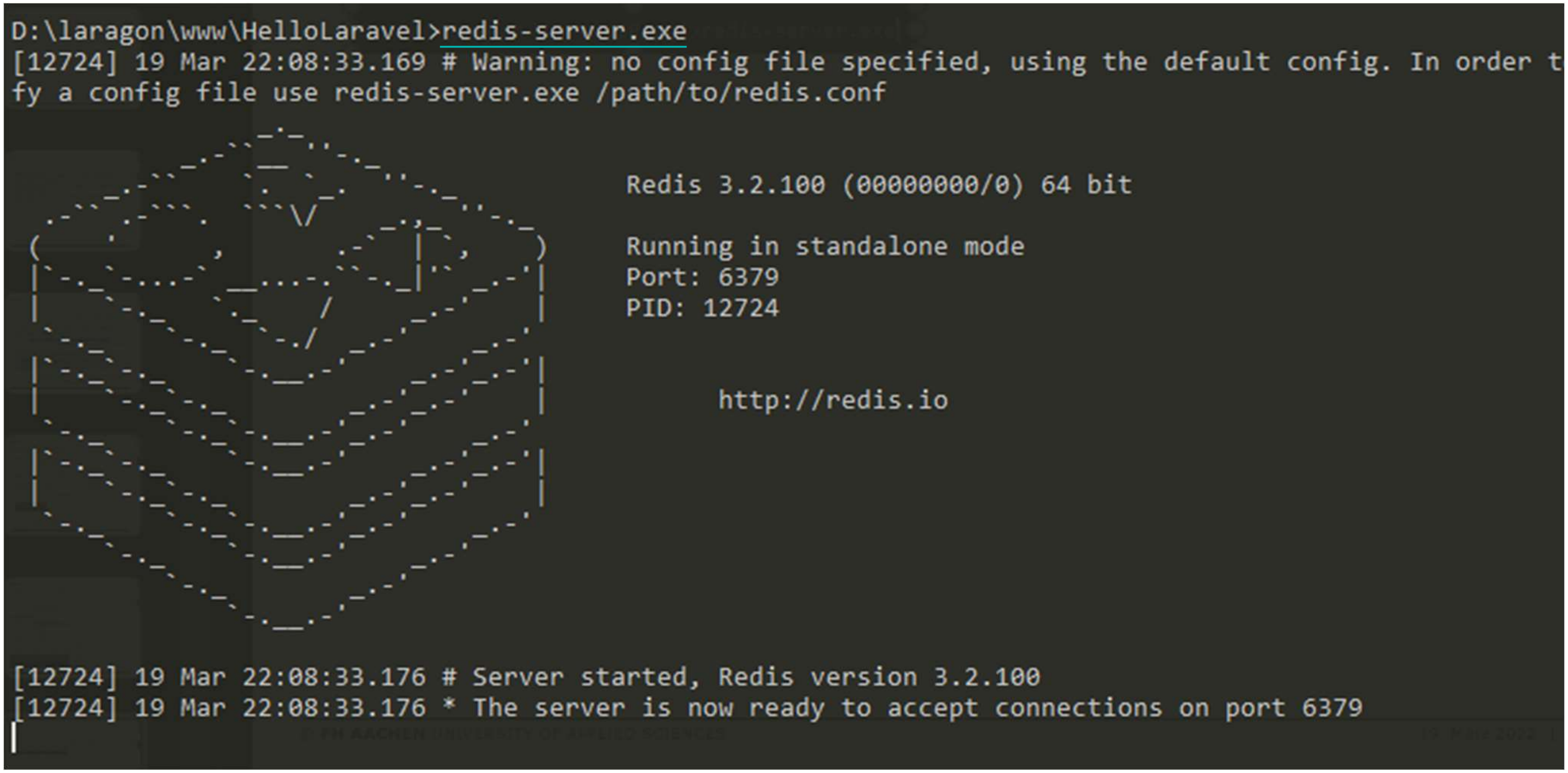
Enabling Redis in Laragon



```
pd-2.4.47-win64-VS16 started
sql-5.7.33-winx64 started
L postgresql-11.0-1 started
```

Redis
Starting Redis in Laragon

- To run the Redis server, you can use the console to execute the redis-server.exe



```
D:\laragon\www\HelloLaravel>redis-server.exe
[12724] 19 Mar 22:08:33.169 # Warning: no config file specified, using the default config. In order t
fy a config file use redis-server.exe /path/to/redis.conf
                _._
           _.-``__ ''-._
      _.-``    `.  `_.  ''-._           Redis 3.2.100 (00000000/0) 64 bit
  .-`` .-```.  ```\/    _.,_ ''-._
 (    '      ,       .-`  | `,    )     Running in standalone mode
 |`-._`-...-` __...-.``-._|'` _.-'|     Port: 6379
 |    `-._   `._    /     _.-'    |     PID: 12724
  `-._    `-._  `-./  _.-'    _.-'
 |`-._`-._    `-.__.-'    _.-'_.-'|
 |    `-._`-._        _.-'_.-'    |           http://redis.io
  `-._    `-._`-.__.-'_.-'    _.-'
 |`-._`-._    `-.__.-'    _.-'_.-'|
 |    `-._`-._        _.-'_.-'    |
  `-._    `-._`-.__.-'_.-'    _.-'
      `-._    `-.__.-'    _.-'
          `-._        _.-'
              `-.__.-'

[12724] 19 Mar 22:08:33.176 # Server started, Redis version 3.2.100
[12724] 19 Mar 22:08:33.176 * The server is now ready to accept connections on port 6379
```

- You can also stop it using Ctrl+C

FH Aachen
Fachbereich Elektrotechnik und Informationstechnik

Nilusche Liyanaarachchi (INF)
https://github.com/Nilusche

www.fh-aachen.de