Hit the Ground Running with Laravel

Joe Ferguson

https://github.com/svpernova09/quickstart-5.6

vagrant box add laravel/homestead

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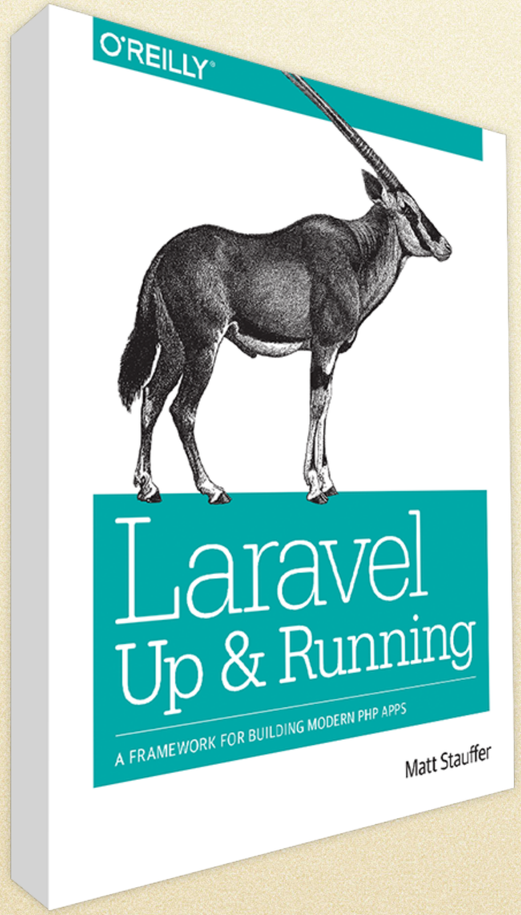
vagrant box add laravel/homestead

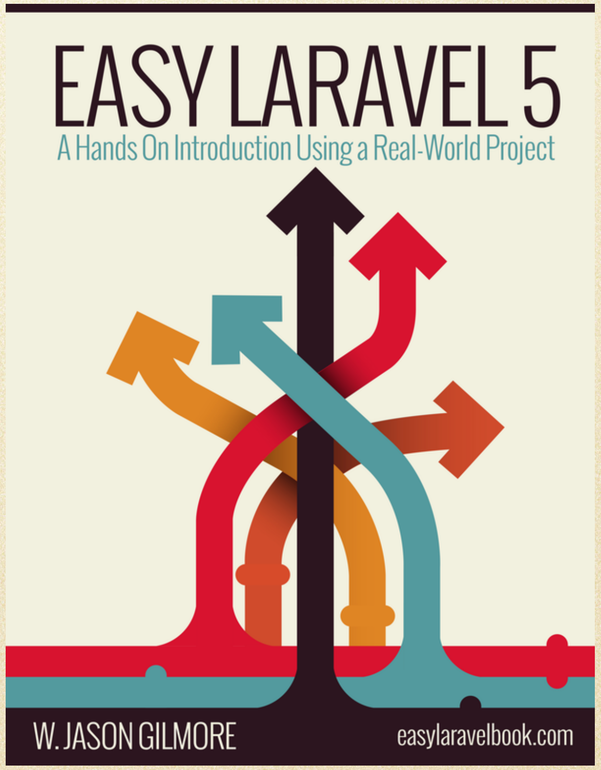
Who Am I?

- Joe Ferguson
- PHP Developer
- PHP Architect @ Ministry Brands
- Twitter: @JoePFerguson
- OSMI Board Member
- Drone Racing Pilot

For Further Reading



laravelupandrunning.com



easylaravelbook.com

What exactly is Laravel?

Expressive, beautiful syntax.

Value elegance, simplicity, and readability? You'll fit right in. Laravel is designed for people just like you. If you need help getting started, check out Laracasts and our great documentation.

```
class Purchase implements ShouldQueue
{

    /**
     * Purchase a new podcast.
     */
     public function handle(Repository $rep
     {
```

```
~/Apps $ php artisan make:migration create_users_t
Migration created successfully!

~/Apps $ php artisan migrate --seed
Migrated: 2015_01_12_000000_create_users_table
Migrated: 2015_01_12_100000_create_password_resets_
Migrated: 2015_01_13_162500_create_projects_table
Migrated: 2015_01_13_162508_create_servers_table
```

Tailored for your team.

Whether you're a solo developer or a 20 person team, Laravel is a breath of fresh air. Keep everyone in sync using Laravel's database agnostic migrations and schema builder.

Modern toolkit. Pinch of magic.

An amazing ORM, painless routing, powerful queue library, and simple authentication give you the tools you need for modern, maintainable PHP. We sweat the small stuff to help you deliver amazing applications.

```
Route::resource('photos', 'PhotoController'

/**
 * Retrieve A User...
 */
Route::get('/user/{user}', function(App\Use
{
    return $user;
```

Laravel Ecosystem

Tools

Laravel Horizon

FORGE

Lumen.

Envoyer

Spark

Laravel Cashier

Laravel Homestead

Framework

Learning & Community

laracasts

Discussions

Forum

Laracasts Podcast

Laravel Podcast

LaraJobs

Quick note on versions

- **5.5 LTS** bug fixes for 2 years, security fixes for 3 years
- **Non LTS**: bug fixes for 6 months, security fixes for 1 year

5.5 is the current LTS

Which version should you use?

59

Laravel 5.5 Will Be The Next LTS Release (laravel-news.com)

submitted 1 month ago by StandNTroll

26 comments share save hide give gold report hide all child comments

sorted by: new

you are viewing a single comment's thread.
view the rest of the comments → view the full context →

[–] utotwel [+1] Created Laravel 29 points 1 month ago

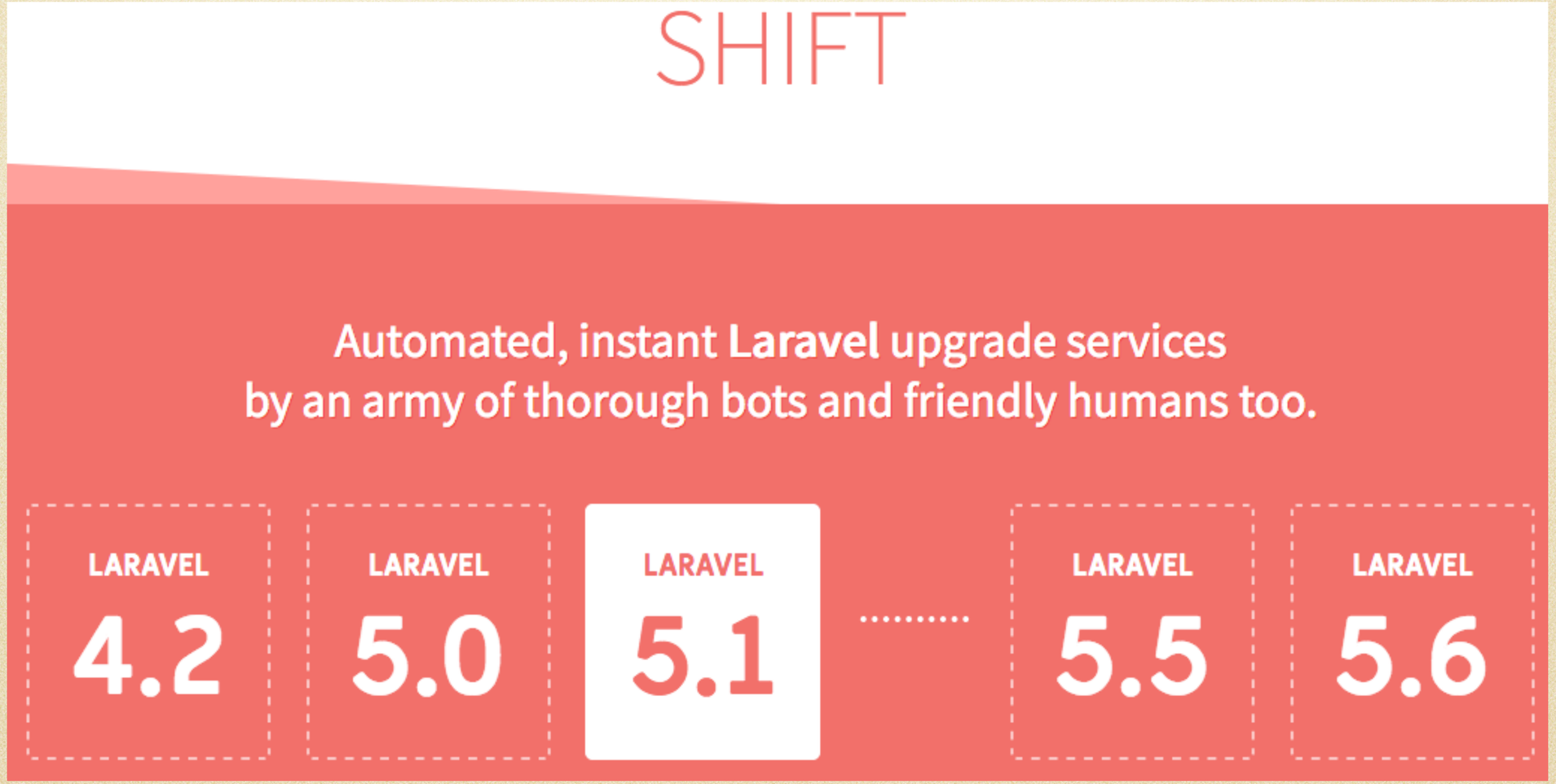
I do think LTS is generally a bad idea for the vast majority of products. However, some people can't do a project on Laravel at all for some clients unless Laravel has an LTS. I think that's stupid, but it's just the reality of things right now. Some companies have some kind of formal process where any adopted framework must have an LTS. If this helps those people use Laravel for those projects then so be it I guess.

I would still recommend they try their hardest to educate the client on always just using the latest version.

permalink source embed save save-RES parent report give gold reply hide child comments

https://www.reddit.com/r/laravel/comments/5v5mo8/laravel_55_will_be_the_next_lts_release/ddzwwf9/

LaravelShift.com



Getting Laravel

```
┌─(halo@Joes-MacBook-Pro.local)(~)──────────────────────────────
└─(10:28:27)─ composer global require "laravel/installer"
Changed current directory to /Users/halo/.composer
Using version ^1.3 for laravel/installer
./composer.json has been updated
Loading composer repositories with package information
Updating dependencies (including require-dev)
Nothing to install or update
Generating autoload files
```

composer global require “laravel/installer”

Installing Laravel

```
└─(09:36:12)─ laravel new quickstart-5.6
Crafting application...
Loading composer repositories with package information
Installing dependencies (including require-dev) from lock file
Package operations: 70 installs, 0 updates, 0 removals
  - Installing doctrine/inflector (v1.3.0): Loading from cache
  - Installing doctrine/lexer (v1.0.1): Loading from cache
  - Installing dragonmantank/cron-expression (v2.2.0): Downloading (100%)
  - Installing erusev/parsedown (1.7.1): Loading from cache
  - Installing vlucas/phpdotenv (v2.5.0): Loading from cache
  - Installing symfony/css-selector (v4.1.1): Downloading (100%)
  - Installing tijsverkoyen/css-to-inline-styles (2.2.1): Loading from cache
  - Installing symfony/polyfill-php72 (v1.8.0): Loading from cache
  - Installing symfony/polyfill-mbstring (v1.8.0): Loading from cache
  - Installing symfony/var-dumper (v4.1.1): Downloading (100%)
```

laravel new quickstart-basic-5.6

Install via Composer

```
┌(halo@Joes-MacBook-Pro.hsd1.tn.comcast.net)(/tmp)
└(13:17:20)- composer create-project --prefer-dist laravel/laravel quickstart-5.5
Installing laravel/laravel (v5.5.0)
  - Installing laravel/laravel (v5.5.0): Loading from cache
Created project in quickstart-5.5
> @php -r "file_exists('.env') || copy('.env.example', '.env');"
Loading composer repositories with package information
Updating dependencies (including require-dev)
Package operations: 68 installs, 0 updates, 0 removals
  - Installing vlucas/phpdotenv (v2.4.0): Loading from cache
  - Installing symfony/css-selector (v3.3.10): Loading from cache
  - Installing tijsverkoyen/css-to-inline-styles (2.2.0): Loading from cache
  - Installing symfony/polyfill-mbstring (v1.6.0): Loading from cache
  - Installing symfony/var-dumper (v3.3.10): Loading from cache
  - Installing symfony/routing (v3.3.10): Loading from cache
  - Installing symfony/process (v3.3.10): Loading from cache
```

composer create-project --prefer-dist laravel/laravel quickstart-5.6

Local Dev Environment

What's in Homestead

- Ubuntu 18.04
- PHP 5.6
- PHP 7.0
- PHP 7.1
- PHP 7.2
- Nginx
- MySQL
- MariaDB
- Sqlite3
- Postgres
- MailHog
- Composer
- NodeJS
- Bower
- Grunt
- Gulp
- Beanstalkd
- Memcached

Getting Homestead

```
┌─(halo@Joes-MacBook-Pro.local)(~)──────────────────────────────────────────
└─(10:40:41)─ git clone https://github.com/laravel/homestead.git Homestead
Cloning into 'Homestead'...
remote: Counting objects: 1670, done.
remote: Total 1670 (delta 0), reused 0 (delta 0), pack-reused 1670
Receiving objects: 100% (1670/1670), 258.60 KiB | 0 bytes/s, done.
Resolving deltas: 100% (986/986), done.
```

git clone https://github.com/laravel/homestead.git Homestead

Getting Homestead

```
┌─(halo@Joes-MacBook-Pro.local)(~)──────────────────────────────
└─(10:41:39)(127)─ cd Homestead

┌─(halo@Joes-MacBook-Pro.local)(~/Homestead)(master)─
└─(10:41:44)─ bash init.sh
Homestead initialized!
```

cd Homestead && bash init.sh

How I use Homestead

```
└─(10:28:15)─ composer require laravel/homestead --dev
Using version ^7.12 for laravel/homestead
./composer.json has been updated
Loading composer repositories with package information
Updating dependencies (including require-dev)
Package operations: 2 installs, 0 updates, 0 removals
  - Installing symfony/yaml (v4.1.1): Downloading (100%)
  - Installing laravel/homestead (v7.12.0): Downloading (100%)
Writing lock file
Generating optimized autoload files
> Illuminate\Foundation\ComposerScripts::postAutoloadDump
> @php artisan package:discover
Discovered Package: fideloper/proxy
Discovered Package: laravel/tinker
Discovered Package: nunomaduro/collision
Package manifest generated successfully.
composer require laravel/homestead --dev: 01:40
```

composer require —dev laravel/homestead

Make Homestead

```
└─(10:30:57)(130)─ ./vendor/bin/homestead make
Homestead Installed!
```

./vendor/bin/homestead make

Configuring Homestead

```yaml
ip: 192.168.10.10
memory: 2048
cpus: 1
provider: virtualbox
authorize: ~/.ssh/id_rsa.pub
keys:
    - ~/.ssh/id_rsa
folders:
    -
        map: /Users/joeferguson/PhpstormProjects/quickstart-5.6
        to: /home/vagrant/qs
sites:
    -
        map: qs.test
        to: /home/vagrant/qs/public
databases:
    - homestead
name: qs
hostname: qs
```

Starting Homestead

```
└─(10:33:03)─ vagrant up
Bringing machine 'quickstart-5-6' up with 'virtualbox' provider...
==> quickstart-5-6: Importing base box 'laravel/homestead'...
==> quickstart-5-6: Matching MAC address for NAT networking...
==> quickstart-5-6: Checking if box 'laravel/homestead' is up to date...
==> quickstart-5-6: Setting the name of the VM: quickstart-5-6
==> quickstart-5-6: Clearing any previously set network interfaces...
==> quickstart-5-6: Preparing network interfaces based on configuration...
    quickstart-5-6: Adapter 1: nat
    quickstart-5-6: Adapter 2: hostonly
==> quickstart-5-6: Forwarding ports...
    quickstart-5-6: 80 (guest) => 8000 (host) (adapter 1)
    quickstart-5-6: 443 (guest) => 44300 (host) (adapter 1)
    quickstart-5-6: 3306 (guest) => 33060 (host) (adapter 1)
    quickstart-5-6: 4040 (guest) => 4040 (host) (adapter 1)
    quickstart-5-6: 5432 (guest) => 54320 (host) (adapter 1)
    quickstart-5-6: 8025 (guest) => 8025 (host) (adapter 1)
    quickstart-5-6: 27017 (guest) => 27017 (host) (adapter 1)
    quickstart-5-6: 22 (guest) => 2222 (host) (adapter 1)
```

Inspecting Homestead

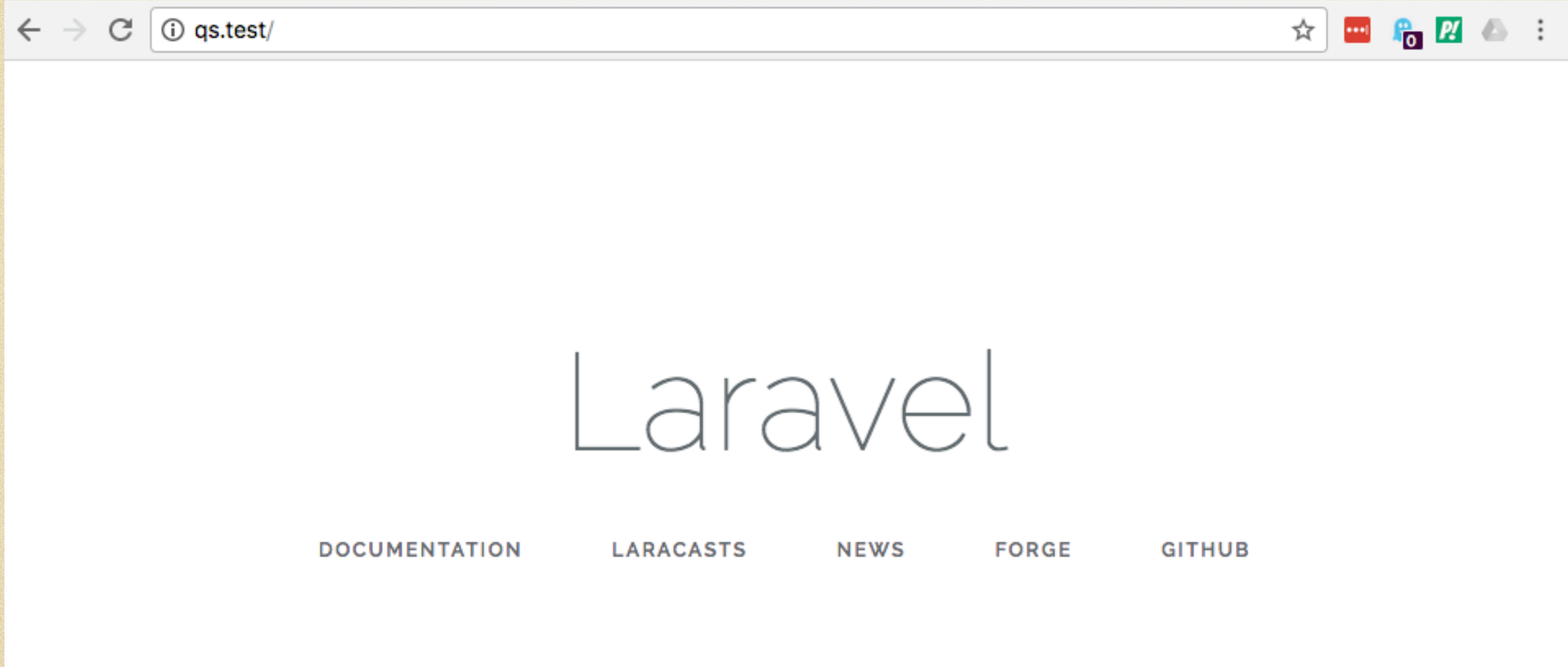
```
└─(10:39:23)─ vagrant ssh
Welcome to Ubuntu 18.04 LTS (GNU/Linux 4.15.0-22-generic x86_64)

 * Documentation:  https://help.ubuntu.com
 * Management:     https://landscape.canonical.com
 * Support:        https://ubuntu.com/advantage

 System information disabled due to load higher than 1.0


0 packages can be updated.
0 updates are security updates.


vagrant@qs:~$ cd qs/
vagrant@qs:~/qs$ ll
total 524
drwxr-xr-x  1 vagrant vagrant   1088 Jul 22 15:37 ./
drwxr-xr-x 12 vagrant vagrant   4096 Jul 22 15:39 ../
-rw-r--r--  1 vagrant vagrant    177 Jul 22 15:30 after.sh
-rw-r--r--  1 vagrant vagrant   7314 Jul 22 15:30 aliases
drwxr-xr-x  1 vagrant vagrant    224 Jul 22 14:36 app/
-rw-r--r--  1 vagrant vagrant   1686 Jul 22 14:36 artisan
drwxr-xr-x  1 vagrant vagrant    128 Jul 22 14:36 bootstrap/
-rw-r--r--  1 vagrant vagrant   1515 Jul 22 15:28 composer.json
-rw-r--r--  1 vagrant vagrant 147958 Jul 22 15:29 composer.lock
drwxr-xr-x  1 vagrant vagrant    480 Jul 22 14:36 config/
drwxr-xr-x  1 vagrant vagrant    192 Jul 22 14:36 database/
```

Edit /etc/hosts

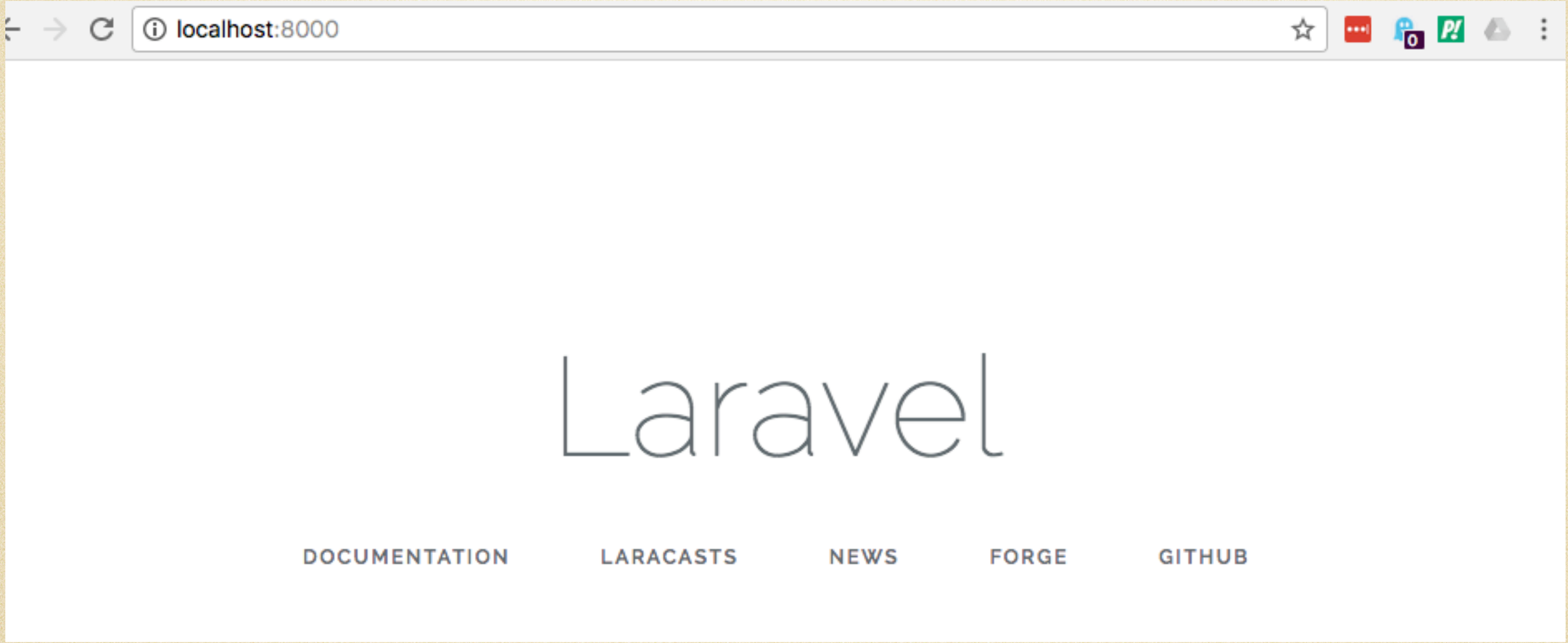
```
1 ##
2 # Host Database
3 #
4 # localhost is used to configure the loopback interface
5 # when the system is booting.  Do not change this entry.
6 ##
7 127.0.0.1   localhost
8 255.255.255.255 broadcasthost
9 ::1             localhost
10
11 192.168.10.10 qs.test
12
```

Optional for per project Homestead

Inspecting Homestead



Inspecting Homestead



Stopping Homestead

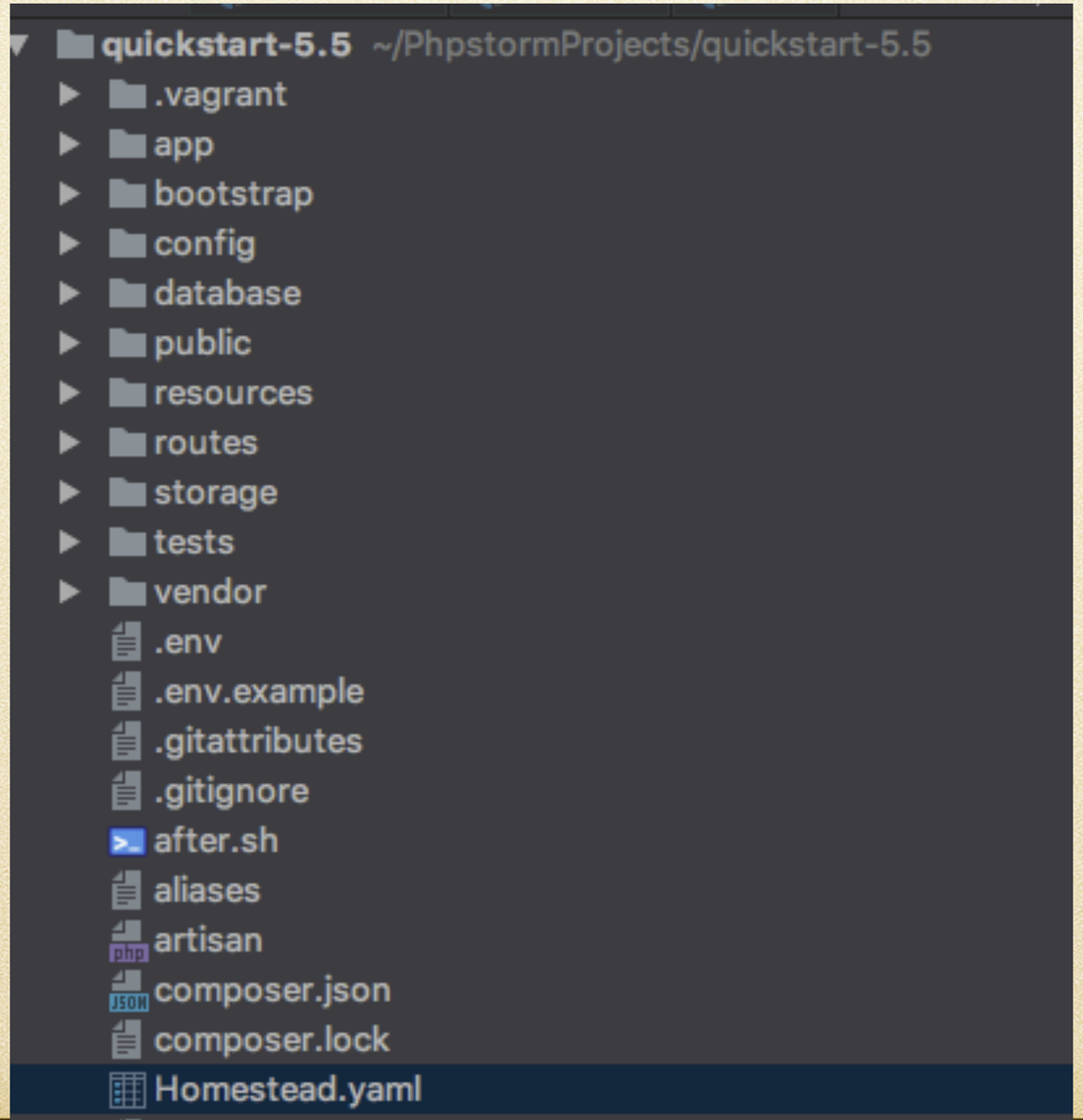
```
vagrant@qs:~/qs$ exit
logout
Connection to 127.0.0.1 closed.
vagrant ssh: 03:16

┌─(joeferguson@macrage.hsd1.tn.comcast.net)(~/PhpstormProjects/q
192.168.1.36/24 vboxnet0:192.168.10.1/24)┐
└─(10:42:50)─ vagrant halt
==> qs: Attempting graceful shutdown of VM...

┌─(joeferguson@macrage.hsd1.tn.comcast.net)(~/PhpstormProjects/q
192.168.1.36/24 vboxnet0:192.168.10.1/24)┐
└─(10:43:01)─ vagrant destroy
    qs: Are you sure you want to destroy the 'qs' VM? [y/N] y
==> qs: Destroying VM and associated drives...
```

Don’t version control
Homestead.yaml

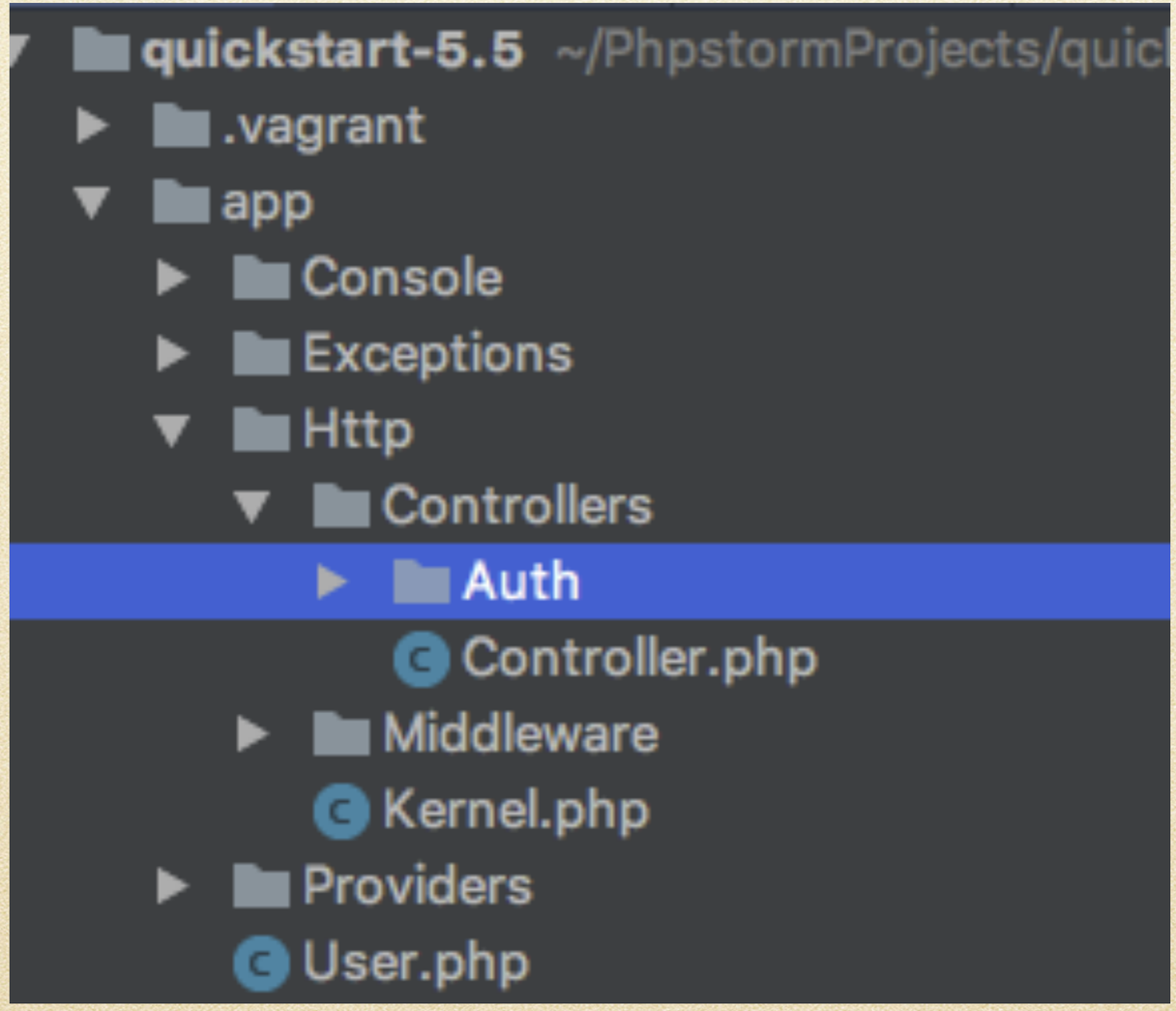
Questions?

Getting Started with Laravel

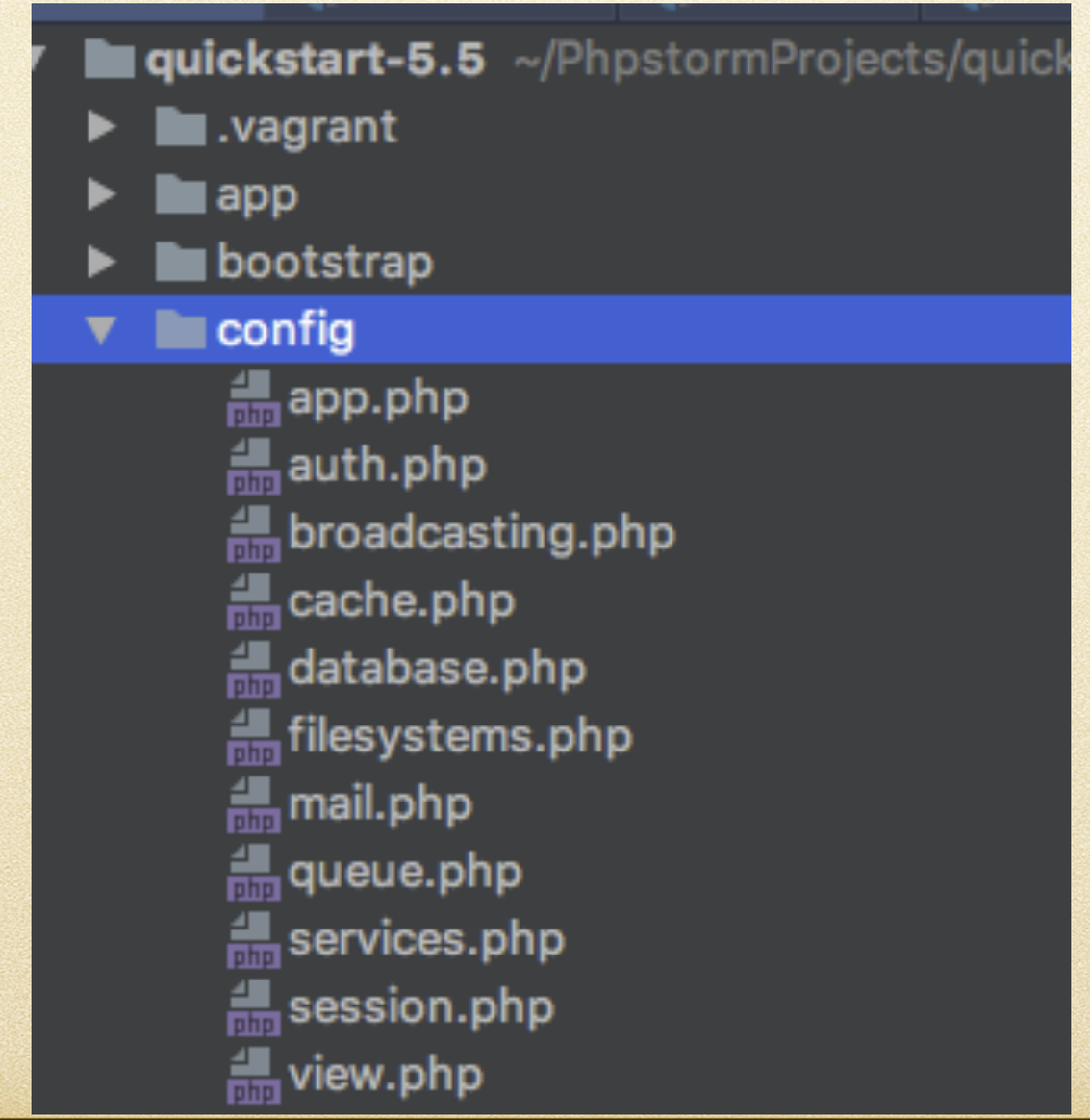
Project Structure



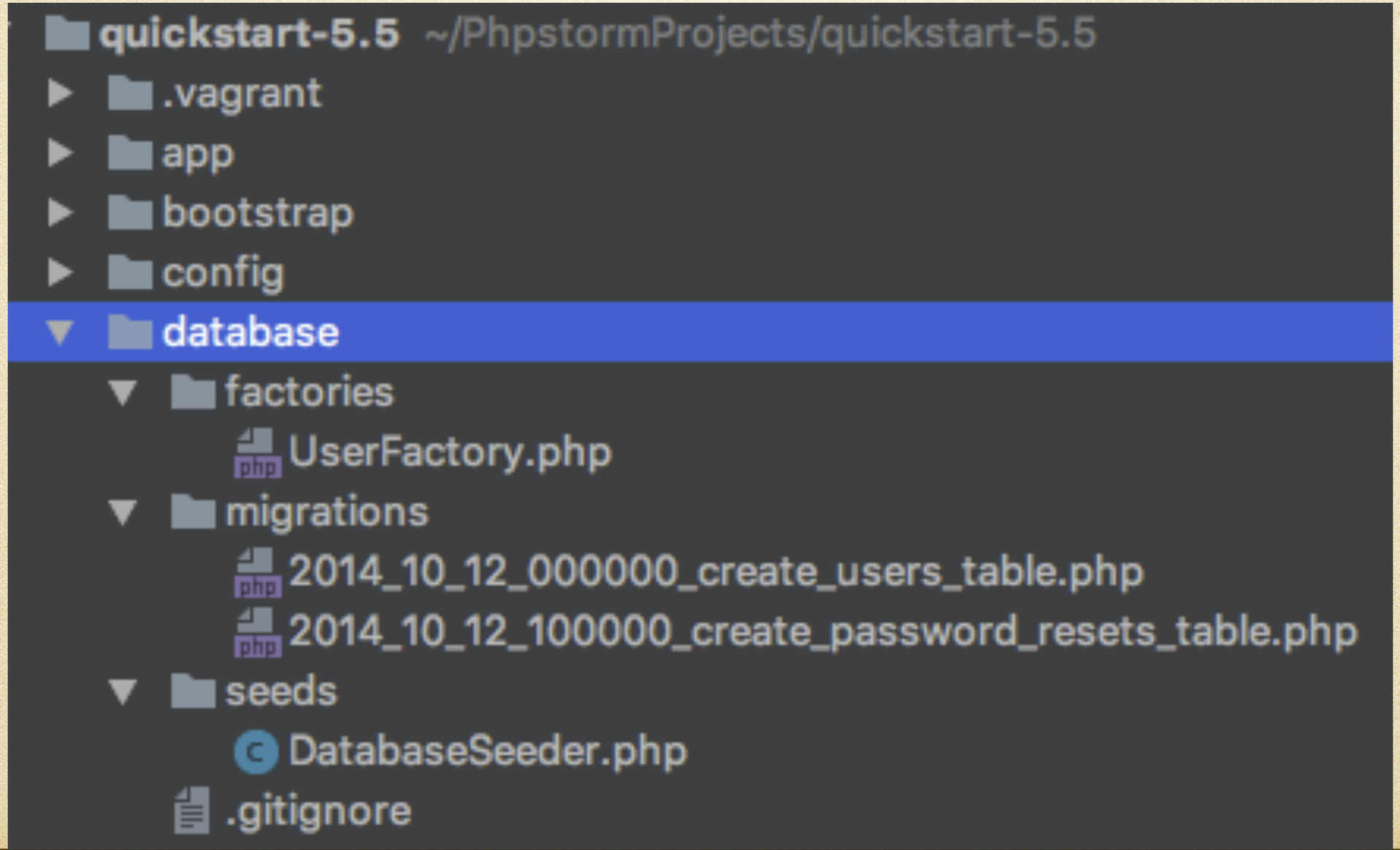
app Folder


quickstart-5.5 ~/PhpstormProjects/quic
.vagrant
app
Console
Exceptions
Http
Controllers
Auth
Controller.php
Middleware
Kernel.php
Providers
User.php

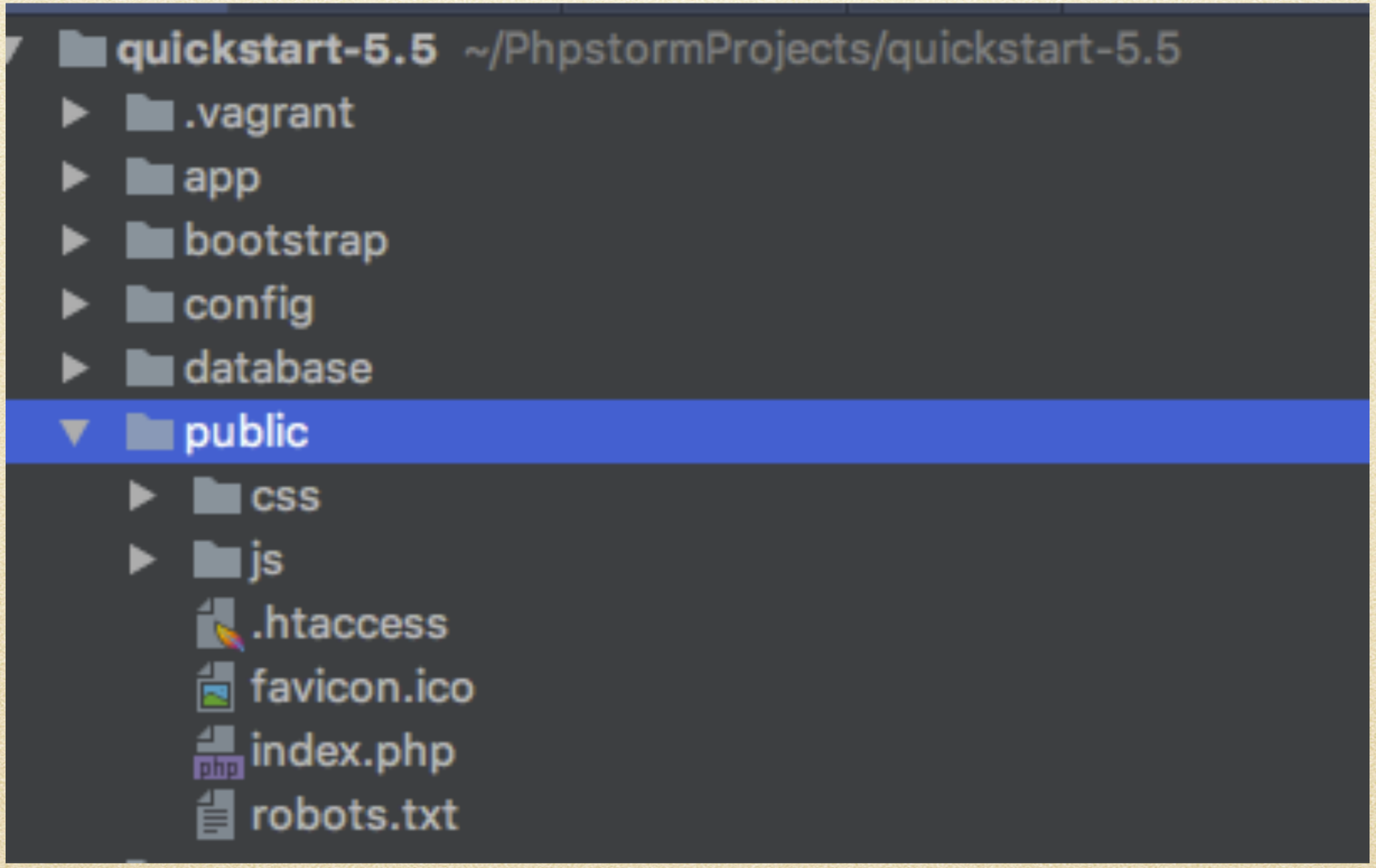
config Folder



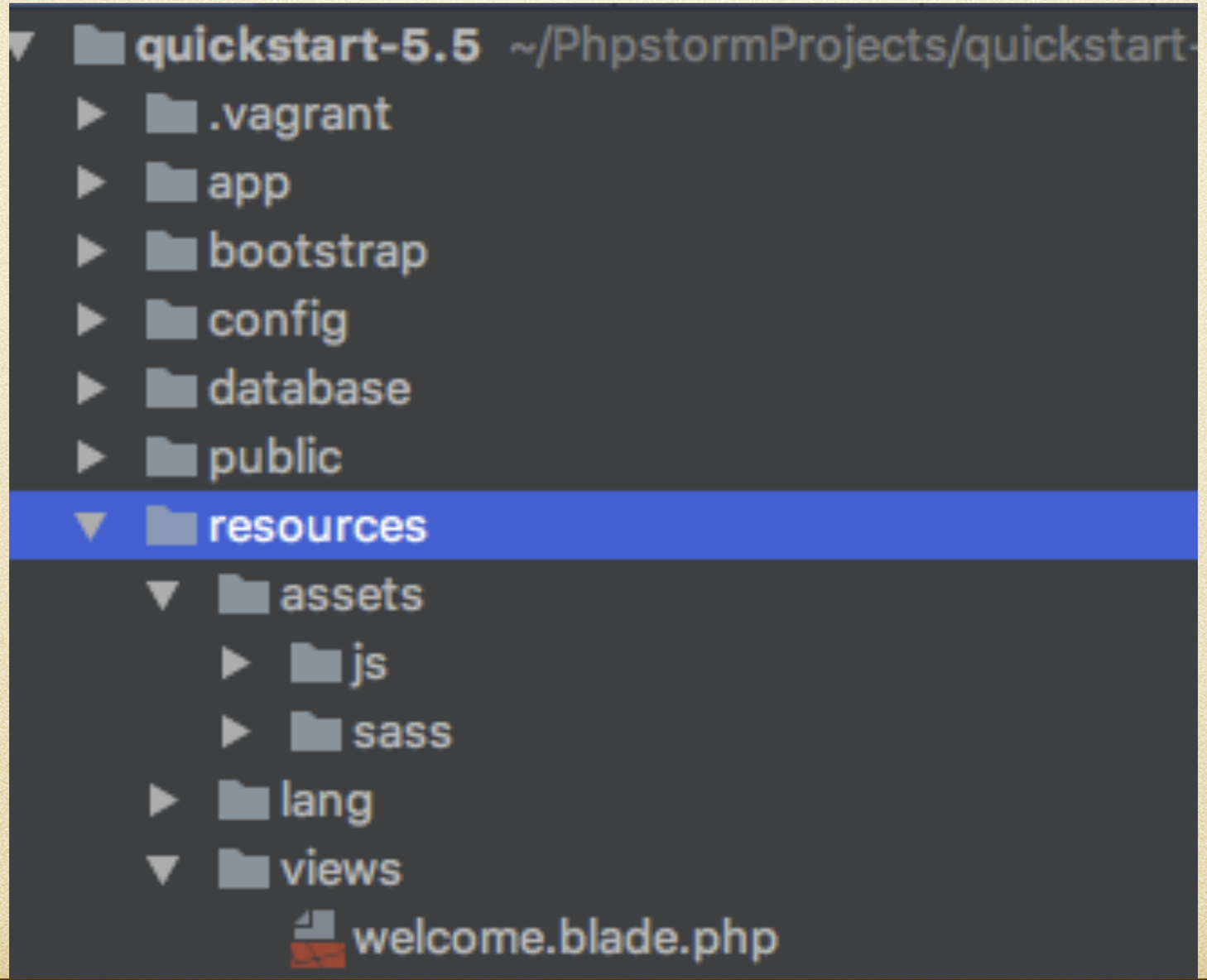
database Folder



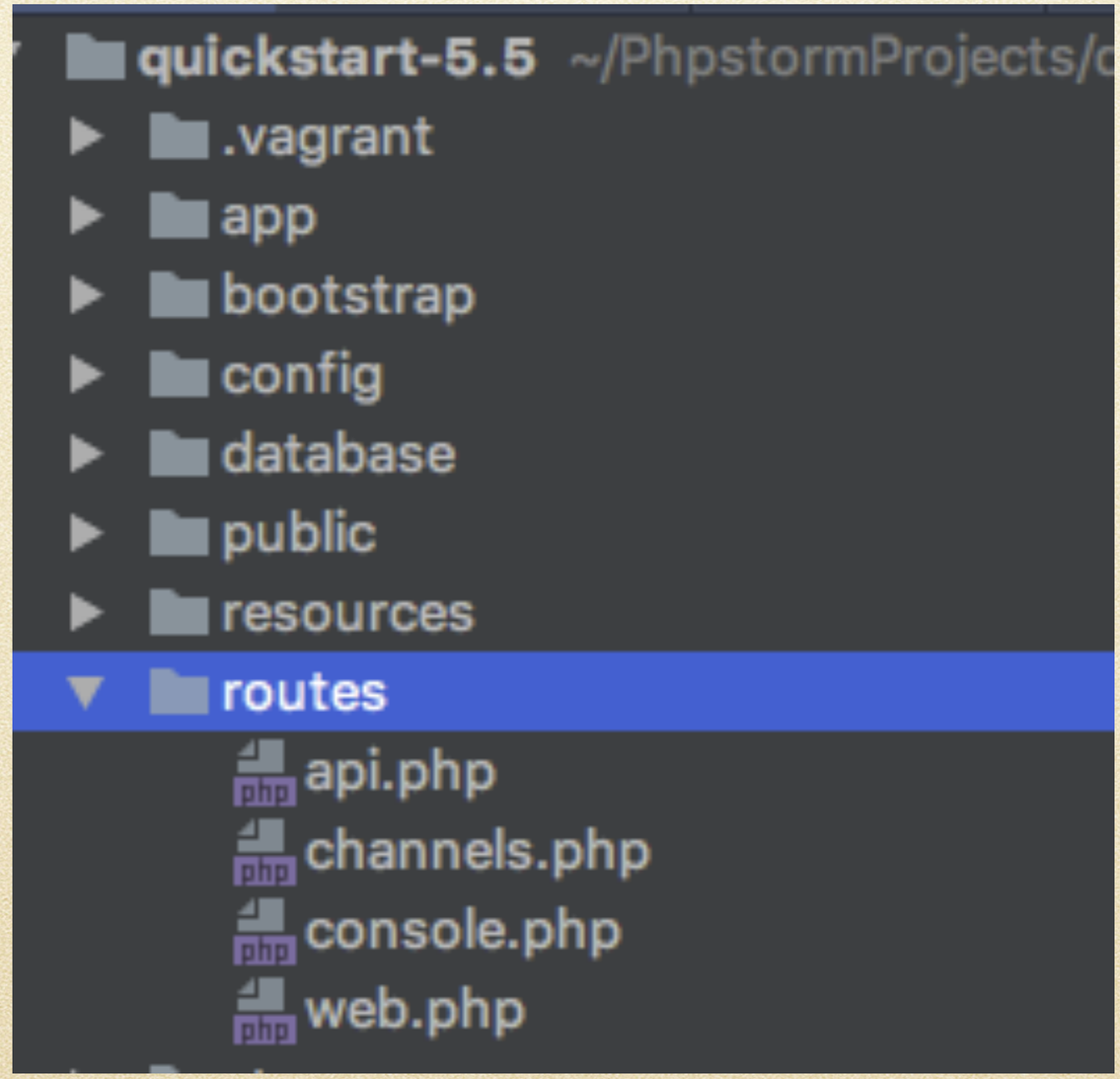
public Folder



resources Folder



routes Folder

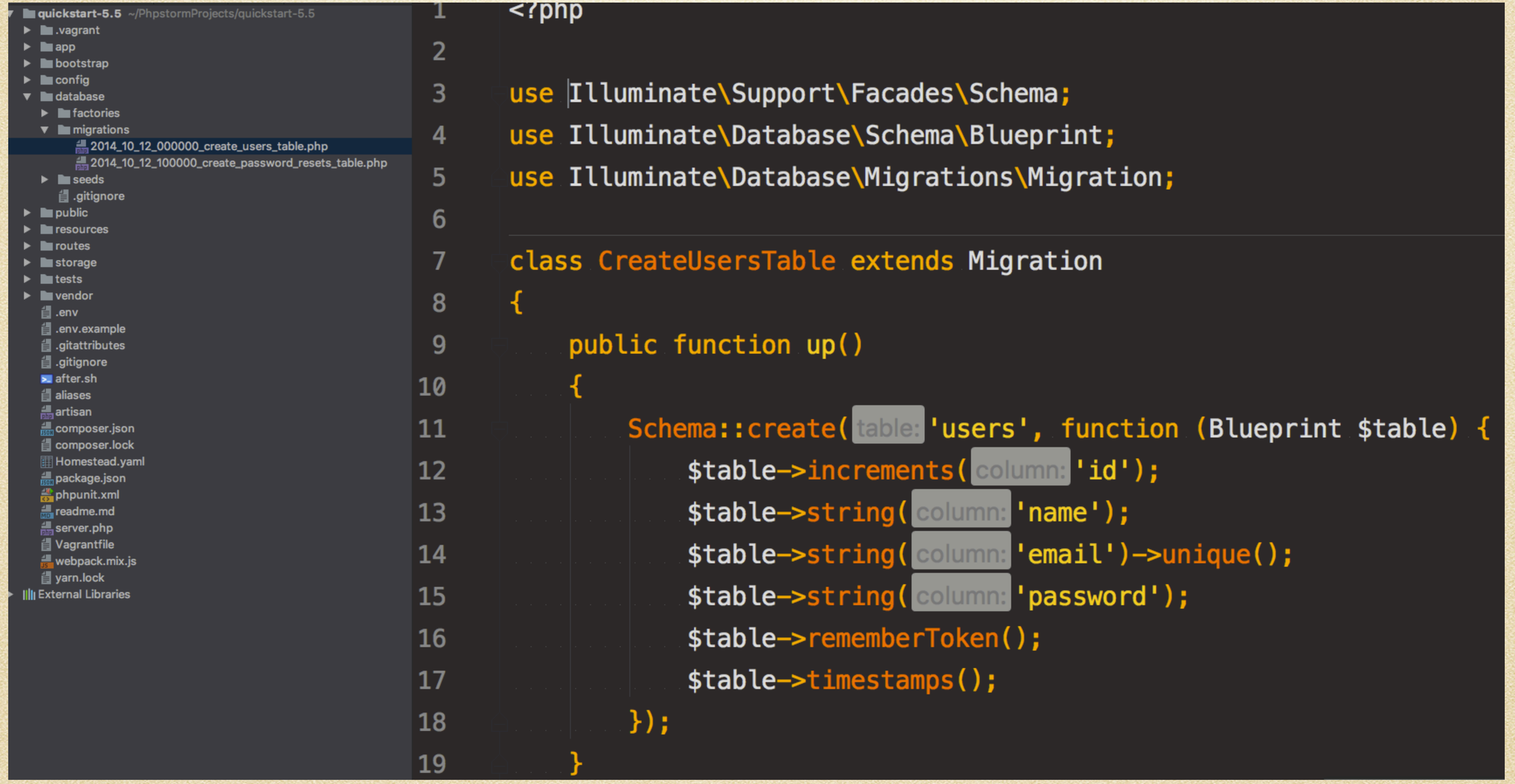


Model Factories

```php
<?php

use Faker\Generator as Faker;

/*...*/

$factory->define(App\User::class, function (Faker $faker) {
    static $password;

    return [
        'name' => $faker->name,
        'email' => $faker->unique()->safeEmail,
        'password' => $password ?: $password = bcrypt('secret'),
        'remember_token' => str_random(10),
    ];
});
```

database/factories/UserFactory.php

User Migration up()



database / migrations

User Migration down()

```
20
21      /**
22       * Reverse the migrations.
23       *
24       * @return void
25       */
26      public function down()
27      {
28          Schema::dropIfExists(table: 'users');
29      }
30  }
```

database/migrations

Database Seeders

```php
<?php

use Illuminate\Database\Seeder;

class DatabaseSeeder extends Seeder
{
    /**
     * Run the database seeds.
     *
     * @return void
     */
    public function run()
    {
        factory(App\User::class, 5)->create();
    }
}
```

Artisan Commands

```
vagrant@qs:~/qs$ artisan
Laravel Framework 5.6.28

Usage:
  command [options] [arguments]

Options:
  -h, --help            Display this help message
  -q, --quiet           Do not output any message
  -V, --version         Display this application version
      --ansi            Force ANSI output
      --no-ansi         Disable ANSI output
  -n, --no-interaction  Do not ask any interactive question
      --env[=ENV]       The environment the command should run under
  -v|vv|vvv, --verbose  Increase the verbosity of messages: 1 for normal outpu
or debug

Available commands:
  clear-compiled       Remove the compiled class file
  down                 Put the application into maintenance mode
  env                  Display the current framework environment
  help                 Displays help for a command
  inspire              Display an inspiring quote
  list                 Lists commands
  migrate              Run the database migrations
```

Artisan Commands

```
vagrant@qs:~/qs$ artisan | grep make
 make
  make:auth            Scaffold basic login and registration views and routes
  make:channel         Create a new channel class
  make:command         Create a new Artisan command
  make:controller      Create a new controller class
  make:event           Create a new event class
  make:exception       Create a new custom exception class
  make:factory         Create a new model factory
  make:job             Create a new job class
  make:listener        Create a new event listener class
  make:mail            Create a new email class
  make:middleware      Create a new middleware class
  make:migration       Create a new migration file
  make:model           Create a new Eloquent model class
  make:notification    Create a new notification class
  make:observer        Create a new observer class
  make:policy          Create a new policy class
  make:provider        Create a new service provider class
  make:request         Create a new form request class
  make:resource        Create a new resource
  make:rule            Create a new validation rule
  make:seeder          Create a new seeder class
  make:test            Create a new test class
```

Create Migration

```
vagrant@qs:~/qs$ artisan make:migration create_widgets_table
Created Migration: 2018_07_22_154913_create_widgets_table
vagrant@qs:~/qs$
```

artisan make:migration create_widgets_table

Create Migration

Create Migration

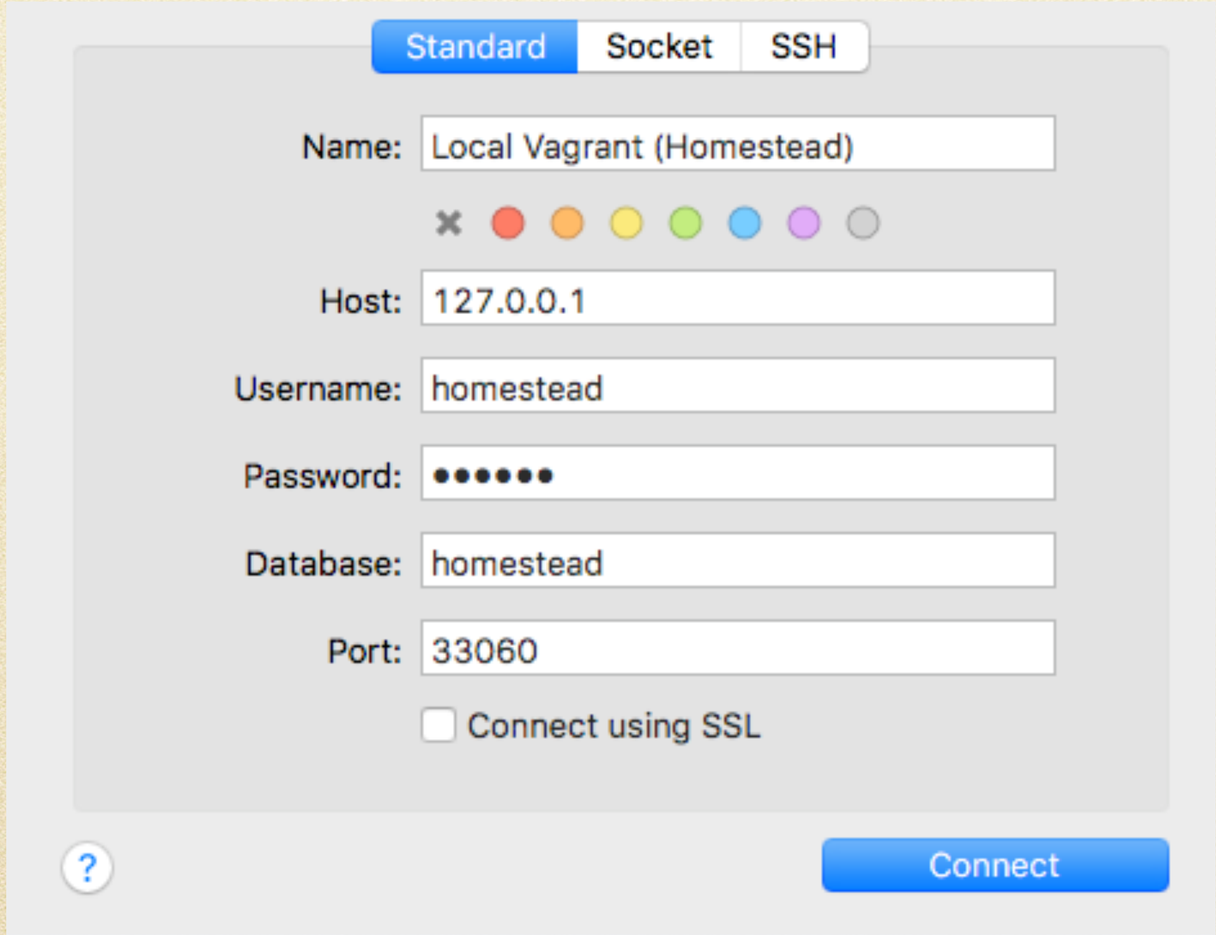
```
25      /**
26       * Reverse the migrations.
27       *
28       * @return void
29       */
30      public function down()
31      {
32          Schema::dropIfExists('widgets');
33      }
```

Run Migration(s)

```
vagrant@qs:~/qs$ artisan migrate
Migration table created successfully.
Migrating: 2014_10_12_000000_create_users_table
Migrated:  2014_10_12_000000_create_users_table
Migrating: 2014_10_12_100000_create_password_resets_table
Migrated:  2014_10_12_100000_create_password_resets_table
Migrating: 2017_11_06_194449_create_widgets_table
Migrated:  2017_11_06_194449_create_widgets_table
vagrant@qs:~/qs$
```

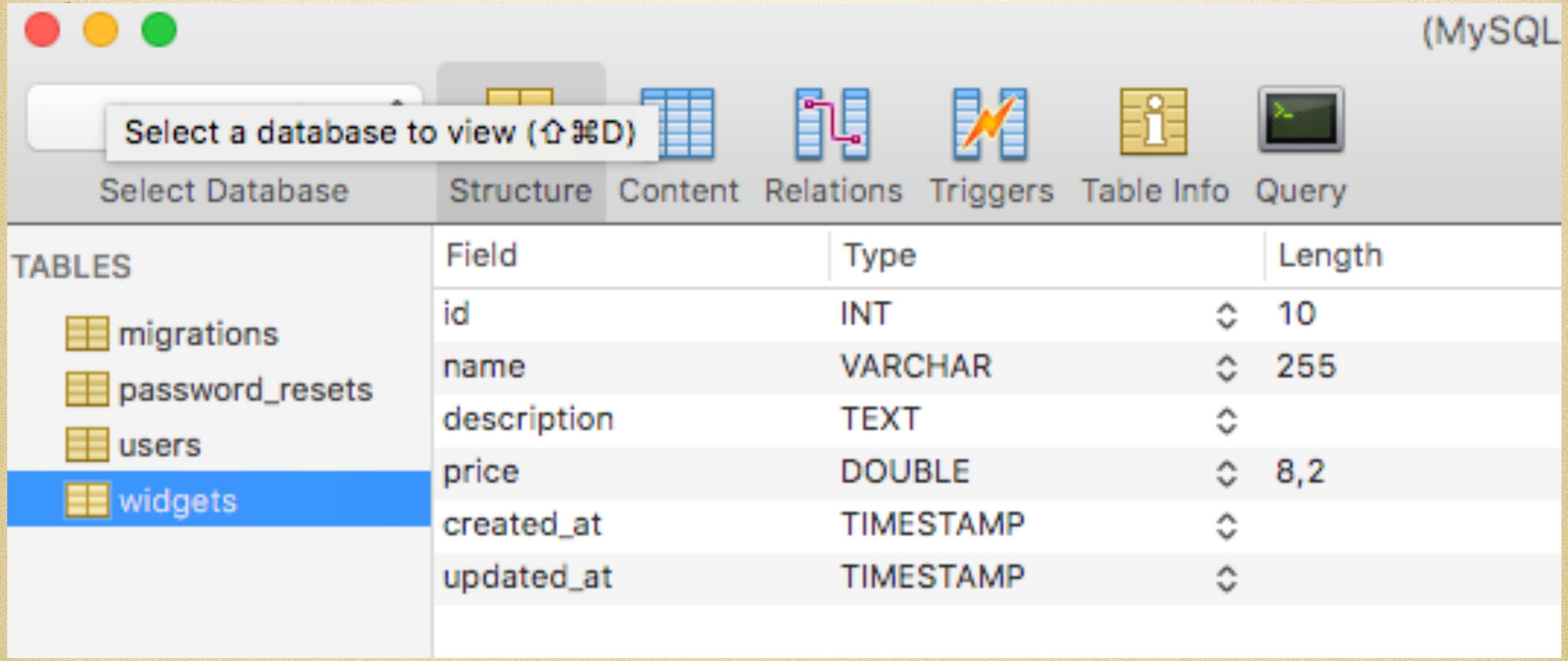
artisan migrate

Inspect the Database



Password is “secret”

Inspect the Database

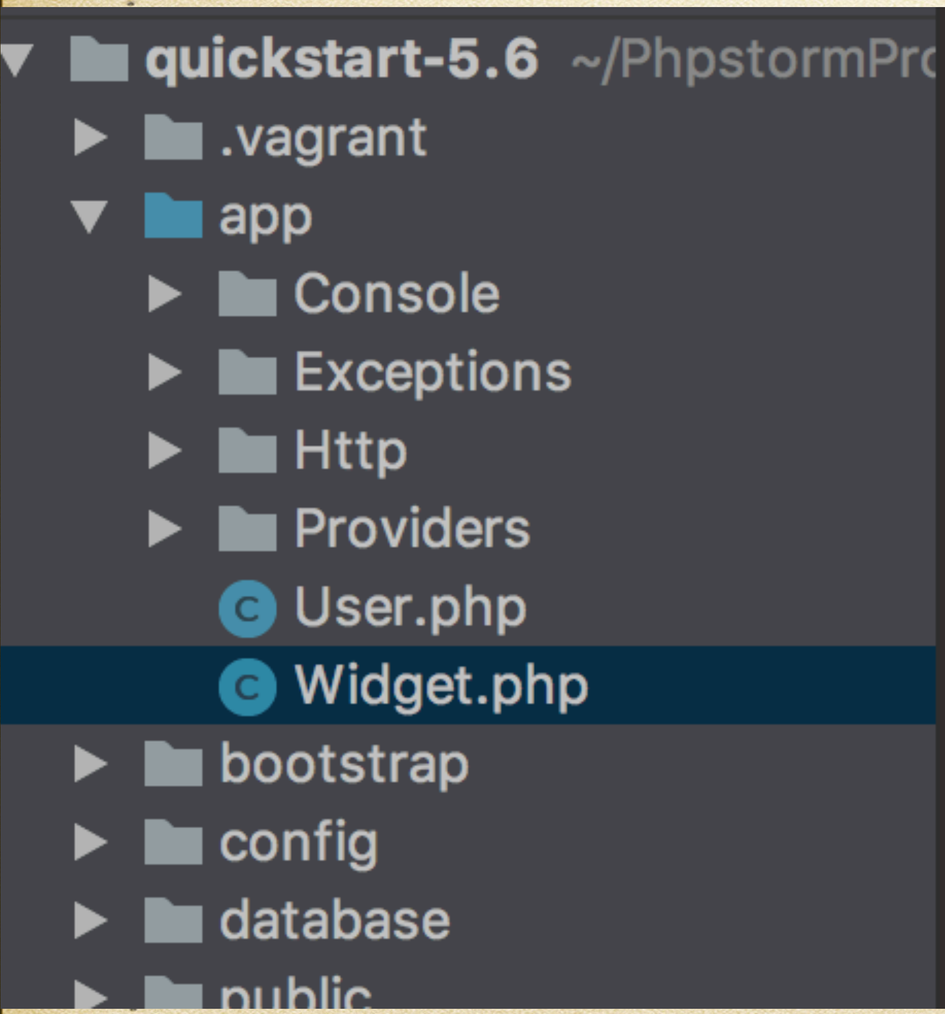


Create a model

```
vagrant@qs:~/qs$ artisan make:model Widget
Model created successfully.
vagrant@qs:~/qs$
```

artisan make:model Widget

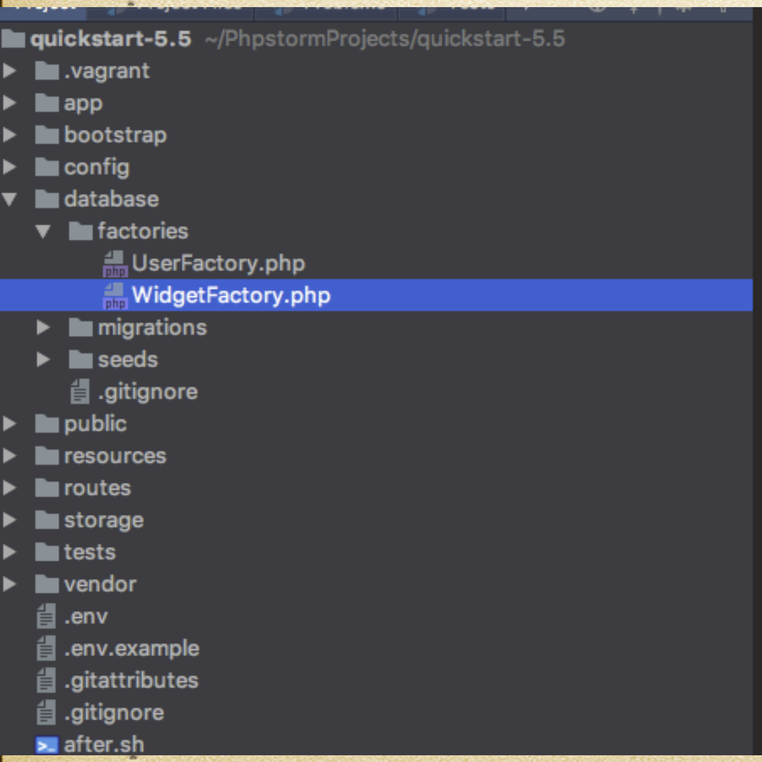
Widget model




```
2
3   namespace App;
4
5   use Illuminate\Database\Eloquent\Model;
6
7   class Widget extends Model
8   {
9       //
10  }
11
```

Add Widget ModelFactory

```
vagrant@qs:~/qs$ artisan make:factory WidgetFactory
Factory created successfully.
vagrant@qs:~/qs$
```



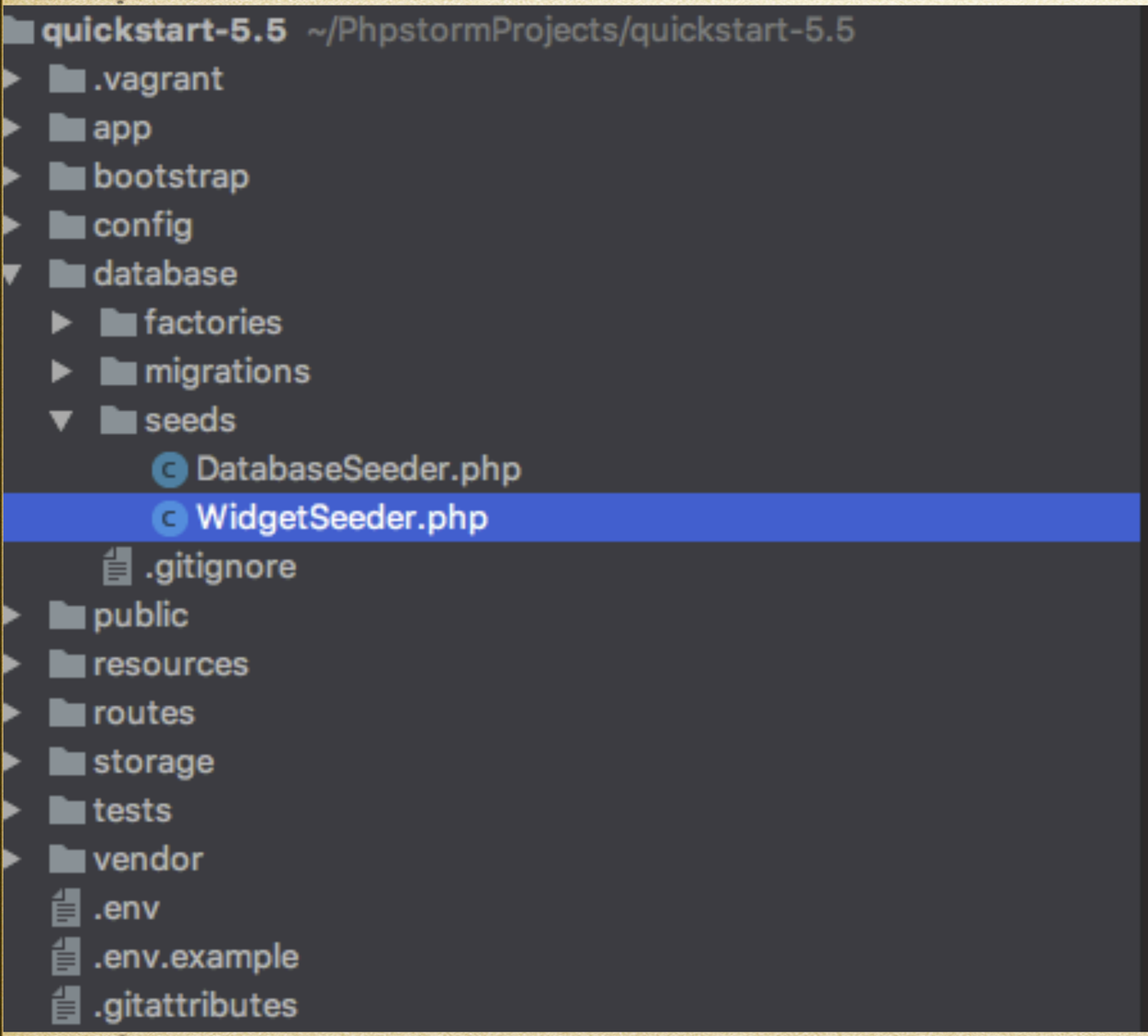

```php
<?php

use Faker\Generator as Faker;

/** @var \Illuminate\Database\Eloquent\Factory $factory */
$factory->define( class: App\Widget::class, function (Faker $faker) {

    return [
        'name' => $faker->word . ' Widget',
        'description' => $faker->paragraph( nbSentences: 3),
        'price' => $faker->randomFloat( nbMaxDecimals: 2, min: 20, max: 999999),
    ];
});
```

Create a seeder

```
vagrant@qs:~/qs$ artisan make:seeder WidgetSeeder
Seeder created successfully.
vagrant@qs:~/qs$
```

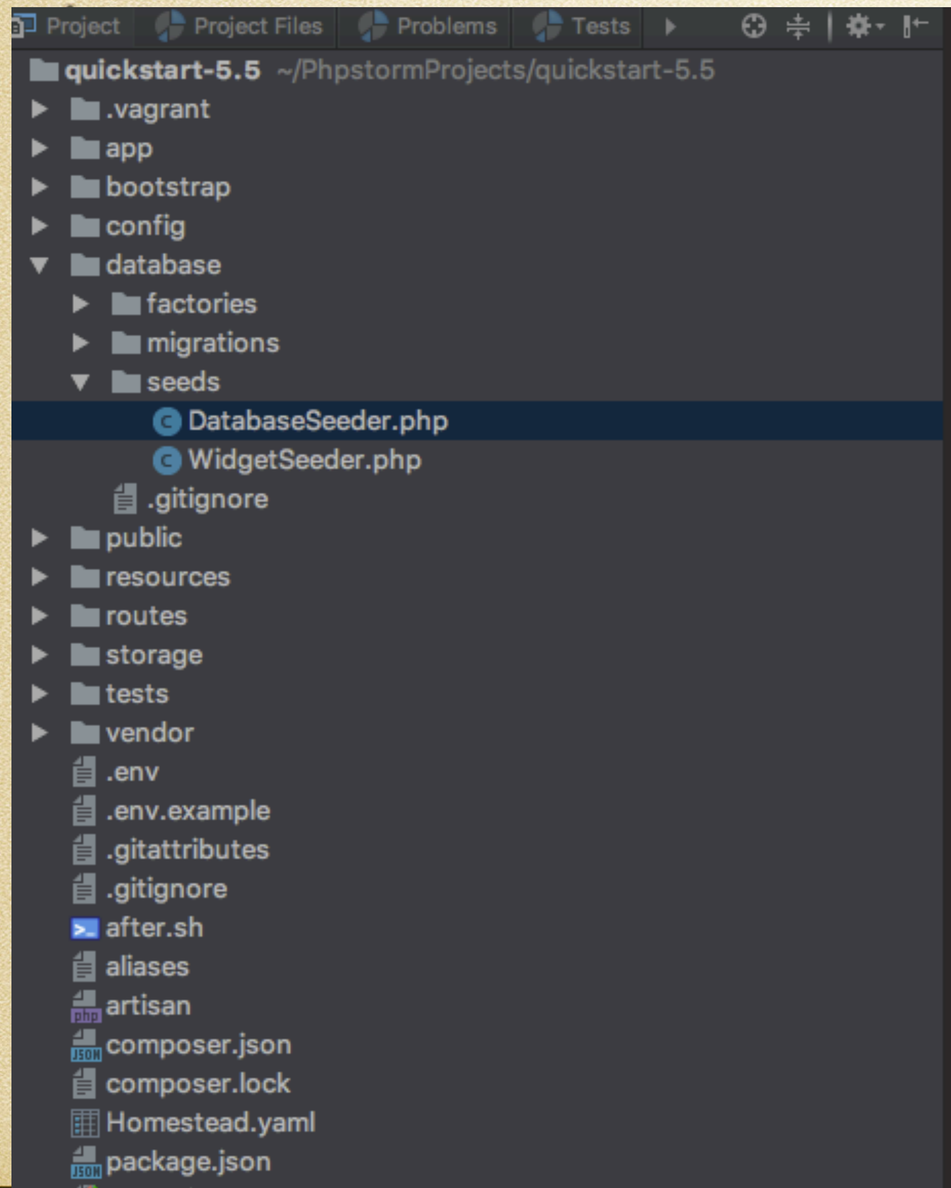
artisan make:seeder WidgetSeeder

WidgetSeeder




```php

use Illuminate\Database\Seeder;

class WidgetSeeder extends Seeder
{
    /**
     * Run the database seeds.
     *
     * @return void
     */
    public function run()
    {
        factory(App\Widget::class, 10)->create();
    }
}

```

DatabaseSeeder




```php
<?php

use Illuminate\Database\Seeder;

class DatabaseSeeder extends Seeder
{
    /**
     * Run the database seeds.
     *
     * @return void
     */
    public function run()
    {
        factory(App\User::class, 5)->create();
        $this->call(class: WidgetSeeder::class);
    }
}
```

Run Database Seeders

```
vagrant@qs:~/qs$ artisan db:seed
 Seeding: WidgetSeeder
vagrant@qs:~/qs$
```

artisan db:seed

Users Table

TABLES

- migrations
- password_resets
- users
- widgets

Search: id =

id	name	email	password
1	Mrs. Jessika White	crist.kavon@example.com	$2y$10$WpXkdbz1Hxi/MxWHk60Ts.X/psT0uGHXH
2	Vergie Reynolds Jr.	whessel@example.com	$2y$10$WpXkdbz1Hxi/MxWHk60Ts.X/psT0uGHXH
3	Broderick Friesen	hayley.monahan@example.net	$2y$10$WpXkdbz1Hxi/MxWHk60Ts.X/psT0uGHXH
4	Prof. Jerrell Schuster	austen.veum@example.org	$2y$10$WpXkdbz1Hxi/MxWHk60Ts.X/psT0uGHXH
5	Donny Ernser	mwehner@example.org	$2y$10$WpXkdbz1Hxi/MxWHk60Ts.X/psT0uGHXH

Widgets Table

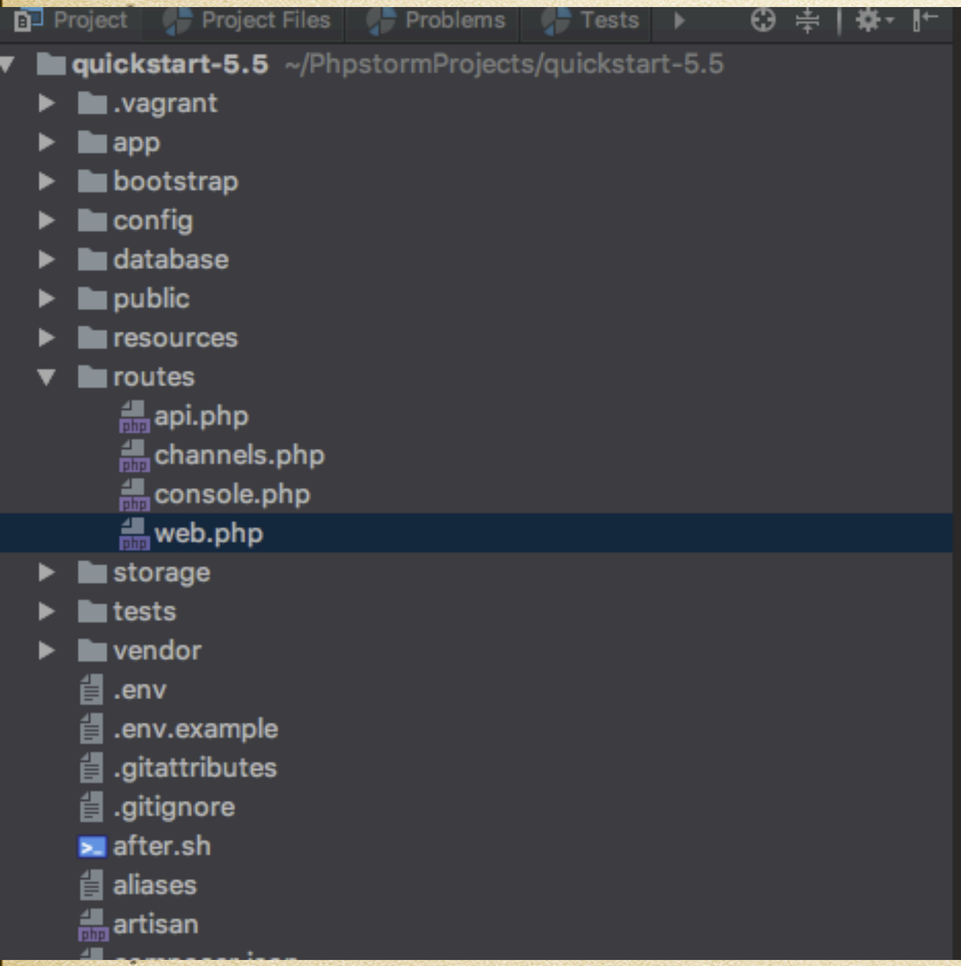
TABLES

- migrations
- password_resets
- users
- widgets

Search: id = Search

id	name	description	price	created_at	updated_at
1	cumque Widget	Sit perspiciatis autem quia soluta. Dicta quaerat aliquam nostrum sit quia eli...	153005.79	2016-10-15 17:30:35	2016-10-15 17:30:35
2	delectus Widget	Corrupti reprehenderit et omnis officia ratione cum eligendi. Est nesciunt qu...	20810.66	2016-10-15 17:30:35	2016-10-15 17:30:35
3	impedit Widget	Possimus et magni tempore dolorem sint porro et. Placeat occaecati volupta...	593767.83	2016-10-15 17:30:35	2016-10-15 17:30:35
4	et Widget	Perspiciatis voluptate odio illo adipisci optio praesentium autem qui. Adipis...	309975.70	2016-10-15 17:30:35	2016-10-15 17:30:35
5	eligendi Widget	Ex rem incidunt distinctio minus ipsam et vitae. Eveniet ut qui accusantium...	751376.76	2016-10-15 17:30:35	2016-10-15 17:30:35
6	sequi Widget	Mollitia et autem assumenda facilis earum. Quis voluptatem non ipsum tota...	608222.05	2016-10-15 17:30:35	2016-10-15 17:30:35
7	autem Widget	Molestias molestias laboriosam aperiam optio eos. Qui aut magnam aliquid....	178632.14	2016-10-15 17:30:35	2016-10-15 17:30:35
8	rem Widget	Vero similique omnis autem ea. Tenetur amet sed neque ut repudiandae. Di...	700195.64	2016-10-15 17:30:35	2016-10-15 17:30:35
9	molestiae Widget	Et commodi sequi aut consequatur. Nulla consequatur veritatis aliquam. Pro...	853737.65	2016-10-15 17:30:35	2016-10-15 17:30:35
10	qui Widget	Recusandae ut facere voluptas repellat id fugit hic. Ut vel ea et alias aut beat...	490998.02	2016-10-15 17:30:35	2016-10-15 17:30:35

Routing




```php
<?php

/*...*/

Route::get('/', function () {
    return view( view: 'welcome');
});

```

routes/web.php

Why 4 route files?!

Add /widgets Route

```php
<?php

/*...*/
use App\Widget;

Route::get('/', function () {
    return view( view: 'welcome');
});

Route::get('/widgets', function () {
    return Widget::all();
});
```

localhost:8000/widgets

localhost:8000/widgets

+ - View source


```
[
  - {
        id: 1,
        name: "cumque Widget",
        description: "Sit perspiciatis autem quia soluta. Dicta quaerat aliquam nostrum sit quia eligendi dolorem.
        Omnis voluptas eum et possimus dolor. Fuga minima quam nam ut iusto eos illum ea.",
        price: 153005.79,
        created_at: "2016-10-15 17:30:35",
        updated_at: "2016-10-15 17:30:35"
    },
  - {
        id: 2,
        name: "delectus Widget",
        description: "Corrupti reprehenderit et omnis officia ratione cum eligendi. Est nesciunt qui laboriosam eum
        odit quia ipsam. Et et non quia quia in necessitatibus consequuntur ipsam.",
        price: 20810.66,
        created_at: "2016-10-15 17:30:35",
        updated_at: "2016-10-15 17:30:35"
    },
  - {
        id: 3,
        name: "impedit Widget",
        description: "Possimus et magni tempore dolorem sint porro et. Placeat occaecati voluptatem delectus quaerat
        voluptas. Porro et sapiente quia voluptas facilis animi reiciendis. Ipsam aliquid pariatur commodi amet et quae
        optio. Veritatis quidem sed sit in doloribus.",
        price: 593767.83,
        created_at: "2016-10-15 17:30:35",
        updated_at: "2016-10-15 17:30:35"
```

Frontend Development

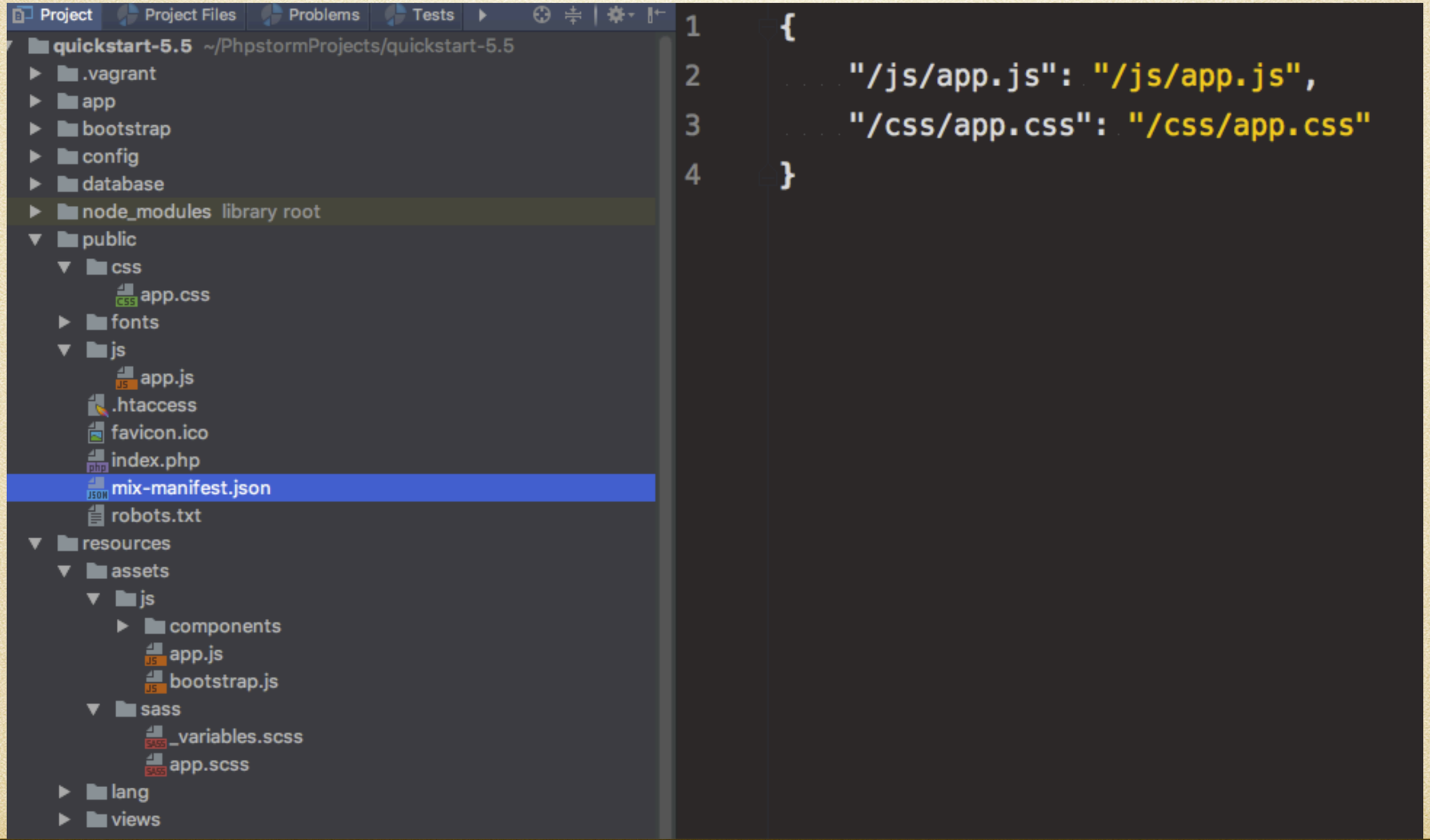
Run: npm install

```
vagrant@qs:~/qs$ npm install
npm WARN deprecated uglify-es@3.1.7: major issues discovered
npm WARN deprecated uglify-js@3.1.7: major issues discovered

> node-sass@4.6.0 install /home/vagrant/qs/node_modules/node-sass
> node scripts/install.js

Downloading binary from https://github.com/sass/node-sass/releases/download/v4.6.0/linux-x64-48_b
Download complete [.] - :
Binary saved to /home/vagrant/qs/node_modules/node-sass/vendor/linux-x64-48/binding.node
Caching binary to /home/vagrant/.npm/node-sass/4.6.0/linux-x64-48_binding.node

> uglifyjs-webpack-plugin@0.4.6 postinstall /home/vagrant/qs/node_modules/webpack/node_modules/ug
> node lib/post_install.js


> node-sass@4.6.0 postinstall /home/vagrant/qs/node_modules/node-sass
> node scripts/build.js

Binary found at /home/vagrant/qs/node_modules/node-sass/vendor/linux-x64-48/binding.node
Testing binary
Binary is fine

> gifsicle@3.0.4 postinstall /home/vagrant/qs/node_modules/gifsicle
> node lib/install.js

  ✔ gifsicle pre-build test passed successfully

> mozjpeg@4.1.1 postinstall /home/vagrant/qs/node_modules/mozjpeg
> node lib/install.js
```

npm run dev

```
DONE  Compiled successfully in 8356ms                                                                                    8:07:41

                                                                                  Asset     Size  Chunks                    Chunk Names
  fonts/vendor/bootstrap-sass/bootstrap/glyphicons-halflings-regular.eot?f4769f9bdb7466be65088239c12046d1  20.1 kB          [emitted]
fonts/vendor/bootstrap-sass/boot Profile: (null) yphicons-halflings-regular.woff2?448c34a56d699c29117adc64c43affeb    18 kB          [emitted]
                                 Command: None
 fonts/vendor/bootstrap-sass/bootstrap/glyphicons-halflings-regular.woff?fa2772327f55d8198301fdb8bcfc8158  23.4 kB          [emitted]
  fonts/vendor/bootstrap-sass/bootstrap/glyphicons-halflings-regular.ttf?e18bbf611f2a2e43afc071aa2f4e1512  45.4 kB          [emitted]
  fonts/vendor/bootstrap-sass/bootstrap/glyphicons-halflings-regular.svg?89889688147bd7575d6327160d64e760   109 kB          [emitted]
                                                                                  /js/app.js  1.22 MB       0  [emitted]  [big]  /js/app
                                                                                 /css/app.css   147 kB       0  [emitted]         /js/app

vagrant@qs:~/qs$
```

Compiled Assets



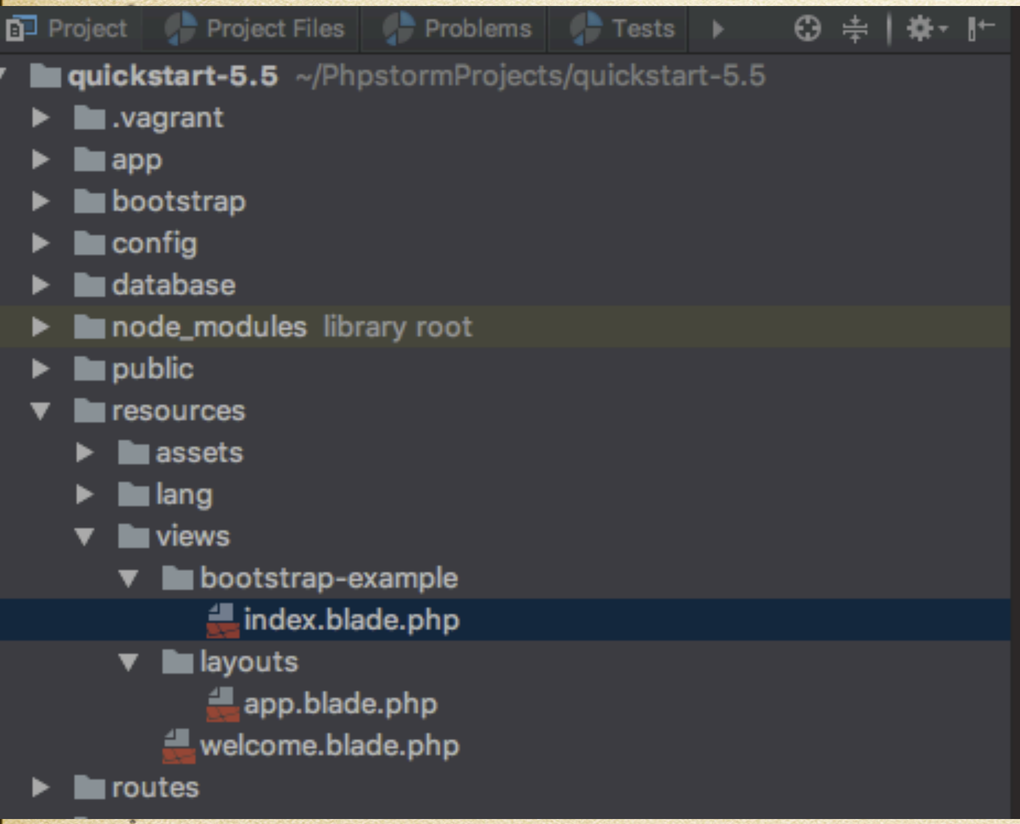
Layouts

Project | Project Files | Problems | Tests

- quickstart-5.5 ~/PhpstormProjects/quickstart-5.5
  - .vagrant
  - app
  - bootstrap
  - config
  - database
  - node_modules library root
  - public
  - resources
    - assets
    - lang
    - views
      - layouts
        - app.blade.php
      - welcome.blade.php
  - routes
  - storage
  - tests
  - vendor
  - .env
  - .env.example
  - .gitattributes
  - .gitignore
  - after.sh
  - aliases
  - artisan
  - composer.json
  - composer.lock
  - Homestead.yaml
  - package.json
  - package-lock.json
  - phpunit.xml
  - readme.md
  - server.php
  - Vagrantfile
  - webpack.mix.js
  - yarn.lock

```
1
2   <!DOCTYPE html>
3   <html lang="en">
4   <head>
5       <meta charset="utf-8">
6       <meta http-equiv="X-UA-Compatible" content="IE=edge">
7       <meta name="viewport" content="width=device-width, initial-scale=1">
8       <!-- The above 3 meta tags *must* come first in the head; any other head content must co
9       <meta name="description" content="">
10      <meta name="author" content="">
11      <link rel="icon" href="../../favicon.ico">
12
13      <title>App Name - @yield('title')</title>
14
15      <!-- Bootstrap core CSS -->
16      <link href="/css/app.css" rel="stylesheet">
17      <script src="/js/app.js"></script>
18  </head>
19
20  <body>
21  <nav class="navbar navbar-inverse">
22      <div class="container">
23          <div class="navbar-header">
24              <a class="navbar-brand" href="#">Laravel</a>
25          </div>
26          <div id="navbar" class="navbar-collapse collapse">
27              <ul class="nav navbar-nav">
28                  <li><a href="/">Home</a></li>
29                  <li><a href="/tasks" name="tasks">Tasks</a></li>
30                  <li><a href="/widgets" name="tasks">Widgets</a></li>
```

Example View



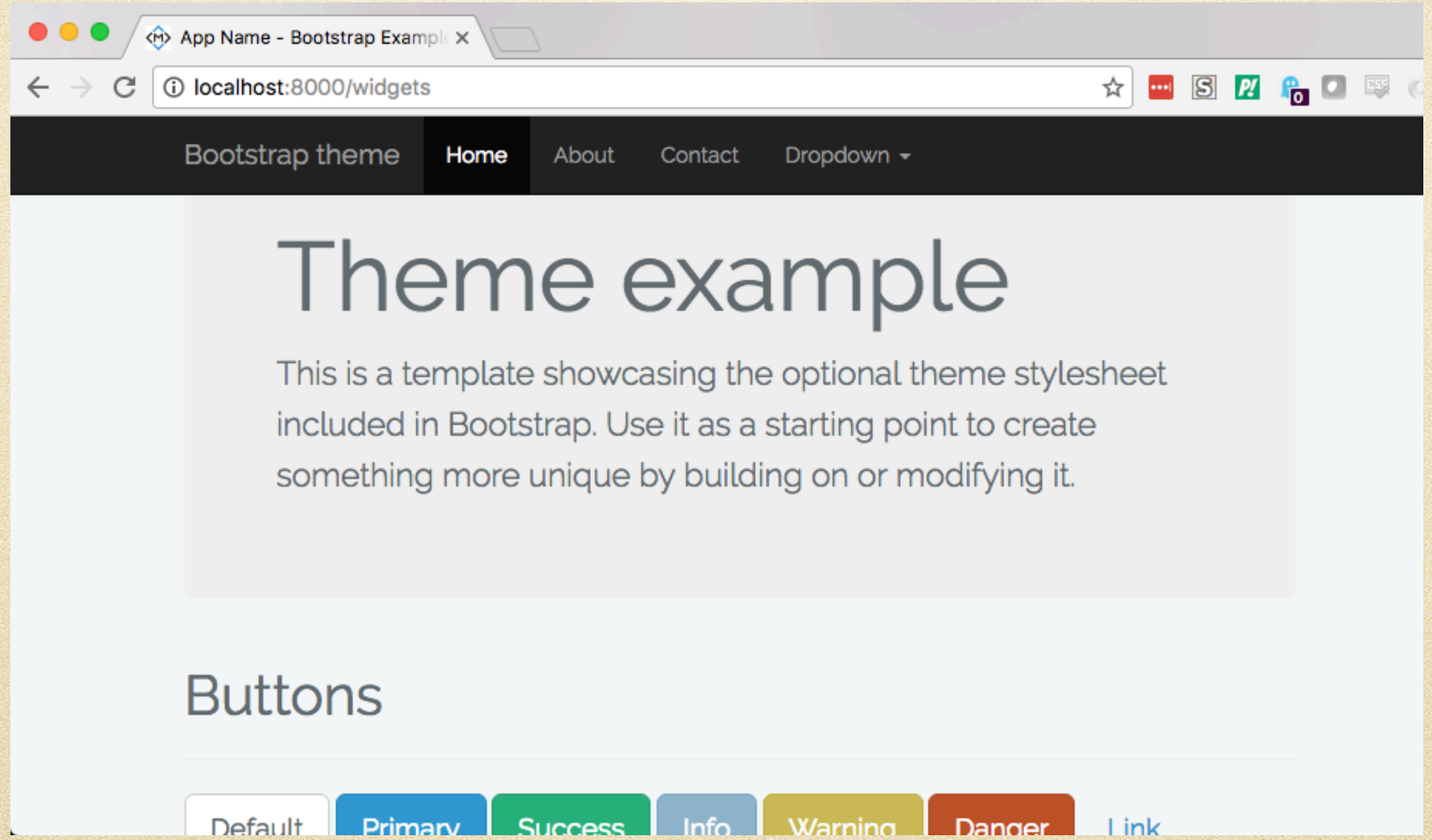

```
1   @extends('layouts.app')
2
3   @section('title', 'Bootstrap Example Page')
4
```

Return a view()

```
19  Route::get('/widgets', function () {
20      $widgets = Widget::all();
21
22      return view('bootstrap-example.index');
23  });
```

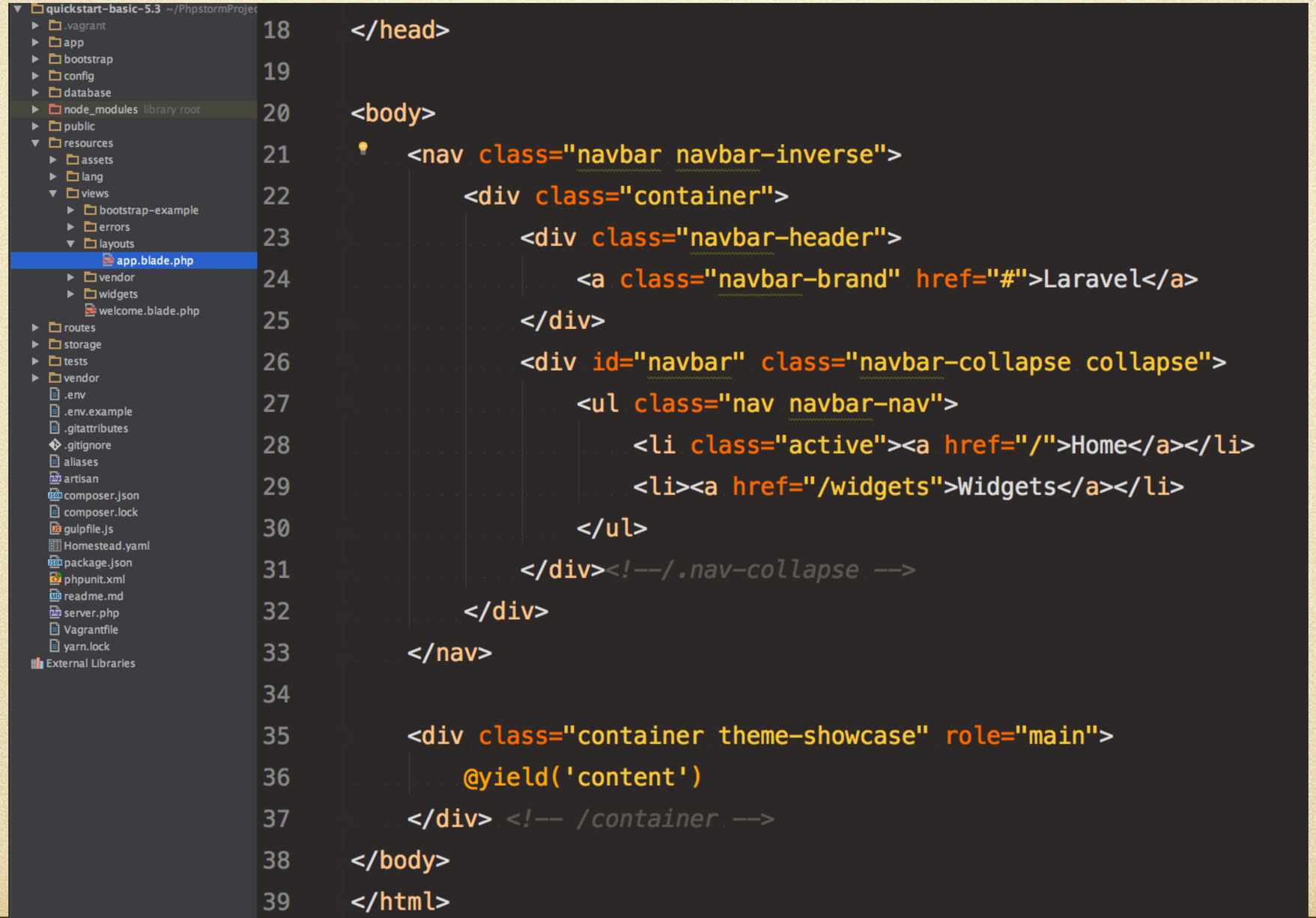
routes/web.php

Refresh /widgets

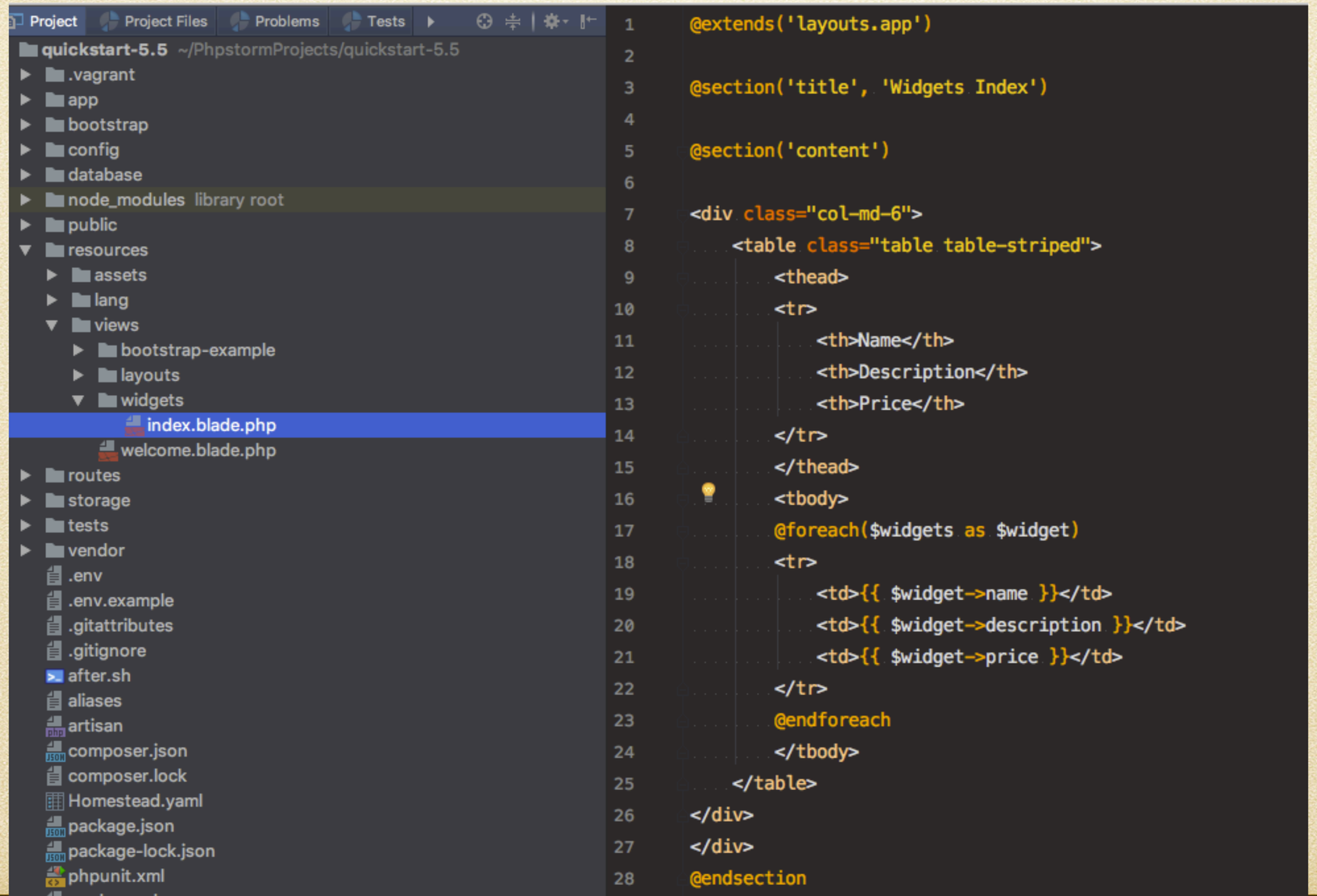


localhost:8000/widgets

Clean up our layout



Widgets Index View



Pass data to a view

```
19  Route::get('/widgets', function () {
20      $widgets = Widget::all();
21
22      return view('widgets.index')
23          ->with('widgets', $widgets);
24  });
```

routes/web.php

localhost:8000/widgets

localhost:8000/widgets

Laravel Home Tasks Widgets

Name	Description	Price
animi Widget	Tempore qui et ipsum ipsum quas. Reiciendis consequatur dignissimos aut fugit ea dolor voluptas. Aut ad qui aliquid. Nihil qui dolorem cum quia.	62129.61
voluptatibus Widget	Praesentium quasi quo ipsum est natus commodi. Eum magni explicabo quas aliquam maiores quis. Enim pariatur autem laborum accusantium. Porro dolorem molestiae aut eius quo in ratione.	490879.46
et Widget	Saepe aut molestiae quam ipsa quos ullam quod. Eaque est voluptates repudiandae. Culpa rerum totam at quos. Rem et eius voluptates voluptatem nemo.	907249.74
hic Widget	Et aperiam sed et distinctio doloremque aliquid. Et libero aliquid sit. Nemo quia fuga id aut deserunt quam consequatur. Facere quia recusandae at eum.	286554.68
ut Widget	Eum voluptas omnis aut minima. Optio commodi maxime veniam quidem	598718.3

Questions?

Time to do stuff

- Open quickstart-5.6
- Run: composer install
- cp .env.example .env
- php artisan key:generate
- Run: ./vendor/bin/homestead make
- Run: vagrant up
- Run: vagrant ssh

- Run: cd quickstart-5.6
- Run: artisan migrate
- Run: artisan db:seed
- Run: npm install
- Run: npm run dev

https://github.com/svpernova09/quickstart-5.6

Exercise 1 - 30 Minutes

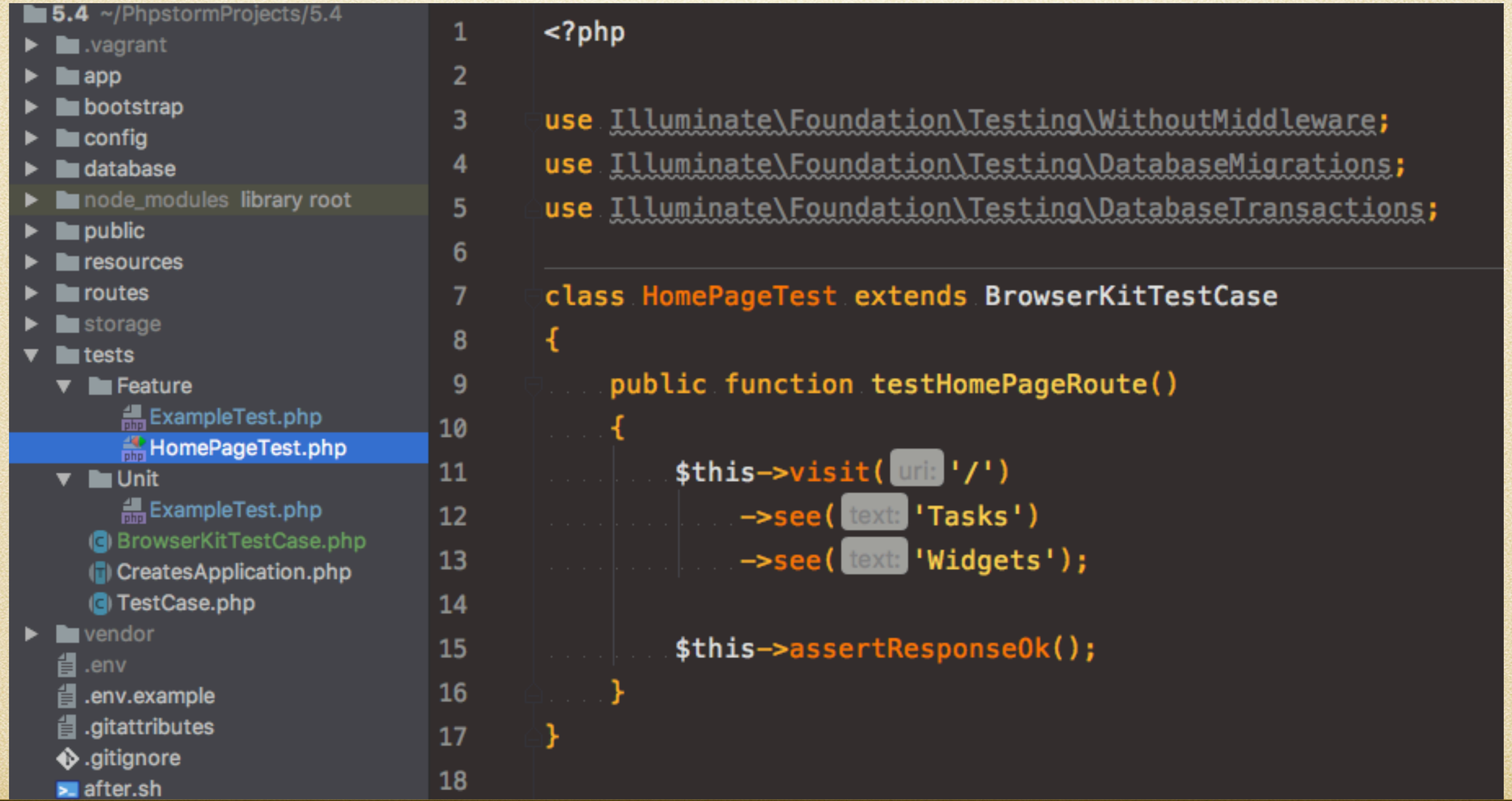
- Create Migration to create Tasks table
  - Tasks should have name and user_id fields (and timestamps())
- Create Model for Task
- Create Model Factory and Database Seeder for Tasks
- Create tasks view that displays all tasks

Exercise 1 Solution

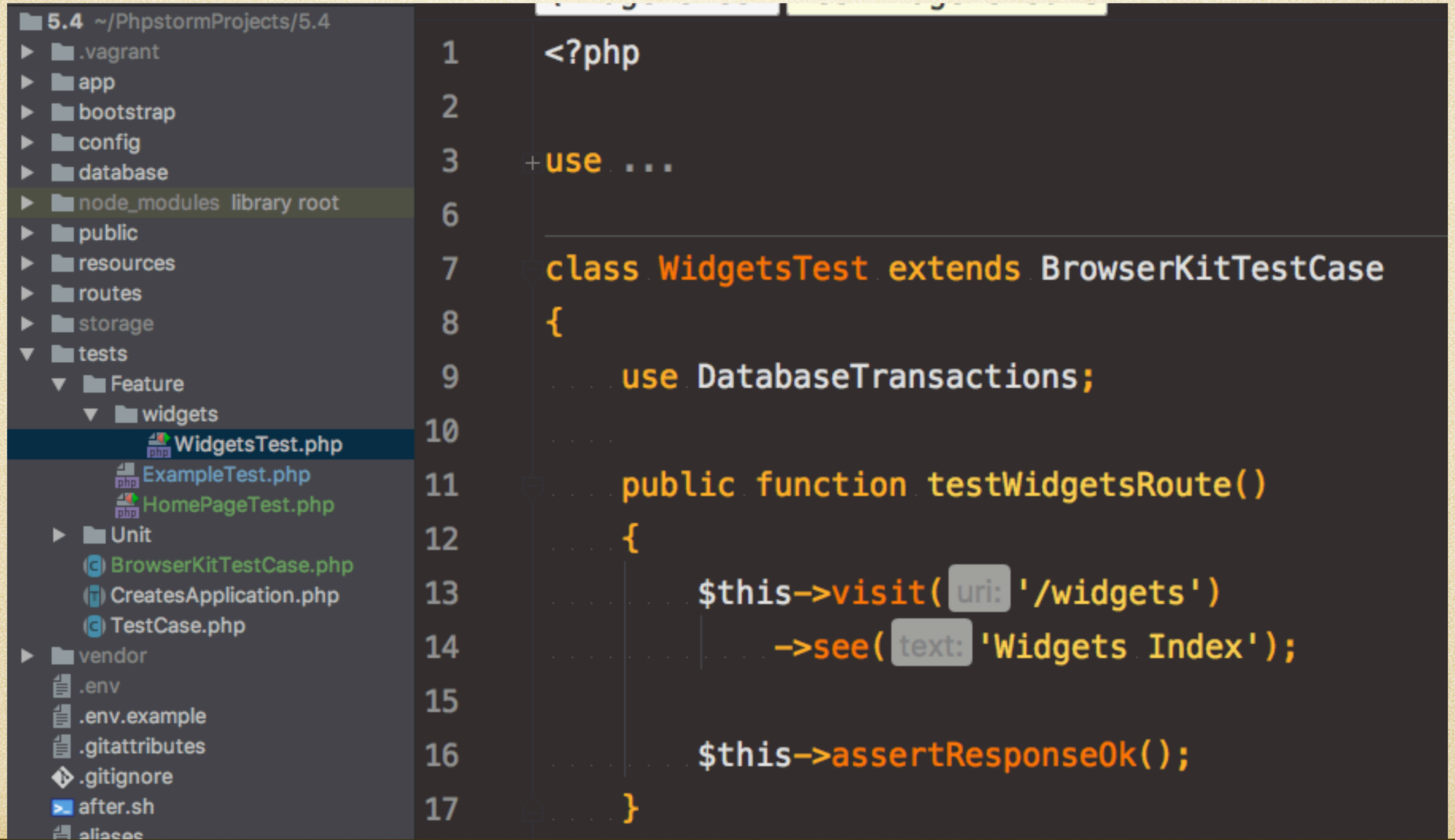
To see a possible solution
checkout the branch “exercise-1”

```
git checkout exercise-1
composer install
```

Testing our Application



Testing our Widgets



Testing our Widgets

```
19
20      public function testWidgetsViewHasData()
21      {
22          $this->visit( uri: '/widgets')
23              ->seePageIs( uri: '/widgets');
24
25          $this->assertViewHas('widgets');
26      }
27
28      public function testDataExists()
29      {
30          $widget = factory(App\Widget::class, 1)->create();
31
32          $this->visit( uri: '/widgets')
33              ->see($widget[0]->name);
34      }
```

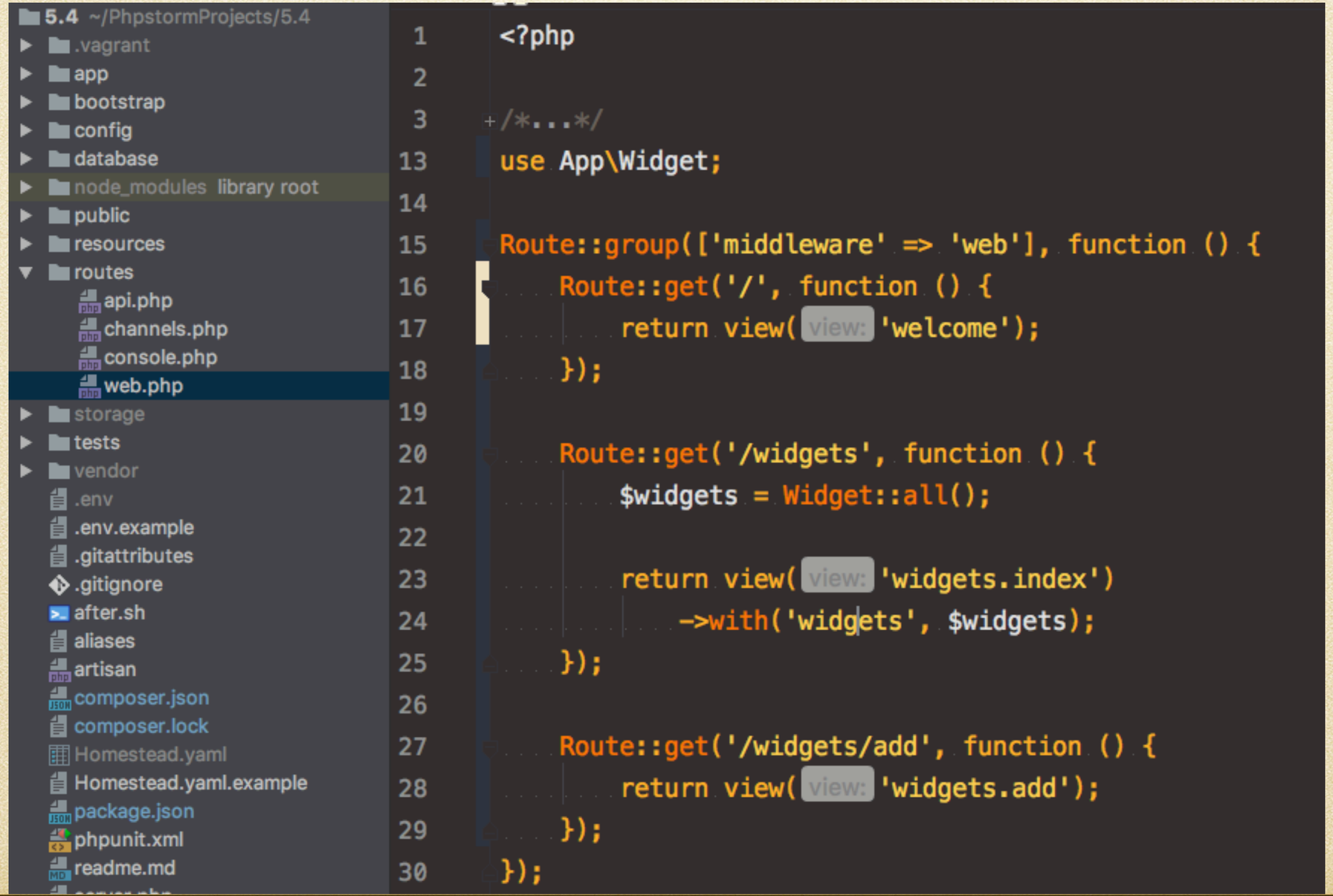
Testing our Widgets

```
34      public function testDataExists()
35      {
36          $widget = factory(App\Widget::class, 1)->create();
37
38          $this->visit( uri: '/widgets')
39              ->see($widget[0]->name);
40      }
41  }
```

Running phpunit

```
vagrant@qs:~/qs$ phpunit
PHPUnit 7.2.7 by Sebastian Bergmann and contributors.

.......                                                           7 / 7 (100%)

Time: 1.64 seconds, Memory: 16.00MB

OK (7 tests, 24 assertions)
vagrant@qs:~/qs$
```

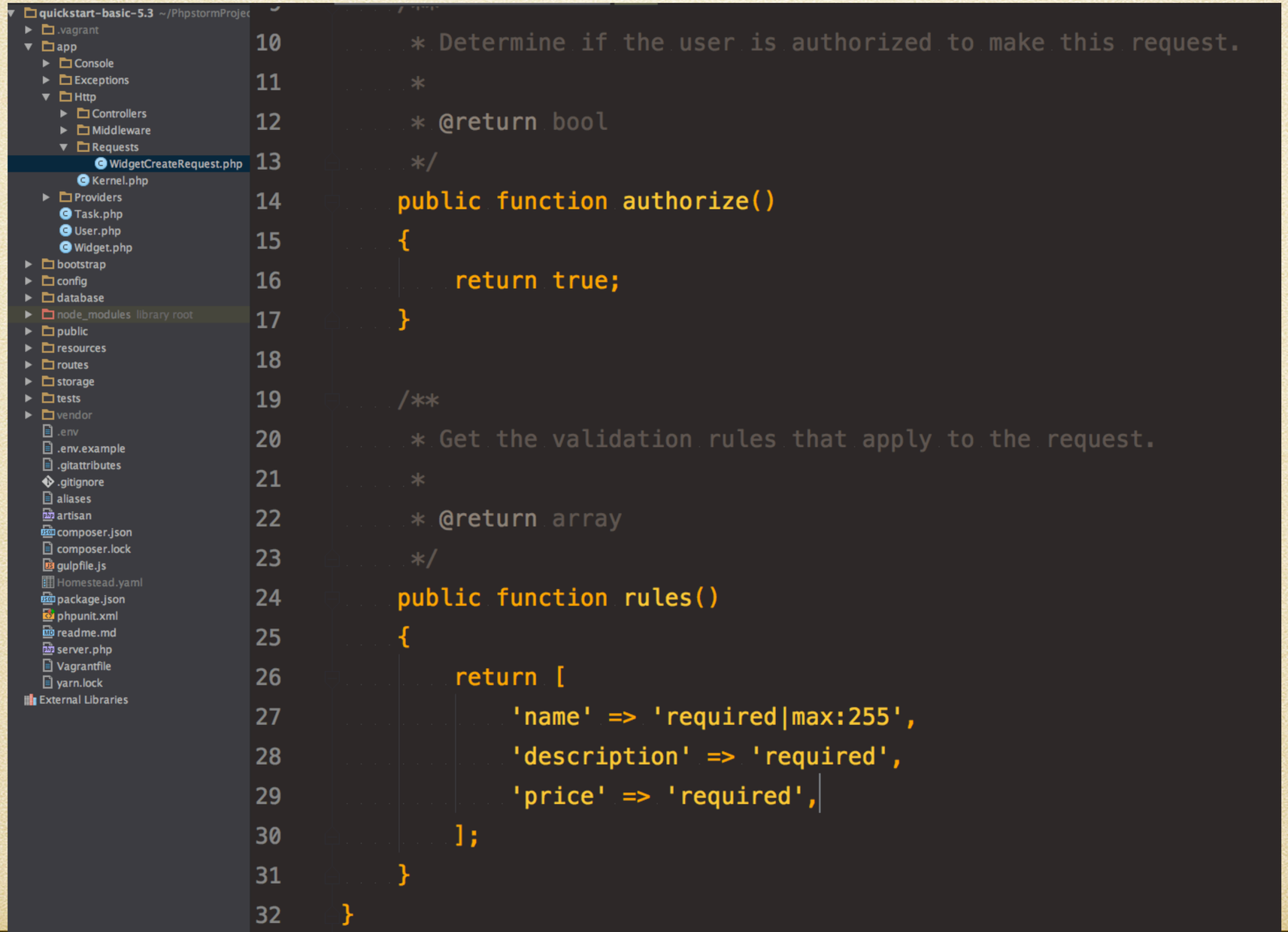
Route Groups



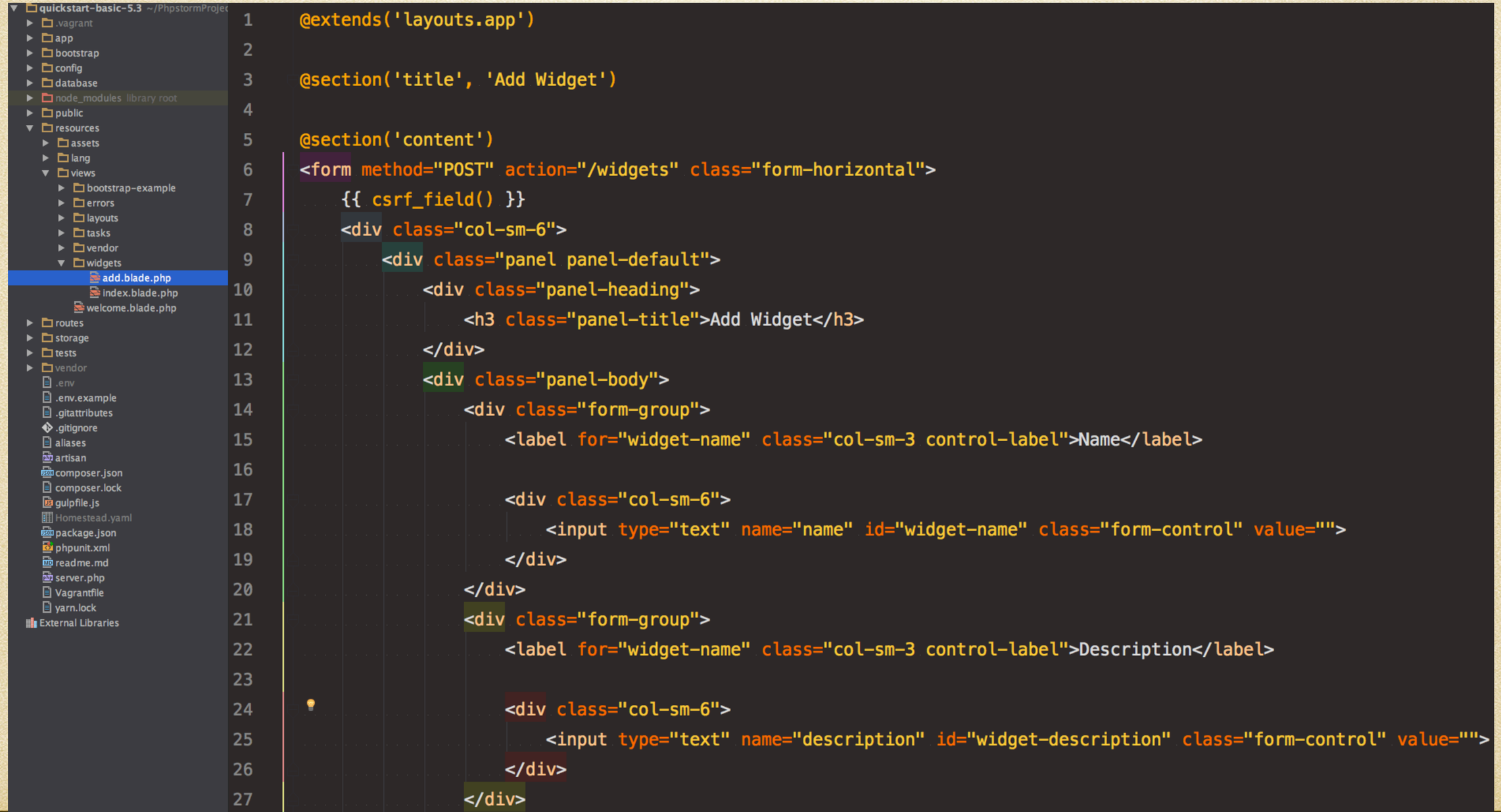
Form Requests

```
vagrant@qs:~/qs$ artisan make:request WidgetCreateRequest
Request created successfully.
vagrant@qs:~/qs$
```

WidgetCreateRequest



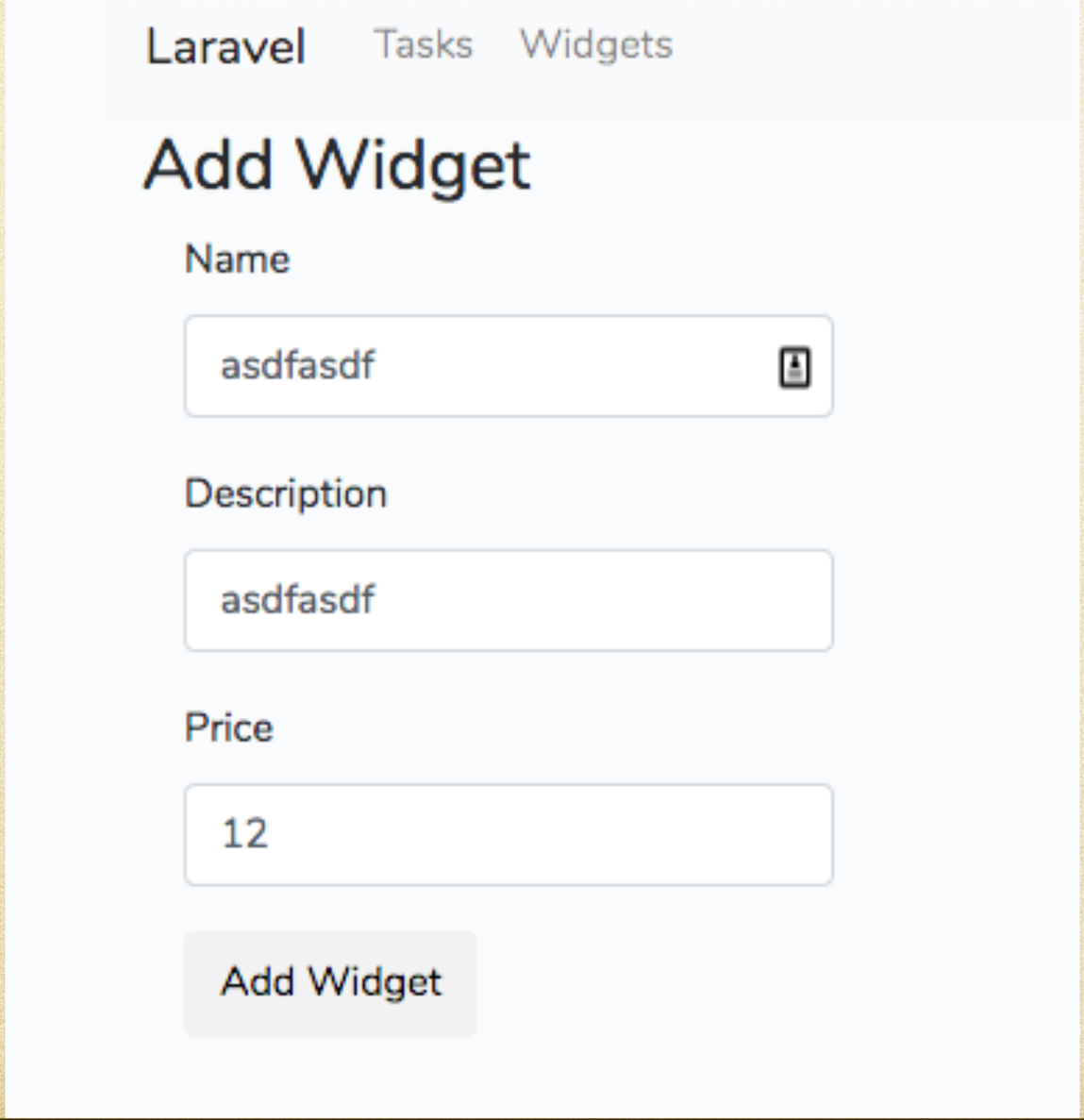
HTML Forms


quickstart-basic-5.3 ~/PhpstormProjec
.vagrant
app
bootstrap
config
database
node_modules library root
public
resources
assets
lang
views
bootstrap-example
errors
layouts
tasks
vendor
widgets
add.blade.php
index.blade.php
welcome.blade.php
routes
storage
tests
vendor
.env
.env.example
.gitattributes
.gitignore
aliases
artisan
composer.json
composer.lock
gulpfile.js
Homestead.yaml
package.json
phpunit.xml
readme.md
server.php
Vagrantfile
yarn.lock
External Libraries
1 @extends('layouts.app')
2
3 @section('title', 'Add Widget')
4
5 @section('content')
6 <form method="POST" action="/widgets" class="form-horizontal">
7 {{ csrf_field() }}
8
9
10
11 <h3 class="panel-title">Add Widget</h3>
12
13
14
15 <label for="widget-name" class="col-sm-3 control-label">Name</label>
16
17
18 <input type="text" name="name" id="widget-name" class="form-control" value="">
19
20
21
22 <label for="widget-name" class="col-sm-3 control-label">Description</label>
23
24
25 <input type="text" name="description" id="widget-description" class="form-control" value="">
26
27

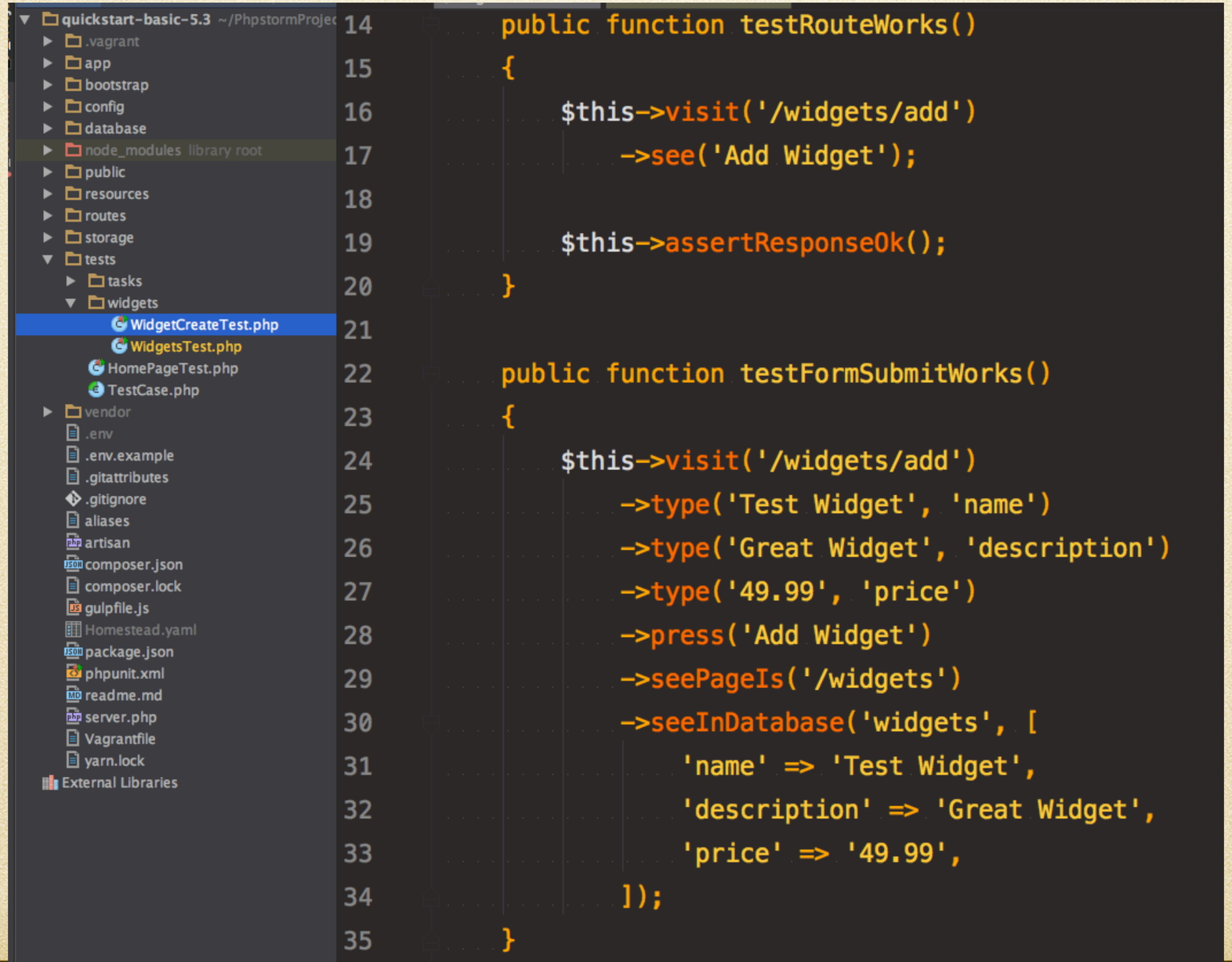
Widget Routes

```
29      Route::get('/widgets/add', function () {
30
31          return view('widgets.add');
32      });
33
34      Route::post('/widgets', function (WidgetCreateRequest $request) {
35          $widget = new Widget();
36          $widget->name = $request->name;
37          $widget->description = $request->description;
38          $widget->price = $request->price;
39          $widget->save();
40
41          return redirect()->to('/widgets');
42      });
```

Add Widget


Laravel
Tasks
Widgets
Add Widget
Name
asdfasdf
Description
asdfasdf
Price
12
Add Widget

Test Add Widget Form



Exercise 2 - 30 Minutes

- Create view containing a form to add Tasks
  - Form will have a drop down of users to select from to assign user's id to the Task user_id field
- Create tests for all new functionality

Exercise 2 Solution

To see a possible solution
checkout the branch “exercise-2”

```
git checkout exercise-2
composer dump-auto
```

Questions?

Controllers

```
vagrant@qs:~/qs$ artisan make:controller WidgetController
Controller created successfully.
vagrant@qs:~/qs$
```

Routing to Controllers

```php
Route::get('/widgets', function () {
    $widgets = Widget::all();

    return view('widgets.index')
        ->with('widgets', $widgets);
});

Route::get('/widgets/add', function () {

    return view('widgets.add');
});

Route::post('/widgets', function (WidgetCreateRequest $request) {
    $widget = new Widget();
    $widget->name = $request->name;
    $widget->description = $request->description;
    $widget->price = $request->price;
    $widget->save();

    return redirect()->to('/widgets');
});
```

```php
<?php

namespace App\Http\Controllers;

use App\Http\Requests\WidgetCreateRequest;
use App\Widget;

class WidgetController extends Controller
{
    public function index()
    {
        $widgets = Widget::all();

        return view('widgets.index')
            ->with('widgets', $widgets);
    }

    public function add()
    {
        return view('widgets.add');
    }

    public function create(WidgetCreateRequest $request)
    {
        $widget = new Widget();
        $widget->name = $request->name;
        $widget->description = $request->description;
        $widget->price = $request->price;
        $widget->save();

        return redirect()->route('widgets.index');
    }
}
```

Routing to Controllers

```
19  Route::group(['middleware' => 'web'], function () {
20      Route::get('/', function () {
21          return view('welcome');
22      });
23
24      Route::get('widgets', 'WidgetController@index')->name('widgets.index');
25      Route::get('widgets/add', 'WidgetController@add')->name('widgets.add');
26      Route::post('widgets', 'WidgetController@create')->name('widgets.create');
```

Routing to Controllers

```
23      public function create(WidgetCreateRequest $request)
24      {
25          $widget = new Widget();
26          $widget->name = $request->name;
27          $widget->description = $request->description;
28          $widget->price = $request->price;
29          $widget->save();
30
31          return redirect()->route('widgets.index');
32      }
```

Widget Tests Still Pass

```
vagrant@qs:~/qs$ phpunit tests/Feature/widgets/
PHPUnit 7.2.7 by Sebastian Bergmann and contributors.

.....                                                   6 / 6 (100%)

Time: 1.36 seconds, Memory: 16.00MB

OK (6 tests, 23 assertions)
vagrant@qs:~/qs$
```

Exercise 3 - 20 Minutes

- Create TaskController
- Move Task logic from web.php to TaskController
- Run tests to ensure everything still works

Exercise 3 Solution

To see a possible solution
checkout the branch “exercise-3”

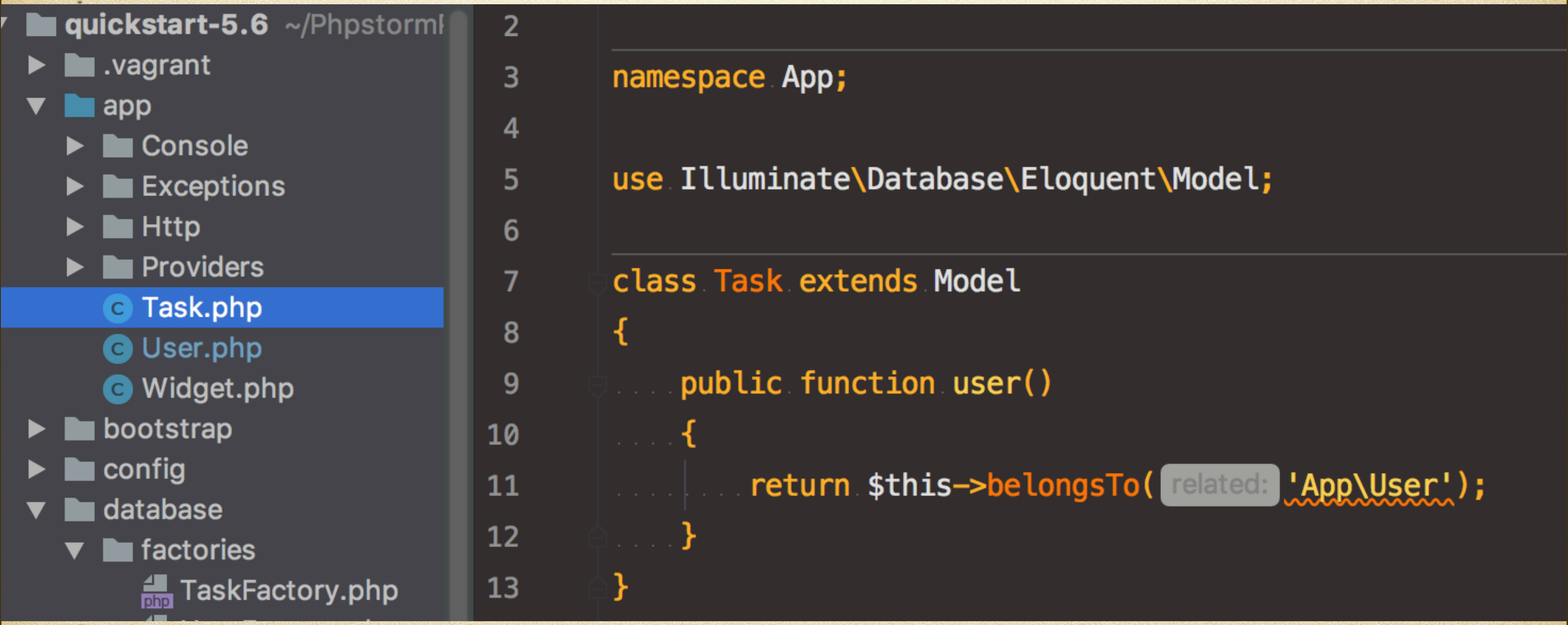
```
git checkout exercise-3
composer dump-auto
```

Questions?

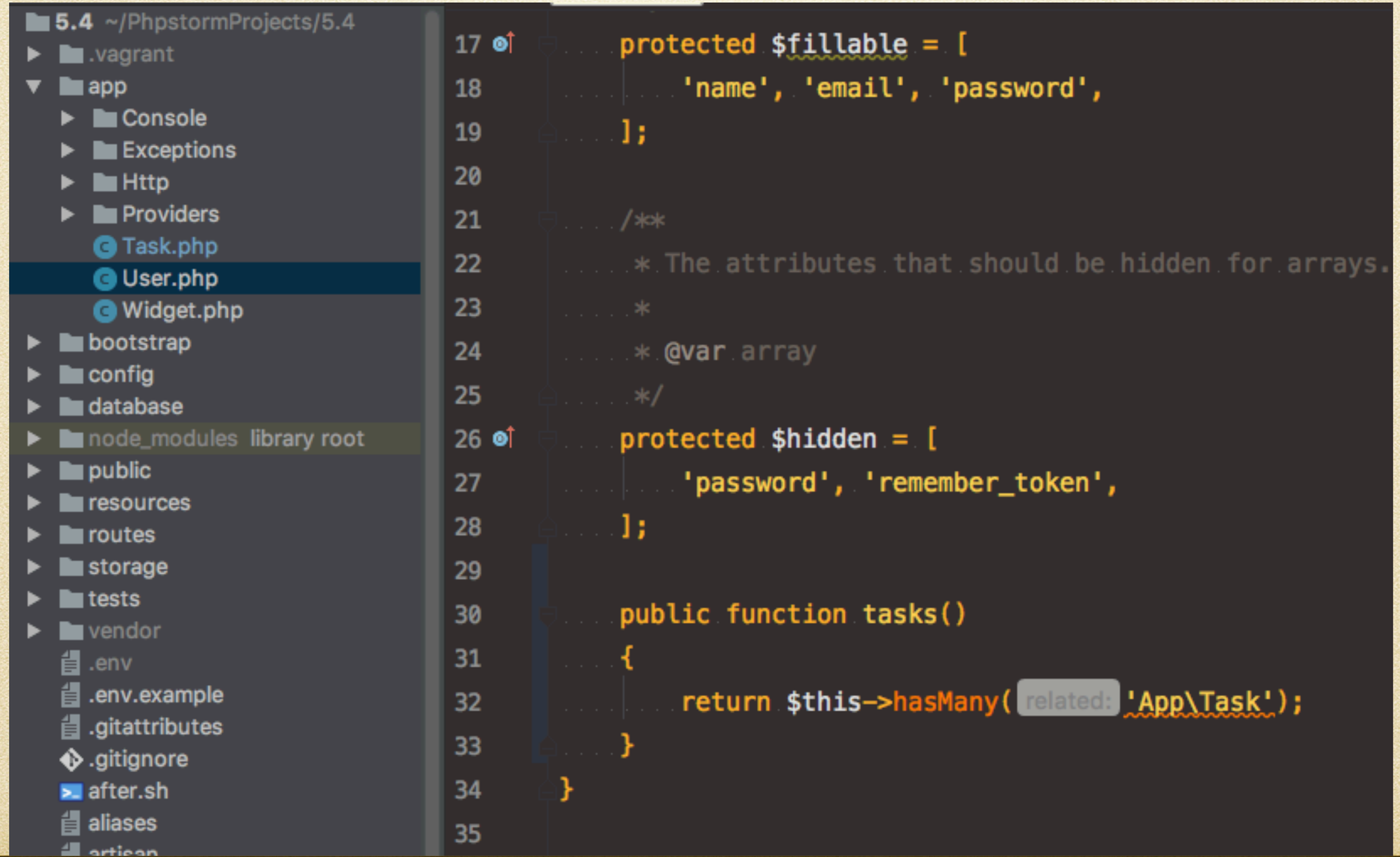
Model Relationships

- One to One
  - A User has a Phone Number
- One to Many
  - A Post has many Comments
- Many to Many
  - Users have may Roles

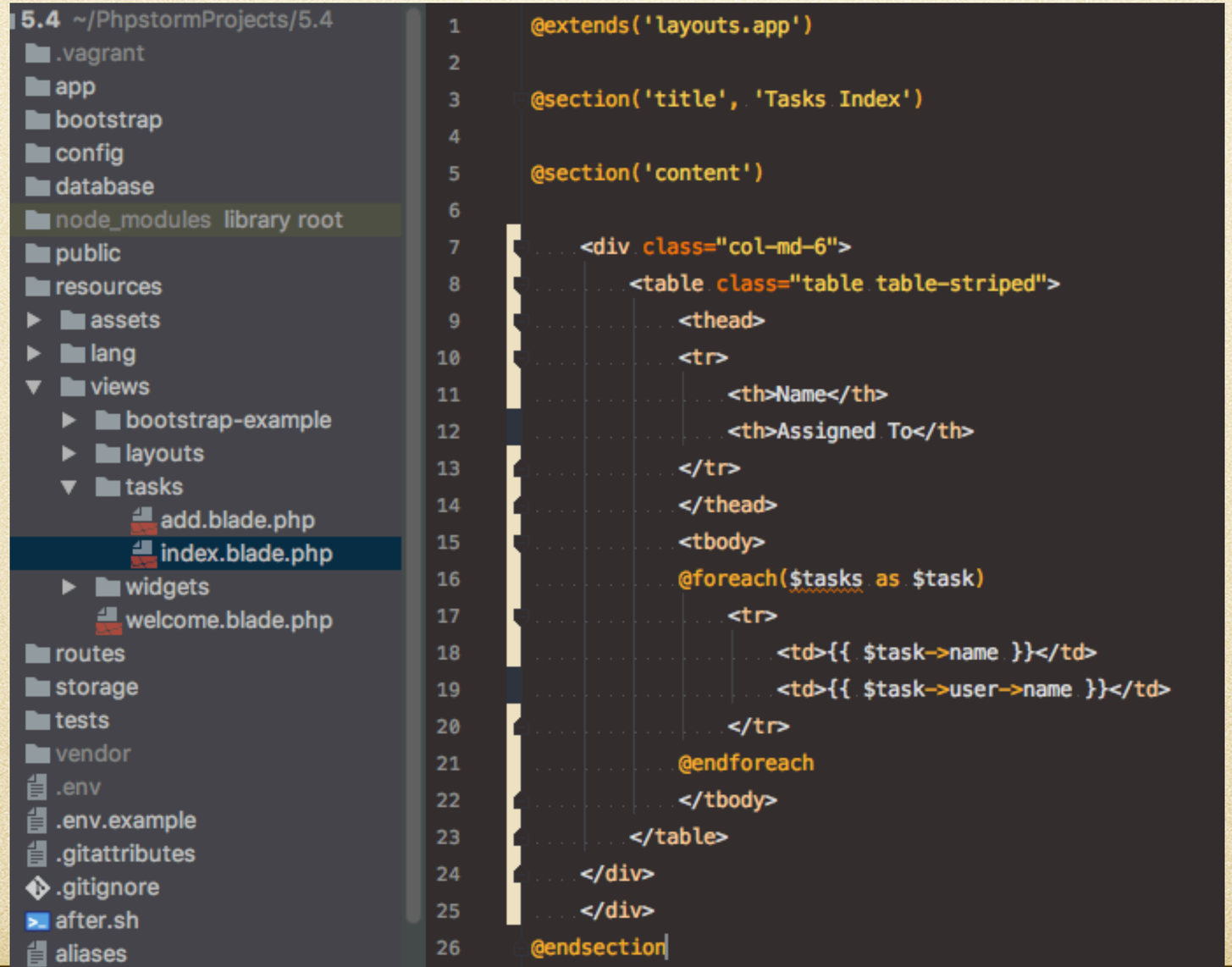
Task belongs to User



User has many Tasks

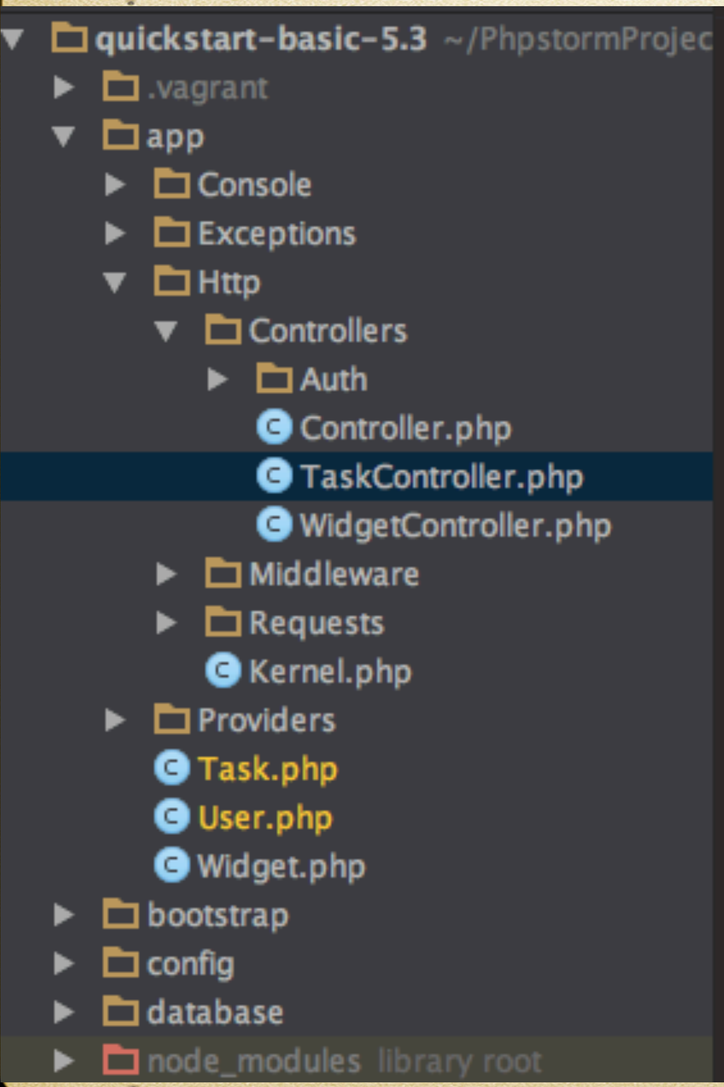


Query Model Relationships



The N+1 Problem

Eager Loading




```
10  class TaskController extends Controller
11  {
12      public function index()
13      {
14          $tasks = Task::with('user')->get();
15
16          return view('tasks.index')
17              ->with('tasks', $tasks);
18      }
19
```

Exercise 4 - 30 Minutes

- Implement Eager Loading for Tasks
- On the Tasks index view, show the user assigned
- Create Users index view, show number of Tasks each has assigned

Exercise 4 Solution

To see a possible solution
checkout the branch “exercise-4”

```
git checkout exercise-4
composer dump-auto
```

Questions?

How do we get it to the server?

Envoy

Envoy provides easy ways to run command commands on remote servers such as pulling code from git, running artisan commands, etc.

Envoy uses blade template syntax

Envoy only supports Mac & Linux

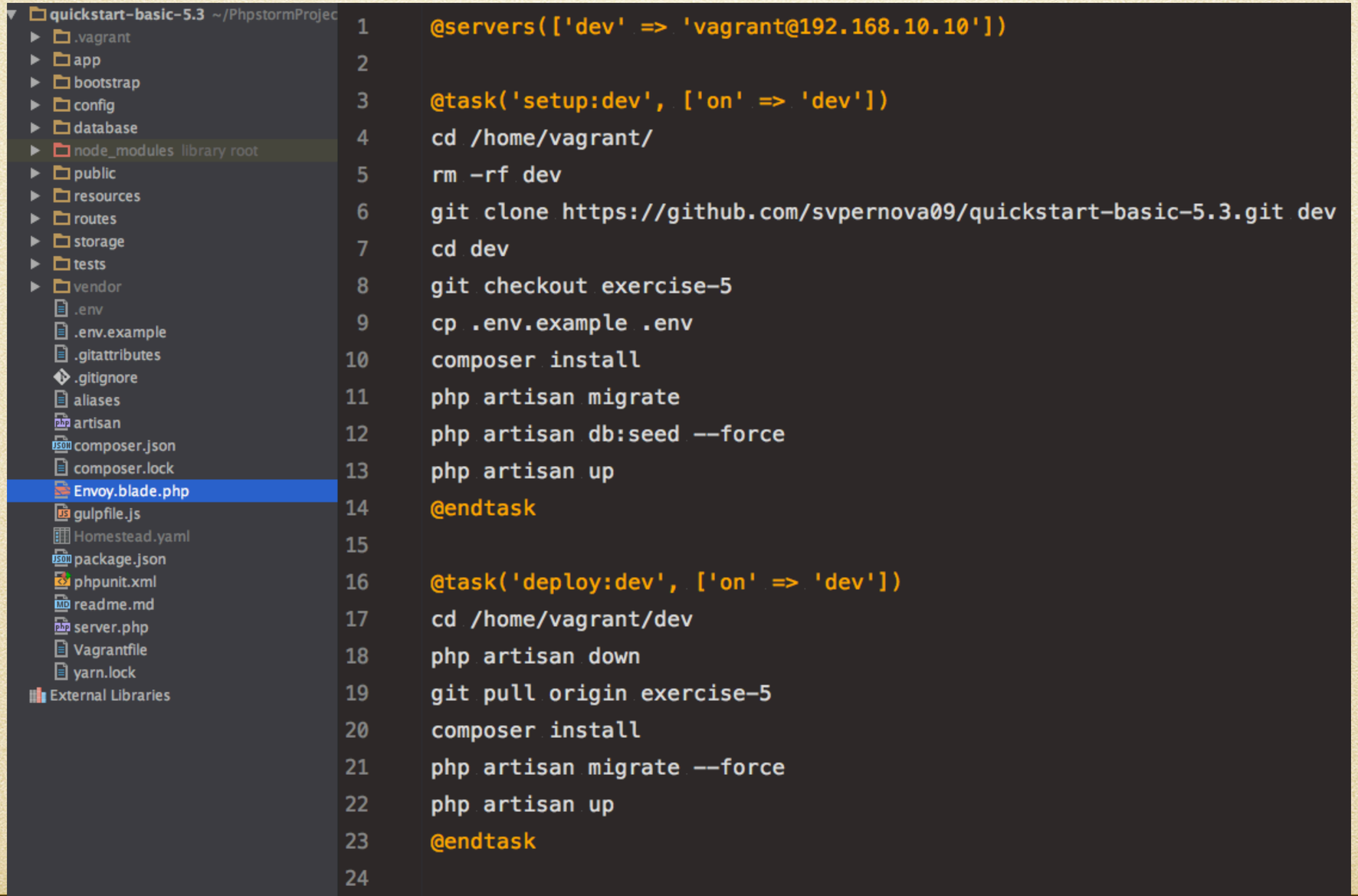
Sample Envoy Config

```
1  @servers(['prod' => 'forge@hackmemphis.com'])
2
3  @task('deploy:prod', ['on' => 'prod'])
4  cd /home/forge/hackmemphis.com
5  ./deploy.sh
6  @endtask
```

Sample Envoy Config

```
@servers([
        'prod' => 'forge@hackmemphis.com',
        'dev' => 'forge@dev.hackmemphis.com',
    ])

@task('deploy:prod', ['on' => 'prod'])
cd /home/forge/hackmemphis.com
./deploy.sh
@endtask

@task('deploy:dev', ['on' => 'dev'])
cd /home/forge/dev.hackmemphis.com
./deploy.sh
@endtask
```

Envoy Configuration



Easy OAuth Login

Laravel Socialite

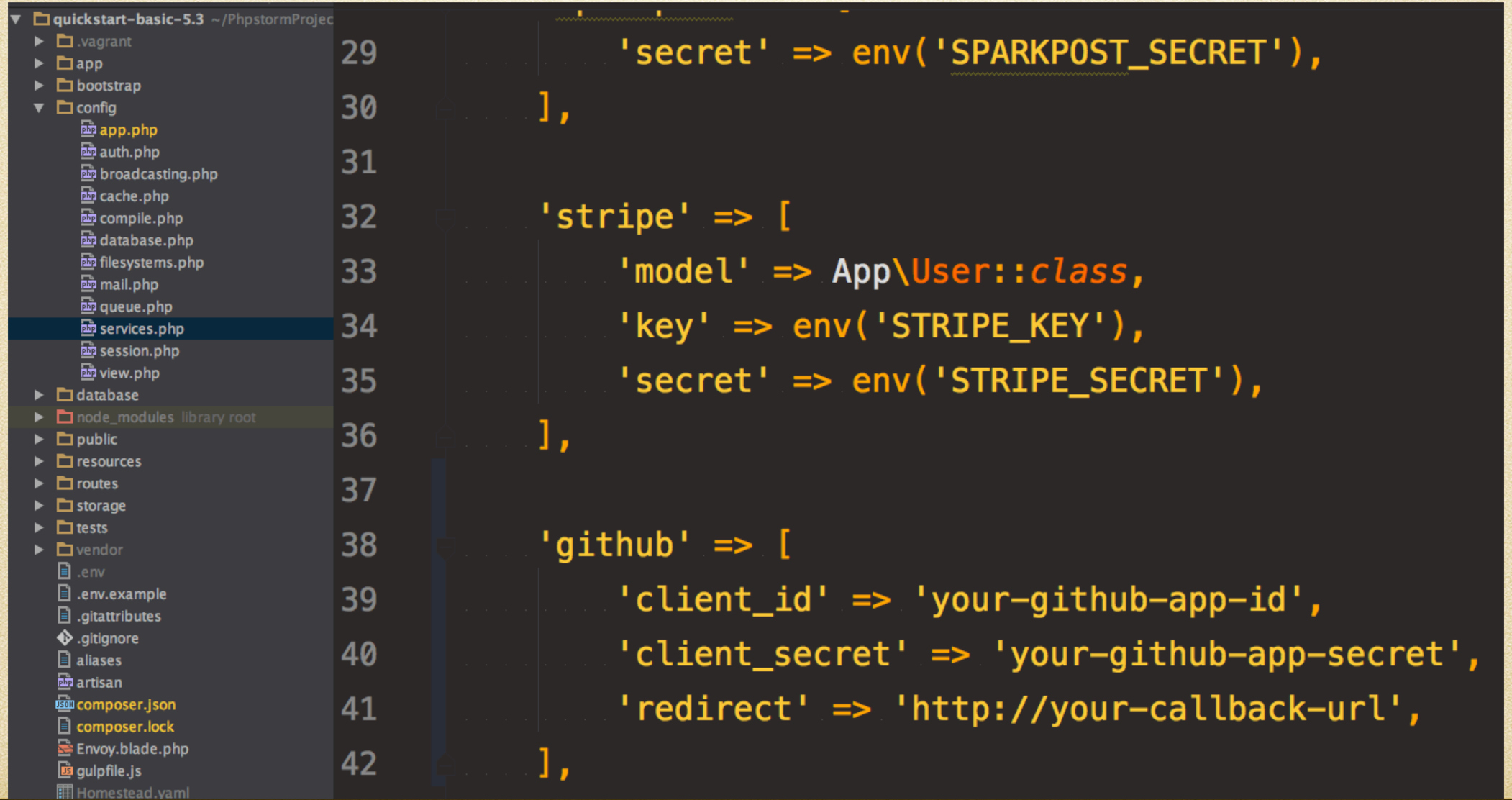
- Easily allow users to authenticate via Github, Google, Twitter, Facebook, Bitbucket, or Linkedin
- Handles almost all the boilerplate for you

https://github.com/laravel/socialite

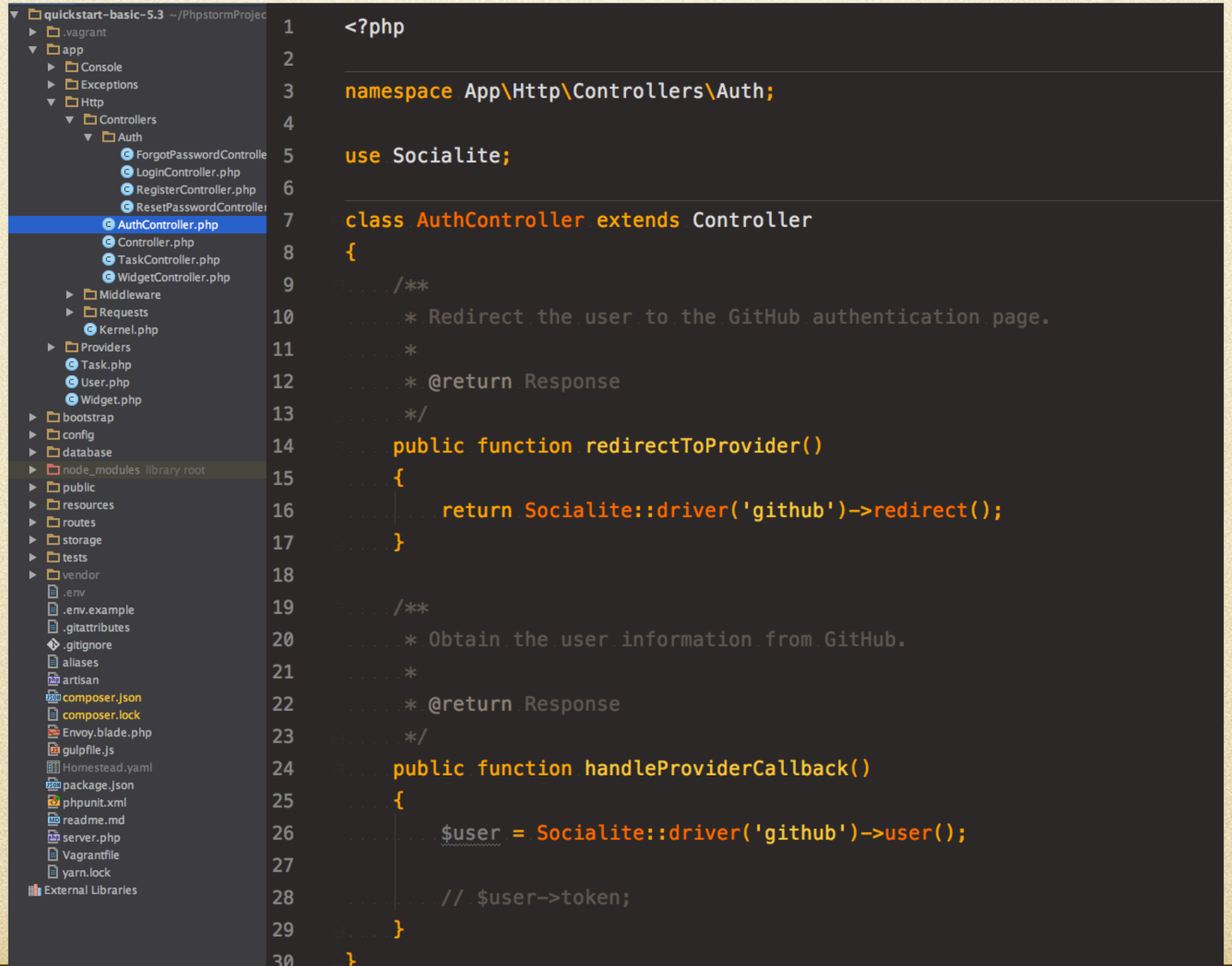
composer require laravel/socialite

```
vagrant@qs:~/qs$ composer require laravel/socialite
Using version ^3.0 for laravel/socialite
./composer.json has been updated
Loading composer repositories with package information
Updating dependencies (including require-dev)
Package operations: 6 installs, 0 updates, 0 removals
  - Installing guzzlehttp/promises (v1.3.1): Loading from cache
  - Installing psr/http-message (1.0.1): Loading from cache
  - Installing guzzlehttp/psr7 (1.4.2): Loading from cache
  - Installing guzzlehttp/guzzle (6.3.0): Loading from cache
  - Installing league/oauth1-client (1.7.0): Downloading (100%)
  - Installing laravel/socialite (v3.0.9): Downloading (100%)
Writing lock file
Generating optimized autoload files
> Illuminate\Foundation\ComposerScripts::postAutoloadDump
> @php artisan package:discover
Discovered Package: fideloper/proxy
Discovered Package: laravel/tinker
Discovered Package: laravel/socialite
Package manifest generated successfully.
vagrant@qs:~/qs$
```

Configure Socialite



AuthController




```php
<?php

namespace App\Http\Controllers\Auth;

use Socialite;

class AuthController extends Controller
{
    /**
     * Redirect the user to the GitHub authentication page.
     *
     * @return Response
     */
    public function redirectToProvider()
    {
        return Socialite::driver('github')->redirect();
    }

    /**
     * Obtain the user information from GitHub.
     *
     * @return Response
     */
    public function handleProviderCallback()
    {
        $user = Socialite::driver('github')->user();

        // $user->token;
    }
}
```

Add Socialite Routes

Making $$$

Laravel Cashier

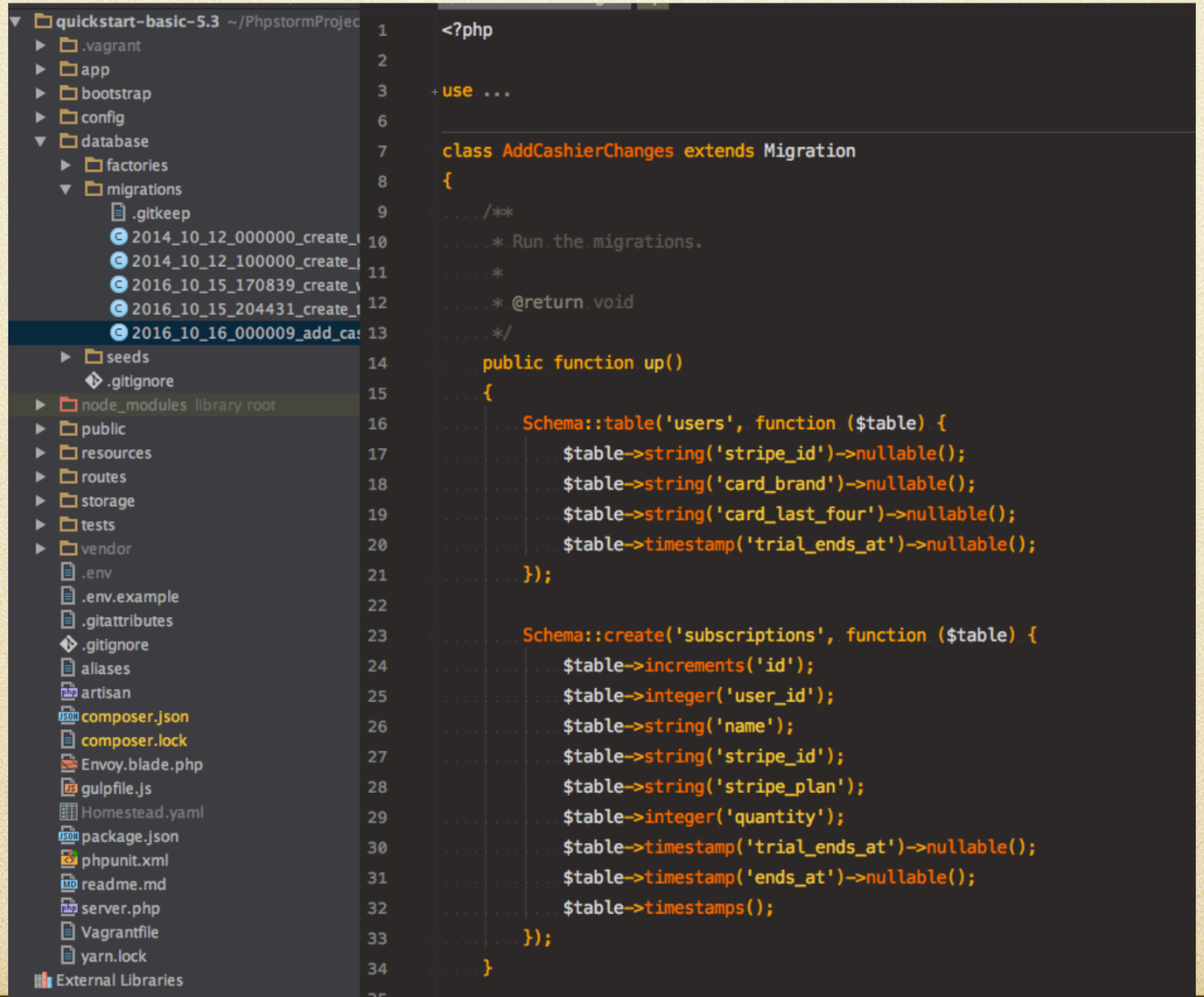
- Expressive interface to Stripe and Braintree subscription billing services
- Free, open source package easily added to Laravel
- Designed for subscription, not one off charges

https://laravel.com/docs/5.5/billing

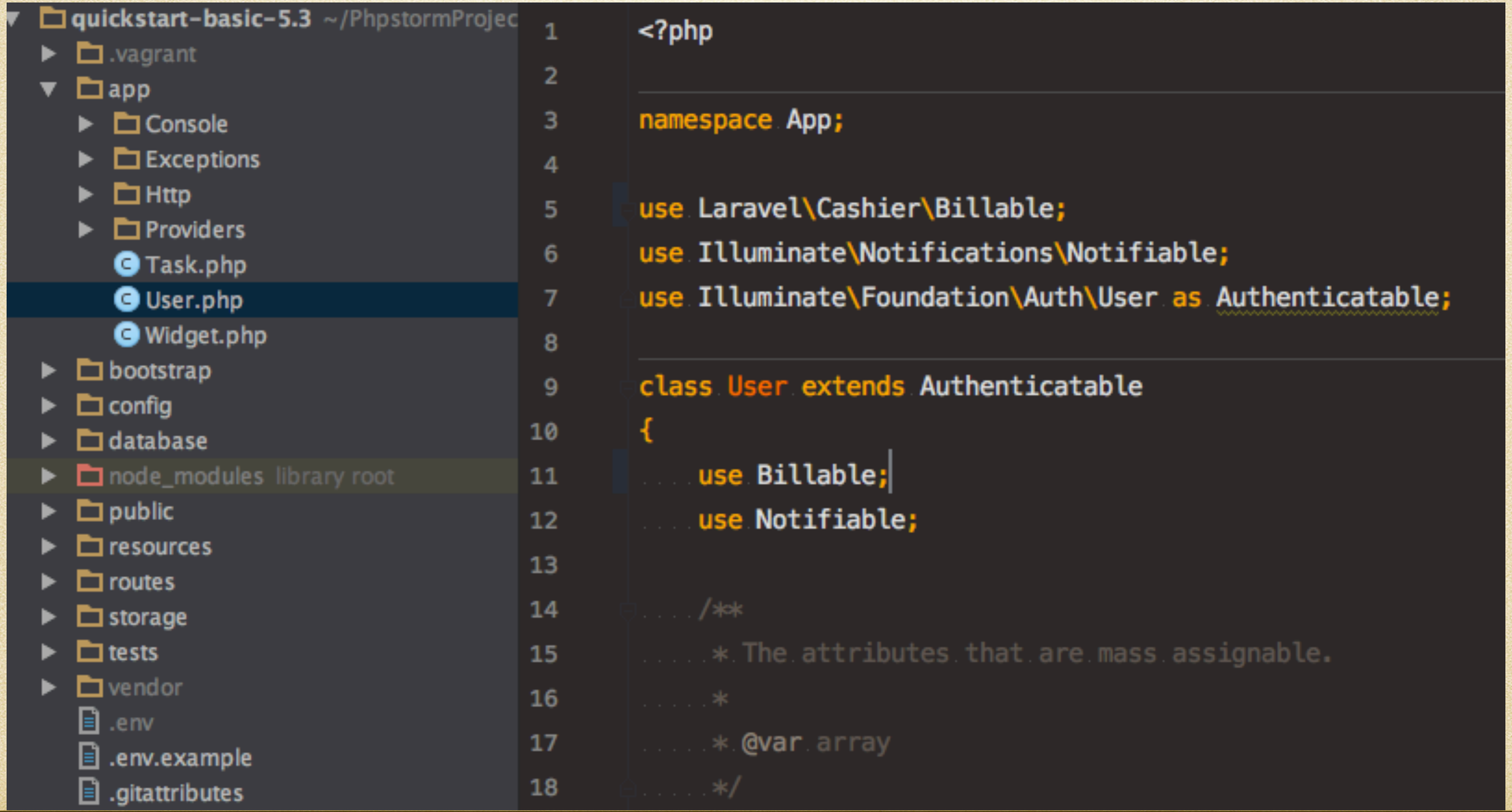
Installing Cashier

```
vagrant@qs:~/qs$ composer require "laravel/cashier":"~7.0"
./composer.json has been updated
Loading composer repositories with package information

Updating dependencies (including require-dev)
Package operations: 6 installs, 0 updates, 0 removals
  - Installing stripe/stripe-php (v5.6.0): Downloading (100%)
  - Installing sabberworm/php-css-parser (8.1.0): Downloading (100%)
  - Installing phenx/php-svg-lib (v0.3): Downloading (100%)
  - Installing phenx/php-font-lib (0.5.1): Downloading (100%)
  - Installing dompdf/dompdf (v0.8.1): Downloading (100%)
  - Installing laravel/cashier (v7.0.12): Downloading (100%)
Writing lock file
Generating optimized autoload files
```

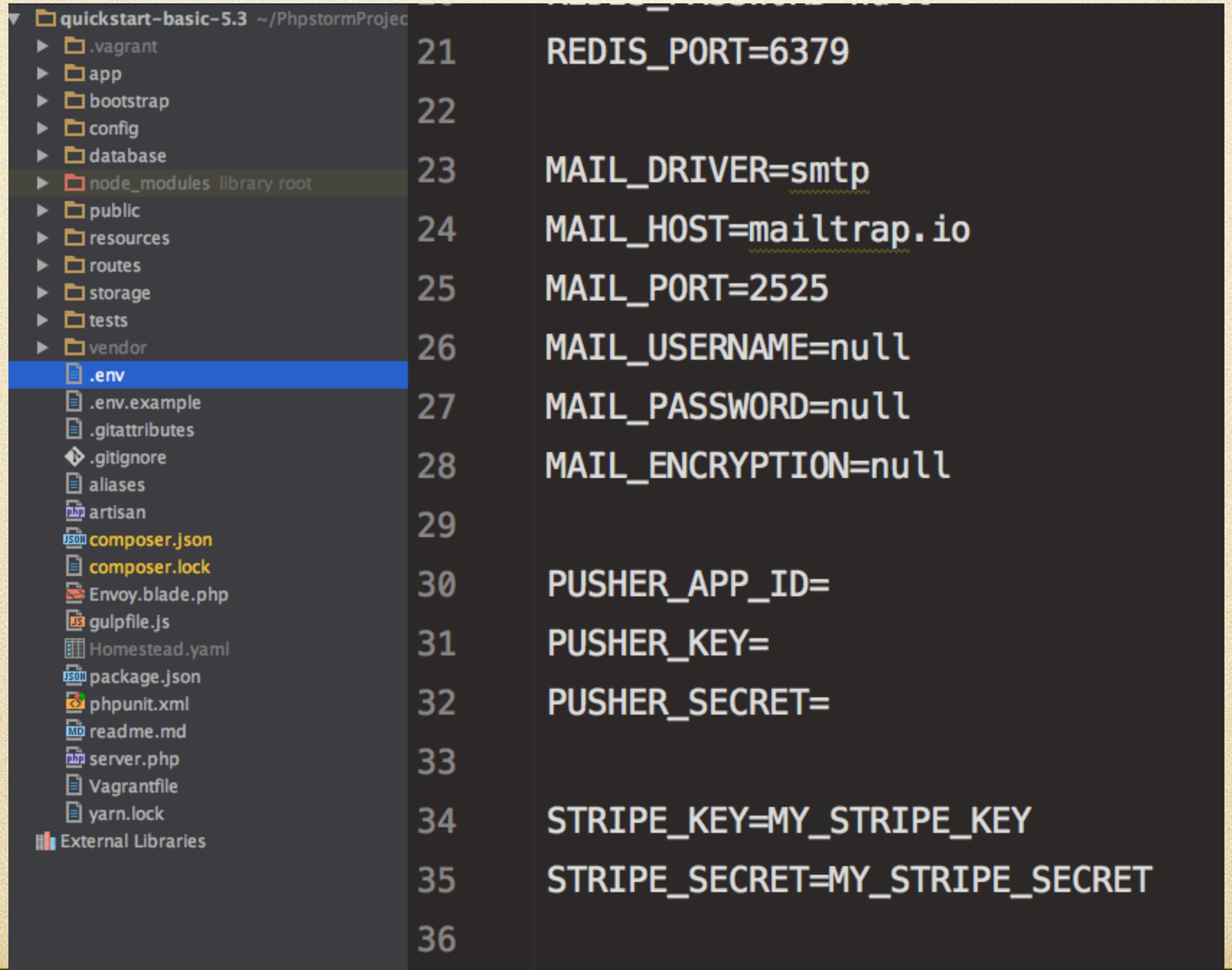
Cashier Migration



Billable Trait



Stripe API Keys



Subscribing a User

```
35  Route::get('/subscribe', function(Request $request) {
36      $creditCardToken = $request->creditCardToken;
37
38      $user = \App\User::find(1);
39
40      $user->newSubscription('main', 'monthly')
41          ->create($creditCardToken);
42  });
```

https://laravel.com/docs/5.3/billing

Laravel Spark

- SASS in a box
- You bring the Service
- Spark brings the boilerplate of billing, authentication, and more
- $99 For a single site
- $299 For unlimited sites

Laravel Spark

Spark Releases Licenses Documentation

Getting Started

- Installation
- Upgrade Guide
- Quickstart
- FAQ
- Release Notes

Server

- Announcements
- API
- Billing
- Customization Primer
- European VAT

Installation

- Requirements
- Installation
  - Spark Installer
  - Installation Via Composer
  - Linking The Storage Directory
- Installation Types

Requirements

Laravel Spark has a few requirements you should be aware of before installing:

- Composer
- Laravel Framework 5.5+
- Laravel Mix
- Bootstrap 3 (LESS)
- Node.js & NPM

Before installing Spark, make sure you have the latest version of Node and NPM. You can download a graphical installer for Node on the Node website.

The Vue.js JavaScript framework is utilized on the registration and settings pages; however, you are free to build

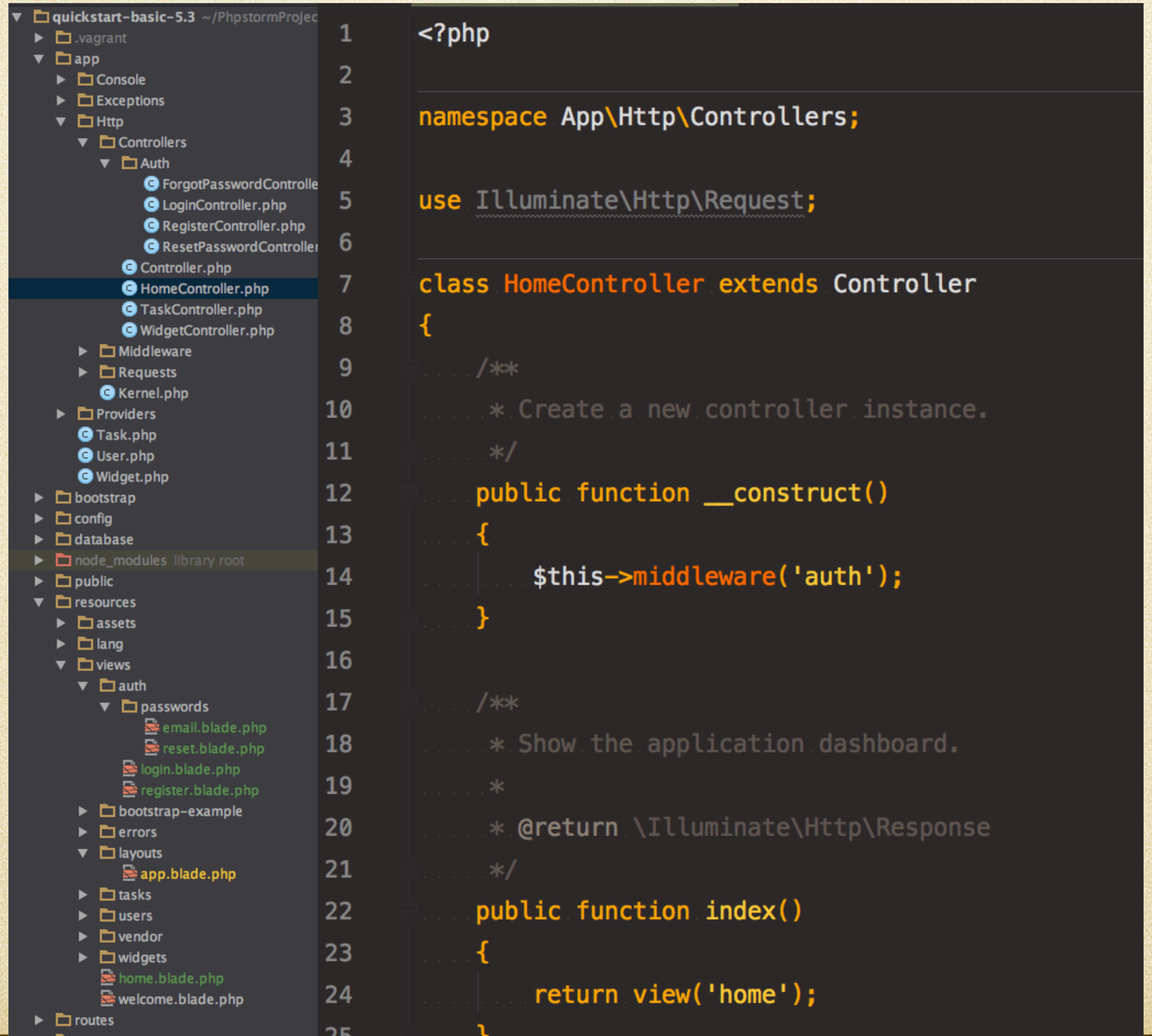
Questions?

Authentication

artisan make:auth

```
vagrant@qs:~/qs$ artisan make:auth
Authentication scaffolding generated successfully.
vagrant@qs:~/qs$
```

View Files


quickstart-basic-5.3 ~/PhpstormProjec
.vagrant
app
Console
Exceptions
Http
Controllers
Auth
ForgotPasswordControlle
LoginController.php
RegisterController.php
ResetPasswordControlle
Controller.php
HomeController.php
TaskController.php
WidgetController.php
Middleware
Requests
Kernel.php
Providers
Task.php
User.php
Widget.php
bootstrap
config
database
node_modules library root
public
resources
assets
lang
views
auth
passwords
email.blade.php
reset.blade.php
login.blade.php
register.blade.php
bootstrap-example
errors
layouts
app.blade.php
tasks
users
vendor
widgets
home.blade.php
welcome.blade.php
routes
1 <?php
2
3 namespace App\Http\Controllers;
4
5 use Illuminate\Http\Request;
6
7 class HomeController extends Controller
8 {
9 /**
10 * Create a new controller instance.
11 */
12 public function __construct()
13 {
14 $this->middleware('auth');
15 }
16
17 /**
18 * Show the application dashboard.
19 *
20 * @return \Illuminate\Http\Response
21 */
22 public function index()
23 {
24 return view('home');

Auth Routes

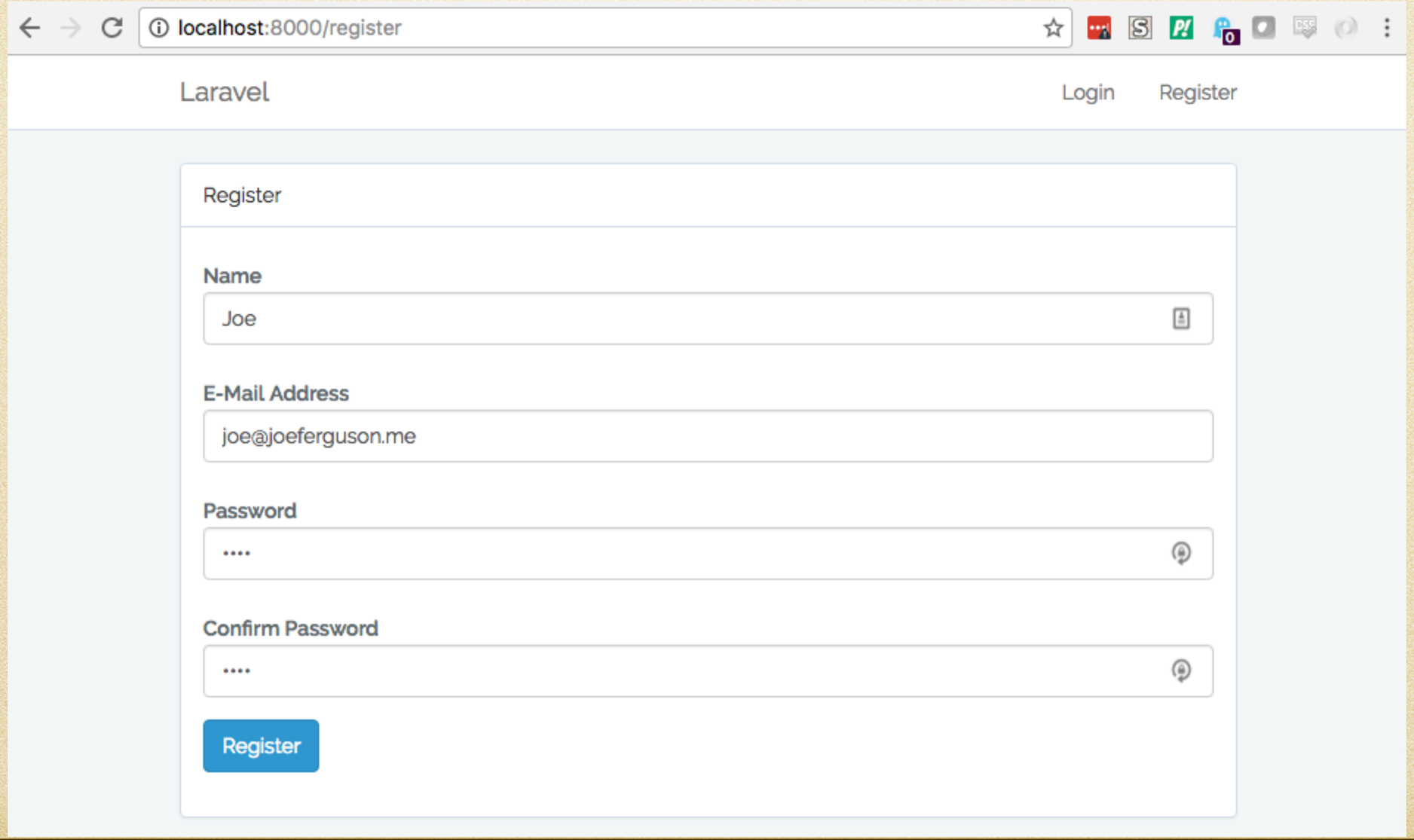
quickstart-basic-5.3 ~/PhpstormProjec
.vagrant
app
bootstrap
config
database
node_modules library root
public
resources
routes
api.php
console.php
web.php
storage
tests
vendor
.env
.env.example
.gitattributes
.gitignore
aliases
artisan
composer.json
composer.lock
Envoy.blade.php
gulpfile.js
Homestead.yaml
package.json
phpunit.xml
readme.md
server.php
Vagrantfile
yarn.lock
External Libraries
16 });
17
18 Route::get('widgets', 'WidgetController@index')->name('widgets.index');
19 Route::get('widgets/add', 'WidgetController@add')->name('widgets.add');
20 Route::post('widgets', 'WidgetController@create')->name('widgets.create');
21
22 Route::get('tasks', 'TaskController@index')->name('tasks.index');
23 Route::get('tasks/add', 'TaskController@add')->name('tasks.add');
24 Route::post('tasks', 'TaskController@create')->name('tasks.create');
25
26 Route::get('/users', function () {
27 $users = \App\User::with('tasks')->get();
28
29 return view('users.index')
30 ->with('users', $users);
31 });
32 });
33
34 Auth::routes();
35
36 Route::get('/home', 'HomeController@index');
37

Layout :(

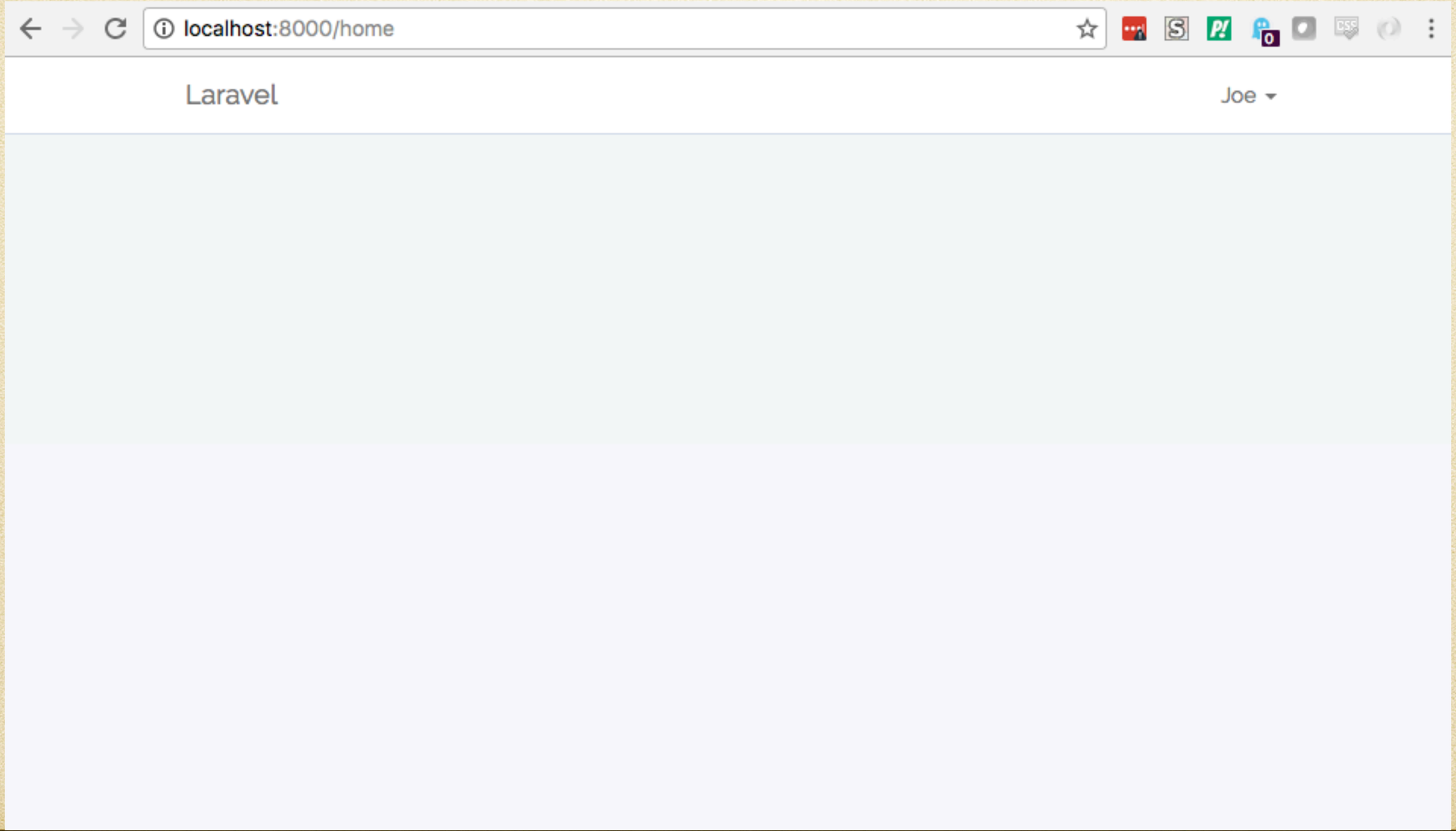
```html
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="utf-8">
    <meta http-equiv="X-UA-Compatible" content="IE=edge">
    <meta name="viewport" content="width=device-width, initial-scale=1">
    <!-- The above 3 meta tags *must* come first in the head; any other head content must come *after* these tags -->
    <meta name="description" content="">
    <meta name="author" content="">
    <link rel="icon" href="../../favicon.ico">

    <title>App Name - @yield('title')</title>

    <!-- Bootstrap core CSS -->
    <link href="/css/app.css" rel="stylesheet">
    <script src="/js/app.js"></script>
</head>

<body>
    <nav class="navbar navbar-inverse">
        <div class="container">
            <div class="navbar-header">
                <a class="navbar-brand" href="#">Laravel</a>
            </div>
            <div id="navbar" class="navbar-collapse collapse">
                <ul class="nav navbar-nav">
                    <li><a href="/">Home</a></li>
                    <li><a href="/tasks" name="tasks">Tasks</a></li>
                    <li><a href="/users" name="tasks">Users</a></li>
                    <li><a href="/widgets" name="tasks">Widgets</a></li>
                </ul>
            </div><!--/.nav-collapse -->
        </div>
    </nav>

    <div class="container theme-showcase" role="main">
        @yield('content')
    </div> <!-- /container -->
</body>
</html>
```

```html
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="utf-8">
    <meta http-equiv="X-UA-Compatible" content="IE=edge">
    <meta name="viewport" content="width=device-width, initial-scale=1">

    <!-- CSRF Token -->
    <meta name="csrf-token" content="{{ csrf_token() }}">

    <title>{{ config('app.name', 'Laravel') }}</title>

    <!-- Styles -->
    <link href="/css/app.css" rel="stylesheet">

    <!-- Scripts -->
    <script>
        window.Laravel = <?php echo json_encode([
            'csrfToken' => csrf_token(),
        ]); ?>
    </script>
</head>
<body>
    <div id="app">
        <nav class="navbar navbar-default navbar-static-top">
            <div class="container">
                <div class="navbar-header">

                    <!-- Collapsed Hamburger -->
                    <button type="button" class="navbar-toggle collapsed" data-toggle="collapse" data-target="#app-navbar-collapse">
                        <span class="sr-only">Toggle Navigation</span>
                        <span class="icon-bar"></span>
                        <span class="icon-bar"></span>
                        <span class="icon-bar"></span>
                    </button>

                    <!-- Branding Image -->
                    <a class="navbar-brand" href="{{ url('/') }}">
                        {{ config('app.name', 'Laravel') }}
                    </a>
                </div>

                <div class="collapse navbar-collapse" id="app-navbar-collapse">
                    <!-- Left Side Of Navbar -->
                    <ul class="nav navbar-nav">
                         
                    </ul>

                    <!-- Right Side Of Navbar -->
                    <ul class="nav navbar-nav navbar-right">
                        <!-- Authentication Links -->
                        @if (Auth::guest())
                            <li><a href="{{ url('/login') }}">Login</a></li>
                            <li><a href="{{ url('/register') }}">Register</a></li>
                        @else
                            <li class="dropdown">
                                <a href="#" class="dropdown-toggle" data-toggle="dropdown" role="button" aria-expanded="false">
```

Register a new user

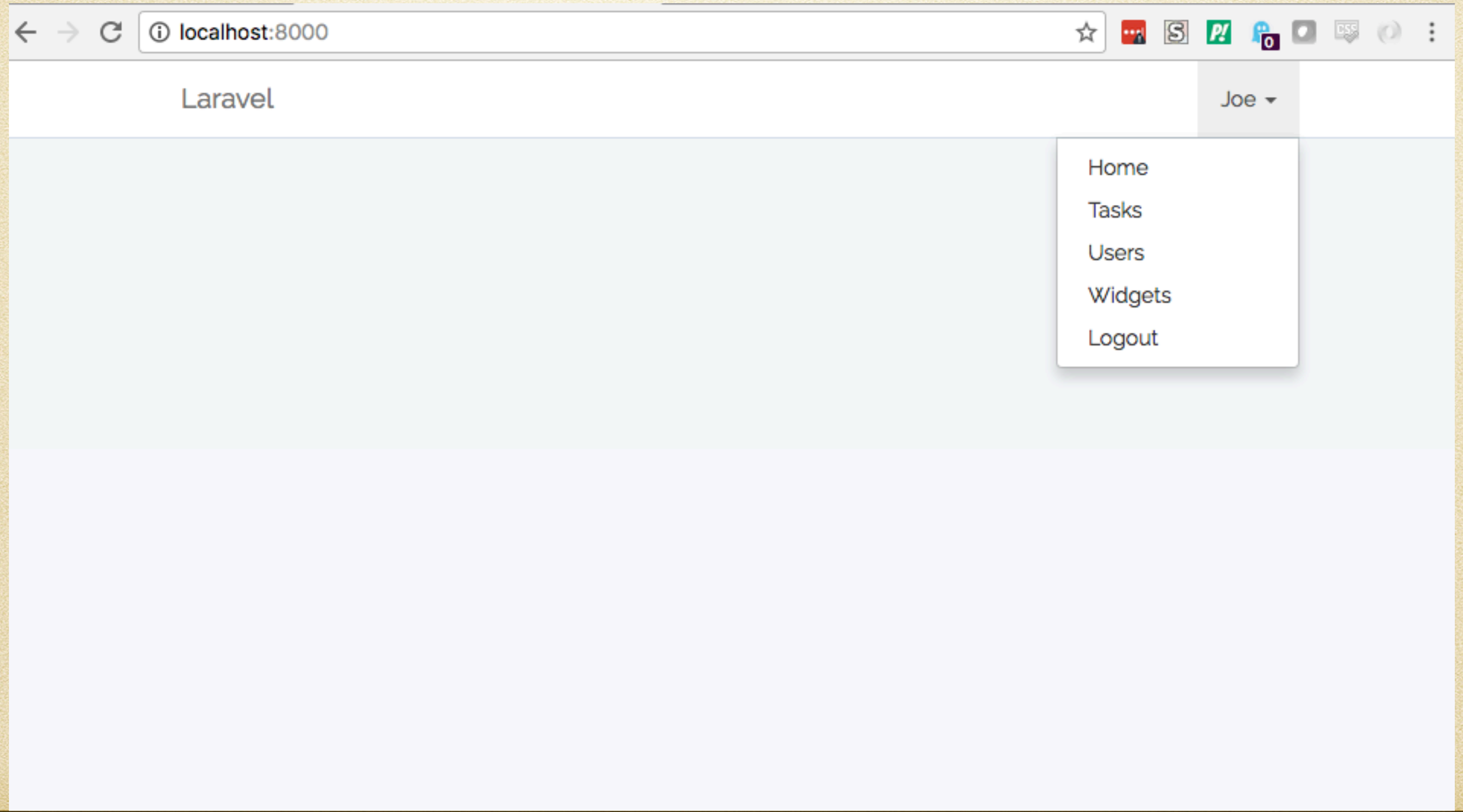


Logged In User



Add our Navigation

http://localhost:8000



localhost:8000/widgets

localhost:8000/widgets

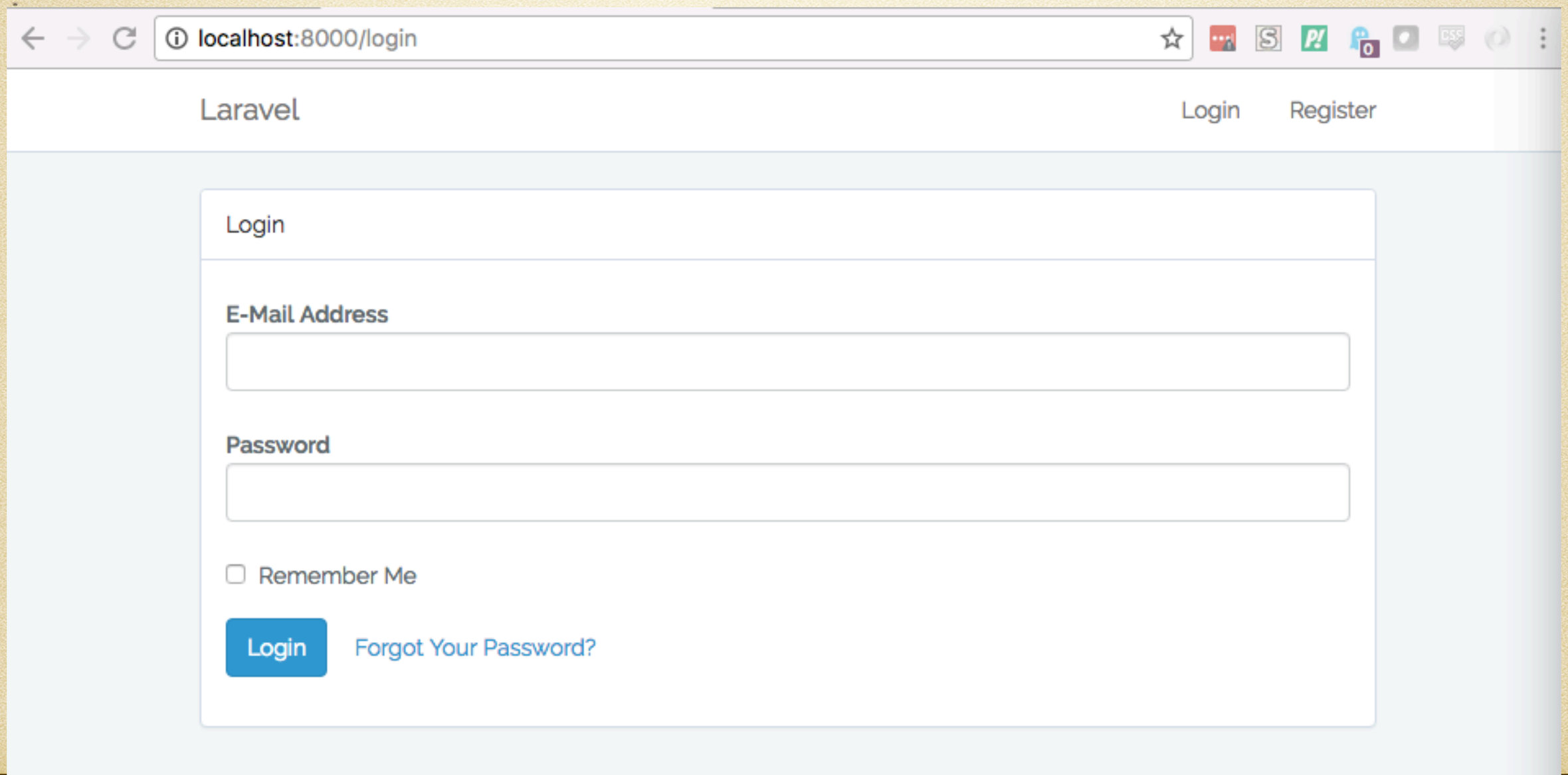
Laravel

Login Register

Name	Description	Price
perferendis Widget	Possimus et ad facere ut. Alias voluptas consequatur fugiat voluptate voluptatem sunt. Modi dolor voluptatum id. Et hic laborum dolores sint eos. Accusantium facere dolores eligendi.	857619.97
corrupti Widget	Voluptatem reprehenderit quia labore labore cupiditate laboriosam laboriosam. Asperiores tenetur harum et et quas. Ut similique aut quis natus ullam accusamus.	100007.41
eum Widget	Qui recusandae blanditiis cumque dolor asperiores. Non earum adipisci quis quisquam possimus. Doloribus voluptas consequatur sequi aliquam quam qui. Impedit est eveniet fugiat at qui blanditiis reiciendis qui.	714728.13
quibusdam Widget	Laudantium rerum aut ut hic voluptas perferendis voluptas. Id explicabo consectetur odio quia facere sed qui. Possimus tempora cum explicabo dolores autem rerum unde delectus.	206310.45
nesciunt Widget	Odit totam eos similique et et laborum. Aut beatae dolorem quia sed id impedit fugiat. Velit pariatur sunt eaque excepturi laboriosam dicta.	499240.34
eligendi Widget	Porro qui accusantium enim voluptates. Iusto officia similique nulla quis est adipisci. Beatae at dignissimos eos perspiciatis minima quibusdam reiciendis. Totam rerum maxime dignissimos velit non soluta odio soluta.	73834.97
neque Widget	Molestiae veritatis blanditiis ea. Nisi est inventore eaque est a accusamus. Necessitatibus distinctio facilis quaerat voluptas laboriosam.	521950.18
ipsam Widget	Est tenetur molestias beatae ipsum sit ipsa enim sed. Odio quia qui non aliquam voluptatem asperiores impedit. Nemo inventore consequatur blanditiis expedita provident. Consequatur ratione doloribus exercitationem	465550.91

Multiple Middleware

Not Logged In?



Exercise 5 - 40 Minutes

- Add Auth to the application
- Add navigation to Users, Widgets, and Tasks to the layout
  - Make sure to fix the <title> tag in the layout
- Run tests to see what is broken

Test Errors and Failure

```
vagrant@qs:~/qs$ phpunit
PHPUnit 5.6.1 by Sebastian Bergmann and contributors.

F....E...E......E..                                                19 / 19 (100%)

Time: 1.78 seconds, Memory: 18.00MB

There were 3 errors:

1) TasksTest::testTasksNavigation
InvalidArgumentException: Could not find a link with a body, name, or ID attribute of [Tasks].

/home/vagrant/qs/vendor/laravel/framework/src/Illuminate/Foundation/Testing/Concerns/InteractsWithPages.php:488
/home/vagrant/qs/tests/tasks/TasksTest.php:22

2) UsersTest::testUsersNavigation
InvalidArgumentException: Could not find a link with a body, name, or ID attribute of [Users].

/home/vagrant/qs/vendor/laravel/framework/src/Illuminate/Foundation/Testing/Concerns/InteractsWithPages.php:488
/home/vagrant/qs/tests/users/UsersTest.php:22

3) WidgetsTest::testWidgetsNavigation
InvalidArgumentException: Could not find a link with a body, name, or ID attribute of [Widgets].

/home/vagrant/qs/vendor/laravel/framework/src/Illuminate/Foundation/Testing/Concerns/InteractsWithPages.php:488
/home/vagrant/qs/tests/widgets/WidgetsTest.php:22
```

Run test as a user

Test now passes

```
vagrant@qs:~/qs$ phpunit tests/HomePageTest.php
PHPUnit 5.6.1 by Sebastian Bergmann and contributors.

.                                                                   1 / 1 (100%)

Time: 868 ms, Memory: 12.00MB

OK (1 test, 4 assertions)
vagrant@qs:~/qs$
```

Exercise 5 Solution

To see a possible solution
checkout the branch “exercise-5”

```
git checkout exercise-5
composer dump-auto
```

Questions?

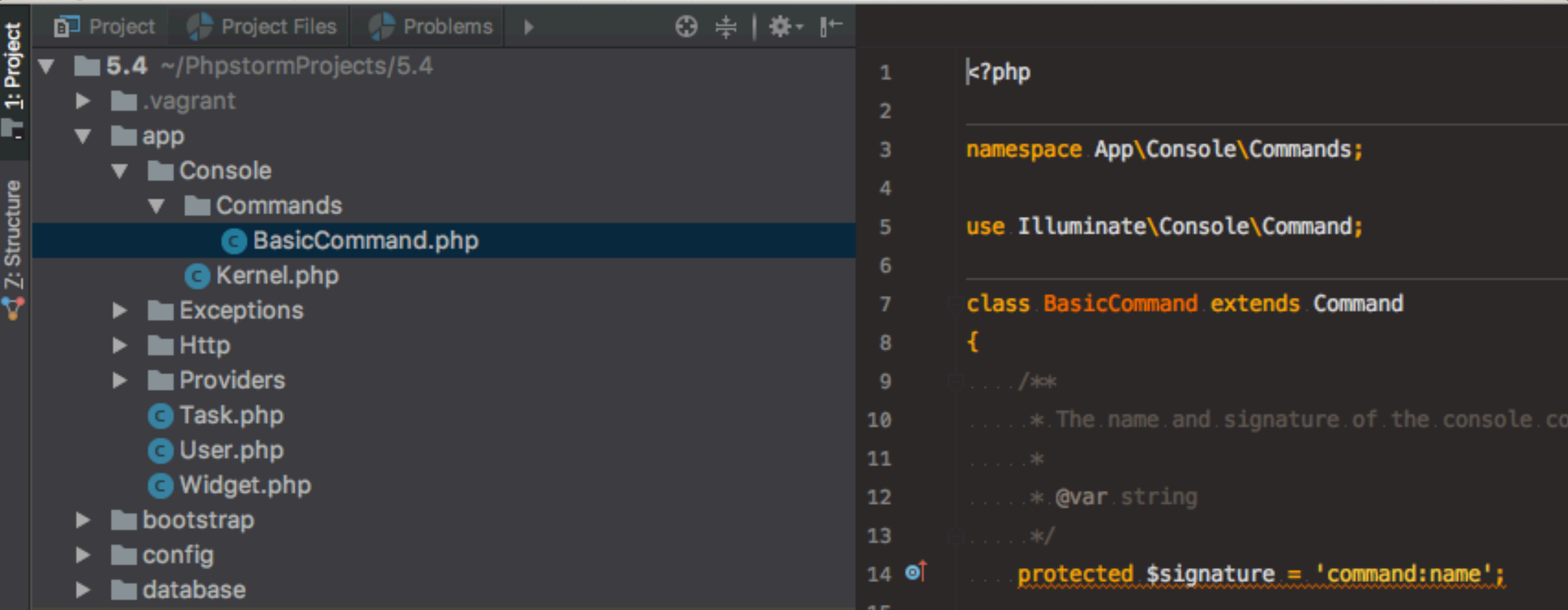
Artisan Commands

```
Laravel Framework 5.4.19

Usage:
  command [options] [arguments]

Options:
  -h, --help            Display this help message
  -q, --quiet           Do not output any message
  -V, --version         Display this application version
      --ansi            Force ANSI output
      --no-ansi         Disable ANSI output
  -n, --no-interaction  Do not ask any interactive question
      --env[=ENV]       The environment the command should run unde
  -v|vv|vvv, --verbose  Increase the verbosity of messages: 1 for n

Available commands:
  clear-compiled       Remove the compiled class file
  down                 Put the application into maintenance mode
```

Create a new Command

```
vagrant@quick:~/qs$
vagrant@quick:~/qs$ artisan make:command BasicCommand
Console command created successfully.
vagrant@quick:~/qs$
```

Create a new Command



app/Console/Kernel.php

```php
<?php

namespace App\Console;

use ...

class Kernel extends ConsoleKernel
{
    /**
     * The Artisan commands provided by your application.
     *
     * @var array
     */
    protected $commands = [
        BasicCommand::class,
    ];
```

BasicCommand.php

```php
<?php

namespace App\Console\Commands;

use Illuminate\Console\Command;

class BasicCommand extends Command
{
    /**
     * The name and signature of the console command.
     *
     * @var string
     */
    protected $signature = 'basic:cmd';

    /**
     * The console command description.
     *
     * @var string
     */
    protected $description = 'Basic Command';

    /**
     * BasicCommand constructor.
     */
    public function __construct()
    {
        parent::__construct();
    }
```

Signature

```
9     /**
10     * The name and signature of the console command.
11     *
12     * @var string
13     */
14     protected $signature = 'basic:cmd';
15
```

Description

```
16      /**
17       * The console command description.
18       *
19       * @var string
20       */
21      protected $description = 'Basic Command';
```

Constructor

```
23      /**
24       * BasicCommand constructor.
25       */
26      public function __construct()
27      {
28          parent::__construct();
29      }
```

Handle The Command

```
31      /**
32       * Execute the console command.
33       *
34       * @return mixed
35       */
36      public function handle()
37      {
38
39      }
```

Running our Command

```
vagrant@quick:~/qs$ artisan basic:cmd
vagrant@quick:~/qs$
```

Output Some Text

```
31      /**
32       * Execute the console command.
33       *
34       * @return mixed
35       */
36      public function handle()
37      {
38          $this->info("Running the Basic Command");
39      }
```

Output Some Text

```
vagrant@quick:~/qs$ artisan basic:cmd
vagrant@quick:~/qs$ artisan basic:cmd
Running the Basic Command
vagrant@quick:~/qs$
```

Output Warning Text

```
31      /**
32       * Execute the console command.
33       *
34       * @return mixed
35       */
36      public function handle()
37      {
38          $this->info("Running the Basic Command");
39          $this->warn("This is a warning");
40      }
```

Output Warning Text

```
vagrant@quick:~/qs$ artisan basic:cmd
Running the Basic Command
This is a warning
vagrant@quick:~/qs$
```

Output Error Text

```
31      /**
32       * Execute the console command.
33       *
34       * @return mixed
35       */
36      public function handle()
37      {
38          $this->info("Running the Basic Command");
39          $this->warn("This is a warning");
40          $this->error("This is an error");
41      }
```

Output Error Text

```
vagrant@quick:~/qs$ artisan basic:cmd
Running the Basic Command
This is a warning
This is an error
vagrant@quick:~/qs$
```

Retrieving Input

Arguments

```
7   class InputExample extends Command
8   {
9       /**
10       * The name and signature of the console command.
11       *
12       * @var string
13       */
14      protected $signature = 'input:example
15                                  {first : First Argument}';
16
```

Arguments

```
34      /**
35       * Execute the console command.
36       *
37       * @return mixed
38       */
39      public function handle()
40      {
41          $first = $this->argument('first');
42
43          $this->info('First argument: ' . $first);
44      }
```

Arguments

```
vagrant@console:~/console$ artisan input:example Dog
First argument: Dog
vagrant@console:~/console$
```

Arguments

```
vagrant@console:~/console$ artisan input:example

  [Symfony\Component\Console\Exception\RuntimeException]
  Not enough arguments (missing: "first").

vagrant@console:~/console$
```

Multiple Arguments

```
40      public function handle()
41      {
42          $first = $this->argument('first');
43          $second = $this->argument('second');
44
45          $this->info('First argument: ' . $first);
46          $this->info('Second argument: ' . $second);
47
48          $args = $this->arguments();
49
50          $this->info('First argument: ' . $args['first']);
51          $this->info('Second argument: ' . $args['second']);
52      }
```

Multiple Arguments

```
vagrant@console:~/console$ artisan input:example Cat Dog
First argument: Cat
Second argument: Dog
First argument: Cat
Second argument: Dog
vagrant@console:~/console$
```

Options

```
9     /**
10     * The name and signature of the console command.
11     *
12     * @var string
13     */
14    protected $signature = 'option:example
15                            {--test= : Test Mode}';
16
```

Options

```
39    public function handle()
40    {
41        $options = $this->options();
42
43        $this->info('Test Option: ' . $options['test']);
44    }
```

Options

```
vagrant@console:~/console$ artisan option:example --test=true
Test Option: true
vagrant@console:~/console$ artisan option:example
Test Option:
vagrant@console:~/console$
```

Options

```
39      public function handle()
40      {
41          $options = $this->options();
42
43          $this->info('Test Option: ' . $options['test']);
44
45          if(is_null($options['test'])) {
46              $this->info('Test Option is Null');
47          }
48      }
```

Options

```
vagrant@console:~/console$ artisan option:example
Test Option:
Test Option is Null
vagrant@console:~/console$
```

Prompt User For Input

```
38      public function handle()
39      {
40          $name = $this->ask('What is your name?');
41
42          $this->info('Name entered: ' . $name);
43      }
```

Prompt User For Input

```
vagrant@console:~/console$ artisan input:prompt

 What is your name?:
 > Joe

Name entered: Joe
vagrant@console:~/console$
```

Prompt User For Input

```
38      public function handle()
39      {
40          $name = $this->ask('What is your name?');
41
42          $this->info('Name entered: ' . $name);
43
44          $password = $this->secret('Enter your password');
45
46          $this->info('Password entered: ' . $password);
47      }
```

Ask for Confirmation

```
38      public function handle()
39      {
40          if ($this->confirm('Do you wish to continue? [y|N]')) {
41              $name = $this->ask('What is your name?');
42
43              $this->info('Name entered: ' . $name);
44
45              $password = $this->secret('Enter your password');
46
47              $this->info('Password entered: ' . $password);
48
49          }
```

Ask for Confirmation

```
vagrant@console:~/console$ artisan input:prompt

 Do you wish to continue? [y|N] (yes/no) [no]:
 > y

 What is your name?:
 > Joe

Name entered: Joe

 Enter your password:
 >

Password entered: hunter2
vagrant@console:~/console$ artisan input:prompt

 Do you wish to continue? [y|N] (yes/no) [no]:
 > no

vagrant@console:~/console$
```

Prompt User For Input

```
vagrant@console:~/console$ artisan input:prompt

 What is your name?:
 > Joe

Name entered: Joe

 Enter your password:
 >

Password entered: hunter2
vagrant@console:~/console$
```

Exercise 6 - 40 Minutes

- Create a command “auth:register” that allows a user to register a new account
  - Should ask the user for name, email, and password
- Create a command “auth:login” that allows a user to authenticate.
  - Successful authentication should greet the user by name

Exercise 6 Solution

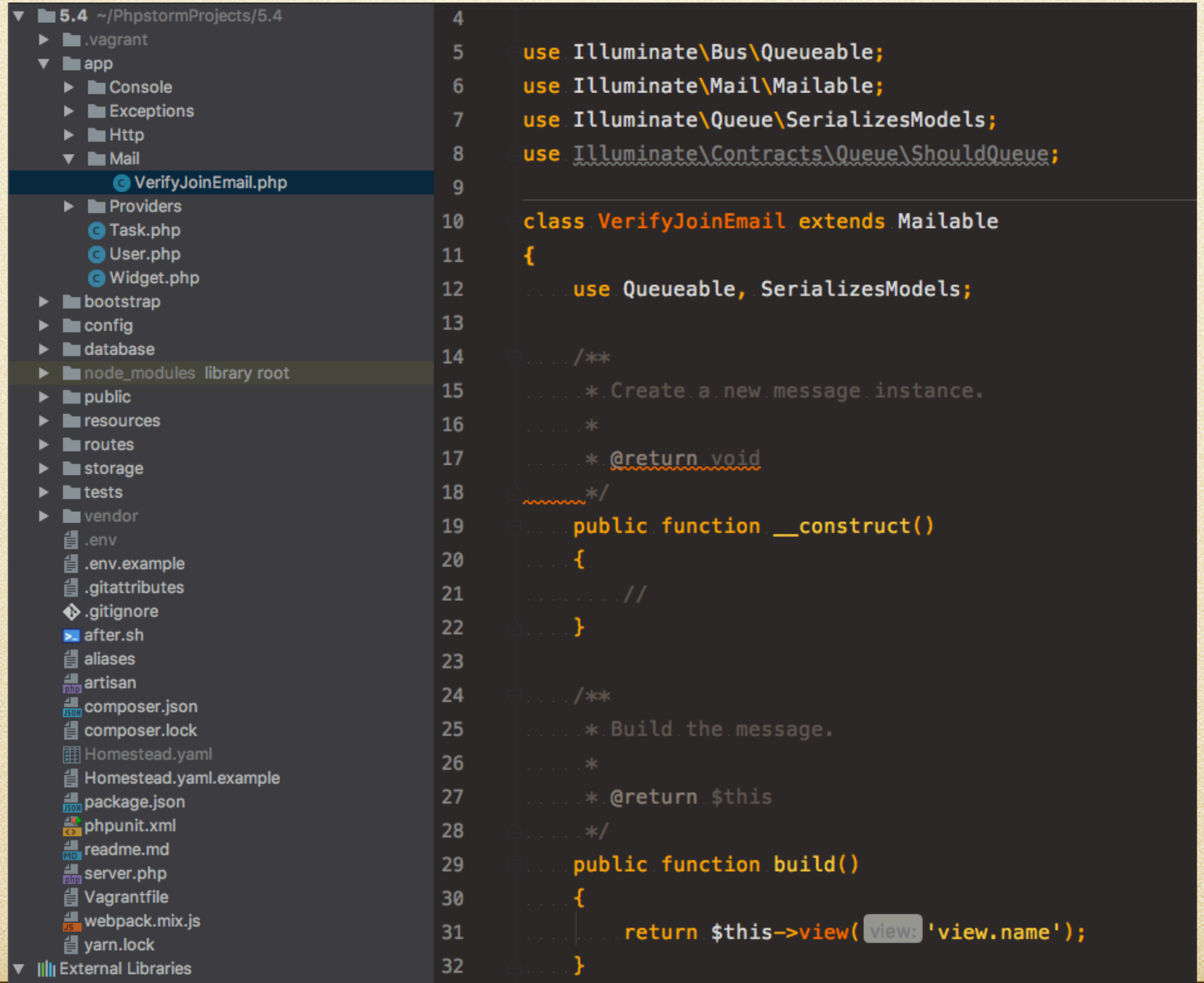
To see a possible solution
checkout the branch “exercise-6”

```
git checkout exercise-6
composer dump-auto
```

Mailables

```
vagrant@quick:~/qs$ artisan make:mail VerifyJoinEmail
Mail created successfully.
vagrant@quick:~/qs$
```

Mailables


5.4 ~/PhpstormProjects/5.4
.vagrant
app
Console
Exceptions
Http
Mail
VerifyJoinEmail.php
Providers
Task.php
User.php
Widget.php
bootstrap
config
database
node_modules library root
public
resources
routes
storage
tests
vendor
.env
.env.example
.gitattributes
.gitignore
after.sh
aliases
artisan
composer.json
composer.lock
Homestead.yaml
Homestead.yaml.example
package.json
phpunit.xml
readme.md
server.php
Vagrantfile
webpack.mix.js
yarn.lock
External Libraries
4
5 use Illuminate\Bus\Queueable;
6 use Illuminate\Mail\Mailable;
7 use Illuminate\Queue\SerializesModels;
8 use Illuminate\Contracts\Queue\ShouldQueue;
9
10 class VerifyJoinEmail extends Mailable
11 {
12 use Queueable, SerializesModels;
13
14 /**
15 * Create a new message instance.
16 *
17 * @return void
18 */
19 public function __construct()
20 {
21 //
22 }
23
24 /**
25 * Build the message.
26 *
27 * @return $this
28 */
29 public function build()
30 {
31 return $this->view(view: 'view.name');
32 }

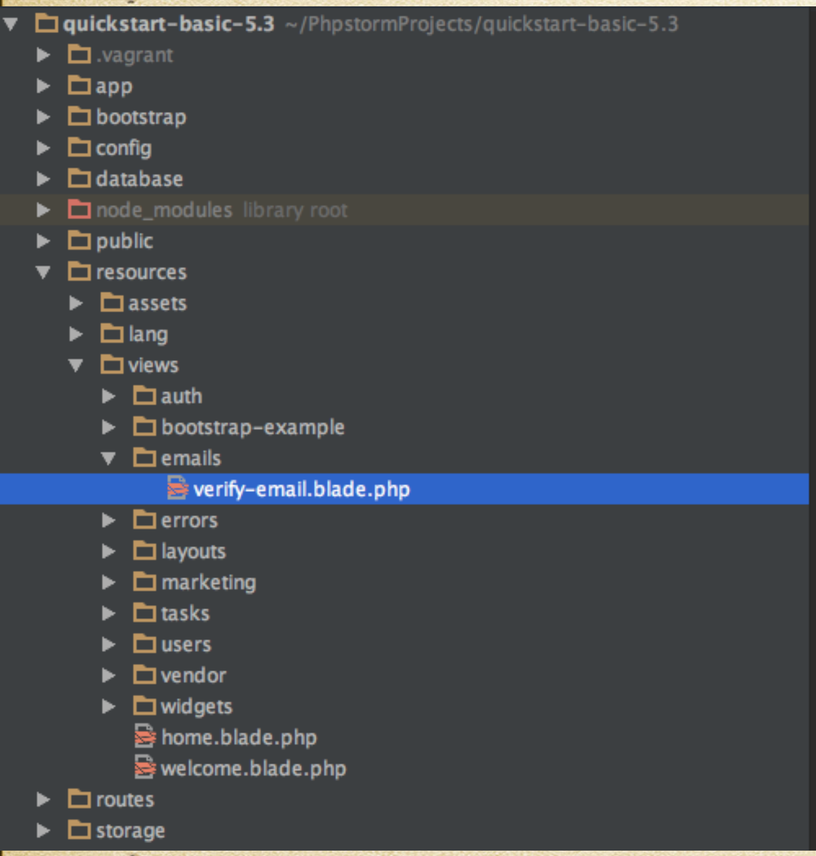
Mailables build()

```
29      public function build()
30      {
31          return $this->from('example@example.com')
32              ->view('emails.verify-email')
33              ->with([
34                  'email' => $this->marketing_email->email,
35                  'hash' => urlencode($this->marketing_email->hash),
36              ]);
37      }
38  }
```

Sending Mail

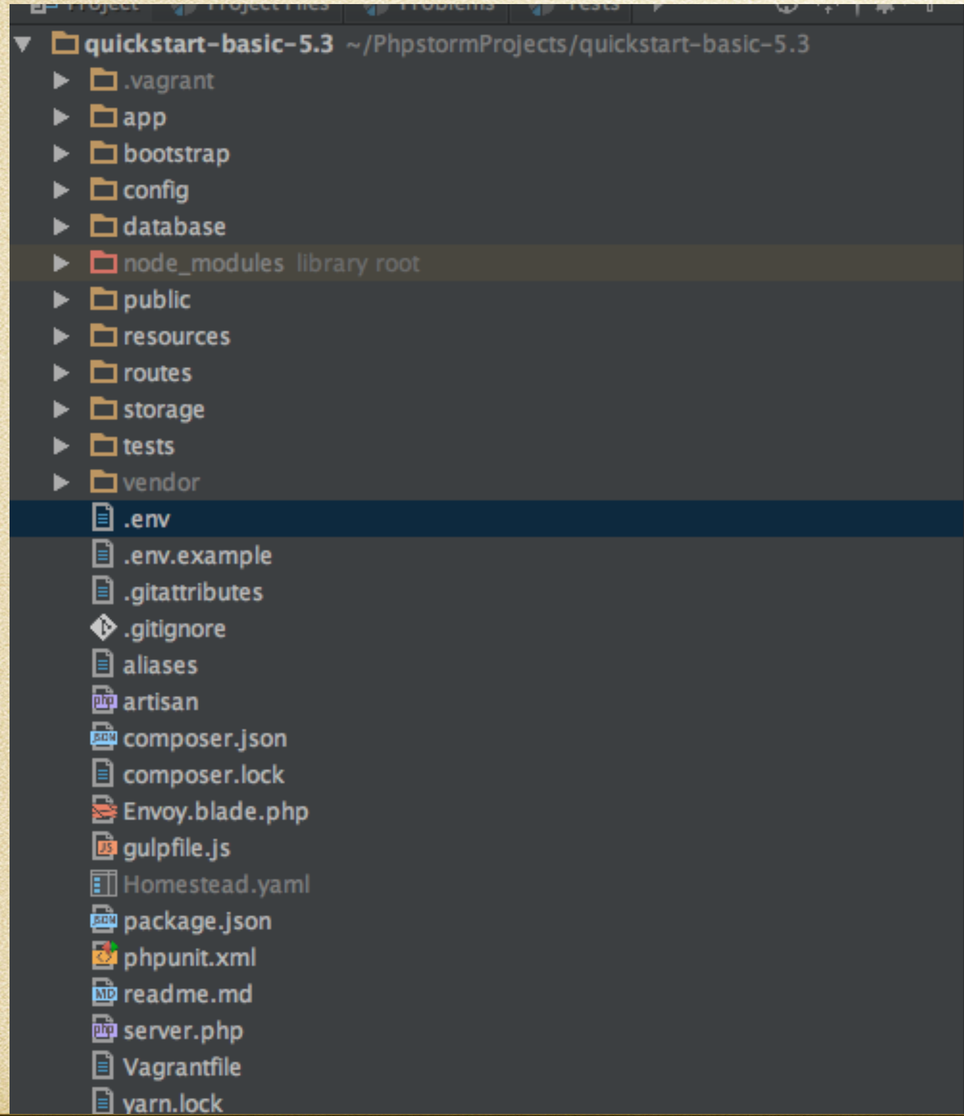
```
Mail::to('email@host.com')
    ->send(new VerifyJoinEmail($data));
```

The Mail View




```
<div>
    <p>
        Hello,
    </p>
    <p>
        Please verify your email: {{ $email }} by
        <a href="http://localhost:8000/marketing/verify-email/{{ $hash }}">
            clicking here
        </a>
    </p>
</div>
```

The “log” Mail Driver




```
22
23  MAIL_DRIVER=log
24  MAIL_HOST=mailtrap.io
25  MAIL_PORT=2525
26  MAIL_USERNAME=null
27  MAIL_PASSWORD=null
28  MAIL_ENCRYPTION=null
29
30  PUSHER_APP_ID=
31  PUSHER_KEY=
32  PUSHER_SECRET=
```

Viewing Our Sent Mail

```
[2016-11-08 22:35:03] local.DEBUG: Message-ID: <7887452eaac25183a31c413646c1ce30@homestead.app>
Date: Tue, 08 Nov 2016 22:35:03 +0000
Subject: Verify Email
From: example@example.com
To: joe@joeferguson.me
MIME-Version: 1.0
Content-Type: text/html; charset=utf-8
Content-Transfer-Encoding: quoted-printable

<div>
    <p>
        Hello,
    </p>
    <p>
        Please verify your email: joe@joeferguson.me by
        <a href="http://localhost:8000/marketing/verify-email/%242y%2410%24DloIbpeZ6g%2FCb%2FDj86MHZ.gUnejmGYX.yVlESij6m.lFPhNXSjUfm">clicking here</a>
    </p>
</div>
```

tail -f storage/logs/laravel.log

Exercise 7 - 40 Minutes

- Update .env to use localhost on Port 1025 for mail
- Create an email collection form that validates and stores emails
  - POST & GET Join Form Routes
  - Process Join Form Request
  - MarketingEmail Model
  - MarketingEmail Controller
  - Validate email signups by email

Exercise 7 Solution

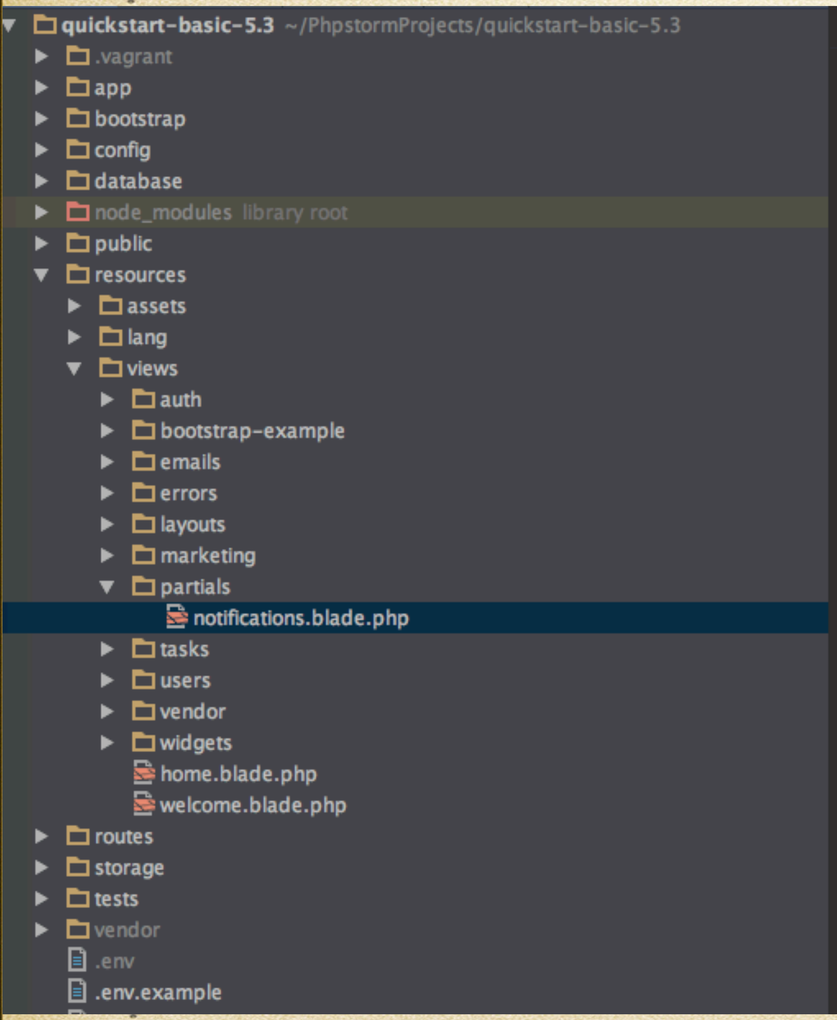
To see a possible solution
checkout the branch “exercise-7”

```
git checkout exercise-7
composer dump-auto
```

Questions?

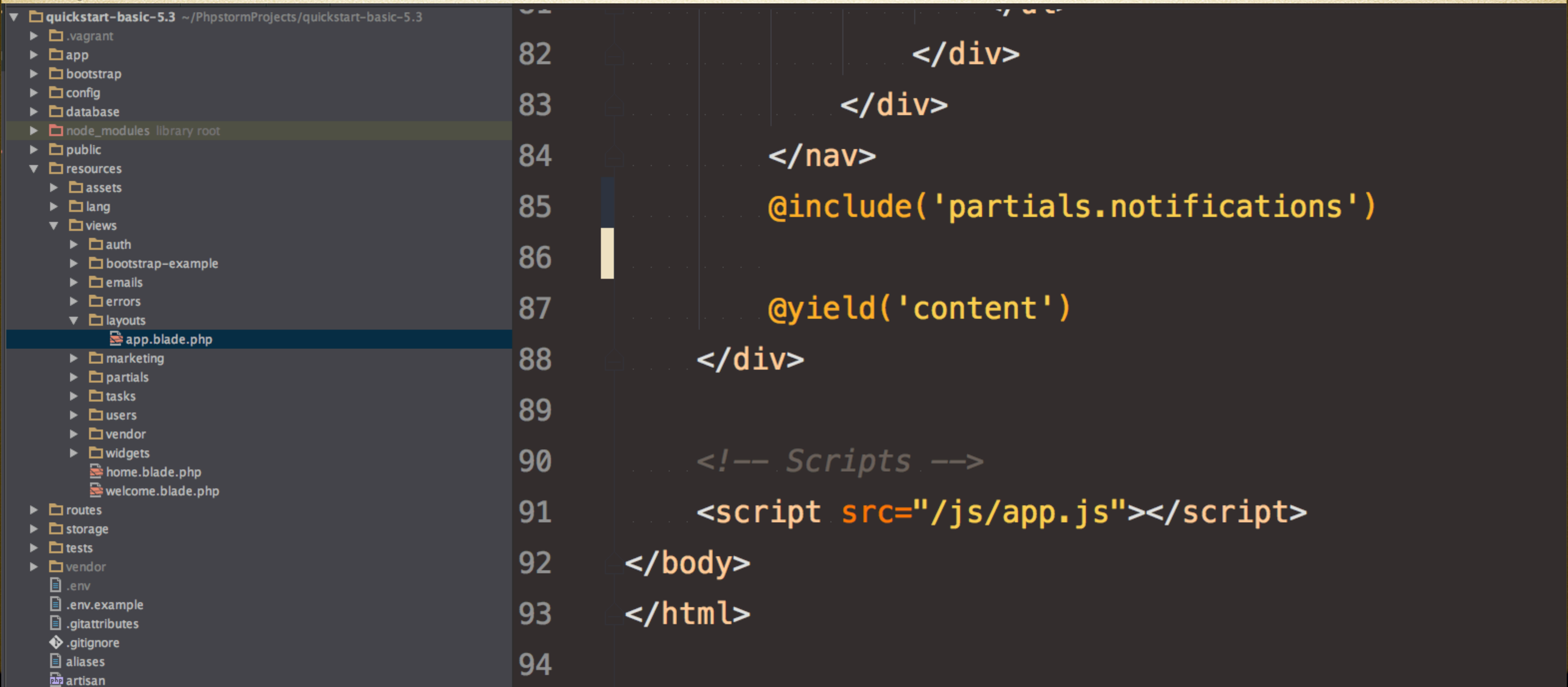
When things go wrong

Add a partial view




```
1  @if (count($errors) > 0)
2      <div class="alert alert-danger">
3          <ul>
4              @foreach ($errors->all() as $error)
5                  <li>{{ $error }}</li>
6              @endforeach
7          </ul>
8      </div>
9  @endif
```

Add partial to layout



Display error to the user

Laravel

Join Email list Login Register

- The email has already been taken.

Join Our Marketing Email List

Email joe@joeferguson.me

Join

Global error display

Laravel

- The name field is required.
- The description field is required.
- The price field is required.

Add Widget

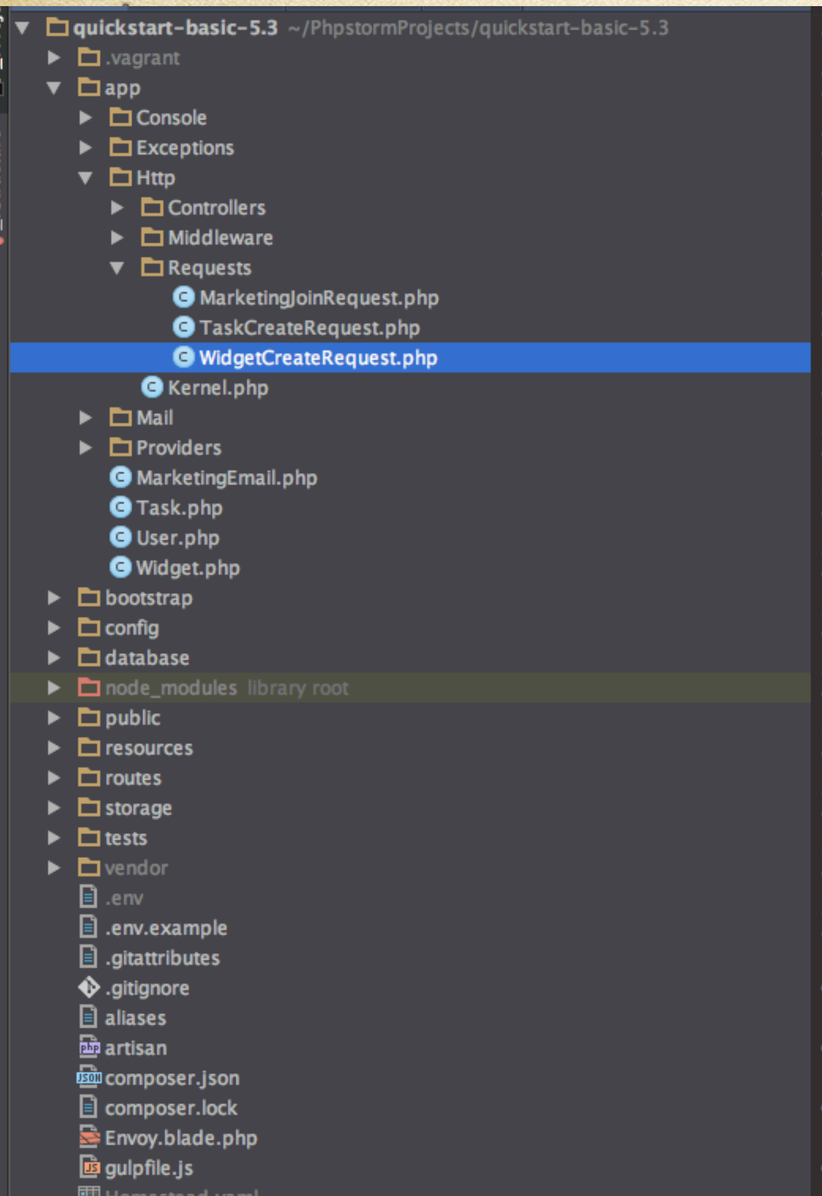
Name

Description

Price

Add Widget

Customized Error Messages




```
24      public function rules()
25      {
26          return [
27              'name' => 'required|max:255',
28              'description' => 'required',
29              'price' => 'required',
30          ];
31      }
32
33      public function messages()
34      {
35          return [
36              'name.required' => 'You must enter a Widget Name',
37              'name.max' => 'The Widget name must be less than 255 characters',
38              'description.required' => 'You must enter a Widget Description',
39              'price.required' => 'You must enter a Widget Price',
40          ];
41      }
42  }
43
```

Customized Error Messages

Laravel

- You must enter a Widget Name
- You must enter a Widget Description
- You must enter a Widget Price

Add Widget

Name

Description

Enter a Widget Name

Laravel

- You must enter a Widget Name
- You must enter a Widget Description
- You must enter a Widget Price

Add Widget

Name

Foo

Description

Price

Where did our name go?

Laravel

- You must enter a Widget Description
- You must enter a Widget Price

Add Widget

Name

Description

Price

Retrieving old input

Project | Project Files | Problems | Tests

form.form-horizontal | div.col-sm-6 | div.panel.panel-default

- quickstart-basic-5.3 ~/PhpstormProjects/quickstart-basic-5.3
  - .vagrant
  - app
  - bootstrap
  - config
  - database
  - node_modules library root
  - public
  - resources
    - assets
    - lang
    - views
      - auth
      - bootstrap-example
      - emails
      - errors
      - layouts
      - marketing
      - partials
      - tasks
      - users
      - vendor
      - widgets
        - add.blade.php
        - index.blade.php
      - home.blade.php
      - welcome.blade.php
  - routes
  - storage
  - tests
  - vendor
  - .env
  - .env.example
  - .gitattributes
  - .gitignore
  - aliases
  - artisan
  - composer.json
  - composer.lock
  - Envoy.blade.php

```
11                  <h3 class="panel-title">Add Widget</h3>
12              </div>
13  <div class="panel-body">
14      <div class="form-group">
15          <label for="widget-name" class="col-sm-3 control-label">Name</label>
16
17          <div class="col-sm-6">
18              <input type="text" name="name" id="widget-name" class="form-control" value="{{ old('name') }}">
19          </div>
20      </div>
21      <div class="form-group">
22          <label for="widget-name" class="col-sm-3 control-label">Description</label>
23
24          <div class="col-sm-6">
25              <input type="text" name="description" id="widget-description" class="form-control" value="{{ old('description') }}">
26          </div>
27      </div>
28      <div class="form-group">
29          <label for="widget-name" class="col-sm-3 control-label">Price</label>
30
31          <div class="col-sm-6">
32              <input type="text" name="price" id="widget-price" class="form-control" value="{{ old('price') }}">
33          </div>
34      </div>
35  </div>
36              <div class="form-group">
37                  <div class="col-sm-offset-3 col-sm-6">
38                      <button type="submit" class="btn btn-default">
```

Input Sticks Around Now

Laravel

- You must enter a Widget Price

Add Widget

Name

Foo

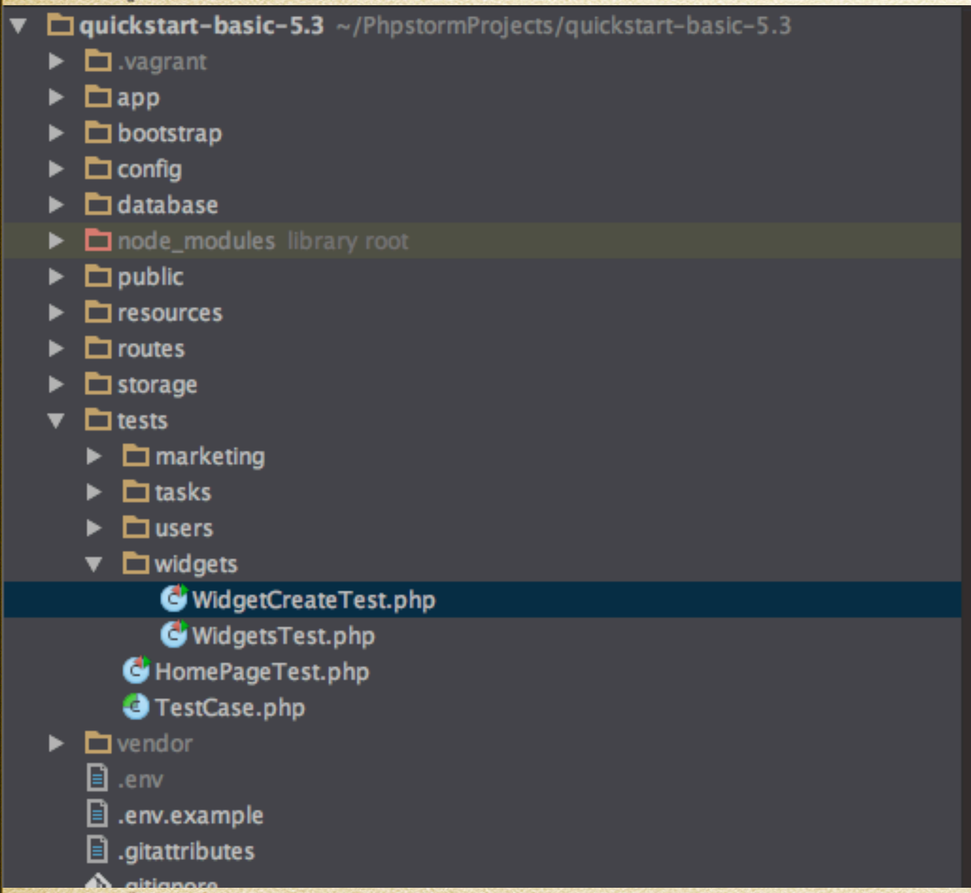
Description

A great description of Foo

Price

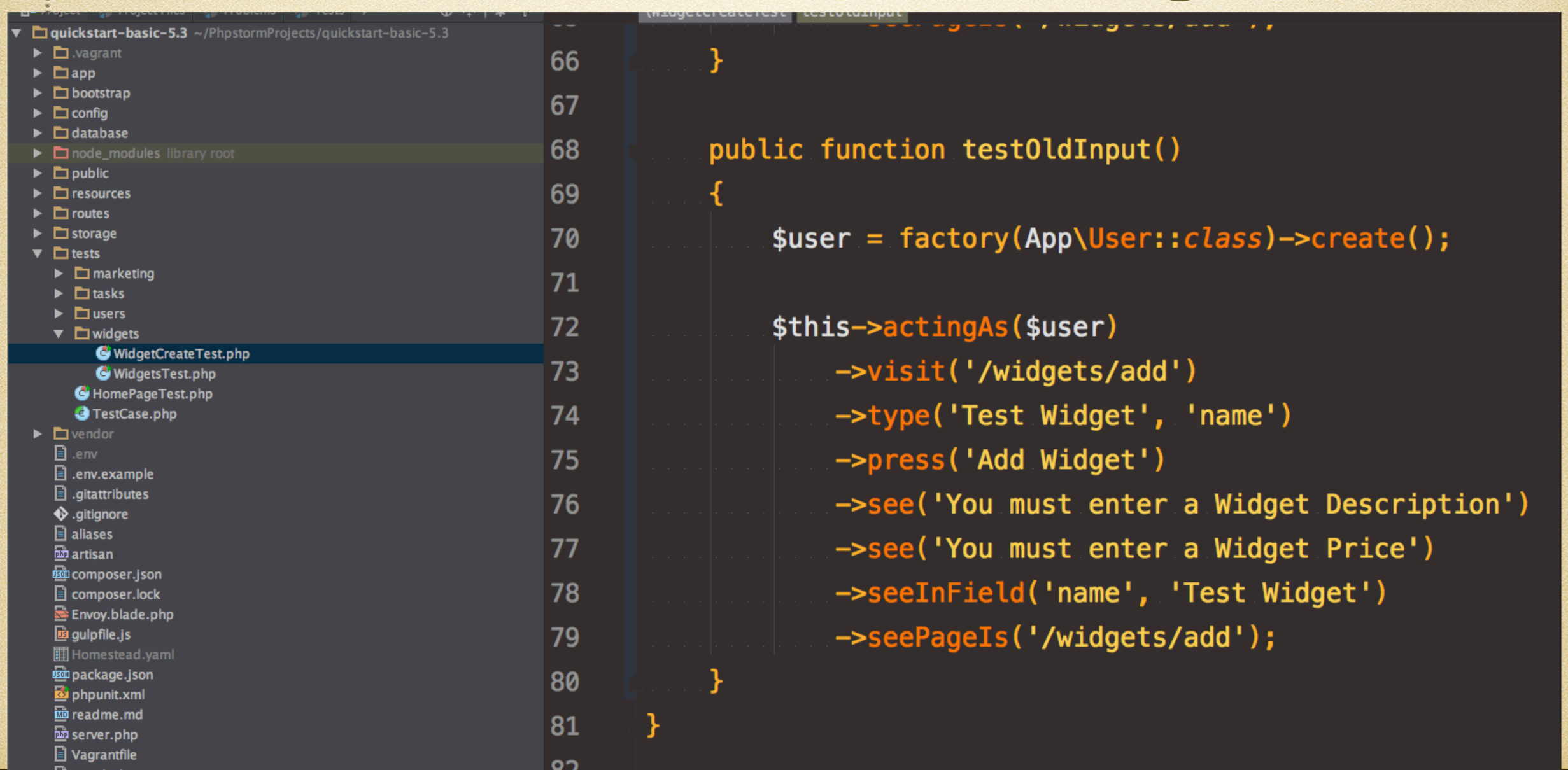
Add Widget

Test Our Error Messages




```
54
55      public function testErrorMessages()
56      {
57          $user = factory(App\User::class)->create();
58
59          $this->actingAs($user)
60              ->visit('/widgets/add')
61              ->press('Add Widget')
62              ->see('You must enter a Widget Name')
63              ->see('You must enter a Widget Description')
64              ->see('You must enter a Widget Price')
65              ->seePageIs('/widgets/add');
66      }
67
```

Test Our Error Messages



Exercise 8 - 30 Minutes

- Add messages() method on Task Form Requests
- Add {{ old('input') }} To form values for Tasks
- Add tests to ensure old input works and your error messages are showing up as expected

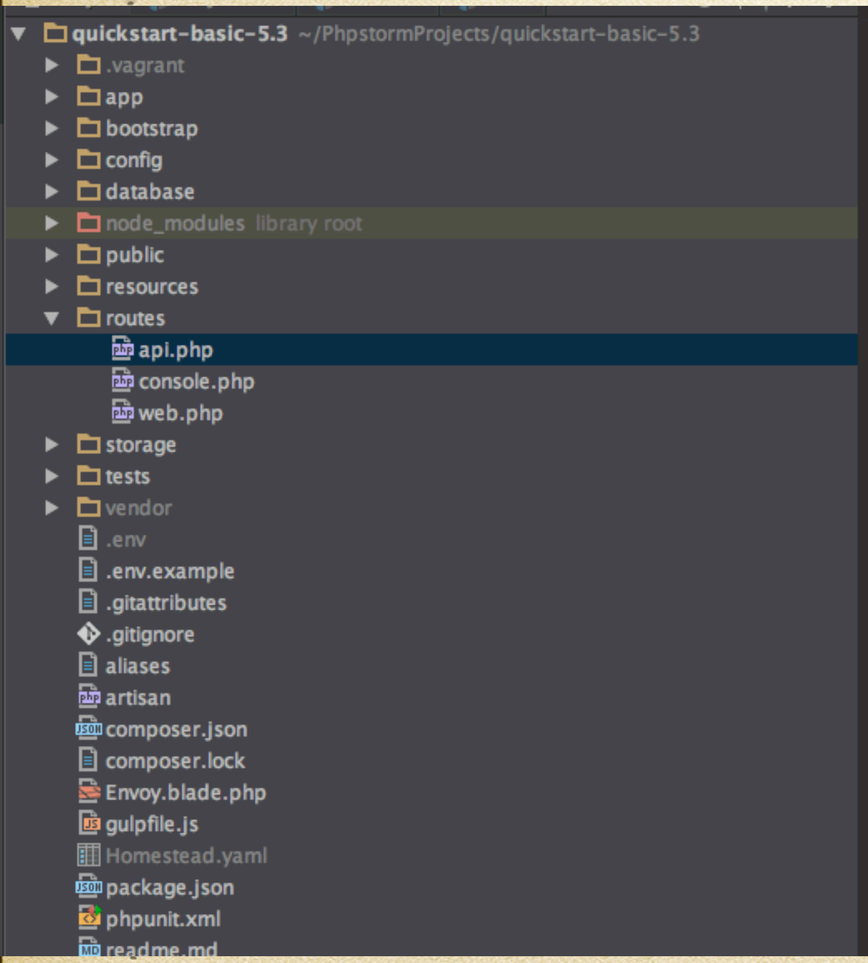
Exercise 8 Solution

To see a possible solution
checkout the branch “exercise-8”

```
git checkout exercise-8
composer dump-auto
```

What if users wanted an API to get Widget info?

Add API Route




```
16
17  Route::get('/user', function (Request $request) {
18      return $request->user();
19  })->middleware('auth:api');
20
21
22  Route::get('/widgets', function (Request $request) {
23      return Widget::all();
24  });
25
26
27
```

Check API request:

localhost:8000/api/widgets

[{"id":1,"name":"voluptas Widget","description":"Et omnis ipsam minus ducimus laboriosam. Nihil enim quo error asperiores aut porro repudiandae. Non molestiae ut incidunt debitis.","price":303749.35,"created_at":"2016-11-04 15:44:33","updated_at":"2016-11-04 15:44:33"},{"id":2,"name":"unde Widget","description":"Tenetur blanditiis recusandae beatae et placeat inventore. Quod tenetur sit consequuntur quisquam explicabo. Esse ducimus fuga dolorem deleniti placeat. Hic quam laudantium alias ut.","price":130848.85,"created_at":"2016-11-04 15:44:33","updated_at":"2016-11-04 15:44:33"},{"id":3,"name":"error Widget","description":"Pariatur provident iure provident ea omnis et assumenda. Perferendis delectus rerum esse eum iste inventore reprehenderit. Reprehenderit doloribus assumenda omnis aut velit odio.","price":584740.09,"created_at":"2016-11-04 15:44:33","updated_at":"2016-11-04 15:44:33"},
{"id":4,"name":"corporis Widget","description":"Aut illo nisi alias sint magni ut et et. Deleniti ut perspiciatis beatae eos. Aut non odio voluptatem atque. Nostrum earum sit libero tenetur.","price":75864.97,"created_at":"2016-11-04 15:44:33","updated_at":"2016-11-04 15:44:33"},{"id":5,"name":"blanditiis Widget","description":"Nostrum temporibus sed molestiae qui ab et et. Quo amet sed mollitia ab omnis. Consequuntur et repellendus tempora esse tempore. Molestias sit dolorem similique eligendi neque ipsam nihil.","price":928735.95,"created_at":"2016-11-04 15:44:33","updated_at":"2016-11-04 15:44:33"},{"id":6,"name":"totam Widget","description":"Recusandae tempore nisi et laudantium adipisci architecto. Fuga veniam qui asperiores omnis eos. Nisi eum ad iste possimus. Nobis necessitatibus a ut.","price":898814.99,"created_at":"2016-11-04 15:44:33","updated_at":"2016-11-04 15:44:33"},{"id":7,"name":"alias Widget","description":"Qui suscipit enim sed aspernatur ipsa quod. Accusantium vero amet accusamus et. Quia et culpa quia sed vel eum officia.","price":13189.33,"created_at":"2016-11-04 15:44:33","updated_at":"2016-11-04 15:44:33"},
{"id":8,"name":"et Widget","description":"Sequi fugit quidem et. Inventore ut beatae distinctio atque sequi sequi aliquid. Et ut vel deserunt voluptatem. Omnis omnis repudiandae est soluta veniam aliquid corporis.","price":493294.98,"created_at":"2016-11-04 15:44:33","updated_at":"2016-11-04 15:44:33"},{"id":9,"name":"non Widget","description":"Fugiat beatae eius unde libero rerum. Sed fuga aperiam debitis quis accusamus voluptatem ut nemo. Maiores aut et dolorum sint omnis ab sunt. Rerum ratione enim dolorum nihil ratione ipsa.","price":933056.62,"created_at":"2016-11-04 15:44:33","updated_at":"2016-11-04 15:44:33"},
{"id":10,"name":"dolores Widget","description":"Ratione in optio voluptate nam. Amet facilis repudiandae dolorum ipsum sit consequatur. Ea maiores corrupti itaque ut minima neque distinctio quae.","price":980061.11,"created_at":"2016-11-04 15:44:33","updated_at":"2016-11-04 15:44:33"},{"id":11,"name":"Test Widget","description":"Great Widget","price":49.99,"created_at":"2016-11-08 23:03:13","updated_at":"2016-11-08 23:03:13"},{"id":13,"name":"Test Widget","description":"Great Widget","price":49.99,"created_at":"2016-11-08 23:13:27","updated_at":"2016-11-08

Postman

GET http://localhost:8000/api/widgets Params Send Save

Authorization Headers Body Pre-request Script Tests Code

Type No Auth

Body Cookies Headers (8) Tests Status: 200 OK Time: 334 ms

Pretty Raw Preview JSON


```
[
  {
    "id": 1,
    "name": "voluptas Widget",
    "description": "Et omnis ipsam minus ducimus laboriosam. Nihil enim quo error asperiores aut porro repudiandae. Non molestiae ut incidunt debitis.",
    "price": 303749.35,
    "created_at": "2016-11-04 15:44:33",
    "updated_at": "2016-11-04 15:44:33"
  },
  {
    "id": 2,
    "name": "unde Widget",
    "description": "Tenetur blanditiis recusandae beatae et placeat inventore. Quod tenetur sit consequuntur quisquam explicabo. Esse ducimus fuga dolorem deleniti placeat. Hic quam laudantium alias ut.",
    "price": 130848.85,
    "created_at": "2016-11-04 15:44:33",
    "updated_at": "2016-11-04 15:44:33"
  },
  {
    "id": 3,
    "name": "error Widget",
    "description": "Pariatur provident iure provident ea omnis et assumenda. Perferendis delectus rerum esse eum iste inventore reprehenderit. Reprehenderit doloribus assumenda omnis aut velit odio.",
    "price": 584740.09,
    "created_at": "2016-11-04 15:44:33",
    "updated_at": "2016-11-04 15:44:33"
  },
  {
    "id": 4,
    "name": "corporis Widget",
    "description": "Aut illo nisi alias sint magni ut et et. Deleniti ut perspiciatis beatae eos. Aut non odio voluptatem atque. Nostrum earum sit libero tenetur.",
    "price": 75864.97,
    "created_at": "2016-11-04 15:44:33"
```

PhpStorm Test Restful Service

Project | Project Files | Problems | Tests

quickstart-basic-5.3 ~/PhpstormProjects/quickstart-basic-5.3
- .vagrant
- app
- bootstrap
- config
- database
- node_modules library root
- public
- resources
- routes
  - api.php
  - console.php
  - web.php
- storage

```
21
22  Route::get('/widgets', function (Request $request) {
23      return Widget::all();
24  });
25
```

de.php | app.blade.php | WidgetCreateRequest.php | TaskCreateRequest.php | widgets/add.blade.php | WidgetCreateTest.php | TasksCreateTest.php

REST Client

HTTP method: GET Host/port: http://localhost:8000 Path: /api/widgets

Request | Cookies | Response | Response Headers


```
[
  {
    "id": 1,
    "name": "voluptas Widget",
    "description": "Et omnis ipsam minus ducimus laboriosam. Nihil enim quo error asperiores aut porro repudiandae. Non molestiae ut incidunt debitis.",
    "price": 303749.35,
    "created_at": "2016-11-04 15:44:33",
    "updated_at": "2016-11-04 15:44:33"
  },
  {
    "id": 2,
    "name": "unde Widget",
    "description": "Tenetur blanditiis recusandae beatae et placeat inventore. Quod tenetur sit consequuntur quisquam explicabo. Esse ducimus fuga dolorem deleniti placeat. Hic quam laudan
    "price": 130848.85,
    "created_at": "2016-11-04 15:44:33",
    "updated_at": "2016-11-04 15:44:33"
  },
  {
    "id": 3,
    "name": "error Widget",
    "description": "Pariatur provident iure provident ea omnis et assumenda. Perferendis delectus rerum esse eum iste inventore reprehenderit. Reprehenderit doloribus assumenda omnis aut v
    "price": 584740.09,
    "created_at": "2016-11-04 15:44:33",
    "updated_at": "2016-11-04 15:44:33"
```

/widgets/{id}

quickstart-basic-5.3 ~/PhpstormProjects/quickstart-basic-5.3
- .vagrant
- app
- bootstrap
- config
- database
- node_modules library root
- public
- resources
- routes
  - api.php
  - console.php
  - web.php
- storage

```php
Route::get('/widgets/{id}', function (Request $request) {
    return Widget::findorFail($request->id);
});
```

api.php

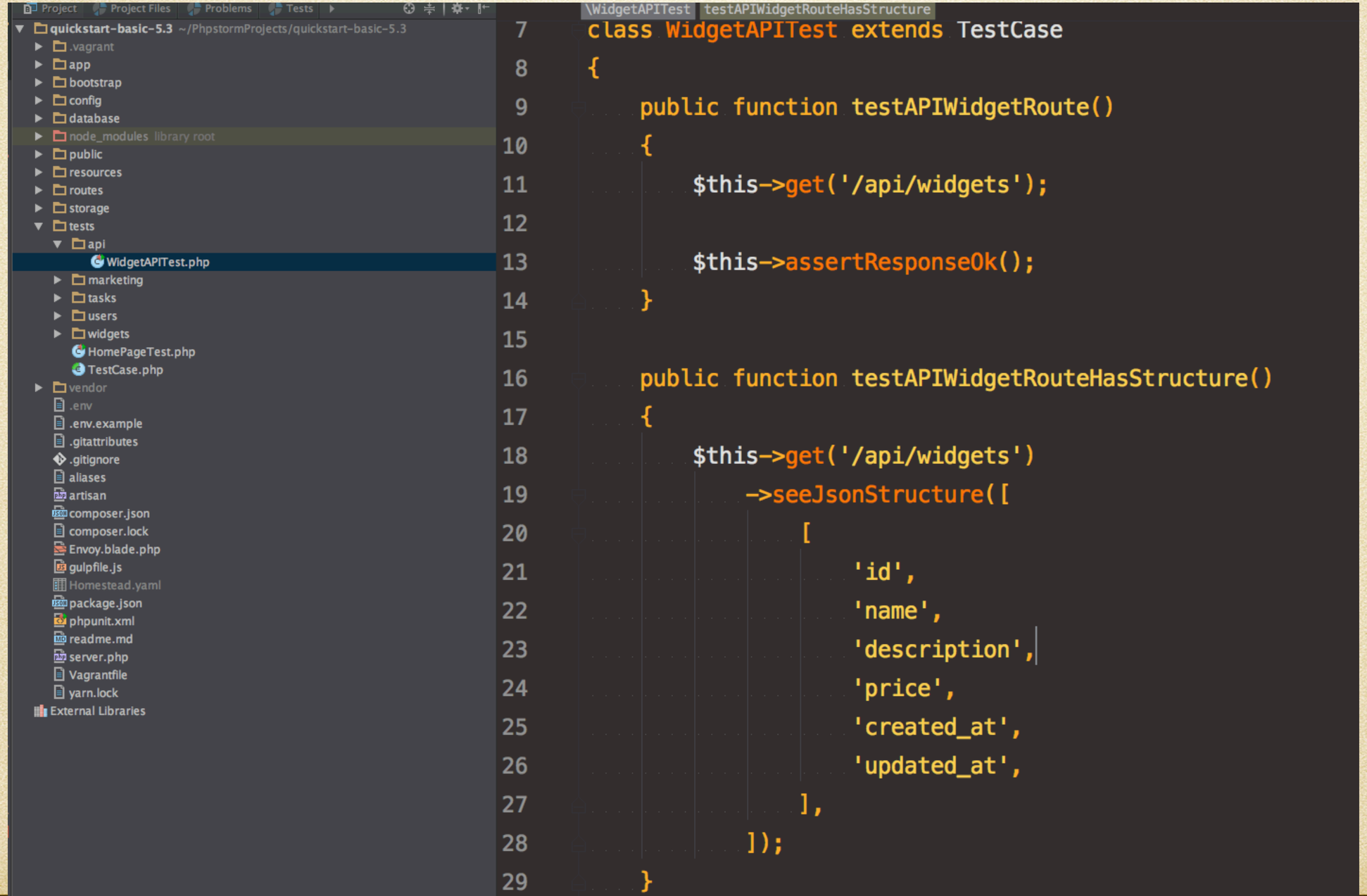
REST Client

HTTP method: GET Host/port: http://localhost:8000 Path: /api/widgets/2

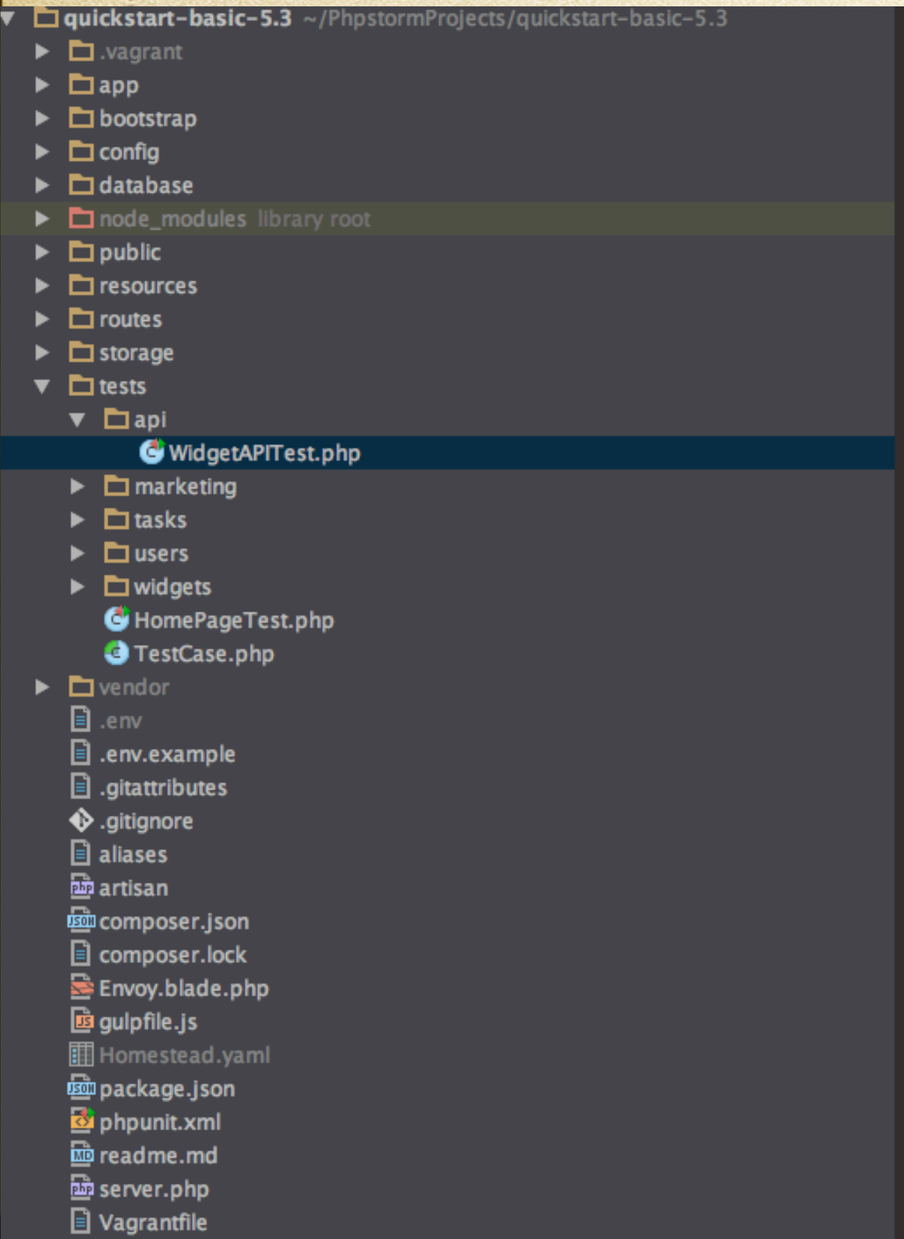
Request | Cookies | Response | Response Headers


```
{
  "id": 2,
  "name": "unde Widget",
  "description": "Tenetur blanditiis recusandae beatae et placeat inventore. Quod tenetur sit consequuntur quisquam explicabo. Esse ducimus fuga dolorem deleniti placeat. Hic quam laudantium alias ut.",
  "price": 130848.85,
  "created_at": "2016-11-04 15:44:33",
  "updated_at": "2016-11-04 15:44:33"
}
```

Test Our API Routes

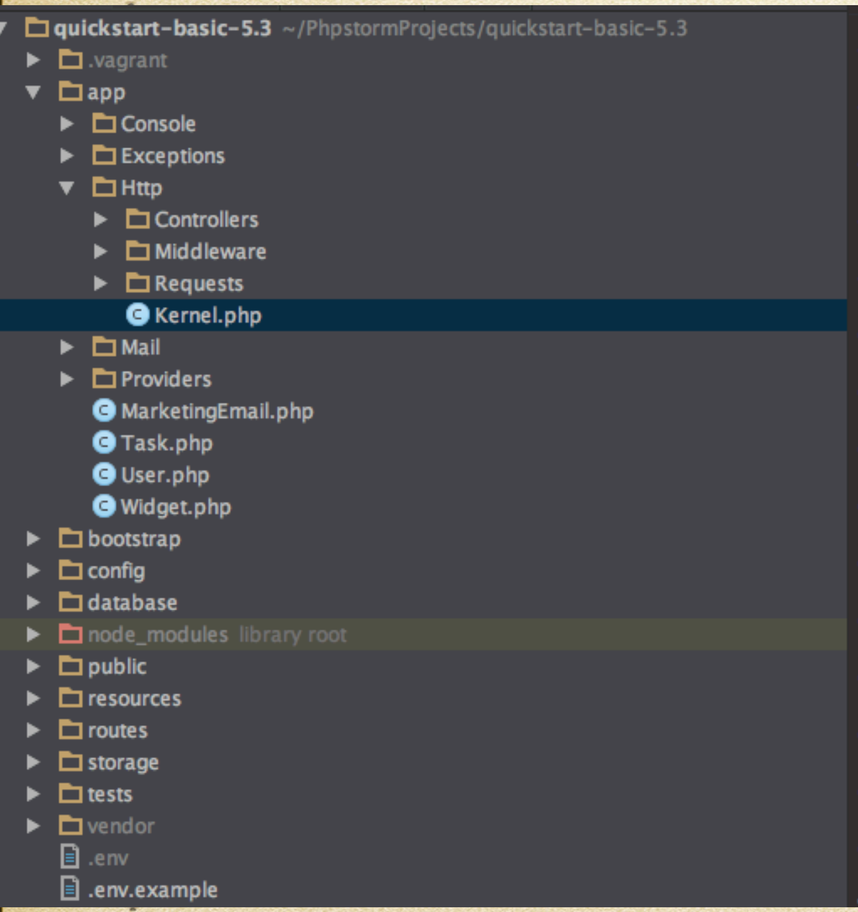


Test Our API Routes



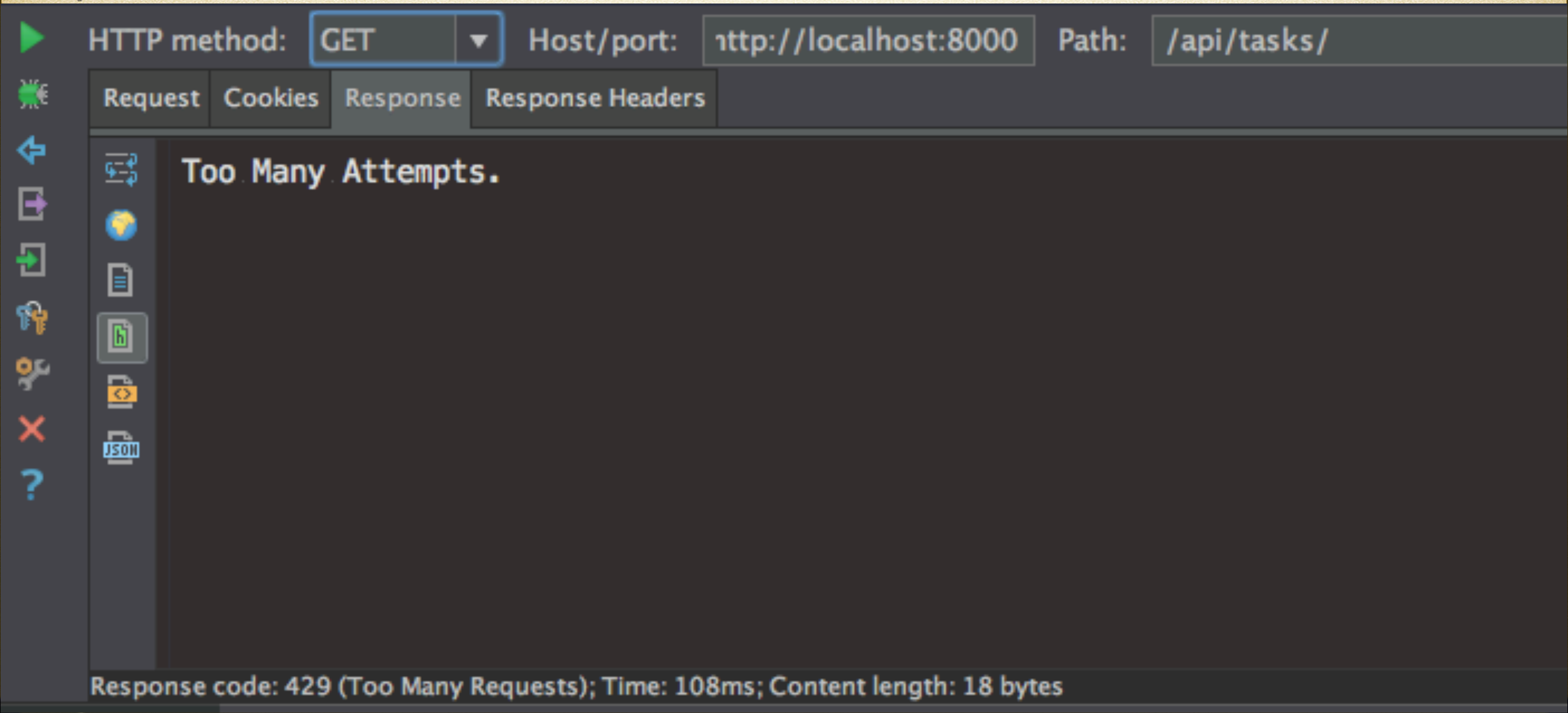

```
29      }
30
31      public function testAPIWidgetGetRoute()
32      {
33          $widget = factory(App\Widget::class)->create();
34
35          $this->get('/api/widgets/' . $widget->id)
36              ->seeJsonStructure([
37                  'id',
38                  'name',
39                  'description',
40                  'price',
41                  'created_at',
42                  'updated_at',
43              ]);
44      }
45  }
```

Throttle Your API Calls

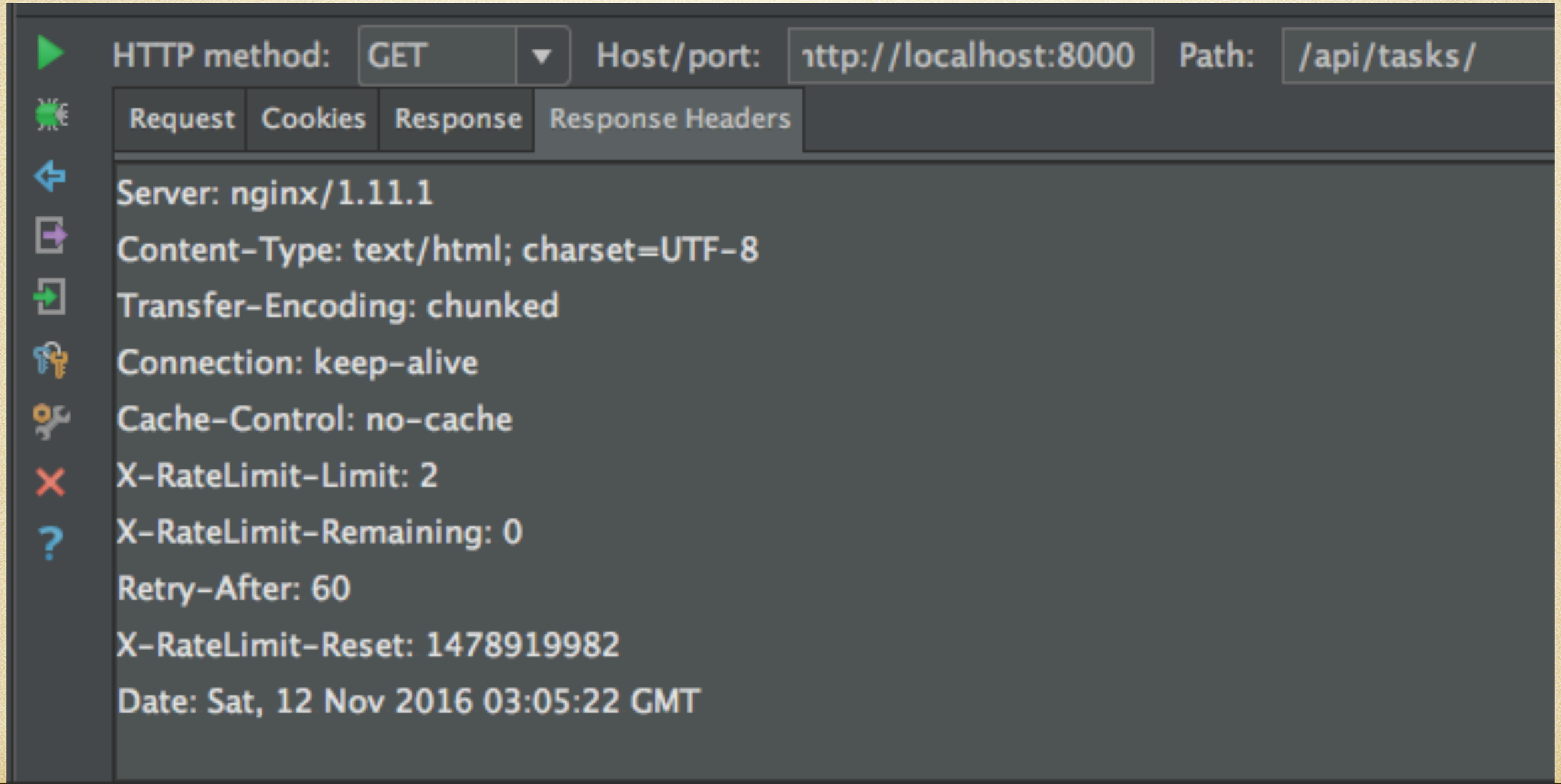



```
25    protected $middlewareGroups = [
26        'web' => [
27            \App\Http\Middleware\EncryptCookies::class,
28            \Illuminate\Cookie\Middleware\AddQueuedCookiesToResponse::class,
29            \Illuminate\Session\Middleware\StartSession::class,
30            \Illuminate\View\Middleware\ShareErrorsFromSession::class,
31            \App\Http\Middleware\VerifyCsrfToken::class,
32            \Illuminate\Routing\Middleware\SubstituteBindings::class,
33        ],
34
35        'api' => [
36            'throttle:2,1',
37            'bindings',
38        ],
39    ];
40
```

Throttle Your API Calls



Throttle Your API Calls



Exercise 9 - 30 Minutes

- Add API Routes to Query Tasks
- Write tests to ensure your api/tasks and api/tasks/{id} routes return the expected JSON format
  - Don’t forget about the N+1 Problem. Eager load users() with your Tasks

Exercise 9 Solution

To see a possible solution
checkout the branch “exercise-9”

```
git checkout exercise-9
composer dump-auto
```

Queueing with Laravel

- Queues
  - A line for processing jobs, each queue can have a high/low priority
- Connections
  - Connection to a job queue such as Redis
- Jobs
  - A task placed on a queue to be processed at a future time

Configure Queue Driver

```
19    QUEUE_DRIVER=redis
20
21    REDIS_HOST=127.0.0.1
22    REDIS_PASSWORD=null
23    REDIS_PORT=6379
24
25    MAIL_DRIVER=smtp
```

Create a Job

```
vagrant@qs:~/qs$ artisan make:job RunUsersActivityReport
Job created successfully.
vagrant@qs:~/qs$
```

RunUsersActivityReport Job

```
33      public function handle()
34      {
35          $users = User::all();
36          $users->sortBy( callback: 'name');
37
38          // cleanup old report
39          if (is_file( filename: storage_path() . '/users.csv')) {
40              unlink( filename: storage_path() . '/users.csv');
41          }
42
43          $csv = Writer::createFromPath(storage_path() . '/users.csv', 'w');
44          $csv->insertOne([
45              'name',
46              'email',
47              'created_at',
48          ]);
49
50          foreach ($users as $user) {
51              $csv->insertOne([
52                  $user->name,
53                  $user->email,
54                  $user->created_at,
55              ]);
56          }
57      }
```

Dispatch Our Job

```
25
26  Route::get('/run-user-report', function () {
27      RunUsersActivityReport::dispatch();
28      return redirect( to: '/');
29  });
30
```

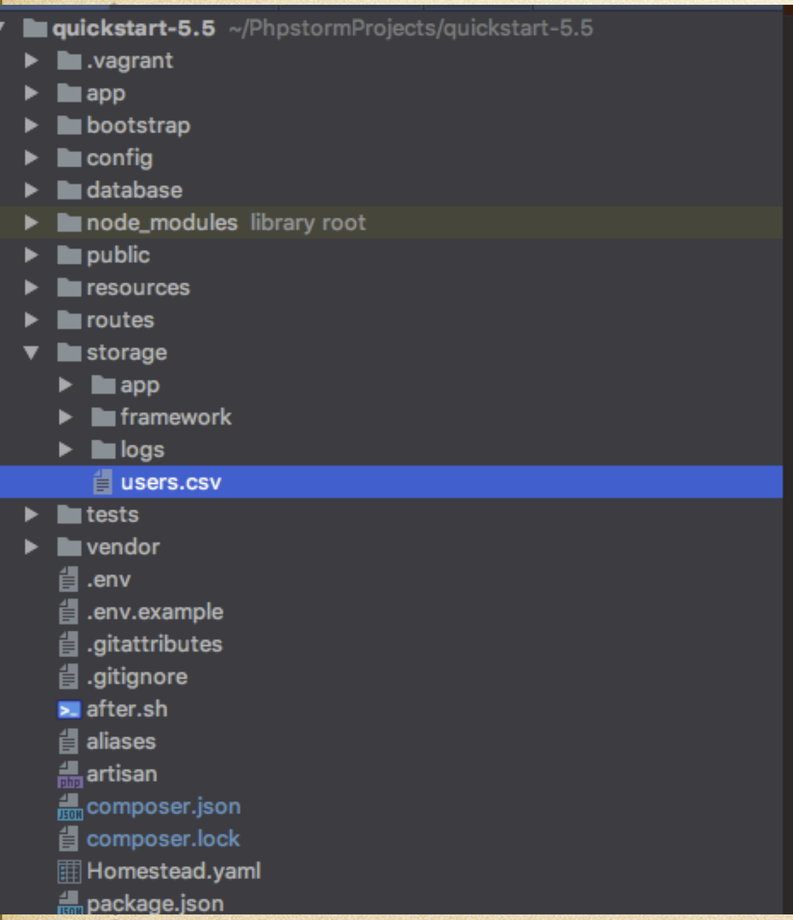
Check on our Job

```
vagrant@qs:~/qs$ redis-cli
127.0.0.1:6379> KEYS *
1) "queues:default"
127.0.0.1:6379> DUMP queues:default
"\x0e\x01\xc3ACA\xb6\a\xb6\x01\x00\x00\n\x00\x00\x00 \x06\x1fA\xa8{\"displayName\":\"App\\\\J
u \x06\x03Call`\n\tdHandler@c \x11 1\x16maxTries\":null,\"timeout\xe0\x06\x0e\x00A\xe0\x00\x1
\b\\\":5:{s:6 ,\x02\\u0 \x00\x00*\x80\x06 \xe6\b\\\";N;s:10 \x1b\x04conne!\n\x01on\xa0\x15\x0
 \x11\x0ba:0:{}}\"},\"i@\x9e\x1flJb05QZ5vIMGfCuUtrPfY7mw5CzIOKlw!5\x06attempt!5\x020}\xff\b\x
127.0.0.1:6379>
```

Run our pending job

```
vagrant@qs:~/qs$ php artisan queue:work
[2017-11-06 22:13:36] Processing: App\Jobs\RunUsersActivityReport
[2017-11-06 22:13:36] Processed:  App\Jobs\RunUsersActivityReport
[2017-11-06 22:13:36] Processing: App\Jobs\RunUsersActivityReport
[2017-11-06 22:13:36] Processed:  App\Jobs\RunUsersActivityReport
[2017-11-06 22:13:36] Processing: App\Jobs\RunUsersActivityReport
[2017-11-06 22:13:36] Processed:  App\Jobs\RunUsersActivityReport
```

CSV Results




```
name,email,created_at
"Freda Douglas",gprohaska@example.net,"2017-11-06 20:00:54"
"Myrna Nolan Sr.",adrienne98@example.org,"2017-11-06 20:00:54"
"Otis Wolff",lkautzer@example.com,"2017-11-06 20:00:54"
"Ben Glover",goyette.ruben@example.net,"2017-11-06 20:00:54"
"Dexter Kreiger",cgreenholt@example.net,"2017-11-06 20:00:54"
"Lola Wilderman",tyrese.bartell@example.org,"2017-11-06 20:49:14"
"Zakary Dickinson",durgan.arch@example.net,"2017-11-06 20:49:27"
"Nickolas Keeling",fhartmann@example.org,"2017-11-06 20:49:27"
"Mr. Jaren Hamill Jr.",oschaefer@example.org,"2017-11-06 20:49:27"
"Aaron Graham",marisol.huels@example.com,"2017-11-06 20:49:27"
"Dr. Brigitte Schuster",hjerde@example.net,"2017-11-06 20:49:27"
"Henri Corwin",antwan92@example.net,"2017-11-06 20:49:31"
```

Supervising our Workers

```
[program:laravel-default-worker]
process_name=%(program_name)s_%(process_num)02d
command=php /home/vagrant/qs/artisan queue:work redis --sleep=3 --tries=3
autostart=true
autorestart=true
user=vagrant
numprocs=4
redirect_stderr=true
stdout_logfile=/home/vagrant/laravel-default-worker.log
~
```

sudo vi /etc/supervisor/conf.d/laravel-default-worker.conf

Updating Supervisor

```
vagrant@qs:~/qs$ sudo supervisorctl reread
laravel-default-worker: changed
vagrant@qs:~/qs$ sudo supervisorctl update
laravel-default-worker: stopped
laravel-default-worker: updated process group
vagrant@qs:~/qs$ sudo supervisorctl start laravel-default-worker:*
```

```
vagrant@qs:~/qs$ ps ax | grep artisan
 6704 ?        S      0:00 php /home/vagrant/qs/artisan queue:work redis --sleep=3 --tries=3
 6705 ?        S      0:00 php /home/vagrant/qs/artisan queue:work redis --sleep=3 --tries=3
 6706 ?        S      0:00 php /home/vagrant/qs/artisan queue:work redis --sleep=3 --tries=3
 6707 ?        S      0:00 php /home/vagrant/qs/artisan queue:work redis --sleep=3 --tries=3
 6740 pts/0    S+     0:00 grep --color=auto artisan
vagrant@qs:~/qs$
```

Job Failures

```
vagrant@qs:~/qs$
vagrant@qs:~/qs$ php artisan queue:failed-table
Migration created successfully!
vagrant@qs:~/qs$ artisan migrate
Migrating: 2017_11_06_222203_create_failed_jobs_table
Migrated:  2017_11_06_222203_create_failed_jobs_table
vagrant@qs:~/qs$
```

Job Failures

(MySQL 5.7.19-0ubuntu0.16.04.1) Local Vagran

homestead

Select Database

Structure | Content | Relations | Triggers | Table Info | Query

TABLES

- failed_jobs
- marketing_emails
- migrations
- password_resets
- tasks
- users
- widgets

Field	Type	Length	Unsigned	Zerofill	Binary	Allo
id	BIGINT	20	☑	☐	☐	
connection	TEXT		☐	☐	☐	
queue	TEXT		☐	☐	☐	
payload	LONGTEXT		☐	☐	☐	
exception	LONGTEXT		☐	☐	☐	
failed_at	TIMESTAMP		☐	☐	☐	

Questions?

Feedback!

https://joind.in/talk/9ee05

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