Implementing CRUD Operations with the Resource Controller

Mateo Prigl

Software developer

CRUD Operations

C Create

R Read

U Update

D Delete

Resource Controller Actions

index — **Show a collection of all instances of a specific resource**

C
create — **Render a form for creating a new resource instance**
store — **Receive form data and store a new resource instance**

R
show — **Read data about a specific resource instance and show it**

U
edit — **Render a form for updating an existing resource instance**
update — **Receive form data and update an existing resource instance**

D
destroy — **Remove a specific resource instance from the storage**

Resource Routes

```php
use App\Http\Controllers\PostController;

Route::get('/posts', [PostController::class, 'index'])->name('posts.index');

Route::get('/posts/create', [PostController::class, 'create'])->name('posts.create');
Route::post('/posts', [PostController::class, 'store'])->name('posts.store');

Route::get('/posts/{post}', [PostController::class, 'show'])->name('posts.show');

Route::get('/posts/{post}/edit', [PostController::class, 'edit'])->name('posts.edit');
Route::put('/posts/{post}', [PostController::class, 'update'])->name('posts.update');

Route::delete('/posts/{post}', [PostController::class, 'destroy'])->name('posts.destroy');
```
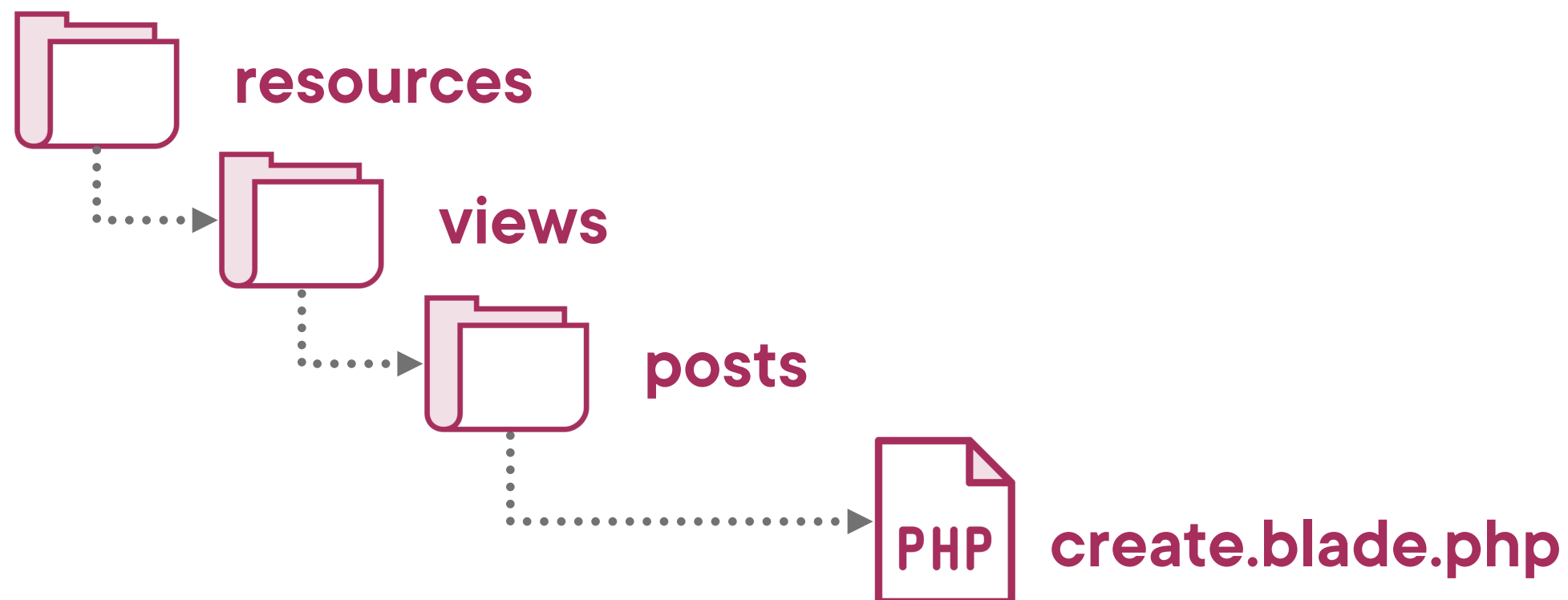
Summary

Route Groups

Group routes under the same **name** or **route path** prefix

```
Route::name('posts.')->prefix('posts')->group(function (){

    Route::get('/create', function () {

        return view('posts.create');

    })->name('create');

});
```

Group resource view templates in resources/views/posts directory

resources

views

posts

PHP **create.blade.php**

Delegating Business Logic to Controllers

Define controller actions

```php
class HomeController extends Controller
{


    public function home() {
        return view('home');
    }


}
```

app/Http/Controllers/HomeController.php

Match routes to controller actions

```php
use App\Http\Controllers\HomeController;


Route::get('/',
        [HomeController::class, 'home'])
        ->name('home');
```

routes/web.php

Create a New Controller

Create a new controller with Artisan CLI

```
php artisan make:controller ControllerName
```

Create a new resource controller

```
php artisan make:controller ControllerName --resource
```

Resource Routes

Create all of the resource routes with the static *resource* method

```php
use App\Http\Controllers\PostController;


Route::resource('posts', PostController::class);
```

routes/web.php

Get a list of all of the application registered routes

```
php artisan route:list
```

Resource Controller Actions

	index	Show a collection of all instances of a specific resource	
C	**create**	Render a form for creating a new resource instance	
	store	Receive form data and store a new resource instance	
R	**show**	Read data about a specific resource instance and show it	
U	**edit**	Render a form for updating an existing resource instance	
	update	Receive form data and update an existing resource instance	
D	**destroy**	Remove a specific resource instance from the storage	

Exclude the Default Resource Routes

Exclude the particular resource routes (e.g. the *index* route)

```php
Route::resource('posts', PostController::class)->except([
    'index',
]);
```

routes/web.php

Include only some of the resource routes (e.g. we only need *create* and *store* routes)

```php
Route::resource('posts', PostController::class)->only([
    'create', 'store'
]);
```

routes/web.php

Up Next:
Storing Data with Eloquent Models