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REST API Laravel 5.4 with Token Authentication

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4-5 minutes

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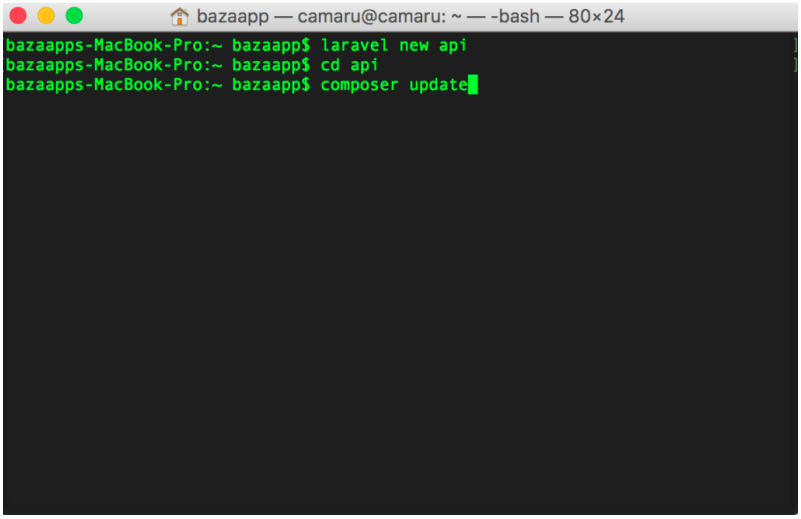
For this tutorial, we are going to do step by step creation of Laravel REST API with token authentication. The API will be a simple blog post API with users relation.

1. Setup Database and Project

1.1 Create a laravel project

We are going to name it as “api” project. Run the following commands in terminal.

```
# laravel new api
# cd api
# composer update
```

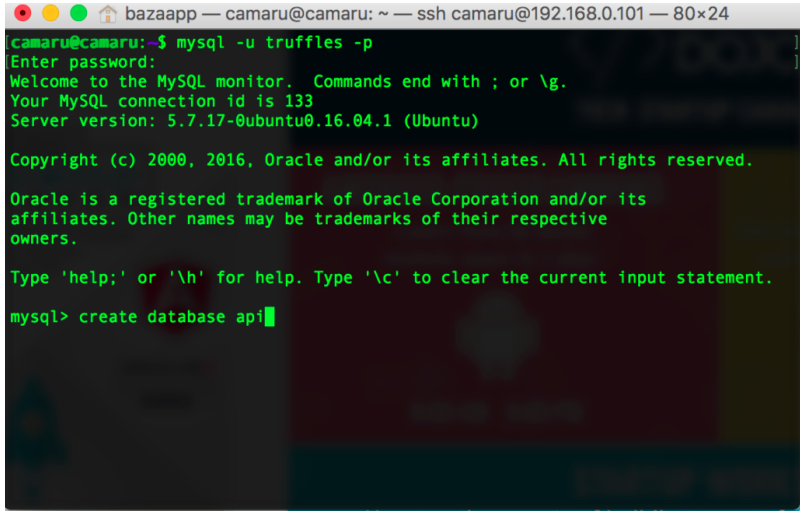


1.2 Create database in mysql and setup laravel environment

First, let us create a database. Run the following commands in terminal

```
# mysql -u <user> -p
```

```
create database api
exit
```



Next would be editing the .env file in your laravel project

```
DB_CONNECTION=mysql
DB_HOST=replace with your IP
DB_PORT=3306
DB_DATABASE=api
DB_USERNAME=replace with your username
DB_PASSWORD=replace with your password
```

2. Create the necessary database tables

2.1 Update Users table

Let us first update the users migration table. My filename is 2014_10_12_000000_create_users_table.php please check your own. Change the entire function with the code below.

```
    public function up()
    {
    Schema::create('users', function (Blueprint
$table) {
    $table->increments('id');
    $table->string('name');
    $table->string('email')->unique();
    $table->string('password');
    $table->string('api_token', 60)->unique();
    $table->rememberToken();
    $table->timestamps();
    });
    }
```

2.2 Create the necessary model and relation to user

Run command below in terminal.

 # php artisan make:model Post -m

Update **Post.php** model by adding a foreign key relation to Users

```
    public function user() {

    return $this->belongsTo(User::class);
    }
```

Update **Users.php** model and add parent key relation

```
public function posts() {
return $this->hasMany(Post::class);
}
```

Update the **post migration file,** in my case the file is named 2017_03_08_135051_create_posts_table.php. We need to add two custom fields in our post table for demo purposes.

```
    public function up()
    {
    Schema::create('posts', function (Blueprint
$table) {
    $table->increments('id');
    $table->string('title');
    $table->text('body');
    $table->integer('user_id');
    $table->timestamps();
    });
    }
```

Then update the database by running the command below.

```
# php artisan migrate:refresh
```

3. Create the Controller for API

For this example, we will name our controller as APIController. To create the controller run the command below in terminal.

```
# php artisan make:controller APIController
--resource
```

3.1 Create the api that show all post of a given user

Update index function in APIController.php

```
*/
public function index()
{
$posts = Post::all();
```

```
return response()->json($posts);
}
```

Do not forget to include the Post model in your API controller

use App\Post;

4. Seed the database using tinker

Note that seed generator will be discussed in separate topic and is out of scope in this current tutorial.

```
# php artisan tinker
```

4.1 Create a test user.

```
$user = new App\User();
$user->name = 'perry';
$user->email = 'perry@bootstrapdojo.com';
$user->password = bcrypt('123456');
$user->api_token = str_random(60);
$user->save();
```

4.2 Create a sample blog post

```
    $post->title='test 02';
    $post->body='test 02 body';
    $post->user_id=1;
    $post->save();
    Close tinker by running the command
    exit
```

5. Create API route

Note that we will secure this route later

Edit api.php

```
    Route::group(['middleware' => 'auth:api'],
function () {
    Route::resource('post', 'APIController');
    });
```

6. Enable Authentication

Run the command in terminal

```
# php artisan make:auth
```

7. Test your API

```
# php artisan serve
```

Run the API in browser. Make sure you pass your api_token. See sample URL call below:

```
127.0.0.1:8000/api
/post?api_token=Pwbo7CmLtqAP5TvIHYFZPqkmetJFTi9UZIfxE1GLeBFFJgzZ8D
```