

REST API BASIC STEP IN LARAVEL 8

STEP 0: CREATE NEW PROJECT

```
composer create-project laravel/laravel project-name --prefer-dist
```

OR

```
composer global require laravel/installer
```

```
laravel new project-name
```

STEP 1: CREATE MODEL AND TABLE

```
php artisan make:model Sample -m
```

STEP 2: ADD COLUMN TO TABLE

- database/migration/
- add column to table

Example:

```
$table->id();  
$table->string('title');  
$table->string('description');  
$table->timestamps();
```

STEP 3: ALLOW COLUMN IN MODEL

```
protected $fillable = ['column 1', 'column 2', 'column 3'...];
```

Example:

```
protected $fillable = ['title', 'description'];
```

STEP 4: MIGRATE YOUR TABLE TO DATABASE

```
php artisan migrate
```

STEP 5: CREATE CONTROLLER API

```
php artisan make:controller SampleController --api
```

STEP 6: CRUD API BASIC

```
use App\Models\Sample;
```

index() **function**

```
public function index() {  
    return Sample::all();  
}
```

store() **function**

```
public function store(Request $request) {  
    return Sample::create($request->all());  
}
```

show() **function**

```
public function show($id) {  
    return Sample::find($id);  
}
```

update() **function**

```
public function update(Request $request, $id) {  
    $obj = Sample::find($id);  
    $obj->update($request->all());  
    return $obj;  
}
```

destroy() **function**

```
public function destroy($id) {  
    return Sample::destroy($id);  
}
```

STEP 7: CREATE ROUTE WITH CONTROLLER

Go to routes/api.php

```
use App\Http\Controllers\SampleController;
```

GET ALL

```
Route::get('/samples', [SampleController::class, 'index']);
```

GET ONE

```
Route::get('/samples/{id}', [SampleController::class, 'show']);
```

CREATE

```
Route::post('/samples', [SampleController::class, 'store']);
```

UPDATE

```
Route::put('/samples/{id}', [SampleController::class, 'update']);
```

DELETE

```
Route::delete('/samples/{id}', [SampleController::class, 'destroy']);
```

STEP 8: TEST CRUD API

You can use any tools to test api example:

- Postman
- Thunder Client (VScode extension)

```
GET | POST | PUT | DELETE
```

STEP 9: CREATE RESOURCE API

```
php artisan mak:resource SampleResource
```

- Check : App/Http/Resources folder
- Open SampleResource.php (file that we just created)
- In function `toArray($request)` delete return and add new code

Example

```
return [  
    'title' => $this->title,  
    'description' => $this->description,  
];
```

STEP 10: USE API RESOURCE IN CONTROLLER

In SampleController, you can use:

```
use App\Http\Resources\SampleResource;
```

We will use resource in 2 functions is `index()` && `show()`

```
index(): SampleResource::collection(Sample::all());
```

```
show($id): new SampleResource(Sample::find($id));
```

STEP 11: CREATE SEEDER && USE FAKER LIBRARY

```
php artisan make:seeder SampleSeeder
```

- In `database/seeder`
- Open `SampleSeeder` file and use

```
use Illuminate\Support\Facades\DB;  
use Faker\Factory as Faker;
```

In function `run()` so lets start to insert data randomly

Example

```
$faker = Faker::create();
DB::table('samples')->insert([
    'title' => $faker->sentence(),
    'description' => $faker->paragraph()
]);
```

STEP 12: CALL SampleSeeder TO DatabaseSeeder

Open `DatabaseSeeder.php` in function `run()`

```
$this->call([
    SampleSeeder::class,
]);
```

Then

```
php artisan db:seed
```

Noted: If it doesn't work you need to type this command first:

```
composer dump-autoload
```

Rady Y documentation v1.0
