

Restful API with Laravel 9

Customizing Response Data

Objective

1. Creating `BaseResponse` class
2. Modifying `index` function
3. Modifying `create` function
4. Modifying `update` function
5. Modifying `delete` function

Creating BaseResponse class

- In “\app\Http” folder, create a new file named “BaseResponse.php”, then add codes as below

```
<?php
namespace App\Http;

class BaseResponse {
    public $errorCode = 0;
    public $message = '';
    public $data = null;

    public static function withData($data) {
        $instance = new self();
        $instance->data = $data;
        return (array)$instance;
    }
}
```

- Add extra functions in **BaseResponse** class with highlighted codes as below

```
> public static function withData($data) { ...  
    }  
  
    public static function success($message) {  
        $instance = new self();  
        $instance->message = $message;  
        return (array) $instance;  
    }  
  
    public static function error($error, $message) {  
        $instance = new self();  
        $instance->errorCode = $error;  
        $instance->message = $message;  
        return (array) $instance;  
    }  
}
```

Modifying **index** function

```
use App\Http\BaseResponse;  
use App\Models\Employee;  
use Illuminate\Http\Request;
```

```
public function index($id = null) {  
    if ($id == null) {  
        $data = Employee::orderBy('FirstName', 'asc')->get();  
        return BaseResponse::withData($data);  
    } else {  
        $data = Employee::find($id);  
        if ($data) {  
            return BaseResponse::withData($data);  
        } else {  
            return BaseResponse::error(404, 'Data not found.');        }  
    }  
}
```

Testing

- **GET:** <http://localhost/laravelapi/public/api/employees>

```
1  {
2      "errorCode": 0,
3      "message": "",
4      "data": [
5          {
6              "EMP_ID": 1,
7              "LastName": "Trần",
8              "FirstName": "Chân",
9              "Email": "chant@yahoo.com",
10             "Phone": "0919937563",
11             "Image": null
12         },
13     > { ...
20     }
21 ]
22 }
```

- **GET:** <http://localhost/laravelapi/public/api/employees/1>

```
1  {
2      "errorCode": 0,
3      "message": "",
4      "data": {
5          "EMP_ID": 1,
6          "LastName": "Trần",
7          "FirstName": "Chân",
8          "Email": "chant@yahoo.com",
9          "Phone": "0919937563",
10         "Image": null
11     }
12 }
```

Modifying **create** function

```
public function create(Request $req) {  
    try {  
        $data = new Employee();  
        $data->LastName = $req->input('lastName');  
        $data->FirstName = $req->input('firstName');  
        $data->Phone = $req->input('phone');  
        $data->Email = $req->input('email');  
        $data->save();  
        return BaseResponse::withData($data);  
    } catch(Throwable $e) {  
        return response()->json(['message' => $e->getMessage()], 500);  
    }  
}
```


Testing

- **POST**: <http://localhost/laravelapi/public/api/employees>

raw ▾ JSON ▾ Beautify

```
1  {
2    .... "lastName": "Nguyễn",
3    .... "firstName": "Bính",
4    .... "email": "binhn@yahoo.com",
5    .... "phone": "038447432"
6  }
7
8
9
10
11
```

Pretty Raw Preview Visualize JSON ▾

```
1  {
2    "errorCode": 0,
3    "message": "",
4    "data": {
5      "LastName": "Nguyễn",
6      "FirstName": "Bính",
7      "Phone": "038447432",
8      "Email": "binhn@yahoo.com",
9      "EMP_ID": 5
10   }
11 }
```

Modifying **update** function

```
public function update($id, Request $req) {  
    $data = Employee::find($id);  
    if ($data) {  
        try {  
            $data->LastName = $req->input('lastName');  
            $data->FirstName = $req->input('firstName');  
            $data->Phone = $req->input('phone');  
            $data->Email = $req->input('email');  
            $data->save();  
            return BaseResponse::withData($data);  
        } catch(Throwable $e) {  
            return response()->json(['message' => $e->getMessage()], 500);  
        }  
    } else {  
        return BaseResponse::error(404, 'Data not found.');    }  
}
```

Testing

- **PUT**: <http://localhost/laravelapi/public/api/employees/5>

raw ▾ JSON ▾ Beautify

```
1  {
2    .... "lastName": "Nguyễn",
3    .... "firstName": "Thanh Bình",
4    .... "email": "binhn@gmail.com",
5    .... "phone": "0867264457"
6  }
7
8
9
10
11
12
```

Pretty Raw Preview Visualize JSON ▾

```
1  {
2    "errorCode": 0,
3    "message": "",
4    "data": {
5      "EMP_ID": 5,
6      "LastName": "Nguyễn",
7      "FirstName": "Thanh Bình",
8      "Email": "binhn@gmail.com",
9      "Phone": "0867264457",
10     "Image": null
11   }
12 }
```

Modifying **delete** function

```
public function delete($id) {  
    $data = Employee::find($id);  
    if ($data) {  
        try {  
            $data->delete();  
            return BaseResponse::withData($data);  
        } catch(Throwable $e) {  
            return response()->json(['message' => $e->getMessage()], 500);  
        }  
    } else {  
        return BaseResponse::error(404, 'Data not found.');    }  
}
```

Testing

- **DELETE:**

<http://localhost/laravelapi/public/api/employees/5>

```
1  {
2      "errorCode": 0,
3      "message": "",
4      "data": {
5          "EMP_ID": 5,
6          "LastName": "Nguyễn",
7          "FirstName": "Thanh Bình",
8          "Email": "binhn@gmail.com",
9          "Phone": "0867264457",
10         "Image": null
11     }
12 }
```

