**REST API dengan Authentikasi Passport di Laravel**

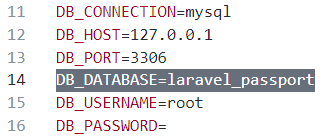
**Membuat Project Laravel**

Gunakan perintah berikut pada CMD / Terminal:

$ **composer create-project --prefer-dist laravel/laravel rest-api-passport-auth**

**Konfigurasi Database**

Buka konfigurasi database pada file **.env** sebagai berikut:



**Mengkonfigurasi Passport untuk Authentikasi**

Pertama kali dapatkan Passport dengan perintah CMD / Terminal dibawah ini:

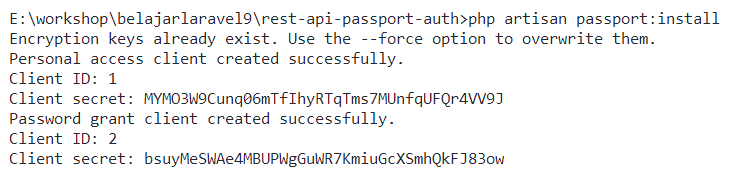
$ **composer require laravel/passport**

Jalankan migration terlebih dahulu untuk menciptakan sebuah tabel passport:

$ **php artisan migrate**

Kemudian install Passport tersebut dengan perintah berikut:

$ **php artisan passport:install**



**Mengkonfigurasi Model User**

Buka file **app/Models/User.php** dan tambahkan kode berikut:

..........

**use Laravel\Passport\HasApiTokens;**

class User extends Authenticatable {

    use HasApiTokens, HasFactory, Notifiable;

..........

Kemudian buka file **config/auth.php** dan tambahkan konfigurasi berikut ini:

    'guards' => [

        'web' => [

            'driver' => 'session',

            'provider' => 'users',

        ],

**'api' => [**

**'driver' => 'passport',**

**'provider' => 'users',**

**],**

    ],

**Mengkonfigurasi File Migration dan Model**

Tuliskan perintah dibawah untuk membuat file migration baru dan modelnya guna menciptakan sebuah tabel baru dengan nama **products**:

$ **php artisan make:migration create\_products\_table**

Buka file migration tersebut pada **database/migrations/create\_products\_table**:

    public function up()

    {

        Schema::create('products', function (Blueprint $table) {

**$table->id();**

**$table->string('name', 191);**

**$table->string('price', 191);**

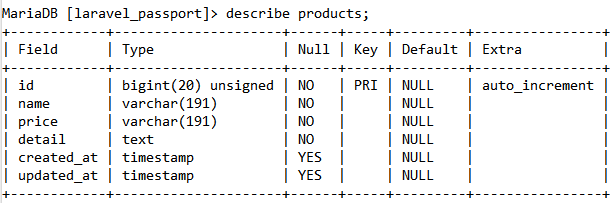
**$table->text('detail');**

**$table->timestamps();**

        });

    }

Jalankan perintah migrate untuk menciptakan tabel **products**: $ **php artisan migrate**



Struktur tabel products setelah berhasil di migrate seperti pada gambar diatas.

**Membuat Model Product**

Gunakan perintah berikut untuk membuat sebuah model baru dengan nama **Product**:

$ **php artisan make:model Product**

Kemudian buka file modelnya pada **app/Models/Product.php** dan tuliskan kodenya:

class Product extends Model {

    use HasFactory;

**protected $fillable = [**

**'name', 'price', 'detail'**

**];**

}

**Membuat Controllers**

Buat sebuah file controller yang baru pada **app/Http/Controllers/API/BaseController.php**:

$ **php artisan make:controller API/BaseController**

Buka controller tersebut kemudian tambahkan kode berikut didalamnya:

<?php

namespace App\Http\Controllers\API;

use App\Http\Controllers\Controller as Controller;

use Illuminate\Http\Request;

class BaseController extends Controller {

    public function sendResponse($result, $message) {

        $response = [

            'success' => true,

            'data' => $result,

            'message' => $message,

        ];

        return response()->json($response, 200);

    }

    public function sendError($error, $errorMessages = [], $code = 404) {

        $response = [

            'success' => false,

            'message' => $error,

        ];

        if (!empty($errorMessages)) {

            $response['data'] = $errorMessages;

        }

        return response()->json($response, $code);

    }

}

Buat sebuah controller lagi dengan nama **RegisterController** yang berguna untuk mengelola proses register user yang baru:

$ **php artisan make:controller API/RegisterController**

Kemudian buka file **RegisterController.php** tersebut dan tuliskan kode berikut:

<?php

namespace App\Http\Controllers\API;

use App\Http\Controllers\Controller;

use Illuminate\Http\Request;

use App\Http\Controllers\API\BaseController as BaseController;

use App\Models\User;

use Illuminate\Support\Facades\Auth;

use Illuminate\Support\Facades\Validator;

class RegisterController extends BaseController {

    public function register(Request $request) {

        $validator = Validator::make($request->all(), [

            'name' => 'required',

            'email' => 'required|email',

            'password' => 'required',

            'c\_password' => 'required|same:password',

        ]);

        if ($validator->fails()) {

            return $this->sendError('Validation Error.', $validator->errors());

        }

        $input = $request->all();

        $input['password'] = bcrypt($input['password']);

        $user = User::create($input);

        $success['token'] = $user->createToken('MyApp')->accessToken;

        $success['name'] = $user->name;

        return $this->sendResponse($success, 'User registered successfully.');

    }

    public function login(Request $request)

    {

        if (Auth::attempt(['email' => $request->email,

'password' => $request->password])) {

            $user = Auth::user();

            $success['token'] = $user->createToken('MyApp')->accessToken;

            $success['name'] = $user->name;

            return $this->sendResponse($success, 'User logged in successfully.');

        } else {

            return $this->sendError('Unauthorised.', ['error' => 'Unauthorised']);

        }

    }

}

Buat sebuah file Resource untuk mengelola tabel products dan model Product, gunakan perintah dibawah ini pada CMD / Terminal:

$ **php artisan make:resource ProductResource**

Buka file **ProductResource.php** kemudian tambahkan kode berikut:

<?php

namespace App\Http\Resources;

use Illuminate\Http\Resources\Json\JsonResource;

class ProductResource extends JsonResource {

    public function toArray($request) {

**return [**

**'id' => $this->id,**

**'name' => $this->name,**

**'price' => $this->price,**

**'detail' => $this->detail,**

**'created\_at' => $this->created\_at->format('d/m/Y'),**

**'updated\_at' => $this->updated\_at->format('d/m/Y'),**

**];**

    }

}

Buat sebuah controller lagi dengan nama **ProductController** yang berguna untuk mengelola tabel products dan model Product:

$ **php artisan make:controller API/ProductController**

Kemudian buka file **ProductController.php** tersebut dan tuliskan kode berikut:

<?php

namespace App\Http\Controllers\API;

use App\Http\Controllers\Controller;

use Illuminate\Http\Request;

use App\Http\Controllers\API\BaseController as BaseController;

use App\Http\Resources\ProductResource;

use App\Models\Product;

use Illuminate\Support\Facades\Validator;

class ProductController extends BaseController

{

    public function index()

    {

        $products = Product::all();

return $this->sendResponse(ProductResource::collection($products), 'Products retrieved successfully.');

    }

    public function create()

    {

    }

    public function store(Request $request)

    {

        $input = $request->all();

        $validator = Validator::make($input, [

            'name' => 'required',

            'detail' => 'required'

        ]);

        if ($validator->fails()) {

            return $this->sendError('Validation Error.', $validator->errors());

        }

        $product = Product::create($input);

        return $this->sendResponse(new ProductResource($product), 'Product created successfully.');

    }

    public function show($id)

    {

        $product = Product::find($id);

        if (is\_null($product)) {

            return $this->sendError('Product not found.');

        }

        return $this->sendResponse(new ProductResource($product), 'Product retrieved successfully.');

    }

    public function edit($id)

    {

        //

    }

    public function update(Request $request, Product $product)

    {

        $input = $request->all();

        $validator = Validator::make($input, [

            'name' => 'required',

            'price' => 'required',

            'detail' => 'required'

        ]);

        if ($validator->fails()) {

            return $this->sendError('Validation Error.', $validator->errors());

        }

        $product->name = $input['name'];

        $product->price = $input['price'];

        $product->detail = $input['detail'];

        $product->save();

        return $this->sendResponse(new ProductResource($product), 'Product updated successfully.');

    }

    public function destroy(Product $product)

    {

        $product->delete();

        return $this->sendResponse([], 'Product deleted successfully.');

    }

}

    public function store(Request $request) {

        $input = $request->all();

        $validator = Validator::make($input, [

            'name' => 'required',

            'detail' => 'required'

        ]);

        if ($validator->fails()) {

            return $this->sendError('Validation Error.', $validator->errors());

        }

        $product = Product::create($input);

        return $this->sendResponse(new ProductResource($product),

'Product created successfully.');

    }

    public function show($id) {

        $product = Product::find($id);

        if (is\_null($product)) {

            return $this->sendError('Product not found.');

        }

        return $this->sendResponse(new ProductResource($product),

'Product retrieved successfully.');

    }

    public function update(Request $request, Product $product) {

        $input = $request->all();

        $validator = Validator::make($input, [

            'name' => 'required',

            'price' => 'required',

            'detail' => 'required'

        ]);

        if ($validator->fails()) {

            return $this->sendError('Validation Error.', $validator->errors());

        }

        $product->name = $input['name'];

        $product->price = $input['price'];

        $product->detail = $input['detail'];

        $product->save();

        return $this->sendResponse(new ProductResource($product),

'Product updated successfully.');

    }

    public function destroy(Product $product) {

        $product->delete();

        return $this->sendResponse([], 'Product deleted successfully.');

    }

}

**Membuat Perutean untuk API**

Buka file **routes/api.php** dan tambahkan kode sebagai berikut:

<?php

use Illuminate\Http\Request;

use Illuminate\Support\Facades\Route;

use App\Http\Controllers\API\RegisterController;

use App\Http\Controllers\API\ProductController;

Route::post('register', [RegisterController::class, 'register']);

Route::post('login', [RegisterController::class, 'login']);

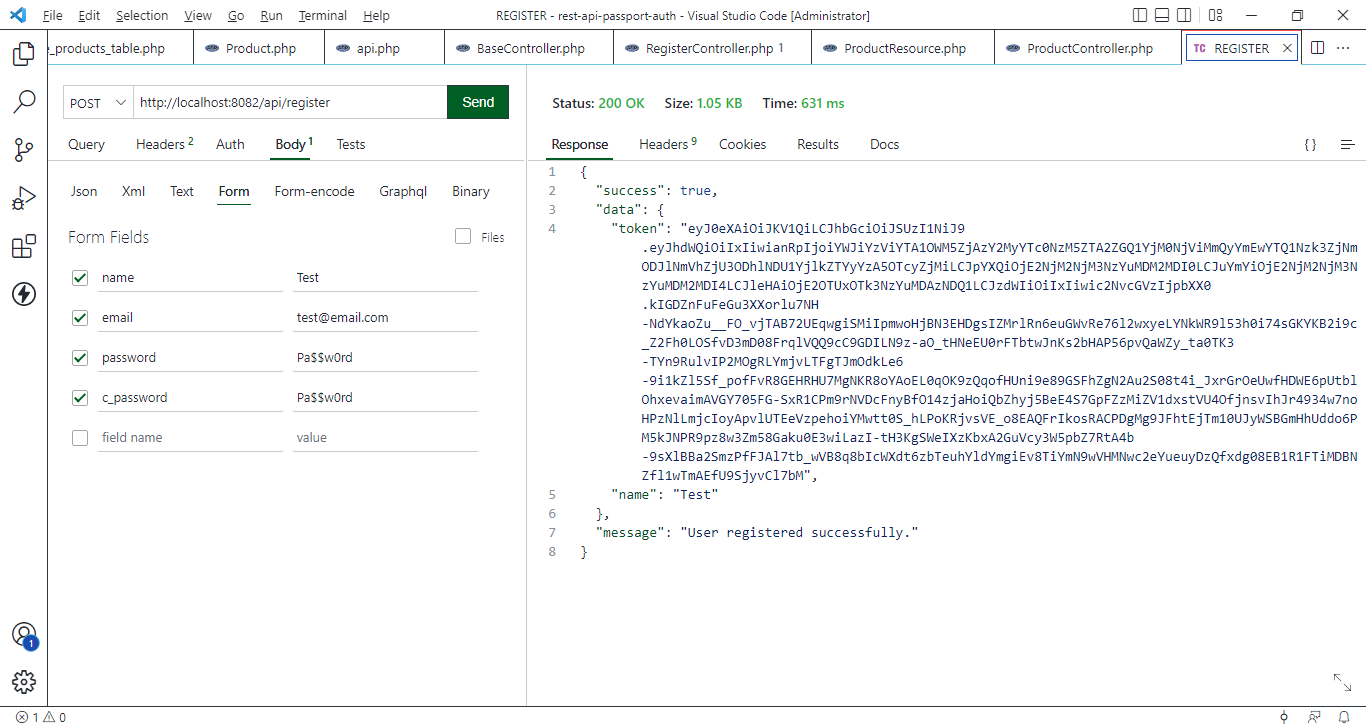
Route::middleware('auth:api')->group(function () {

    Route::resource('products', ProductController::class);

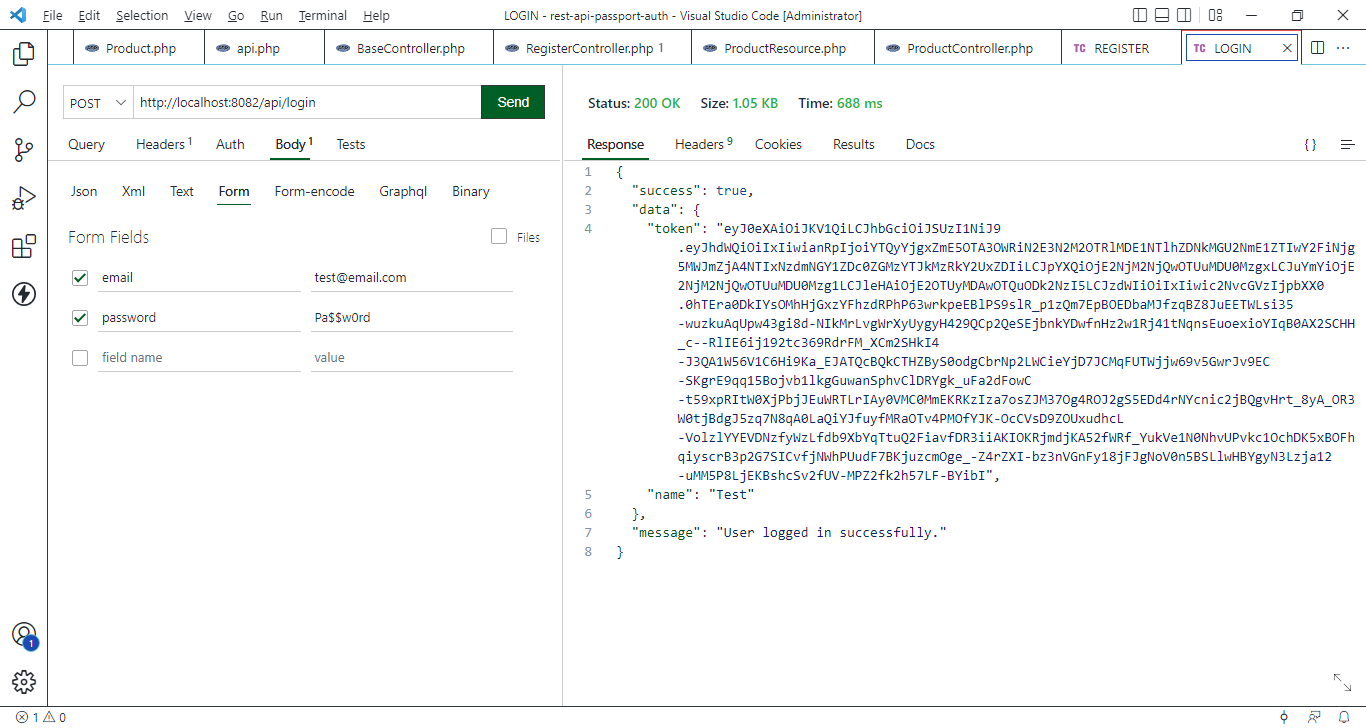
});

**Melakukan Uji Coba terhadap REST API**

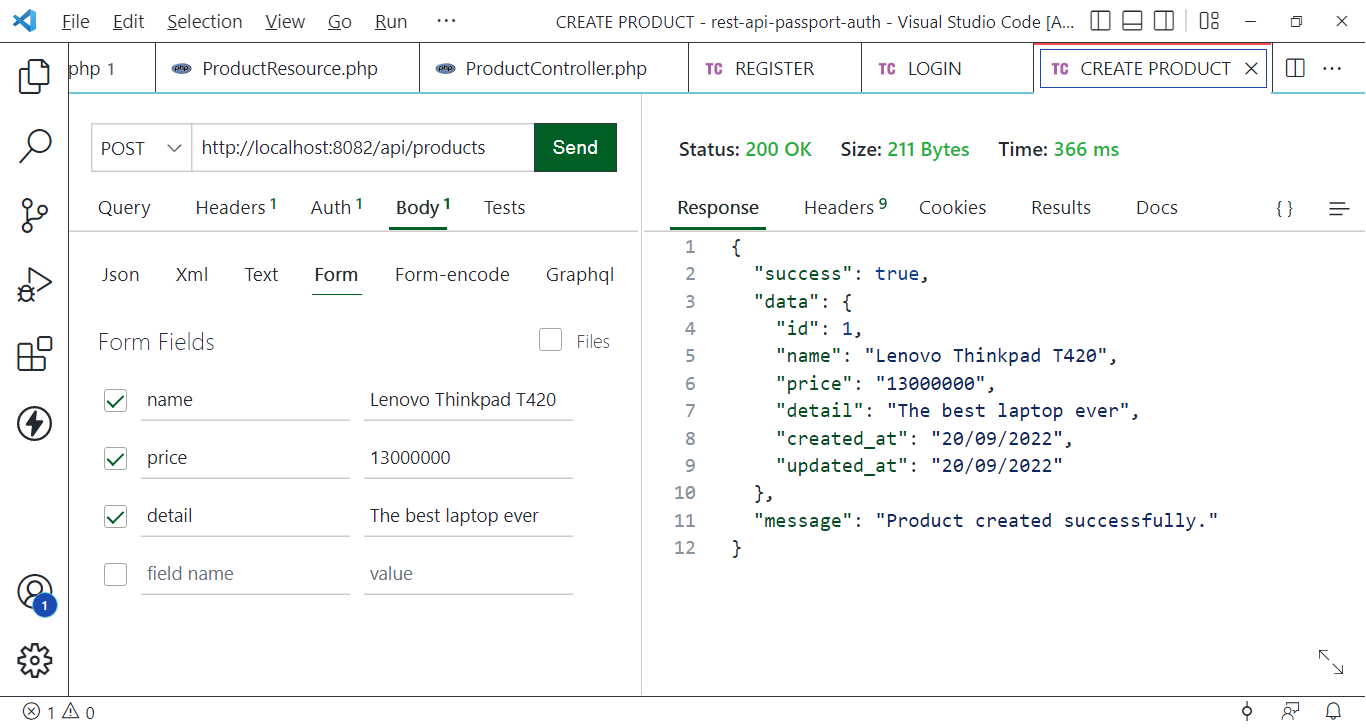
**Register**



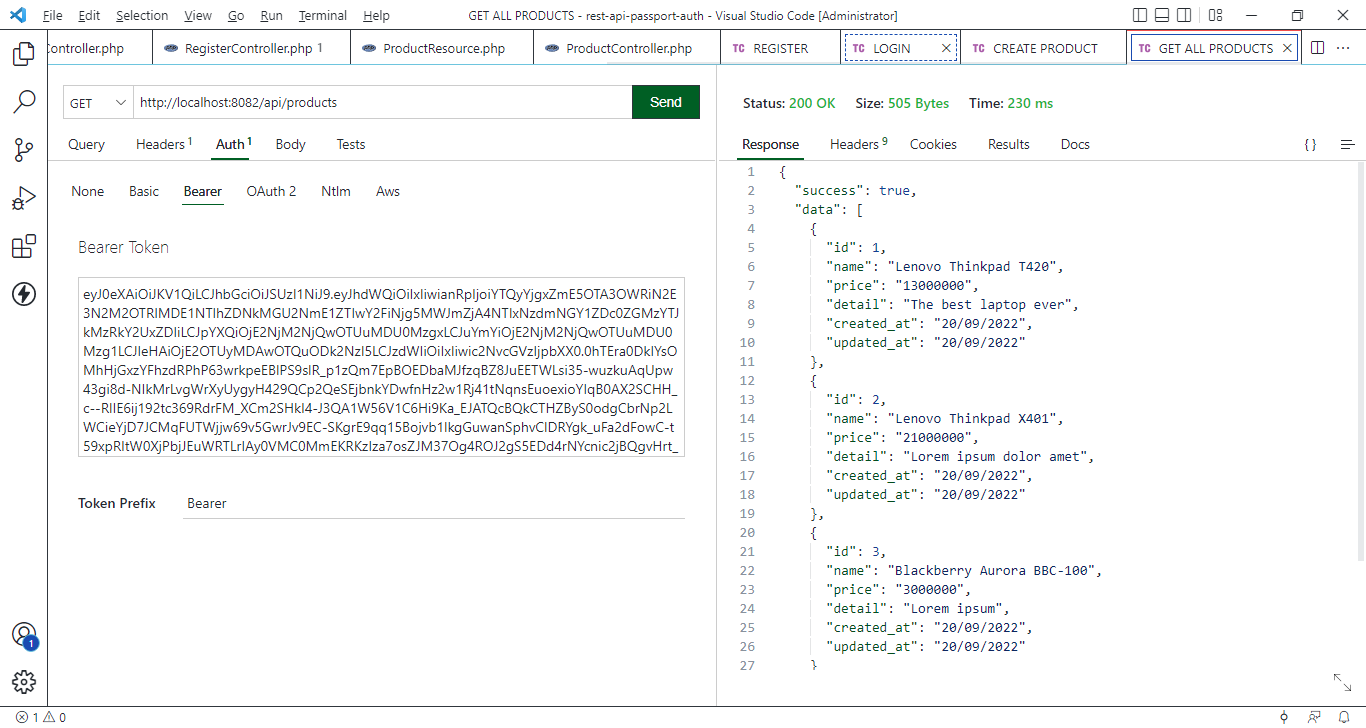
**Login**



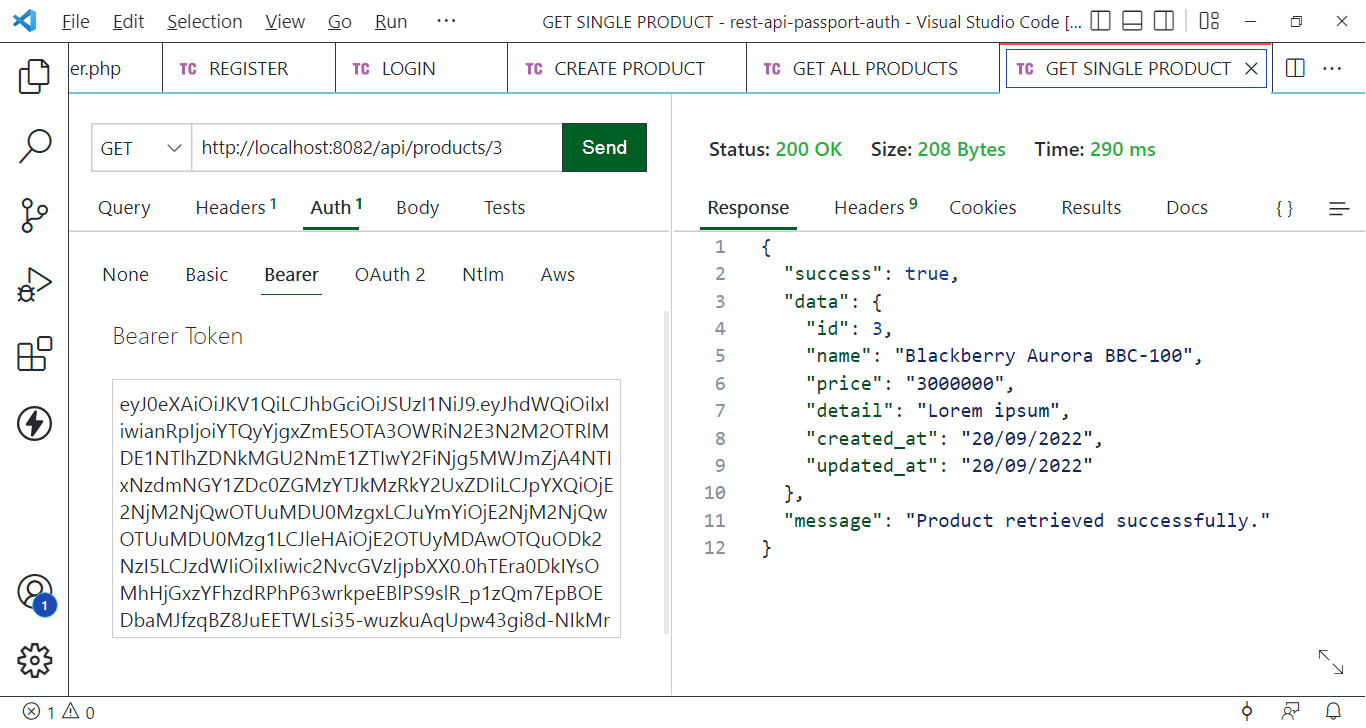
**Create Product**



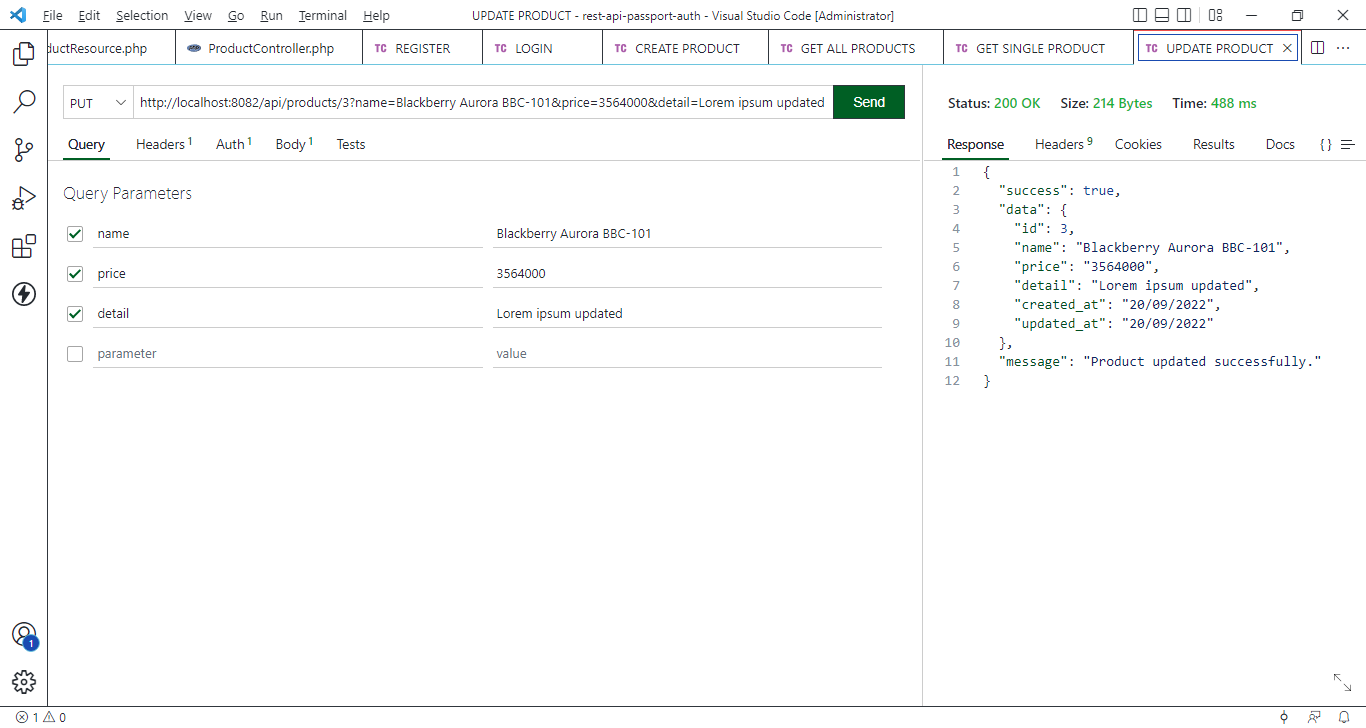
**Get All Products**



**Get Single Product**



**Update Product**



**Delete Product**

