



JWT-Auth dengan Lumen (CRUD+JWT)

Tabel User (Create migration)

- Ketik perintah berikut di command prompt

php artisan make:migration create_users_table

```
c:\xampp\htdocs\json\wisata>php artisan make:migration create_users_table
```

```
  INFO  Migration [C:\xampp\htdocs\json\wisata\database\migrations/2023_06_17_004400_create_users_table.php] created successfully.
```

Edit File Migration (1)

- Edit file: wisata\database\Migrations____.create_users_table.php

```
<?php
```

```
use Illuminate\Database\Migrations\Migration;
use Illuminate\Database\Schema\Blueprint;
use Illuminate\Support\Facades\Schema;
```

```
class CreateUsersTable extends Migration
{
    /**
     * Run the migrations.
     *
     * @return void
     */
}
```

Edit File Migration (2)

- Lanjutan...

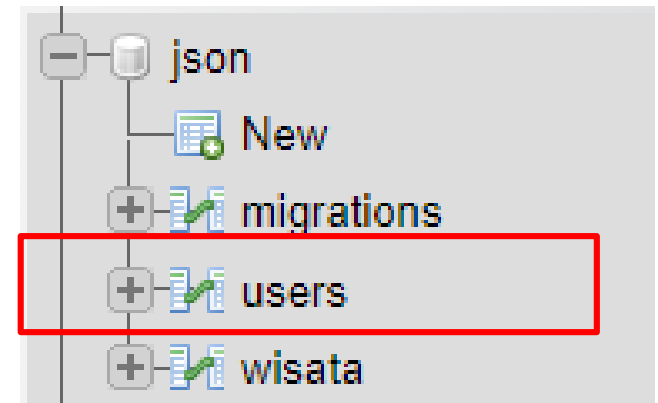
```
public function up()
{
    Schema::create('users', function (Blueprint $table) {
        $table->id();
        $table->string('name');
        $table->string('email')->unique();
        $table->timestamp('email_verified_at')->nullable();
        $table->string('password');
        $table->rememberToken();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

/**
 * Reverse the migrations.
 *
 * @return void
 */
public function down()
{
    Schema::dropIfExists('users');
}
}
```

Migrate tabel user ke Database

- Jalankan perintah berikut melalui command prompt

`php artisan migrate`



```
c:\xampp\htdocs\json\wisata>php artisan migrate
```

```
INFO Preparing database.
```

```
Creating migration table ..... 161ms DONE
```

```
INFO Running migrations.
```

```
2023_06_17_004400_create_users_table ..... 86ms DONE
```

Buat database seeder untuk user

- Ketik perintah berikut di command prompt

php artisan make:seeder UsersTableSeeder

```
c:\xampp\htdocs\json\wisata>php artisan make:seeder UsersTableSeeder
```

```
INFO Seeder [C:\xampp\htdocs\json\wisata\database\seeders/UsersTableSeeder.php] created successfully.
```

Edit File Seeder

- Edit file: wisata\database\seeders\UsersTableSeeder.php

```
<?php
```

```
namespace Database\Seeders;
```

```
use App\Models\User;
```

```
use Illuminate\Database\Seeder;
```

```
use Illuminate\Support\Facades\Hash;
```

```
class UsersTableSeeder extends Seeder  
{
```

Edit File Seeder

- Lanjutan...

```
/**
 * Run the database seeds.
 *
 * @return void
 */
public function run()
{
    $users = User::create([
        'name' => 'admin',
        'email' => 'admin@gmail.com',
        'password' => Hash::make('admin')
    ]);
}
```


Insert data ke tabel user menggunakan seeder

- Ketik perintah berikut di command prompt

php artisan db:seed --class=UsersTableSeeder

```
c:\xampp\htdocs\json\wisata>php artisan db:seed --class=UsersTableSeeder
```

```
INFO Seeding database.
```

Server: 127.0.0.1 » Database: json » Table: users									
Browse Structure SQL Search Insert Export Import Privileges Operations Tracking More									
id	name	email	email_verified_at	password	remember_token	created_at	updated_at		
1	admin	admin@gmail.com	NULL	\$2y\$10\$jDOYliAyJ1iTAWzaLJ/dgOSKQoANGN8fbcITpPe1J5v...	NULL	2023-06-18 00:09:05	2023-06-18 00:09:05		

Buat file Config Auth (1)

- Buat folder baru “config” di folder project “wisata\config”
- Buat file baru: wisata\config\auth.php
- Isi dengan kode berikut:

```
<?php
return [
    'defaults' => [
        'guard' => 'api',
        'passwords' => 'users',
    ],
];
```

100

- Lanjutan...

```
'guards' => [
  'api' => [
    'driver' => 'jwt',
    'provider' => 'users',
  ],
],

'providers' => [
  'users' => [
    'driver' => 'eloquent',
    'model' => \App\Models\User::class
  ]
]

];
```

Install jwt-auth via composer(1)

- Ketik perintah berikut di command prompt pada folder project wisata

```
php ..\composer.phar require tymon/jwt-auth:*
```

```
c:\xampp\htdocs\json\wisata>php ..\composer.phar require tymon/jwt-auth:*  
Info from https://repo.packagist.org: #StandWithUkraine
```

Install jwt-auth via composer (2)

```
c:\xampp\htdocs\json\wisata>php ..\composer.phar require tymon/jwt-auth:*
Info from https://repo.packagist.org: #StandWithUkraine
./composer.json has been updated
Running composer update tymon/jwt-auth
Loading composer repositories with package information
Updating dependencies
Lock file operations: 5 installs, 0 updates, 0 removals
- Locking lcobucci/clock (2.2.0)
- Locking lcobucci/jwt (4.0.4)
- Locking psr/clock (1.0.0)
- Locking stella-maris/clock (0.1.7)
- Locking tymon/jwt-auth (2.0.0)
Writing lock file
Installing dependencies from lock file (including require-dev)
Package operations: 5 installs, 0 updates, 0 removals
- Downloading psr/clock (1.0.0)
- Downloading stella-maris/clock (0.1.7)
- Downloading lcobucci/clock (2.2.0)
- Downloading lcobucci/jwt (4.0.4)
- Downloading tymon/jwt-auth (2.0.0)
- Installing psr/clock (1.0.0): Extracting archive
- Installing stella-maris/clock (0.1.7): Extracting archive
- Installing lcobucci/clock (2.2.0): Extracting archive
- Installing lcobucci/jwt (4.0.4): Extracting archive
- Installing tymon/jwt-auth (2.0.0): Extracting archive
Generating optimized autoload files
67 packages you are using are looking for funding.
Use the `composer fund` command to find out more!
No security vulnerability advisories found
```

Edit konfigurasi Bootstrap

- Edit file: bootstrap/app.php
- Tambahkan baris konfigurasi berikut:

```
62 $app->configure('app');  
63 $app->configure('auth');
```

- Hilangkan komen pada item berikut:

```
80 $app->routeMiddleware([  
81     | 'auth' => App\Http\Middleware\Authenticate::class,  
82 ]);
```

```
95 // $app->register(App\Providers\AppServiceProvider::class);  
96 $app->register(App\Providers\AuthServiceProvider::class);
```

- Tambahkan baris berikut

```
95 // $app->register(App\Providers\AppServiceProvider::class);  
96 $app->register(App\Providers\AuthServiceProvider::class);  
97 $app->register(Tymon\JWTAuth\Providers\LumenServiceProvider::class);
```

Generate secret key

- Ketik perintah berikut di command prompt pada folder project wisata

php artisan jwt:secret

```
c:\xampp\htdocs\json\wisata>php artisan jwt:secret  
jwt-auth secret [w8ftrf9KsvTNe14CrwTB7xJgoaVUz015zTtLcZU18rxHehBU7UeqOUKJmrUoXZBf] set successfully.
```

- Perintah diatas akan mengupdate file .env dengan tambahan

JWT_SECRET=secret_jwt_string_key

- Ini adalah kunci yang digunakan untuk membuat token

Buat controller Auth (1)

- Buat file baru: wisata\app\Http\Controllers\AuthController.php
- Isi dengan kode berikut:

```
<?php
```

```
namespace App\Http\Controllers;
```

```
use Illuminate\Http\Request;
```

```
use Illuminate\Support\Facades\Auth;
```

```
use App\Models\User;
```

```
class AuthController extends Controller  
{
```


Buat controller Auth (2)

- Lanjutan...

```
public function __construct()
{
    $this->middleware('auth:api', ['except' => ['login', 'refresh', 'logout']]);
}
/**
 * Get a JWT via given credentials.
 *
 * @param Request $request
 * @return Response
 */
public function login(Request $request)
{
    $this->validate($request, [
        'email' => 'required|string',
        'password' => 'required|string',
    ]);

    $credentials = $request->only(['email', 'password']);

    if (! $token = Auth::attempt($credentials)) {
        return response()->json(['message' => 'Unauthorized'], 401);
    }

    return $this->respondWithToken($token);
}
```

Buat controller Auth (3)

- Lanjutan...

```
/**
 * Get the authenticated User.
 *
 * @return \Illuminate\Http\JsonResponse
 */
public function me()
{
    return response()->json(auth()->user());
}

/**
 * Log the user out (Invalidate the token).
 *
 * @return \Illuminate\Http\JsonResponse
 */
public function logout()
{
    auth()->logout();

    return response()->json(['message' => 'Successfully logged out']);
}
```

Buat controller Auth (4)

- Lanjutan...

```
/**
 * Refresh a token.
 *
 * @return \Illuminate\Http\JsonResponse
 */
public function refresh()
{
    return $this->respondWithToken(auth()->refresh());
}

/**
 * Get the token array structure.
 *
 * @param string $token
 *
 * @return \Illuminate\Http\JsonResponse
 */
protected function respondWithToken($token)
{
    return response()->json([
        'access_token' => $token,
        'token_type' => 'bearer',
        'user' => auth()->user(),
        'expires_in' => auth()->factory()->getTTL() * 60 * 24
    ]);
}
```

Ganti skrip pada Model User

- Edit `file:wisata\app\Models\User.php`
- Ganti dengan baris berikut:

```
<?php
```

```
namespace App\Models;
```

```
use Illuminate\Auth\Authenticatable;
```

```
use Laravel\Lumen\Auth\Authorizable;
```

```
use Illuminate\Database\Eloquent\Model;
```

```
use Illuminate\Contracts\Auth\Authenticatable as AuthenticatableContract;
```

```
use Illuminate\Contracts\Auth\Access\Authorizable as AuthorizableContract;
```

```
//this is new
```

```
use Tymon\JWTAuth\Contracts\JWTSubject;
```

```
class User extends Model implements AuthenticatableContract, AuthorizableContract,  
JWTSubject
```

```
{
```

Ganti skrip pada Model User

- Lanjutan...

```
use Authenticatable, Authorizable;
```

```
/**
```

```
 * Get the identifier that will be stored in the subject claim of the JWT.
```

```
 *
```

```
 * @return mixed
```

```
 */
```

```
public function getJWTIdentifier()
```

```
{
```

```
    return $this->getKey();
```

```
}
```

```
/**
```

```
 * Return a key value array, containing any custom claims to be added to the JWT.
```

```
 *
```

```
 * @return array
```

```
 */
```

```
public function getJWTCustomClaims()
```

```
{
```

```
    return [];
```

```
}
```

```
}
```

Konfigurasi Routing

- Edit file: routes/web.php
- Tambahkan baris konfigurasi berikut:

```
$router->group(['prefix' => 'api'], function () use ($router) {  
    // api-crud  
    $router->get('wisata', ['uses' => 'WisataController@showAll']);  
    $router->get('wisata/{id}', ['uses' => 'WisataController@showOne']);  
    $router->post('wisata', ['uses' => 'WisataController@create']);  
    $router->delete('wisata/{id}', ['uses' => 'WisataController@delete']);  
    $router->put('wisata/{id}', ['uses' => 'WisataController@update']);  
  
    // jwt-auth  
    $router->post('login', ['uses' => 'AuthController@login']);  
    $router->post('logout', ['uses' => 'AuthController@logout']);  
    $router->post('refresh', ['uses' => 'AuthController@refresh']);  
    $router->post('user-profile', ['uses' => 'AuthController@me']);  
});
```

Tambah Autentikasi pada CRUD API Wisata

- Edit file: wisata\app\Http\Controllers\WisataController.php
- Tambahkan baris berikut: pada class WisataController

```
public function __construct()  
{  
    $this->middleware('auth:api');  
}
```

```
8  class WisataController extends Controller  
9  {  
10     public function __construct()  
11     {  
12         $this->middleware('auth:api');  
13     }
```

Endpoint Wisata CRUD+JWT Token

- JWT
 - POST localhost:8000/api/login
 - POST localhost:8000/api/user-profile
 - POST localhost:8000/api/refresh
 - POST localhost:8000/api/logout
- CRUD
 - GET localhost:8000/api/wisata
 - GET localhost:8000/api/wisata/{id}
 - POST localhost:8000/api/wisata
 - PUT localhost:8000/api/wisata/{id}
 - DELETE localhost:8000/api/wisata/{id}

Ujicoba Endpoint

- Jalankan server Database MySQL/MariaDB
- Jalankan server web dengan perintah berikut:

`php -S localhost:8000 -t public`

```
c:\xampp\htdocs\json\wisata>php -S localhost:8000 -t public  
[Mon Jun 19 10:16:10 2023] PHP 8.0.28 Development Server (http://localhost:8000) started
```

Request POST

localhost:8000/api/login

POST

localhost:8000/api/login

Send

Params

Auth

Headers (8)

Body

Pre-req.

Tests

Settings

Cookies

form-data

	KEY	VALUE	DESCRIPTION	...	Bulk Edit
<input checked="" type="checkbox"/>	email	admin@gmail.com			
<input checked="" type="checkbox"/>	password	admin			

Body

Cookies

Headers (7)

Test Results

200 OK

3.06 s

870 B

Save Response

Pretty

Raw

Preview

Visualize

JSON

```
1  {
2    "access_token": "eyJ0eXAiOiJKV1QiLCJhbGciOiJIUzI1NiJ9.eyJpc3MiOiJodHRwOlwvXC9sb2Nhbnhvc3Q6ODAwMFwvYXBpXC9sb2dpbiIsIm1hdCI6MTY4NzE0MzQwOSwiZXhwIjoxNjg3MTQ3MDA5LCJuYmYiOiJlE2ODcxNDM0MDksImp0aSI6ImQ2cHhhVUEzVVBCTndDR3ciLCJzdWIiOiJEsInBydiI6IjIzYmQ1Yzg5NDlmNjAwYWYWRiMzllNzAxYzQwMDg3MmRiN2E1OTc2ZjciLCJpc2kiOiJ1b250aW50IiwiaWF0IjoxNjg3MTQ3MDA5fQ.bicCm5zkr8ib3dA7UNEi3hskYBKm96ZCB4ncLvlGZ5A",
3    "token_type": "bearer",
```

Request POST

localhost:8000/api/login

- Request Body (form-data)
 - email:admin@gmail.com
 - password:admin

- Response

```
{
  "access_token":
"eyJ0eXAiOiJKV1QiLCJhbGciOiJIUzI1NiJ9.eyJpc3MiOiJodHRwOlwvXC9sb2NhbgGhvc3Q6ODAwMFwvYXBpXC9sb2dpbiIsImhhdCI6MTY4NzE0MzQwOSwiZXhwIjoxNjg3MTQ3MDA5LCJuYmYiOiJE2ODcxNDM0MDksImp0aSI6ImQ2cHhhVUEzVVBCTndDR3ciLCJzdWIiOiJEsInBydiI6IjIzYmQ1Yzg5NDlmNjAwYWRIb2NzAxYzQwMDg3MmRiN2E1OTc2ZjcifQ.bicCm5zkr8ib3dA7UNeI3hskYBKm96ZCB4ncLvlGZ5A",
  "token_type": "bearer",
  "user": {
    "id": 1,
    "name": "admin",
    "email": "admin@gmail.com",
    "email_verified_at": null,
    "password": "$2y$10$2K6WDLQZ.E8p0zkZs0soQOkZNE5JwJwnkJkB5LUF2C/OvBkvChHha",
    "remember_token": null,
    "created_at": "2023-06-14T02:28:00.000000Z",
    "updated_at": "2023-06-14T02:28:00.000000Z"
  },
  "expires_in": 86400
}
```

Request POST

localhost:8000/api/user-profile

POST

localhost:8000/api/user-profile

Send

Params

Auth

Headers (8)

Body

Pre-req.

Tests

Settings

Cookies

Type

Bearer Token

The authorization header will be automatically generated when you send the request. [Learn more about authorization](#)

Token

eyJ0eXAiOiJKV1QiLCJhbGciOiJIUzI1NiJ9.eyJpc3MiOiJodHRwOlwvXC9sb2Nhbmhvc3Q6ODAwMFwvYXBpXC9sb2dpbilsImIhdCI6MTY4NzE0MzQwOSwiZXhwIjoxNjg3MTQ3MDA5LCJuYmYiOiJlY2ODcxNDM0MDksImpp0aSI6ImQ2cHhhVUEzVVBCNdDR3ciLCJzdWliOiJEsInBydiI6IjIzYmQ1Yzg5NDImNjAwYWRiMzIiInZAxYzQwMDg3MmRiN2E1OTc2ZjciQ.bicCm5zkr8ib3dA7UNel3hskYBKm96ZCB4ncLvIGZ5A

Body

Cookies

Headers (7)

Test Results

200 OK 1679 ms 483 B

Save Response

Pretty

Raw

Preview

Visualize

JSON

```
1 {
2   "id": 1,
3   "name": "admin",
4   "email": "admin@gmail.com",
```

Request POST

localhost:8000/api/user-profile

- Auth
 - Bearer Token:
eyJ0eXAiOiJKV1QiLCJhbGciOiJIUzI1NiJ9.eyJpc3MiOiJodHRwOlwvXC9sb2Nhbmhvc3Q6ODAwMFwvYXBpXC9sb2dpbilslmlhdCI6MTY4NzE0MzQwOSwiZXhwljoxNjg3MTQ3MDA5LCJuYmYiOiJl2ODcxNDM0MDksImp0aSI6ImQ2cHhhVUEzVVBCTndDR3ciLCJzdWIiOiJEsInBydIl6IjIzYmQ1Yzg5NDImNjAwYWRRiMzIINzAxYzQwMDg3MmRiN2E1OTc2ZjcifQ.bicCm5zkr8ib3dA7UNel3hskYBKm96ZCB4ncLvIGZ5A

- Response

```
{
  "id": 1,
  "name": "admin",
  "email": "admin@gmail.com",
  "email_verified_at": null,
  "password": "$2y$10$2K6WDLQZ.E8p0zkZs0soQOkZNE5JwJwnkJkB5LUF2C/OvBkvChHha",
  "remember_token": null,
  "created_at": "2023-06-14T02:28:00.000000Z",
  "updated_at": "2023-06-14T02:28:00.000000Z"
}
```

Request POST

localhost:8000/api/refresh

[illegible]

Request POST

localhost:8000/api/refresh

- Auth

- Bearer Token:

eyJ0eXAiOiJKV1QiLCJhbGciOiJIUzI1NiJ9.eyJpc3MiOiJodHRwOlwvXC9sb2Nhbmhvc3Q6ODAwMFwvYXBpXC9sb2dpbilsImhhdCI6MTY4NzE0MzQwOSwiZXhwljoxNjg3MTQ3MDA5LCJuYmYiOiJl2ODcxNDM0MDksImp0aSI6ImQ2cHhhVUEzVVBCTndDR3ciLCJzdWIiOiJEsInBydIl6IjIzYmQ1Yzg5NDImNjAwYWWRiMzIINzAxYzQwMDg3MmRiN2E1OTc2ZjcifQ.bicCm5zkr8ib3dA7UNel3hskYBKm96ZCB4ncLvIGZ5A

- Response

```
{
  "access_token":
"eyJ0eXAiOiJKV1QiLCJhbGciOiJIUzI1NiJ9.eyJpc3MiOiJodHRwOlwvXC9sb2Nhbmhvc3Q6ODAwMFwvYXBpXC9yZWZyZXNoIiwiaWF0IjoxNjg3MTQ1MDQ4LCJleHAiOiJl2ODcxNDg2NTcsIm5iZiI6MTY4NzE0NTA1NywianRpIjoizWllZmNHSkZRNjhzR2VociIsInN1YiI6MSwicHJ2IjoimjNiZDVjODk0OWY2MDBhZGIzOWU3MDFjNDAwODcyZGI3YTU5NzZmNyJ9.sKCfoy5oQtczflp892ynGi_TlEYS0lpbnzmfQAJZLGg",
  "token_type": "bearer",
  "user": null,
  "expires_in": 86400
}
```

localhost:8000/api/logout

```
1  {}
2  "message": "Successfully logged out"
3  {}
```


Request POST

localhost:8000/api/logout

- Auth
 - Bearer Token:
eyJ0eXAiOiJKV1QiLCJhbGciOiJIUzI1NiJ9.eyJpc3MiOiJodHRwOlwvXC9sb2Nhbmhvc3Q6ODAwMFwvYXBpXC9sb2dpbilslmlhdCI6MTY4NzE0MzQwOSwiZXhwljoxNjg3MTQ3MDA5LCJuYmYiOiJlZDcxdm0mdksImp0aSI6ImQ2cHhhVUEzVVBCTndDR3ciLCJzdWIiOiJEsInBydiI6IjYmQ1Yzg5NDImNjAwYWWRiMzIINzAxYzQwMDg3MmRiN2E1OTc2ZjcifQ.bicCm5zkr8ib3dA7UNel3hskYBKm96ZCB4ncLvIGZ5A

- Response

```
{  
  "message": "Successfully logged out"  
}
```

Request GET

localhost:8000/api/wisata

(tanpa Auth)

GET

http://localhost:8000/api/wisata/

Send

Params

Auth

Headers (6)

Body

Pre-req.

Tests

Settings

Cookies

Type

No Auth

This request does not use any authorization. Learn more about [authorization](#)

Body

Cookies

Headers (7)

Test Results

401 Unauthorized

74 ms

257 B

Save Response

Pretty

Raw


Preview

Visualize

HTML

1

Unauthorized.



Request GET localhost:8000/api/wisata (tanpa Auth)

- Auth
 - No Auth
- Response

Unauthorized.

Request GET

localhost:8000/api/wisata

(dengan Auth - Bearer Token)

The screenshot shows a REST client interface with the following details:

- Method:** GET
- URL:** http://localhost:8000/api/wisata/
- Auth:** Bearer Token (Token: eyJ0eXAIbG9ja3V1Q1RlcjhbGciOiJIUzI1NiJ...
- Response:** 200 OK, 393 ms, 1.05 KB
- Body:** Pretty view showing a JSON array of two objects.

```
1 [
2   {
3     "id_wisata": 1,
4     "kota": "SEMARANG",
5     "landmark": "LAWANG SEWU",
6     "tarif": "200000000"
7   },
8   {
9     "id_wisata": 2,
```

Request GET

localhost:8000/api/wisata

(dengan Auth - Bearer Token)

- Auth
 - Bearer Token:
eyJ0eXAiOiJKV1QiLCJhbGciOiJIUzI1NiJ9.eyJpc3MiOiJodHRwOlwvXC9sb2NhbnGhvc3Q6ODAwMFwvYXBpXC9sb2dpbilslmlhdCI6MTY4NzE0NTU0MCwiZXhwljoxNjg3MTQ5MTQwLCJuYmYiOiJlY2ODcxNDU1NDAsIm

- Response

```
[
  {
    "id_wisata": 1,
    "kota": "SEMARANG",
    "landmark": "LAWANG SEWU",
    "tarif": "20000000"
  },
  {
    "id_wisata": 2,
    "kota": "YOGYAKARTA",
    "landmark": "PRAMBANAN",
    "tarif": "35000"
  },
]
```