



Jurusan Teknologi Informasi Politeknik Negeri Malang  
**JOBSHEET 10 : RESTFUL API**  
Mata Kuliah Pemrograman Web Lanjut

Maret 2025

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<b>Nama</b>	:	Muhamad Syaifullah
<b>Nim</b>	:	2341720013
<b>Kelas</b>	:	TI-2A

**LEMBAR JAWABAN JOBSHEET**

Praktikum 1 – Membuat RESTful API Register

Install JWT

```
composer require tymon/jwt-auth:2.1.1
```

Publish konfigurasi

```
php artisan vendor:publish --provider="Tymon\JWTAuth\Providers\LaravelServiceProvider"
```

Buat key untuk JWT

```
php artisan jwt:secret
```

```
auth.php

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



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Penambahkan kode di UserModul

UserModel.php

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

class UserModel extends Authenticatable implements JWTSubject
{
    no usages
    public function getJWTIdentifier()
    {
        return $this->getKey();
    }

    no usages
    public function getJWTCustomClaims()
    {
        return [];
    }
}
```

Buat controller untuk Api

```
php artisan make:controller Api/RegisterController
```



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RegisterController.php

```
<?php

namespace App\Http\Controllers\Api;

use App\Http\Controllers\Controller;
use App\Models\UserModel;
use Illuminate\Http\Request;
use Illuminate\Support\Facades\Validator;

1 usage
class RegisterController extends Controller
{
    no usages
    public function __invoke(Request $request)
    {
        $validator = Validator::make($request->all(), [
            'username' => 'required',
            'nama' => 'required',
            'password' => 'required|min:5|confirmed',
            'level_id' => 'required'
        ]);
        if ($validator->fails()) {
            return response()->json($validator->errors(), status: 422);
        }
        $user = UserModel::create([
            'username' => $request->username,
            'nama' => $request->nama,
            'password' => bcrypt($request->password),
            'level_id' => $request->level_id
        ]);
        if ($user) {
            return response()->json([
                'success' => true,
                'user' => $user,
            ], status: 201);
        }
        return response()->json([
            'success' => false,
        ], status: 409);
    }
}
```



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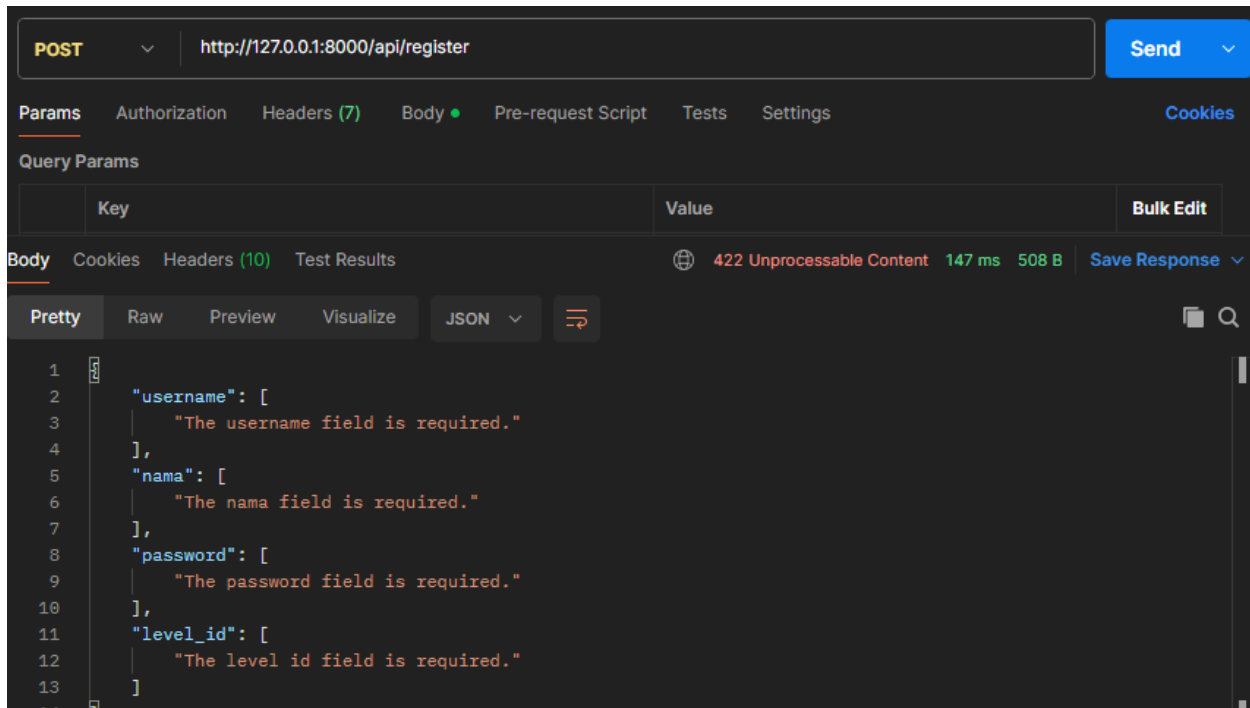
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Tambahkan kode untuk api resister

```
api.php
Route::post('uri: '/register', action: \App\Http\Controllers\Api\RegisterController::class)->name(name: 'register');
```

Jalankan Laravel dan buka dengan postman



Tambahkan body dan pesan akan sukses



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POST http://127.0.0.1:8000/api/register Send

Params Authorization Headers (8) Body Pre-request Script Tests Settings Cookies

none form-data x-www-form-urlencoded raw binary

Key	Value	...	Bulk Edit
<input checked="" type="checkbox"/> username	penggunasatu.		
<input checked="" type="checkbox"/> nama	pengguna 1		
<input checked="" type="checkbox"/> password	123456		
<input checked="" type="checkbox"/> password_confirmation	123456		
<input checked="" type="checkbox"/> level_id	2		

Body Cookies Headers (10) Test Results 201 Created 358 ms 498 B Save Response

Pretty Raw Preview Visualize JSON

```
1  {
2    "success": true,
3    "user": {
4      "username": "penggunasatu.",
5      "nama": "pengguna 1",
6      "level_id": "2",
7      "updated_at": "2025-04-21T15:58:43.000000Z",
8      "created_at": "2025-04-21T15:58:43.000000Z",
9      "user_id": 9
10   }
11 }
```



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Praktikum 2 – Membuat RESTful API Login

Buat controller untuk api controller

```
php artisan make:controller Api/LoginController
```

Isi dengan



LoginController.php

```
<?php

namespace App\Http\Controllers\Api;

use App\Http\Controllers\Controller;
use Illuminate\Http\Request;
use Illuminate\Support\Facades\Validator;

1 usage
class LoginController extends Controller
{
    no usages
    public function __invoke(Request $request)
    {
        $validator = Validator::make($request->all(), [
            'username' => 'required',
            'password' => 'required',
        ]);
        if ($validator->fails()) {
            return response()->json($validator->errors(), status: 422);
        }
        $credentials = $request->only( keys: 'username', 'password');
        if (!$token = auth()->guard( name: 'api')->attempt($credentials)) {
            return response()->json([
                'success' => false,
                'message' => 'Username or password is incorrect',
            ], status: 401);
        }
        return response()->json([
            'success' => true,
            'token' => $token,
            'user' => auth()->guard( name: 'api')->user(),
        ], status: 200);
    }
}
```



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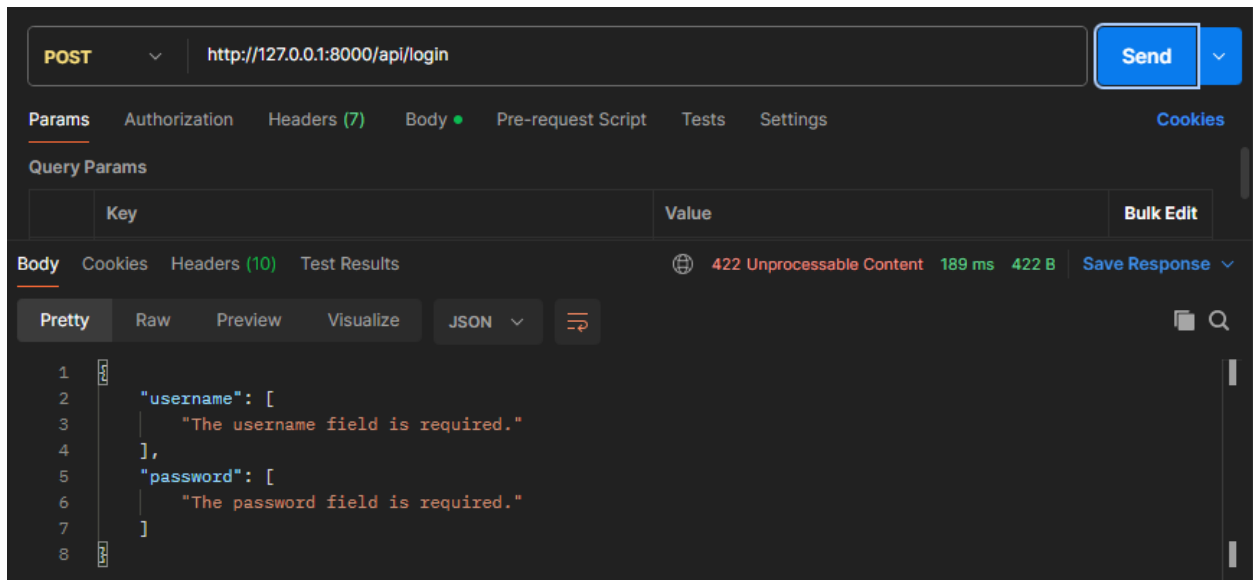
---

Tambahkan route untuk api login

```
api.php
Route::post(uri: '/login', action: \App\Http\Controllers\Api\LoginController::class)->name(name: 'login');
```

Uji coba tan

pa body







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Masukan body untuk login

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

- Method:** POST
- URL:** http://127.0.0.1:8000/api/login
- Body Type:** form-data
- Body Data:**

Key	Value
username	penggunasatu
password	123456
- Response Status:** 200 OK, 473 ms, 817 B
- Response Body (JSON):**

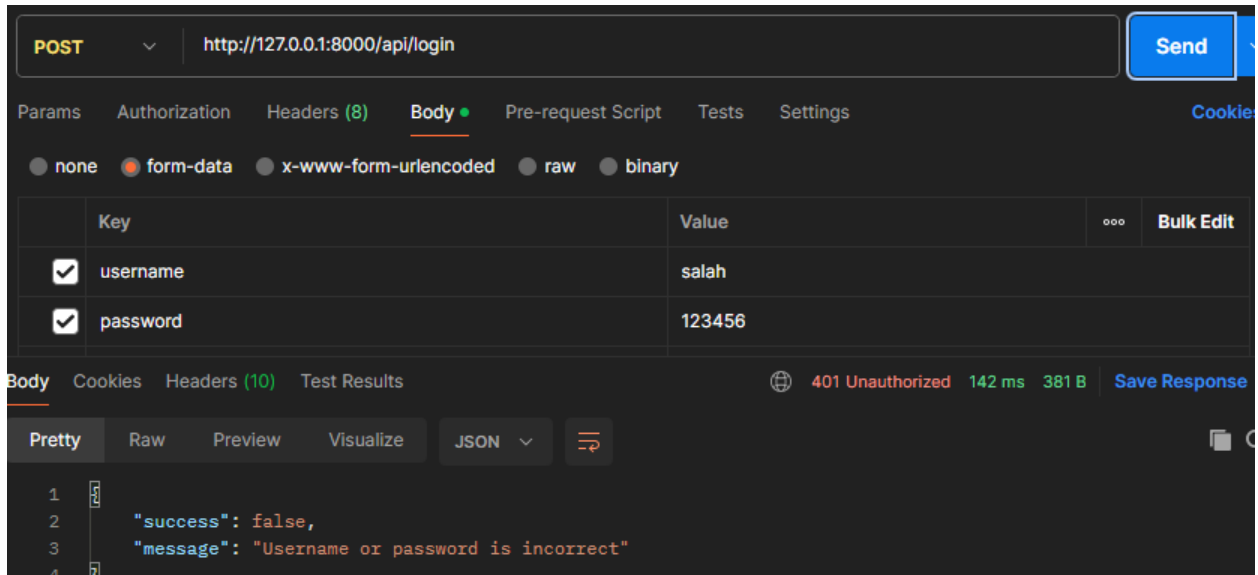
```
{  "success": true,  "token": "eyJ0eXAiOiJKV1QiLCJhbGciOiJIUzI1NiJ9.eyJpc3MiOiJodHRwOi8vMTI3LjAuMC4xOjgwMDAvYXBpL2xvZ2luIiwiaWF0IjoxNzQ1MjUyNDcxLCJleHAiOiE3NDUyNTYwNzEsIm5iZiI6MTc0NTI1MjQ3MSwianRpIjoiUnZ0YkM4M3Ezc3AwemJYQyIsInN1YiI6IjciLCJwcnYiOiI0MWRmODgzNGYxYjk4ZjcwZWZhbnJhYVYkZWY0MjM0MDA2OTBjIn0.WDn0uzU8HWx-DohkkJXerxQdVdqJCtWR8KWL0Lug6-0",  "user": {    "user_id": 7,    "level_id": 2,    "username": "penggunasatu",    "nama": "pengguna 1",    "created_at": "2025-04-21T15:44:55.000000Z",    "updated_at": "2025-04-21T15:44:55.000000Z"  }}
```



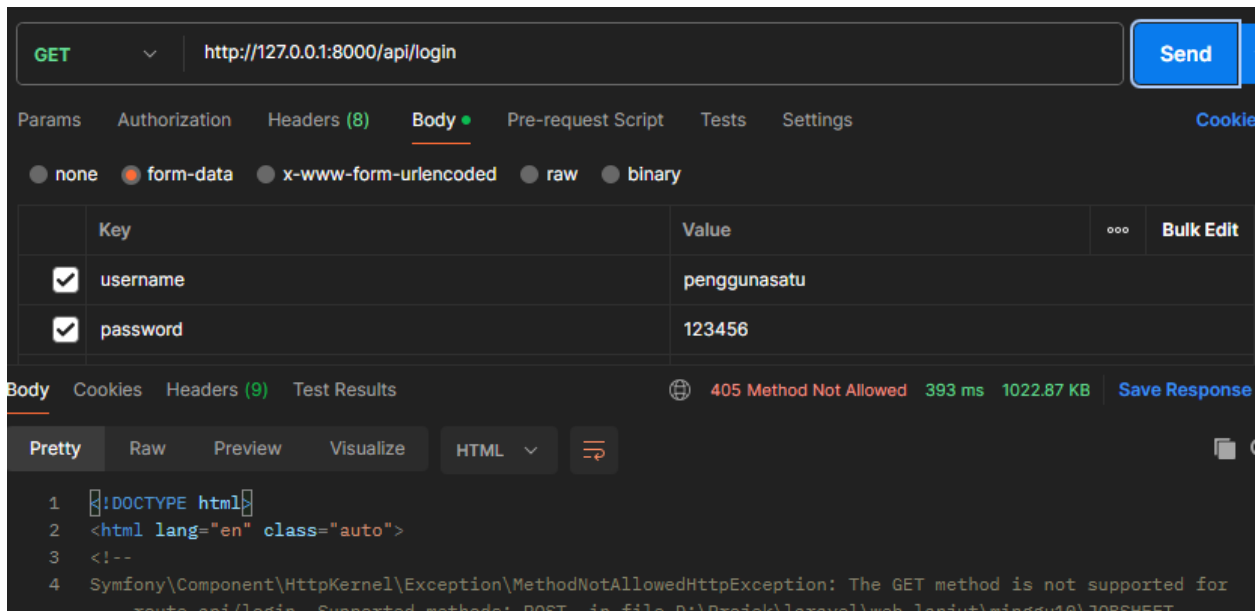
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Uji coba salah



Input benar dengan method get terjadi masalah method di diperbolehkan





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Praktikum 3 – Membuat RESTful API Logout

Menambahkan kode di .env

```
.env  
  
JWT_SHOW_BLACKLIST_EXCEPTION=true
```

Buat controller untuk api logout

```
php artisan make:controller Api/LogoutController
```



LogoutController.php

```
<?php

namespace App\Http\Controllers\Api;

use App\Http\Controllers\Controller;
use Illuminate\Http\Request;
use Tymon\JWTAuth\Facades\JWTAuth;

1 usage
class LogoutController extends Controller
{
    no usages
    public function __invoke(Request $request)
    {
        $remoteToken = JWTAuth::invalidate(JWTAuth::getToken());

        if ($remoteToken) {
            return response()->json([
                'success' => true,
                'message' => 'Logout successful',
            ]);
        }
    }
}
```



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Tambahkan route untuk api logout

```
api.php
Route::post('uri: '/logout', action: \App\Http\Controllers\Api\LogoutController::class)->name('name: 'logout');
```

Salin token dari output login tambahkan ke token logout

POST http://127.0.0.1:8000/api/logout Send

Params Authorization Headers (9) Body Pre-request Script Tests Settings Cookies

Type Bearer... Token eyJ0eXAiOiJKV1QiLCJhbGciOiJIUzI1NiJ9.eyJ...

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

Store your secrets with end-to-end encryption locally using Vault. [Store in Vault](#)

Body Cookies Headers (10) Test Results 200 OK 133 ms 354 B Save Response

Pretty Raw Preview Visualize JSON

```
1 {
2   "success": true,
3   "message": "Logout successful"
4 }
```



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Praktikum 4 – Implementasi CRUD dalam RESTful API

Membuat controller untuk api level

```
. \Proyek\caravel\web_lanjut\minggo10\JOBSHEET 10\
php artisan make:controller Api/LevelController
```



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LevelController.php

```
<?php

namespace App\Http\Controllers\Api;

use App\Http\Controllers\Controller;
use App\Models\LevelModel;
use Illuminate\Http\Request;

5 usages
class LevelController extends Controller
{
    public function index()
    {
        return LevelModel::all();
    }

    public function store(Request $request)
    {
        $level = LevelModel::create($request->all());
        return response()->json($level, status: 201);
    }

    public function show(LevelModel $level)
    {
        return LevelModel::find($level);
    }

    public function update(Request $request, LevelModel $level)
    {
        $level->update($request->all());
        return LevelModel::find($level);
    }

    public function destroy(LevelModel $user)
    {
        $user->delete();

        return response()->json([
            'success' => true,
            'message' => 'Data terhapus'
        ]);
    }
}
```



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Tambahkan route untuk api crud level

```
api.php
Route::get( uri: '/levels', [\App\Http\Controllers\Api\LevelController::class, 'index']);
Route::post( uri: '/levels', [\App\Http\Controllers\Api\LevelController::class, 'store']);
Route::get( uri: '/levels/{level}', [\App\Http\Controllers\Api\LevelController::class, 'show']);
Route::put( uri: '/levels/{level}', [\App\Http\Controllers\Api\LevelController::class, 'update']);
Route::delete( uri: '/levels/{level}', [\App\Http\Controllers\Api\LevelController::class, 'destroy']);
```

Get <http://127.0.0.1:8000/api/levels>

GET <http://127.0.0.1:8000/api/levels> Send

Params Authorization Headers (9) Body Pre-request Script Tests Settings Cookies

Body Cookies Headers (10) Test Results 200 OK 225 ms 1.63 KB Save Response

Pretty Raw Preview Visualize JSON

```
1 [
2   {
3     "level_id": 1,
4     "level_kode": "ADM",
5     "level_nama": "Administrator",
6     "created_at": null,
7     "updated_at": null
8   },
9   {
10    "level_id": 2,
11    "level_kode": "MNG",
12    "level_nama": "Manager",
13    "created_at": null,
14    "updated_at": null
15  }
]
```

Post <http://127.0.0.1:8000/api/levels>





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**POST** <http://127.0.0.1:8000/api/levels> **Send**

Params Authorization Headers (9) **Body** Pre-request Script Tests Settings Cookies

☐ none ☒ form-data ☐ x-www-form-urlencoded ☐ raw ☐ binary

Key	Value
level_kode	SPR
level_nama	Supervisor

**Body** Cookies Headers (10) Test Results 201 Created 176 ms 459 B Save Response

Pretty Raw Preview Visualize JSON

```
1 {
2   "level_kode": "SPR",
3   "level_nama": "Supervisor",
4   "updated_at": "2025-04-21T16:46:23.000000Z",
5   "created_at": "2025-04-21T16:46:23.000000Z",
6   "level_id": 14
7 }
```

Get <http://127.0.0.1:8000/api/levels/{level}>

**GET** <http://127.0.0.1:8000/api/levels/1> **Send**

Params Authorization Headers (9) **Body** Pre-request Script Tests Settings Cookies

☐ none ☒ form-data ☐ x-www-form-urlencoded ☐ raw ☐ binary

Key	Value
-----	-------

**Body** Cookies Headers (10) Test Results 200 OK 167 ms 408 B Save Response

Pretty Raw Preview Visualize JSON

```
1 {
2   "level_id": 1,
3   "level_kode": "ADM",
4   "level_nama": "Administrator",
5   "created_at": null,
6   "updated_at": null
7 }
```



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Put <http://127.0.0.1:8000/api/levels/{level}>

PUT [http://127.0.0.1:8000/api/levels/14?level\\_kode=SPR](http://127.0.0.1:8000/api/levels/14?level_kode=SPR) Send

Params Authorization Headers (9) Body Pre-request Script Tests Settings Cookies

none form-data x-www-form-urlencoded raw binary

Key	Value	...	Bulk Edit
<input checked="" type="checkbox"/> level_kode	SPR		

Body Cookies Headers (10) Test Results 200 OK 190 ms 456 B Save Response

Pretty Raw Preview Visualize JSON

```
1 {
2   {
3     "level_id": 14,
4     "level_kode": "SPR",
5     "level_nama": "Supervisor",
6     "created_at": "2025-04-21T16:46:23.000000Z",
7     "updated_at": "2025-04-21T16:46:23.000000Z"
8   }
9 }
```

Delete <http://127.0.0.1:8000/api/levels/{level}>

DELETE <http://127.0.0.1:8000/api/levels/14> Send

Params Authorization Headers (9) Body Pre-request Script Tests Settings Cookies

Body Cookies Headers (10) Test Results 200 OK 165 ms 350 B Save Response

Pretty Raw Preview Visualize JSON

```
1 {
2   "success": true,
3   "message": "Data terhapus"
4 }
```



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