

LAPORAN PRAKTIKUM

MATA KULIAH PRAKTIKUM PEMROGRAMAN JARINGAN

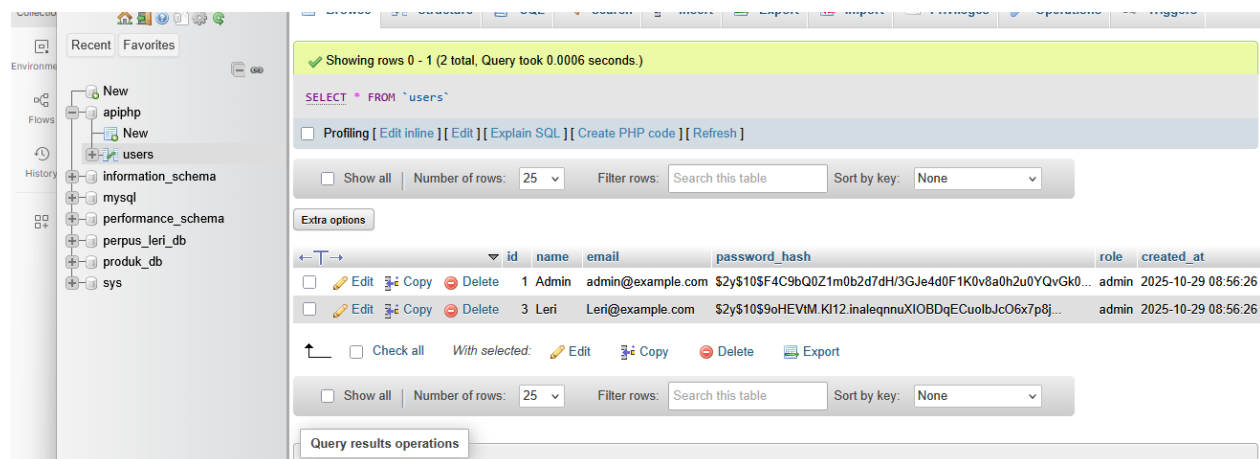
NAMA : LERI LEA YOLIT L

NIM : 223611056

KELAS : D5

PRAKTIKUM KE 5

```
Leri > jwt.php
1  <?php
2  $header = ['typ' => 'JWT', 'alg' => 'HS256'];
3  $payload = [
4      'sub' => 3,
5      'name' => 'Leri',
6      'role' => 'admin',
7      'iat' => time(),
8      'exp' => time() + 100
9  ];
10
11  $secret = 'password_hash_leri_99_numerik_api';
12
13  function base64UrlEncode($data) {
14      return rtrim(strtr(base64_encode($data), '+/', '-_'), '=');
15  }
16
17  $header64 = base64UrlEncode(json_encode($header));
18  $payload64 = base64UrlEncode(json_encode($payload));
19  $signature = base64UrlEncode(hash_hmac('sha256', "$header64.$payload64", $secret, true));
20
21  $jwt = "$header64.$payload64.$signature";
22  echo $jwt;
```



Showing rows 0 - 1 (2 total, Query took 0.0006 seconds.)

SELECT * FROM `users`

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

Show all | Number of rows: 25 | Filter rows: Search this table | Sort by key: None

Extra options

	id	name	email	password_hash	role	created_at
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	1	Admin	admin@example.com	\$2y\$10\$F4C9bQ0Z1m0b2d7dH/3GJe4d0F1K0v8a0h2u0YQvGk0...	admin	2025-10-29 08:56:26
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	3	Leri	Leri@example.com	\$2y\$10\$9oHEVIM.KI12.inaleqnnuXIOBDqECuolbJcO6x7p8j...	admin	2025-10-29 08:56:26

Check all | With selected: Edit Copy Delete Export

Show all | Number of rows: 25 | Filter rows: Search this table | Sort by key: None

Query results operations


```

35 // ===== CEK APAKAH ADA TOKEN DI HEADER =====
36 $authHeader = getAuthorizationHeader();
37
38 // Jika ADA token (verifikasi)
39 if ($authHeader) {
40     if (!preg_match('/Bearer\s(\S+)/i', $authHeader, $matches)) {
41         json_response(['status' => 'error', 'message' => 'Format Authorization salah (gunakan Bearer <token>)', 400];
42     }
43     $jwt = $matches[1];
44
45     // Pisah token
46     $parts = explode('.', $jwt);
47     if (count($parts) !== 3) {
48         json_response(['status' => 'error', 'message' => 'Format token tidak valid'], 400);
49     }
50
51     list($header64, $payload64, $signatureProvided) = $parts;
52
53     // Buat ulang signature
54     $expected = rtrim(strtr(base64_encode(hash_hmac('sha256', "$header64.$payload64", $secret, true)), '+/', '-_'), '=');
55
56     // Cek signature
57     if (!hash_equals($expected, $signatureProvided)) {
58         json_response(['status' => 'error', 'message' => 'Signature token tidak valid'], 401);
59     }
60
61     // Decode payload
62     $payload = json_decode(base64UrlDecode($payload64), true);
63     if (!is_array($payload)) {
64         json_response(['status' => 'error', 'message' => 'Payload tidak bisa dibaca'], 400);
65     }
66
67     // Cek waktu kadaluarsa
68     if (!isset($payload['exp'])) {
69         json_response(['status' => 'error', 'message' => 'Token tidak memiliki waktu kadaluarsa (exp)'], 400);
70     }
71 }

```

```

API-PHP-NATIVE
└─ Ler
  └─ Ler
    └─ config
      └─ env.php
    └─ logs
    └─ public
      └─ .htaccess
      └─ index.php
    └─ src
      └─ Config
      └─ Database.php
      └─ Controllers
        └─ AuthController.php
        └─ BaseController.php
        └─ HealthController.php
        └─ UserController.php
        └─ VersionController.php
      └─ Helpers
      └─ Middlewares
      └─ Repositories
      └─ Validation
    └─ api-contract.php
    └─ composer.json
    └─ jwt.php
    └─ README.md
  └─ Ler
    └─ jwt.php
      39 if ($authHeader) {
      71
      72     if ($payload['exp'] < time()) {
      73         json_response([
      74             'status' => 'expired',
      75             'message' => 'Token Anda sudah kadaluarsa, silahkan Generate Ulang!',
      76             'expired_at' => date('Y-m-d H:i:s', $payload['exp']),
      77             'now' => date('Y-m-d H:i:s')
      78         ], 401);
      79     }
      80
      81     // Kalau semua valid
      82     json_response([
      83         'status' => 'valid',
      84         'message' => 'Token Anda masih berlaku saat Ini!',
      85         'payload' => $payload,
      86         'expires_in_seconds' => $payload['exp'] - time(),
      87         'expired_at' => date('Y-m-d H:i:s', $payload['exp']),
      88         'now' => date('Y-m-d H:i:s')
      89     ]);
      90 }
      91
      92 // ===== JIKA TIDAK ADA TOKEN (Generate token baru) =====
      93 $header = ['typ' => 'JWT', 'alg' => 'HS256'];
      94 $payload = [
      95     'sub' => 3,
      96     'name' => 'Leri',
      97     'role' => 'admin',
      98     'iat' => time(),
      99     'exp' => time() + $token_ttl_seconds
      100 ];
      101

```

```

102 $header64 = base64UrlEncode(json_encode($header));
103 $payload64 = base64UrlEncode(json_encode($payload));
104 $signature = rtrim(strtr(base64_encode(hash_hmac('sha256', "$header64.$payload64", $secret, true)), '+/', '-_'), '=');
105 $jwt = "$header64.$payload64.$signature";
106
107 // kirim token
108 json_response([
109     'status' => 'token_generated',
110     'token' => $jwt,
111     'payload' => $payload,
112     'expired_at' => date('Y-m-d H:i:s', $payload['exp'])
113 ]);

```

My Collection / Get data Save Share

GET http://localhost/api-php-native/Leri/jwt.php Send

Params Authorization Headers (7) Body Scripts ● Settings Cookies

Auth Type
No Auth

No Auth

This request does not use any authorization. ⓘ

Body Cookies Headers (7) Test Results (1/1) 200 OK 4 ms 582 B Save Response

{ } JSON Preview Visualize

```

1 {
2   "status": "token_generated",
3   "token": "eyJ0eXAiOiJKV1QiLCJhbGciOiJIUzI1NiJ9.eyJzdWIiOiJsIm5hbWUiOiJMZXJpIiwicm9sZSI6ImFkbWluIiwiaWF0IjoxNzYxODQxNzYxM2LCJleHAiOiE3NjE4NDU3OTZ9.H0BYZD9GRZQTZX3xQotUSE3naehsc0eLZ5beJbBzJJ4",
4   "payload": {
5     "sub": 3,
6     "name": "Leri",
7     "role": "admin",
8     "iat": 1761841736,
9     "exp": 1761841796
10  },
11   "expired_at": "2025-10-30 16:29:56"
12 }

```

Runner Start Proxy Cookies Vault Trash

My Collection / Get data

SaveShare

GEThttp://localhost/api-php-native/Leri/jwt.phpSend

ParamsAuthorizationHeaders (8)BodyScriptsSettingsCookies

Auth Type

Bearer Token

Token

The authorization header will be automatically generated when you send the request. Learn more about Bearer Token authorization.

BodyCookiesHeaders (7)Test Results (1/1)

200 OK5 ms467 BSave Response

JSONPreviewVisualize

```
1 {
2   "status": "valid",
3   "message": "Token masih berlaku",
4   "payload": {
5     "sub": 3,
6     "name": "Leri",
7     "role": "admin",
8     "iat": 1761841736,
9     "exp": 1761841796
10  },
11   "expires_in_seconds": 3,
12   "expired_at": "2025-10-30 16:29:56",
13   "now": "2025-10-30 16:29:53"
14 }
```

RunnerStart ProxyCookiesVaultTrash

My Collection / Get data

SaveShare

GEThttp://localhost/api-php-native/Leri/jwt.phpSend

ParamsAuthorizationHeaders (8)BodyScriptsSettingsCookies

Auth Type

Bearer Token

Token

The authorization header will be automatically generated when you send the request. Learn more about Bearer Token authorization.

BodyCookiesHeaders (7)Test Results (0/1)

401 Unauthorized4 ms376 BSave Response

JSONPreviewDebug with AI

```
1 {
2   "status": "expired",
3   "message": "Token sudah kadaluarsa",
4   "expired_at": "2025-10-30 16:29:56",
5   "now": "2025-10-30 16:30:28"
6 }
```