# 1 DAY 1 CHALLENGE … until urgh … I get gf?
## DAY 17 (24th Jan 2024) (by Syafiqlim)

## Secure Password Vault (API) (Encryption using AES-128-ECB)

## Dependencies and requirements
1. Node modules :
     i. express
     ii. mysql2
     iii. crypto
2. Complete MySQL database (schema provided)

## Flow
1. Execute " node passVault.js ".
2. Using Postman (or other API tool), make a POST request with example JSON body
{ "app" : "app", "username" : "user", "password" : "pass" } , then get the encryptionKey
responded by API server.
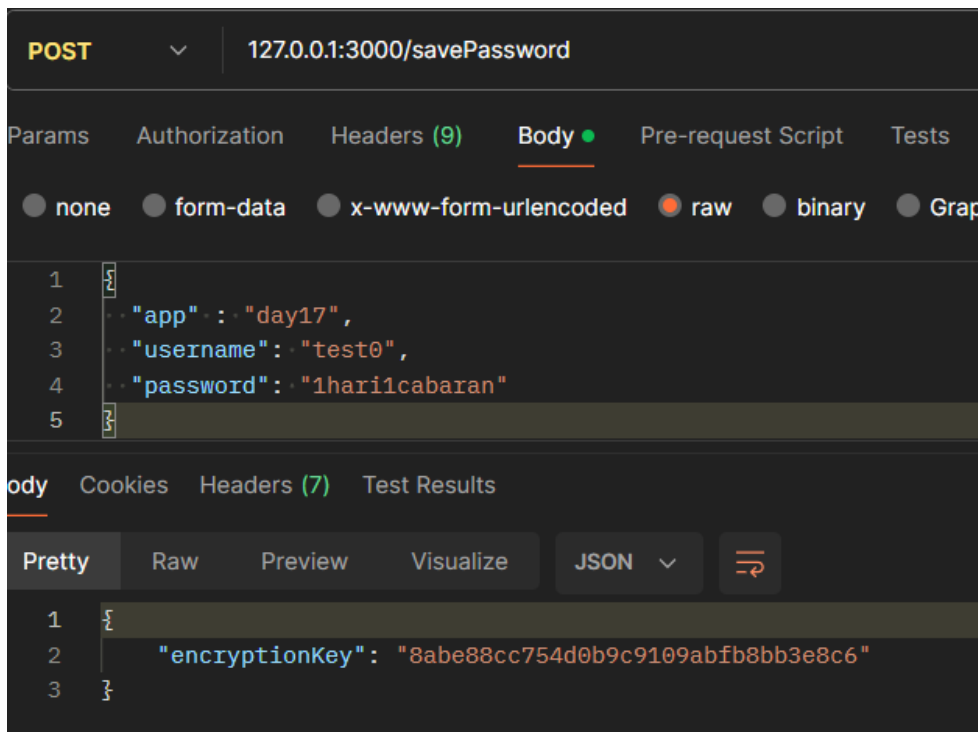
3. Check in MySQL database, if correctly saved in database with satisfied the requirements

```
mysql> SELECT * FROM User;
+----+-------+----------+----------------------------------+
| id | app   | username | password                         |
+----+-------+----------+----------------------------------+
|  1 | day17 | test0    | 302a3c64b04d51a2ae509d4e682ced1d |
+----+-------+----------+----------------------------------+
1 row in set (0.00 sec)
```

4. Now, make a GET request with parameters app, username, encryptionKey. This is for retrieving credentials from database and decrypting password with provided encryptionKey.

GET ∨ 127.0.0.1:3000/getPassword?app=day17&username=test0&encryptionKey=8abe88cc754d0b9c9109abfb8bb3e8c6

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

| | Key | Value | Description |
|---|---|---|---|
| ✔ | app | day17 | |
| ✔ | username | test0 | |
| ✔ | encryptionKey | 8abe88cc754d0b9c9109abfb8bb3e8c6 | |

Body   Cookies   Headers (7)   Test Results (1/1)     Status: 200 OK   Tim

Pretty   Raw   Preview   Visualize   JSON ∨

```
1  {
2      "app": "day17",
3      "username": "test0",
4      "password": "1hari1cabaran"
5  }
```

*What if encryptionKey parameter filled with wrong, not-corresponding key?

GET ∨ 127.0.0.1:3000/getPassword?app=day17&username=test0&encryptionKey=dddddddedew

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

| | Key | Value |
|---|---|---|
| ✔ | app | day17 |
| ✔ | username | test0 |
| ✔ | encryptionKey | dddddddedew |

Body   Cookies   Headers (7)   Test Results (0/1)     Status:

Pretty   Raw   Preview   Visualize   JSON ∨

```
1  {
2      "error": "Internal Server Error"
3  }
```