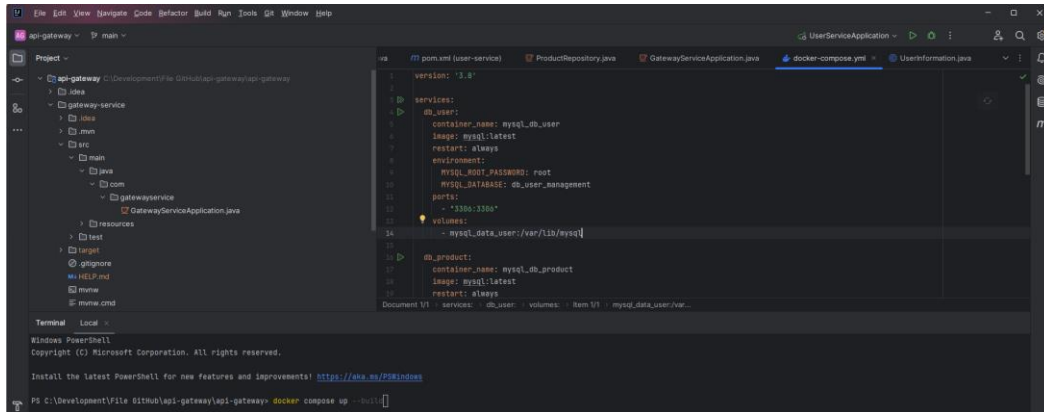


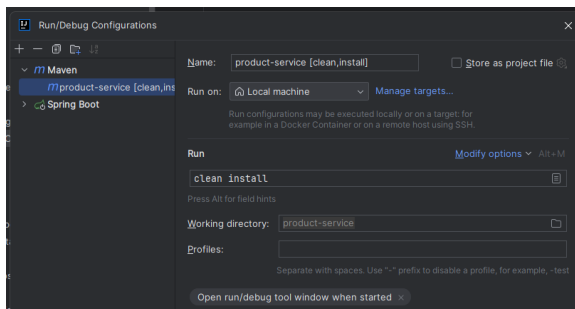
API-gateway untuk manage service user-management dan product-management

Untuk menjalankan aplikasi :

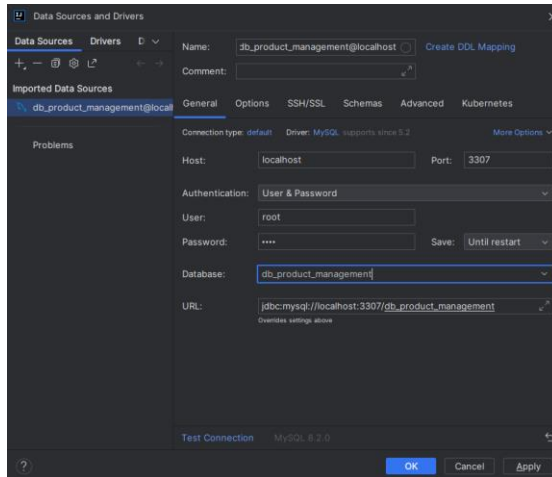
1. Jika memiliki docker pada PC/laptop yang digunakan dapat langsung membuka docker-compose.yml, setelah itu bukak terminal lalu ketikkan **docker compose up --build**



2. Jika tidak memiliki docker silahkan buat data base di local dengan nama db_user_management dan db_product_management dan pastikan port pada application.properties sesuai dengan port database local.
3. Setelah salah satu perintah diatas dilakukan, silahkan clean dan install terlebih dahulu pada project tersebut. Contohnya pada gambar berikut :

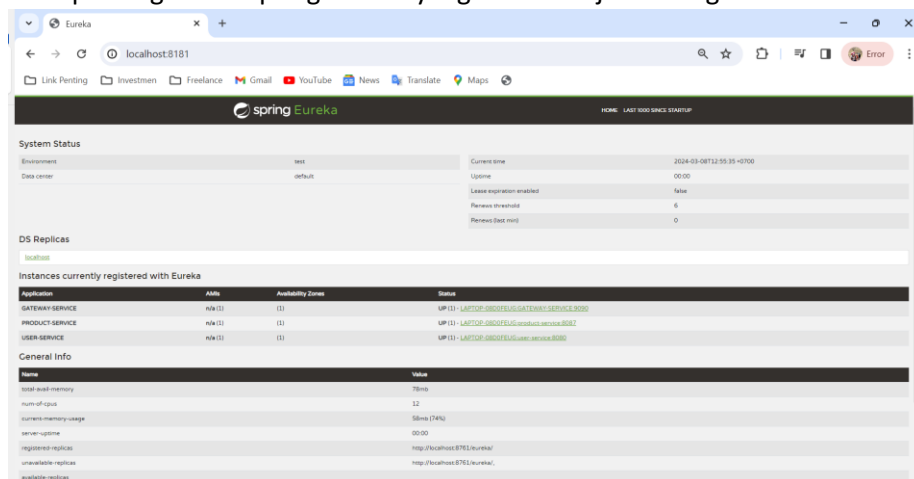


4. Setelah dependency sudah terdownload pada PC/laptop yang gunakan selanjutnya dapat langsung membuat connection ke dalam database. Berikut ini merupakan contoh konfigurasi untuk melakukan connect terhadap database :



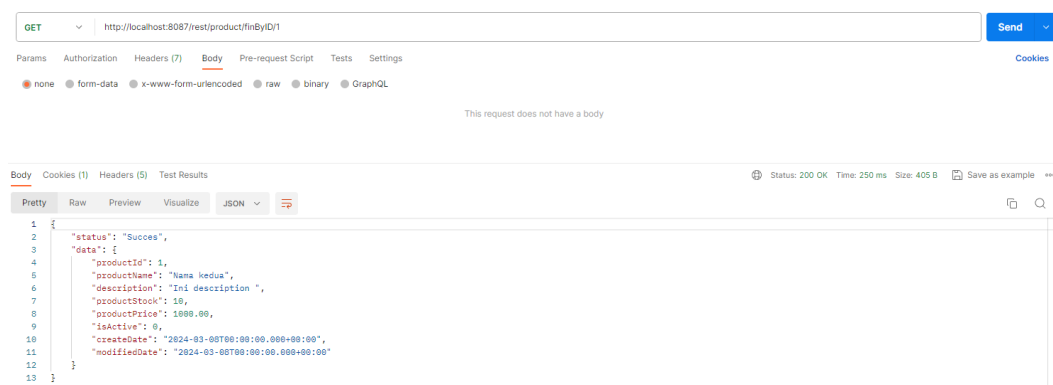
Untuk user dan password yang di gunakan jika menggunakan docker adalah root dan root.

5. Setelah connect ke database maka selanjutnya dapat langsung menjalankan aplikasi product-service dan user-service maka secara otomatis akan membuat table yang di butuhkan pada data base local atau data base yang berada di docker.
6. Selanjutnya kita dapat menjalankan gateway-service dan discovery-service. Berikut ini merupakan gambar spring Eureka yang sudah berjalan dengan sesuai :



7. Untuk produc-service berjalan di port 8087, berikut ini merupakan API untuk product-service yang berada di port 8087 :

service : <http://localhost:8087/rest/product/finById/1>



service : <http://localhost:8087/rest/product/findAll>

api-test / product-controller / rest-product-all

GET http://localhost:8087/rest/product/findAll Send

Params Authorization Headers (7) Body Pre-request Script Tests Settings Cookies

Query Params

Key	Value	Description	Bulk Edit
Key	Value	Description	

Body Cookies (1) Headers (5) Test Results Status: 200 OK Time: 23 ms Size: 635 B Save as example

Pretty Raw Preview Visualize JSON

```
1 {
2   "status": "Sukses",
3   "listData": [
4     {
5       "productId": 1,
6       "productName": "Nama kedua",
7       "description": "Ini description ",
8       "productStock": 10,
9       "productPrice": 1000.00,
10      "isActive": 0,
11      "createDate": "2024-03-08T00:00:00.000+00:00",
12      "modifiedDate": "2024-03-08T00:00:00.000+00:00"
13    },
14    {
15      "productId": 2,
16      "productName": "Nama pertama",
17      "description": "Ini description ",
18      "productStock": 10,
19      "productPrice": 1000.00,
20      "isActive": 0,
21      "createDate": "2024-03-08T00:00:00.000+00:00",
22      "modifiedDate": "2024-03-08T00:00:00.000+00:00"
23    }
24  ]
25 }
```

Service : http://localhost:8087/rest/product/active

api-test / product-controller / rest-product-active

GET http://localhost:8087/rest/product/active Send

Params Authorization Headers (7) Body Pre-request Script Tests Settings Cookies

Query Params

Key	Value	Description	Bulk Edit
Key	Value	Description	

Body Cookies (1) Headers (5) Test Results Status: 200 OK Time: 25 ms Size: 635 B Save as example

Pretty Raw Preview Visualize JSON

```
1 {
2   "status": "Sukses",
3   "listData": [
4     {
5       "productId": 1,
6       "productName": "Nama kedua",
7       "description": "Ini description ",
8       "productStock": 10,
9       "productPrice": 1000.00,
10      "isActive": 0,
11      "createDate": "2024-03-08T00:00:00.000+00:00",
12      "modifiedDate": "2024-03-08T00:00:00.000+00:00"
13    },
14    {
15      "productId": 2,
16      "productName": "Nama pertama",
17      "description": "Ini description ",
18      "productStock": 10,
19      "productPrice": 1000.00,
20      "isActive": 0,
21      "createDate": "2024-03-08T00:00:00.000+00:00",
22      "modifiedDate": "2024-03-08T00:00:00.000+00:00"
23    }
24  ]
25 }
```

service : http://localhost:8087/rest/product/save

api-test / product-controller / post-product-save

POST http://localhost:8087/rest/product/save

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

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

```
1 {
2   "productId": 2,
3   "productName": "Nama pertama",
4   "description": "Ini description ",
5   "productStock": 10,
6   "productPrice": 1000.00,
7   "isActive": 0,
8   "createDate": "2024-03-08",
9   "modifiedDate": "2024-03-08"
10 }
```

Body Cookies (1) Headers (5) Test Results

Pretty Raw Preview Visualize JSON

```
1 {
2   "status": "Sukses",
3   "data": {
4     "productId": 2,
5     "productName": "Nama pertama",
6     "description": "Ini description ",
7     "productStock": 10,
8     "productPrice": 1000.00,
9     "isActive": 0,
10    "createDate": "2024-03-08T00:00:00.000+00:00",
11    "modifiedDate": "2024-03-08T00:00:00.000+00:00"
12  }
13 }
```

Status: 200 OK Time: 22 ms Size: 414 B Save as example

service : http://localhost:8087/rest/product/non/active

api-test / product-controller / post-product-nonActive

POST http://localhost:8087/rest/product/non/active

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

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

```
1 {
2   "productId": 3,
3   "productName": "Nama ketiga",
4   "description": "Ini description ",
5   "productStock": 10,
6   "productPrice": 1000.00,
7   "isActive": 0,
8   "createDate": "2024-03-08",
9   "modifiedDate": "2024-03-08"
10 }
```

Body Cookies (1) Headers (5) Test Results

Pretty Raw Preview Visualize JSON

```
1 {
2   "status": "Sukses",
3   "data": {
4     "productId": 3,
5     "productName": "Nama ketiga",
6     "description": "Ini description ",
7     "productStock": 10,
8     "productPrice": 1000.00,
9     "isActive": 1,
10    "createDate": "2024-03-08T00:00:00.000+00:00",
11    "modifiedDate": "2024-03-08T00:00:00.000+00:00"
12  }
13 }
```

Status: 200 OK Time: 62 ms Size: 406 B Save as example

service : http://localhost:8087/rest/product/delete/3

api-test / product-controller / delete-productbyid

DELETE http://localhost:8087/rest/product/delete/3

Params Authorization Headers (7) Body Pre-request Script Tests Settings

Query Params

Key	Value	Description
Key	Value	Description

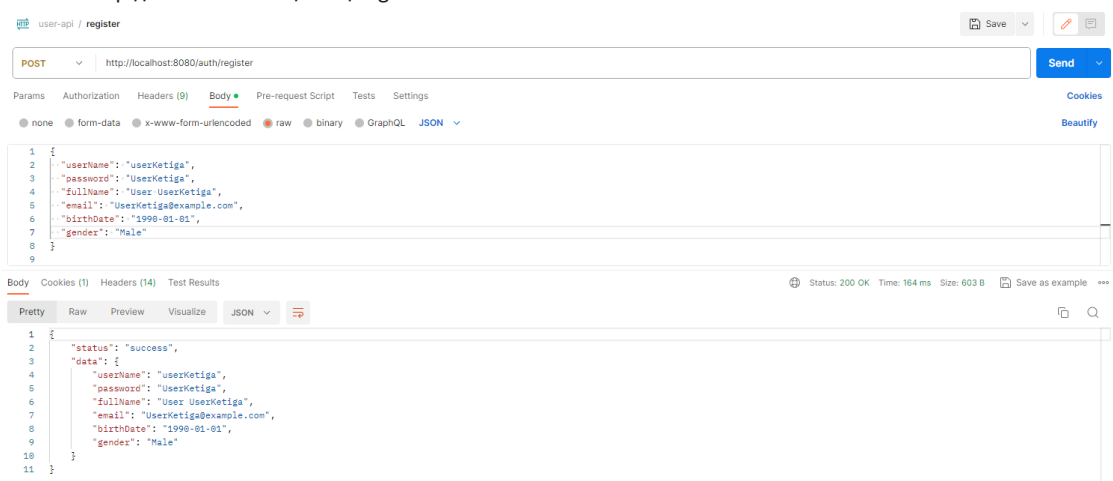
Body Cookies (1) Headers (5) Test Results

Pretty Raw Preview Visualize JSON

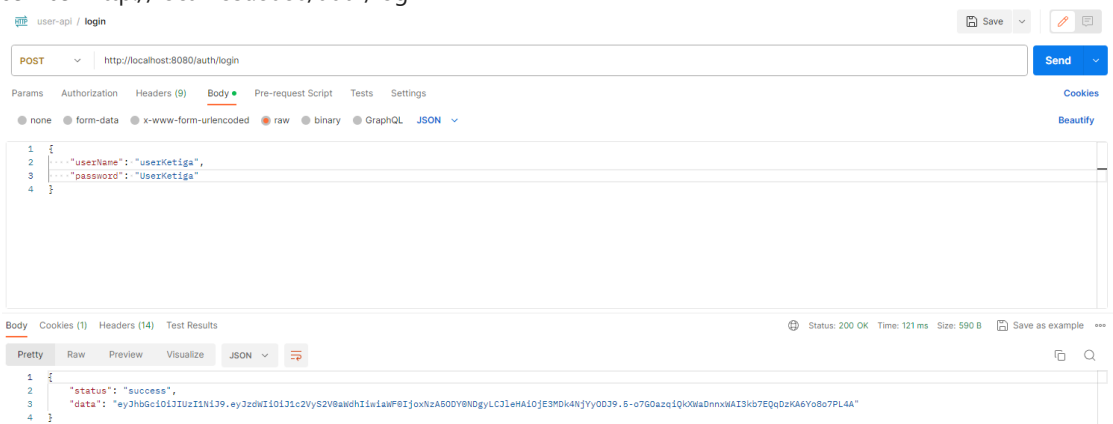
```
1 {
2   "status": "Sukses delete",
3   "data": {
4     "productId": 3,
5     "productName": "Nama ketiga",
6     "description": "Ini description ",
7     "productStock": 10,
8     "productPrice": 1000.00,
9     "isActive": 1,
10    "createDate": "2024-03-08T00:00:00.000+00:00",
11    "modifiedDate": "2024-03-08T00:00:00.000+00:00"
12  }
13 }
```

Status: 200 OK Time: 51 ms Size: 413 B Save as example

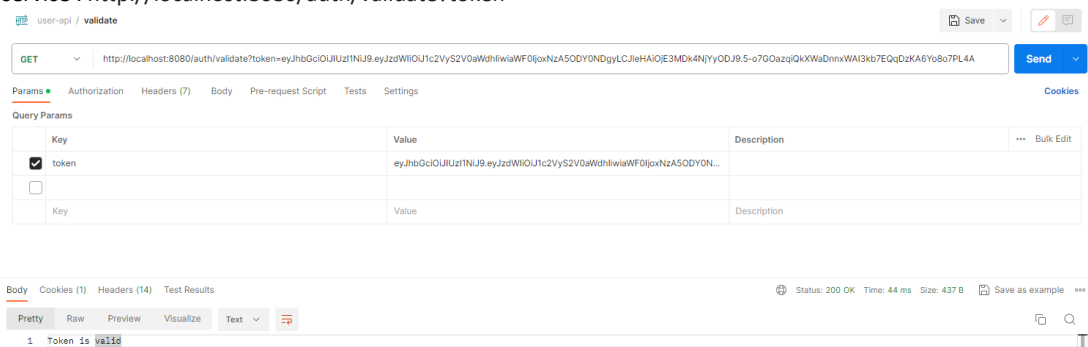
8. Untuk user-service berjalan di port 8080, berikut ini merupakan API untuk user-service yang berada di port 8080 :
- service : <http://localhost:8080/auth/register>



service : <http://localhost:8080/auth/login>



service : <http://localhost:8080/auth/validate?token=>



9. Selanjutnya kedua API tersebut kita gabungkan menjadi satu port melalui API-gateway dengan service gateway-service yang berjalan di port 9090. Berikut ini merupakan hasil service yang di akses melalui API-gateway menggunakan Spring Cloud melaui port 9090:

service : http://localhost:9090/rest/product/save

api-test / product-controller / post-product-save

POST http://localhost:9090/rest/product/save

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

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

```
1 {
2   ... "productId": 4,
3   ... "productName": "Nama empat",
4   ... "description": "data ke empat",
5   ... "productStock": 10,
6   ... "productPrice": 1000.00,
7   ... "isActive": 0,
8   ... "createDate": "2024-03-08",
9   ... "modifiedDate": "2024-03-08"
10 }
11
```

body Cookies (1) Headers (3) Test Results

Status: 200 OK Time: 35 ms Size: 354 B Save as example

Pretty Raw Preview Visualize JSON

```
1 {
2   "status": "Sukses",
3   "data": {
4     "productId": 4,
5     "productName": "Nama empat",
6     "description": "data ke empat",
7     "productStock": 10,
8     "productPrice": 1000.00,
9     "isActive": 0,
10    "createDate": "2024-03-08T08:00:00.000+00:00",
11    "modifiedDate": "2024-03-08T08:00:00.000+00:00"
12  }
13 }
```

SERVICE : http://localhost:9090/rest/product/finByID/4

api-test / product-controller / rest-product-findbyId

GET http://localhost:9090/rest/product/finByID/4

Params Authorization Headers (7) Body Pre-request Script Tests Settings

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

This request does not have a body

body Cookies (1) Headers (3) Test Results

Status: 200 OK Time: 38 ms Size: 354 B Save as example

Pretty Raw Preview Visualize JSON

```
1 {
2   "status": "Sukses",
3   "data": {
4     "productId": 4,
5     "productName": "Nama empat",
6     "description": "data ke empat",
7     "productStock": 10,
8     "productPrice": 1000.00,
9     "isActive": 0,
10    "createDate": "2024-03-08T08:00:00.000+00:00",
11    "modifiedDate": "2024-03-08T08:00:00.000+00:00"
12  }
13 }
```

SERVICE : http://localhost:9090/rest/product/findAll

api-test / product-controller / rest-product-all

GET http://localhost:9090/rest/product/findAll

Params Authorization Headers (7) Body Pre-request Script Tests Settings

Query Params

Key	Value	Description
Key	Value	Description

body Cookies (1) Headers (3) Test Results

Status: 200 OK Time: 31 ms Size: 806 B Save as example

Pretty Raw Preview Visualize JSON

```
1 {
2   "status": "Sukses",
3   "listData": [
4     {
5       "productId": 1,
6       "productName": "Nama kedua",
7       "description": "Ini description ",
8       "productStock": 10,
9       "productPrice": 1000.00,
10      "isActive": 0,
11      "createDate": "2024-03-08T08:00:00.000+00:00",
12      "modifiedDate": "2024-03-08T08:00:00.000+00:00"
13    },
14    {
15      "productId": 2,
16      "productName": "Nama pertama",
17      "description": "Ini description ",
18      "productStock": 10,
19      "productPrice": 1000.00,
20      "isActive": 0,
21      "createDate": "2024-03-08T08:00:00.000+00:00",
22      "modifiedDate": "2024-03-08T08:00:00.000+00:00"
23    },
24    {
25      "productId": 4,
26      "productName": "Nama empat",
27      "description": "data ke empat",
28      "productStock": 10,
29      "productPrice": 1000.00,
30      "isActive": 0,
31      "createDate": "2024-03-08T08:00:00.000+00:00",

```

SERVICE : http://localhost:9090/rest/product/non/active

api-test / product-controller / post-product-nonActive

POST http://localhost:9090/rest/product/non/active

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

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

```
1 {
2   "productId": 2,
3   "productName": "Nama pertama",
4   "description": "Ini description ",
5   "productStock": 10,
6   "productPrice": 1000.00,
7   "isActive": 0,
8   "createDate": "2024-03-08T00:00:00.000+00:00",
9   "modifiedDate": "2024-03-08T00:00:00.000+00:00"
10 }
```

Body Cookies (1) Headers (5) Test Results

Pretty Raw Preview Visualize JSON

```
1 {
2   "status": "Sukses",
3   "data": {
4     "productId": 2,
5     "productName": "Nama pertama",
6     "description": "Ini description ",
7     "productStock": 10,
8     "productPrice": 1000.00,
9     "isActive": 1,
10    "createDate": "2024-03-08T00:00:00.000+00:00",
11    "modifiedDate": "2024-03-08T00:00:00.000+00:00"
12  }
13 }
```

Status: 200 OK Time: 33 ms Size: 407 B Save as example

SERVICE : http://localhost:9090/rest/product/active

api-test / product-controller / rest-product-active

GET http://localhost:9090/rest/product/active

Params Authorization Headers (7) Body Pre-request Script Tests Settings

Query Params

Key	Value	Description
Key	Value	Description

Body Cookies (1) Headers (3) Test Results

Pretty Raw Preview Visualize JSON

```
1 {
2   "status": "Sukses",
3   "listData": [
4     {
5       "productId": 1,
6       "productName": "Nama kedua",
7       "description": "Ini description ",
8       "productStock": 10,
9       "productPrice": 1000.00,
10      "isActive": 0,
11      "createDate": "2024-03-08T00:00:00.000+00:00",
12      "modifiedDate": "2024-03-08T00:00:00.000+00:00"
13    },
14    {
15      "productId": 4,
16      "productName": "Nama empat",
17      "description": "data ke empat",
18      "productStock": 10,
19      "productPrice": 1000.00,
20      "isActive": 0,
21      "createDate": "2024-03-08T00:00:00.000+00:00",
22      "modifiedDate": "2024-03-08T00:00:00.000+00:00"
23    }
24  ]
25 }
```

Status: 200 OK Time: 25 ms Size: 582 B Save as example

SERVICE : <http://localhost:9090/rest/product/delete/1>

api-test / product-controller / delete-productbyid

Save

DELETE

http://localhost:9090/rest/product/delete/1

Send

Params

Authorization

Headers (7)

Body

Pre-request Script

Tests

Settings

Cookies

Query Params

Key	Value	Description	...	Bulk Edit
Key	Value	Description		

Body

Cookies (1)

Headers (3)

Test Results

Status: 200 OK Time: 69 ms Size: 364 B Save as example

Pretty

Raw

Preview

Visualize

JSON

```

1  {
2    "status": "Success delete",
3    "data": {
4      "productId": 1,
5      "productName": "Nama kedua",
6      "description": "Ini description ",
7      "productStock": 10,
8      "productPrice": 1000.00,
9      "isActive": 0,
10     "createDate": "2024-03-08T00:00:00.000+00:00",
11     "modifiedDate": "2024-03-08T00:00:00.000+00:00"
12   }
13 }

```

service : <http://localhost:9090/auth/register>

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

- Endpoint:** `http://localhost:9090/auth/register`
- Method:** `POST`
- Body (Request):**

```

1 {
2   "userName": "UserKeEmpat",
3   "password": "UserKeEmpat",
4   "fullName": "User UserKeEmpat",
5   "email": "UserKeEmpat@example.com",
6   "birthDate": "1998-01-01",
7   "gender": "Male"
8 }
9

```
- Response (Status 200 OK):**

```

1 {
2   "status": "success",
3   "data": {
4     "userName": "UserKeEmpat",
5     "password": "UserKeEmpat",
6     "fullName": "User UserKeEmpat",
7     "email": "UserKeEmpat@example.com",
8     "birthDate": "1998-01-01",
9     "gender": "Male"
10  }
11 }

```

service : <http://localhost:9090/auth/login>

The screenshot shows the Swagger UI for a user-api. The selected endpoint is a POST request to http://localhost:9090/auth/login. The request body is a JSON object with the following structure:

```
1 {
2   "username": "UserKeEmpat",
3   "password": "UserKeEmpat"
4 }
```

The response status is 200 OK, and the response body is a JSON object with the following structure:

```
1 {
2   "status": "success",
3   "data": "eyJhbGciOiJIUzI1NiIsInR5cGU6IjY9ZmVhbnRhdCIsImh0cCtweGt2NTU3MywIjXhwaIjoxNzA5ODY3MzczfQ.-3YwWlEC672936I8tNj3XhnpMVCPC4IXZypt38Kl04"
4 }
```


service : http://localhost:9090/auth/validate?token=

The screenshot displays a REST client interface for a request to the endpoint `http://localhost:9090/auth/validate?token=eyJhbGciOiJIUzI1NiU9.eyJzdWIiOiJvc2VyS2VfbXBhdCIsImhhdCI6MTcwOTg2NTUzMywiZXRhbjoxNzA5ODY3MzczfQ.-3YWw1EC672935i8tNj3XHrpMVCPCXC4kZypt38KIo4`. The request is a GET method. The response status is 200 OK, with a time of 15 ms and a size of 389 B. The response body, shown in 'Pretty' format, is `1 Token is valid`.

Key	Value	Description
<input checked="" type="checkbox"/> token	eyJhbGciOiJIUzI1NiU9.eyJzdWIiOiJvc2VyS2VfbXBhdCIsImhhdCI6MTcwOTg2NTUzMywiZXRhbjoxNzA5ODY3MzczfQ.-3YWw1EC672935i8tNj3XHrpMVCPCXC4kZypt38KIo4	
<input type="checkbox"/>		
Key	Value	Description

Body: Cookies (1) Headers (12) Test Results

Status: 200 OK Time: 15 ms Size: 389 B Save as example

Pretty Raw Preview Visualize Text

1 Token is valid

Demikian demo service dari service product-management dan user-management yang di satukan melalui API-gateway menggunakan Spring Cloud.