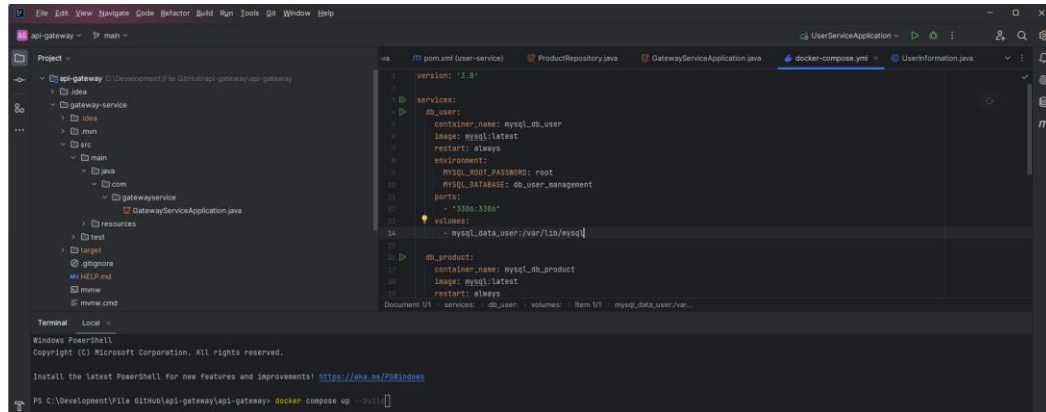


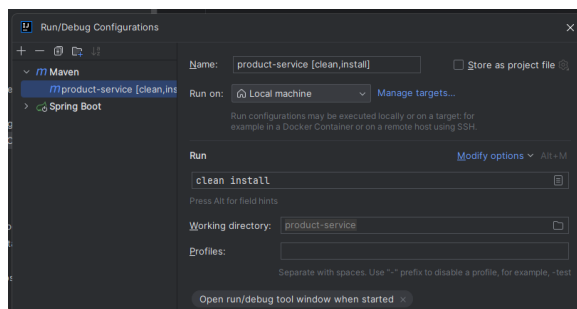
# API-gateway untuk manage service user-management dan product-management

Untuk menjalankan aplikasi :

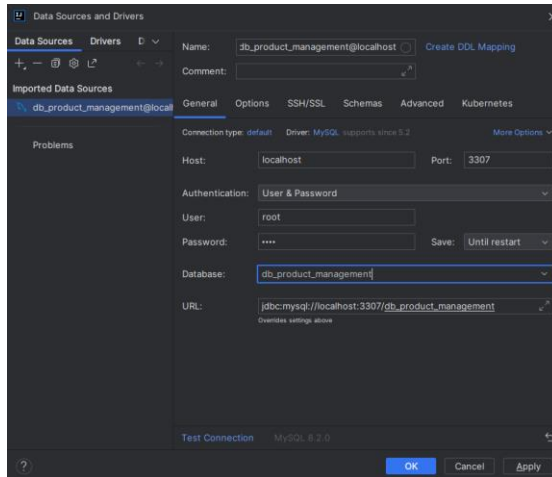
1. Jika memiliki docker pada PC/laptop yang digunakan dapat langsung membuka docker-compose.yml, setelah itu bukak terminal lalu ketikkan **docker compose up --build**



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 :

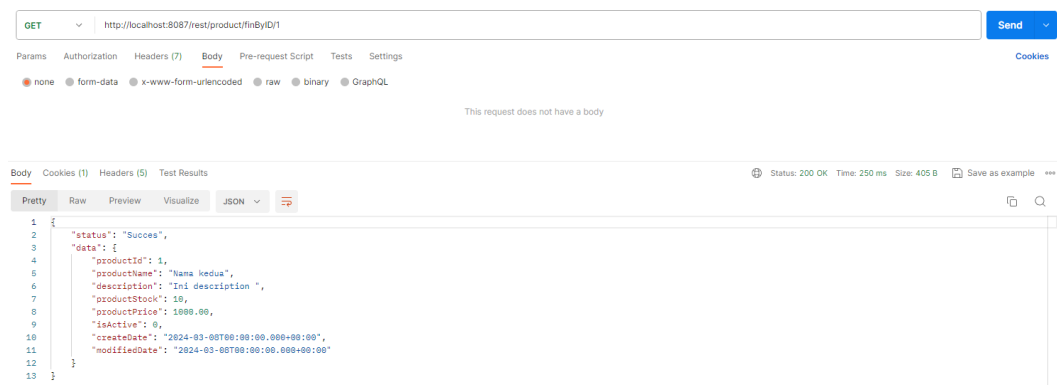


4. Setelah dependency sudah terdownload pada PC/laptop yang gunakan selanjutnya dapat langsung membuat connection ke dalam database. Berikut ini merupakan contoh konfigurasi untuk melakukan connect terhadap database :

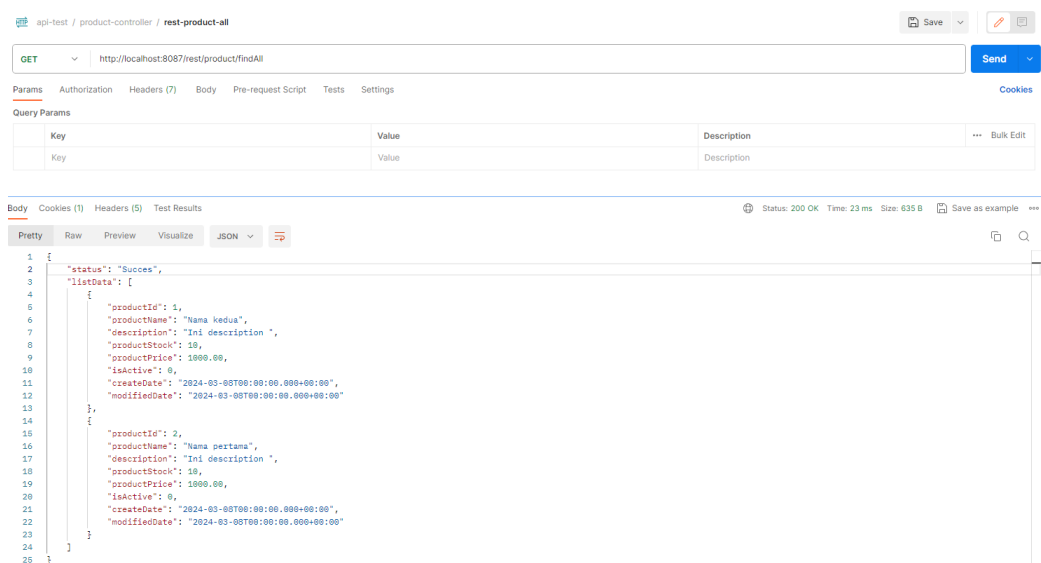


Untuk user dan password yang di gunakan jika menggunakan docker adalah root dan root.

5. Setelah connect ke database maka selanjutnya dapat langsung menjalankan 3 aplikasi tersebut maka secara otomatis akan membuat table dan kolom sesuai entity pada data base local atau data base yang berada di docker.
6. 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>



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

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

Send

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

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

Body Cookies (1) Headers (5) Test Results

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

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": "2024-03-08",
11    "modifiedDate": "2024-03-08"
12  }
13 }
```

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

Status: 200 OK Time: 62 ms Size: 408 B Save as example

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 }
```

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

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

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 }
```

7. 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>

user-api / register

POST http://localhost:8080/auth/register

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

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

```
1 {
2   "username": "userKetiga",
3   "password": "UserKetiga",
4   "fullName": "User UserKetiga",
5   "email": "UserKetiga@example.com",
6   "birthDate": "1990-01-01",
7   "gender": "Male"
8 }
9
```

Body Cookies (1) Headers (14) Test Results

Status: 200 OK Time: 164 ms Size: 603 B Save as example

Pretty Raw Preview Visualize JSON

```
1 {
2   "status": "success",
3   "data": {
4     "username": "userKetiga",
5     "password": "UserKetiga",
6     "fullName": "User UserKetiga",
7     "email": "UserKetiga@example.com",
8     "birthDate": "1990-01-01",
9     "gender": "Male"
10  }
11 }
```

[illegible]

GET

Save

Send

http://localhost:8080/auth/validate?token=eyJhbGciOiJIUzI1Ni9yZjZdWi0iOiJc2V5S2V0aWdhbWliawWF0Ij0xNzA5ODY0NDgyLCJleHAiOiE3MDk4NjYyODJ9.5-o7GazqIqKxWadnmXWAI3kb7EqQd2KA6Yo807PL4A

Params

Authorization

Headers (7)

Body

Pre-request Script

Tests

Settings

Cookies

Query Params

Key	Value	Description	...	Bulk Edit
<input checked="" type="checkbox"/> token	eyJhbGciOiJIUzI1Ni9yZjZdWi0iOiJc2V5S2V0aWdhbWliawWF0Ij0xNzA5ODY0NDgyLCJleHAiOiE3MDk4NjYyODJ9.5-o7GazqIqKxWadnmXWAI3kb7EqQd2KA6Yo807PL4A			
<input type="checkbox"/> Key	Value	Description		

Body

Cookies (1)

Headers (14)

Test Results

Status: 200 OK

Time: 44 ms

Size: 437 B

Save as example

Pretty

Raw

Preview

Visualize

Text

1

Token is valid

- service : <http://localhost:9090/rest/product/save>

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

Save

POST

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

Send

Params

Authorization

Headers (9)

Body

Pre-request Script

Tests

Settings

none

form-data

x-www-form-urlencoded

raw

binary

GraphQL

JSON

Cookies

Beautify

```

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": "2024-03-08T00:00:00.000+00:00",

11

"modifiedDate": "2024-03-08T00:00:00.000+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

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

Body Cookies (1) Headers (3) Test Results

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": "2024-03-08T00:00:00.000+00:00",
11    "modifiedDate": "2024-03-08T00:00:00.000+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

Key Bulk Edit

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

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": 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      "productId": 4,
26      "productName": "Nama empat",
27      "description": "data ke empat",
28      "productStock": 10,
29      "productPrice": 1000.00,
30      "isActive": 0,
31      "createDate": "2024-03-08T00:00:00.000+00:00",
32      "modifiedDate": "2024-03-08T00:00:00.000+00:00"
33    }
34  ]
35 }
```

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

Beautiful

```
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 }
```

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

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 }
```

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

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

GEThttp://localhost:9090/rest/product/active

Send

ParamsAuthorizationHeaders (7)BodyPre-request ScriptTestsSettings

Query Params

Key	Value	Description	Bulk Edit
Key	Value	Description	

bodyCookies (1)Headers (3)Test Results

PrettyRawPreviewVisualizeJSON

```
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 OKTime: 25 msSize: 582 BSave as example

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

api-test / product-controller / delete-productbyid

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

Send

ParamsAuthorizationHeaders (7)BodyPre-request ScriptTestsSettings

Query Params

Key	Value	Description	Bulk Edit
Key	Value	Description	

bodyCookies (1)Headers (3)Test Results

PrettyRawPreviewVisualizeJSON

```
1 {
2   "status": "Sukses 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 }
```

Status: 200 OKTime: 69 msSize: 364 BSave as example

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

user-api / register

POSThttp://localhost:9090/auth/register

Send

ParamsAuthorizationHeaders (9)BodyPre-request ScriptTestsSettings

noneform-datax-www-form-urlencodedrawbinaryGraphQLJSON

```
1 {
2   "username": "UserKeEmpat",
3   "password": "UserKeEmpat",
4   "fullName": "User UserKeEmpat",
5   "email": "UserKeEmpat@example.com",
6   "birthDate": "1990-01-01",
7   "gender": "Male"
8 }
9
```

bodyCookies (1)Headers (12)Test Results

PrettyRawPreviewVisualizeJSON

```
1 {
2   "status": "success",
3   "data": {
4     "username": "UserKeEmpat",
5     "password": "UserKeEmpat",
6     "fullName": "User UserKeEmpat",
7     "email": "UserKeEmpat@example.com",
8     "birthDate": "1990-01-01",
9     "gender": "Male"
10  }
11 }
```

Status: 200 OKTime: 200 msSize: 559 BSave as example

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

The screenshot shows a REST client interface for a POST request to `http://localhost:9090/auth/login`. The request body is a JSON object with `username` and `password` fields, both set to `"UserKeEmpat"`. The response status is 200 OK, and the response body is a JSON object indicating success with a long token string.

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

```
1 {
2   "status": "success",
3   "data": "eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXZWl0aWVudCIsImhhdCI6MTcwOTg2NTUzMywiZmxwZjoxNzA5ODY3MzczfQ.eyJYwWw1EC672935I8tNj3XHpMVCPCXC4IxZypt38KI04"
4 }
```

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

The screenshot shows a REST client interface for a GET request to `http://localhost:9090/auth/validate?token=eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXZWl0aWVudCIsImhhdCI6MTcwOTg2NTUzMywiZmxwZjoxNzA5ODY3MzczfQ.eyJYwWw1EC672935I8tNj3XHpMVCPCXC4IxZypt38KI04`. The response status is 200 OK, and the response body is the text `Token is valid`.

Key	Value	Description
<input checked="" type="checkbox"/> token	eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXZWl0aWVudCIsImhhdCI6MTcwOTg2NTUzMywiZmxwZjoxNzA5ODY3MzczfQ.eyJYwWw1EC672935I8tNj3XHpMVCPCXC4IxZypt38KI04	
<input type="checkbox"/> Key		

```
1 Token is valid
```

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