

# **Dokumentasi Fitness Booking API**

## **II3160 Teknologi Sistem Terintegrasi**

Layanan untuk Menghubungkan Client dengan Personal Trainer,  
Memfasilitasi dan Memanajemen Sesi Latihan



Disusun oleh :

Khairunnisa Azizah      18223117

**PROGRAM STUDI SISTEM DAN TEKNOLOGI INFORMASI**  
**SEKOLAH TEKNIK ELEKTRO DAN INFORMATIKA**  
**INSTITUT TEKNOLOGI BANDUNG**  
**JATINANGOR**  
**2025**

Modul M04 pada proyek ini merealisasikan sebagian besar Booking Context yang telah dirancang pada modul konseptual dan taktis (M02 dan M03). Implementasi API pada modul ini mencakup beberapa kapabilitas inti, yaitu Client Management, Trainer Management, dan Booking Management yang meliputi pembuatan booking, pengambilan data booking, serta perubahan status booking seperti *confirm*, *complete*, *reject*, dan *cancel*. Selain itu, modul ini juga menyediakan endpoint untuk melakukan query booking berdasarkan Client ID, sesuai kebutuhan fungsional yang telah didefinisikan sebelumnya.

Dalam cakupan modul ini, API hanya mengimplementasikan bagian domain yang berkaitan langsung dengan proses pemesanan sesi latihan antara client dan trainer. Beberapa kapabilitas dari domain yang lebih luas termasuk Payment, progress latihan, serta Authentication dan Authorization belum diimplementasikan pada modul M04. Fitur-fitur tersebut direncanakan sebagai pekerjaan lanjutan pada modul berikutnya sehingga tidak tercakup dalam dokumentasi dan implementasi API ini.

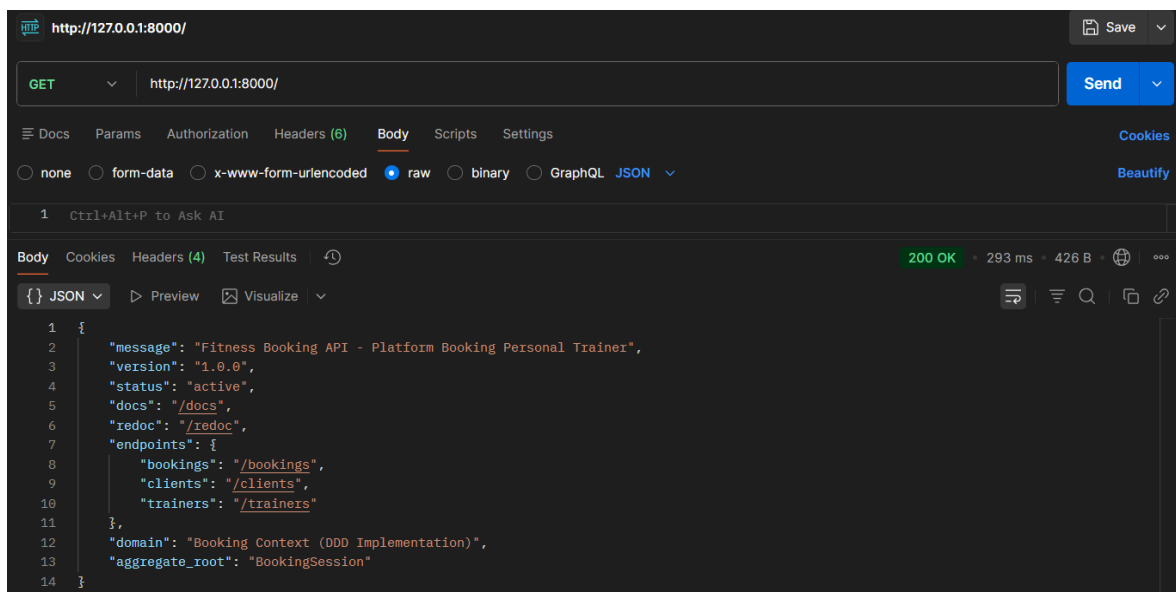
Dengan ruang lingkup tersebut, modul M04 berfungsi sebagai realisasi operasional dari desain domain Booking Context, menyediakan dasar sistem yang utuh untuk pengelolaan client, trainer, dan proses booking, sementara fitur pendukung lainnya akan dikembangkan secara bertahap pada fase modul berikutnya.

## I. Link Repo Github

<https://github.com/kyyzaa/fitness-booking-api.git>

## II. Dokumentasi API

### A. Root & Health Check

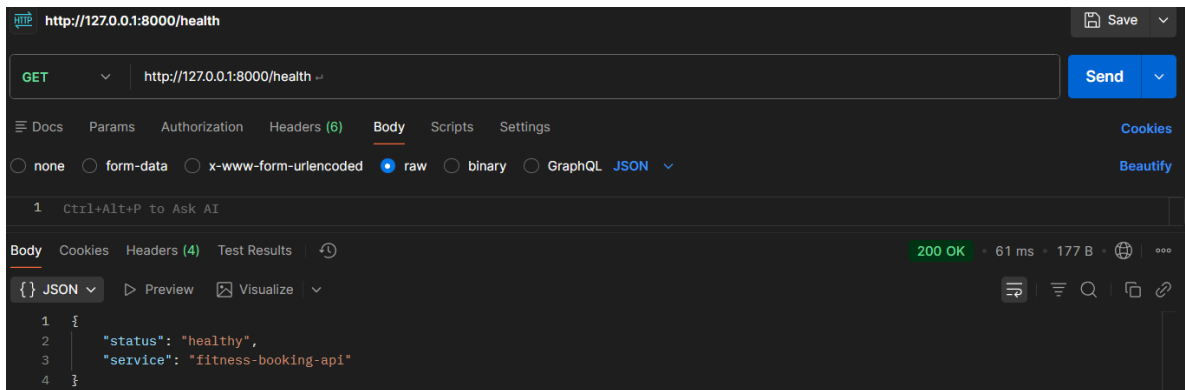


The screenshot shows a REST client interface with the following details:

- URL: `http://127.0.0.1:8000/`
- Method: `GET`
- Response Status: `200 OK`
- Response Time: `293 ms`
- Response Size: `426 B`
- Response Format: `JSON`

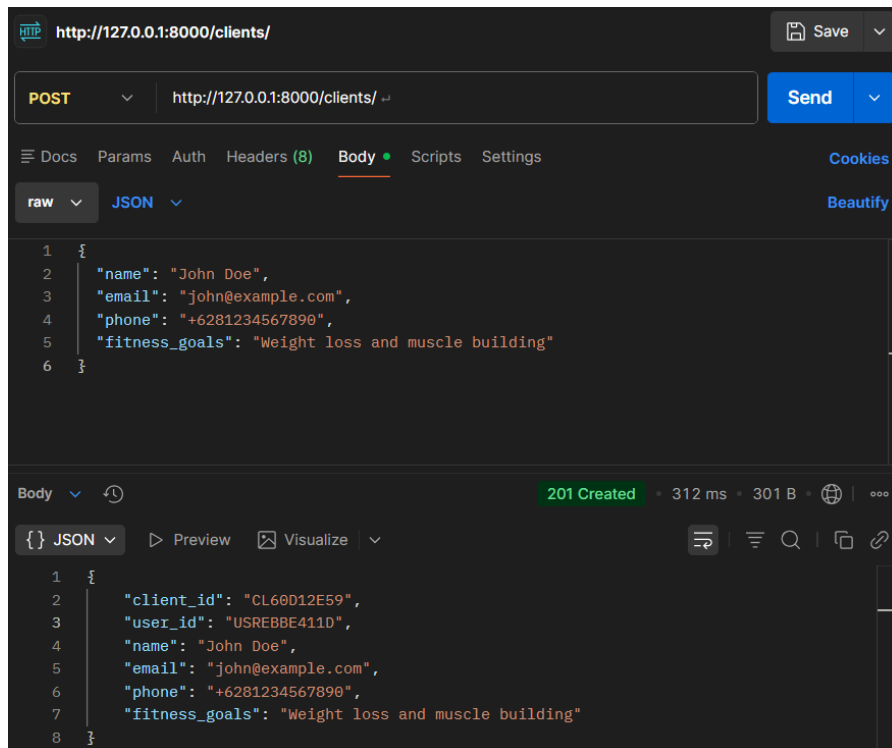
```
1 {
2   "message": "Fitness Booking API - Platform Booking Personal Trainer",
3   "version": "1.0.0",
4   "status": "active",
5   "docs": "/docs",
6   "redoc": "/redoc",
7   "endpoints": {
8     "bookings": "/bookings",
9     "clients": "/clients",
10    "trainers": "/trainers"
11  },
12   "domain": "Booking Context (DDD Implementation)",
13   "aggregate_root": "BookingSession"
14 }
```

Gambar 1. Root API Information

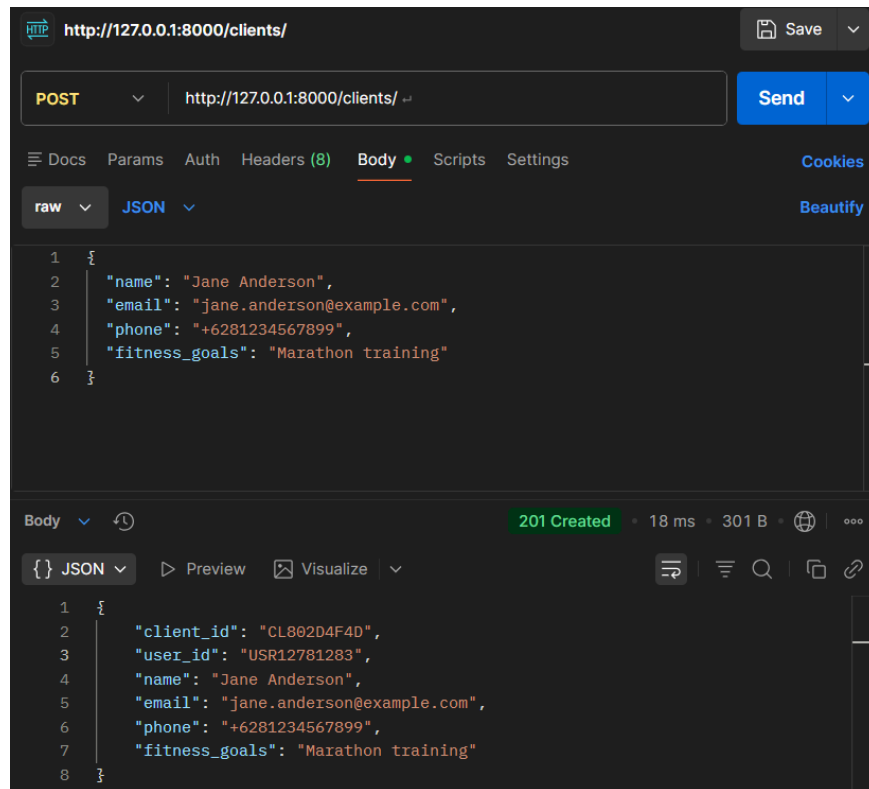


Gambar 2. Health Check Endpoint

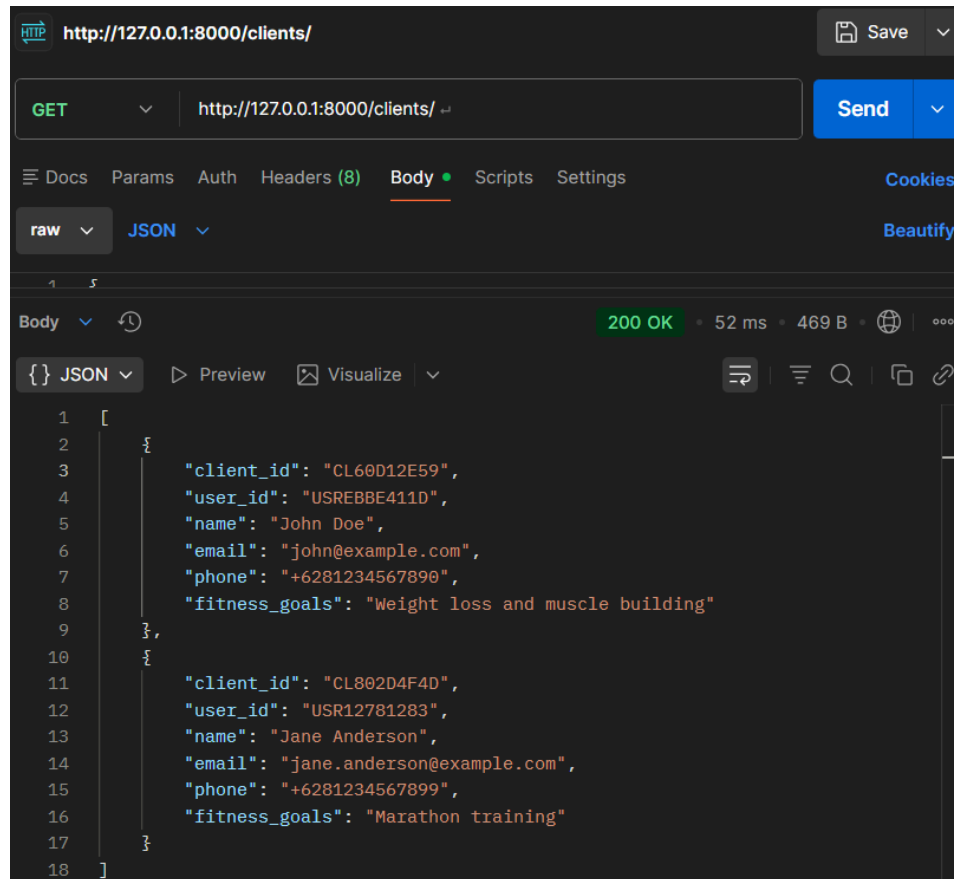
## B. Client Management



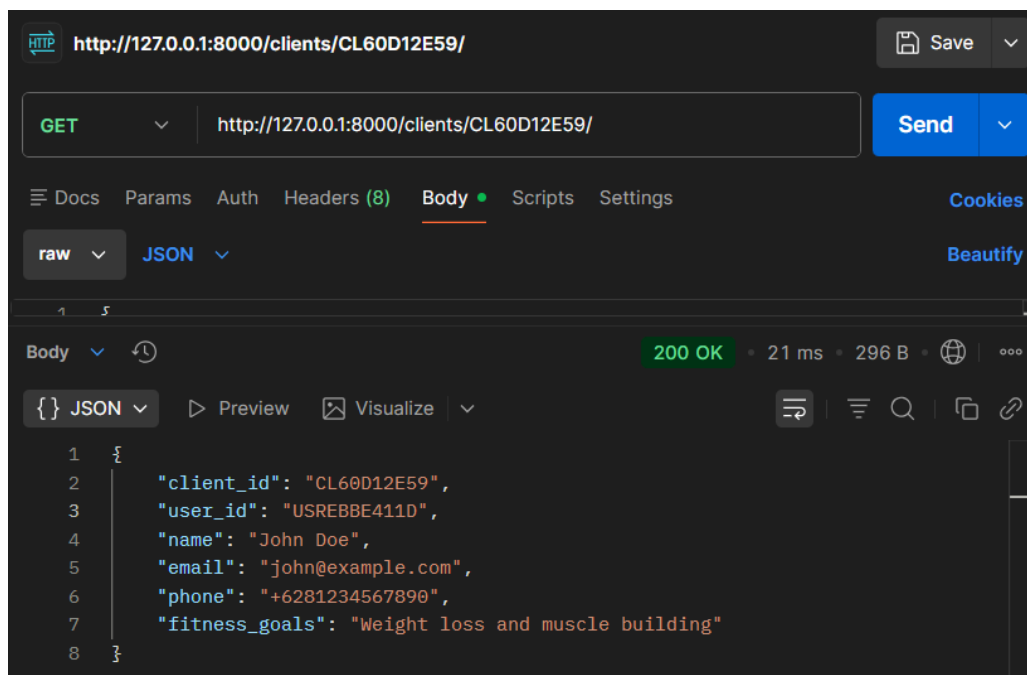
Gambar 3. Create Client - John Doe



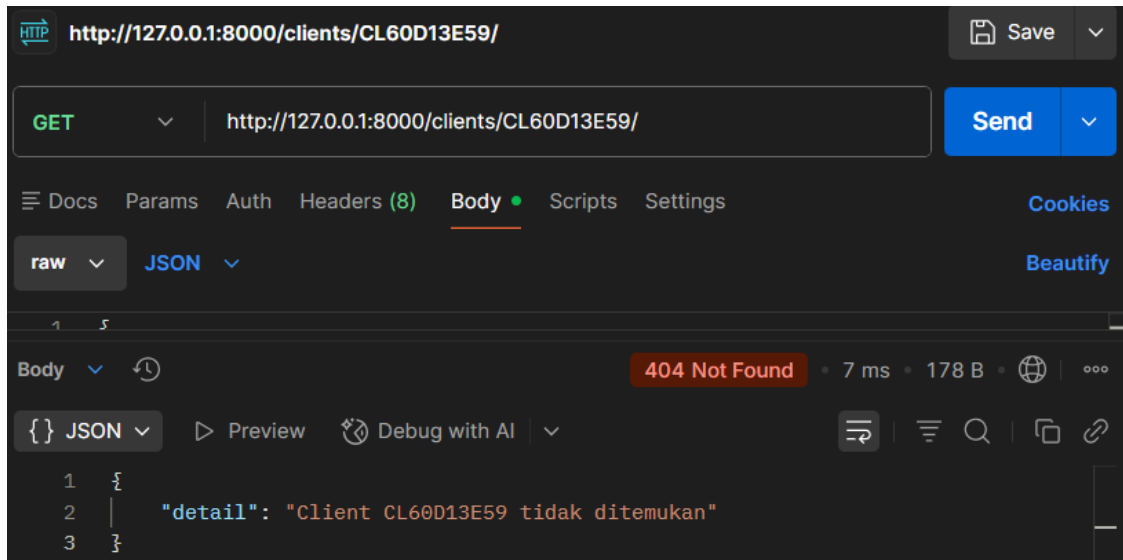
Gambar 4. Create Client - Jane Anderson



Gambar 5. Get All Clients

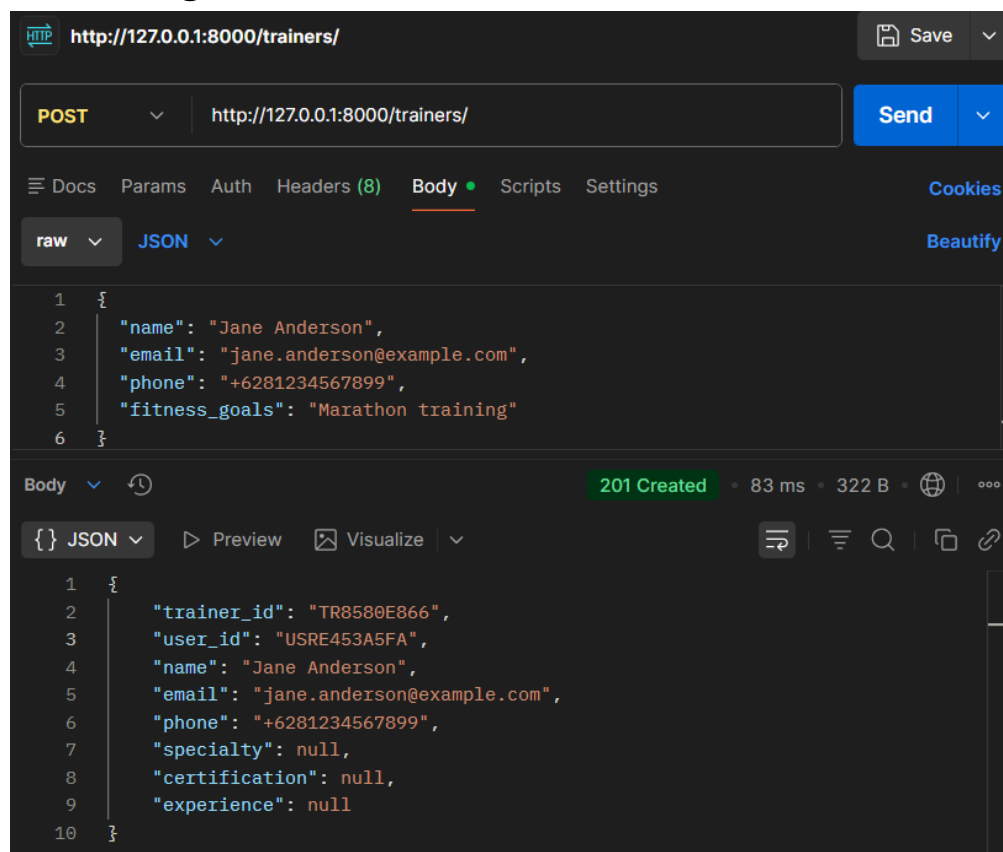


Gambar 6. Get Client By Valid Id

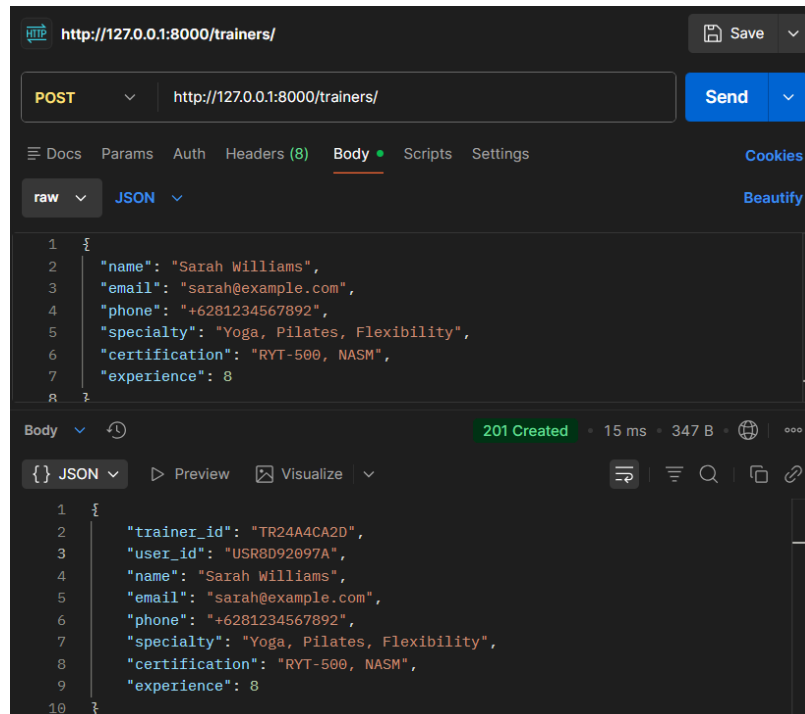


Gambar 7. Get Client By Invalid Id

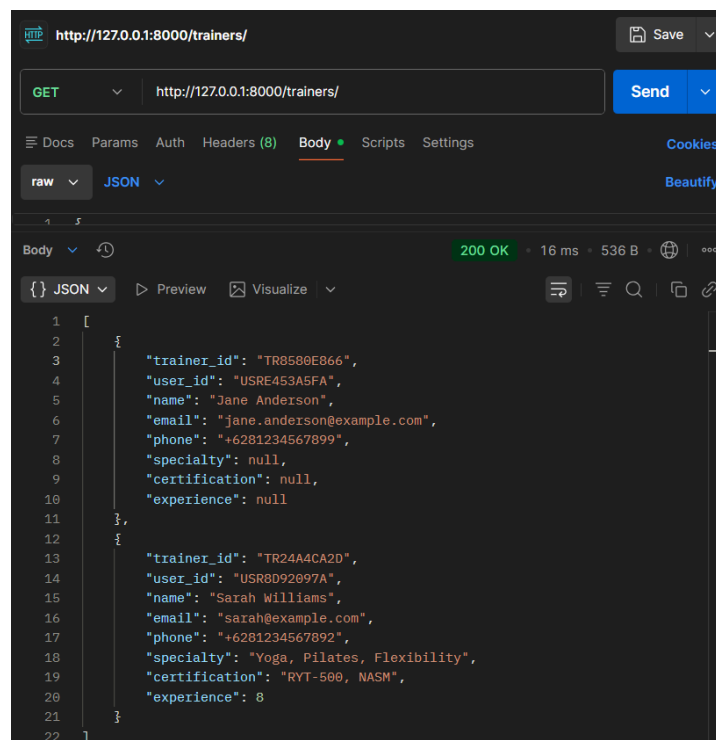
### C. Trainer Management



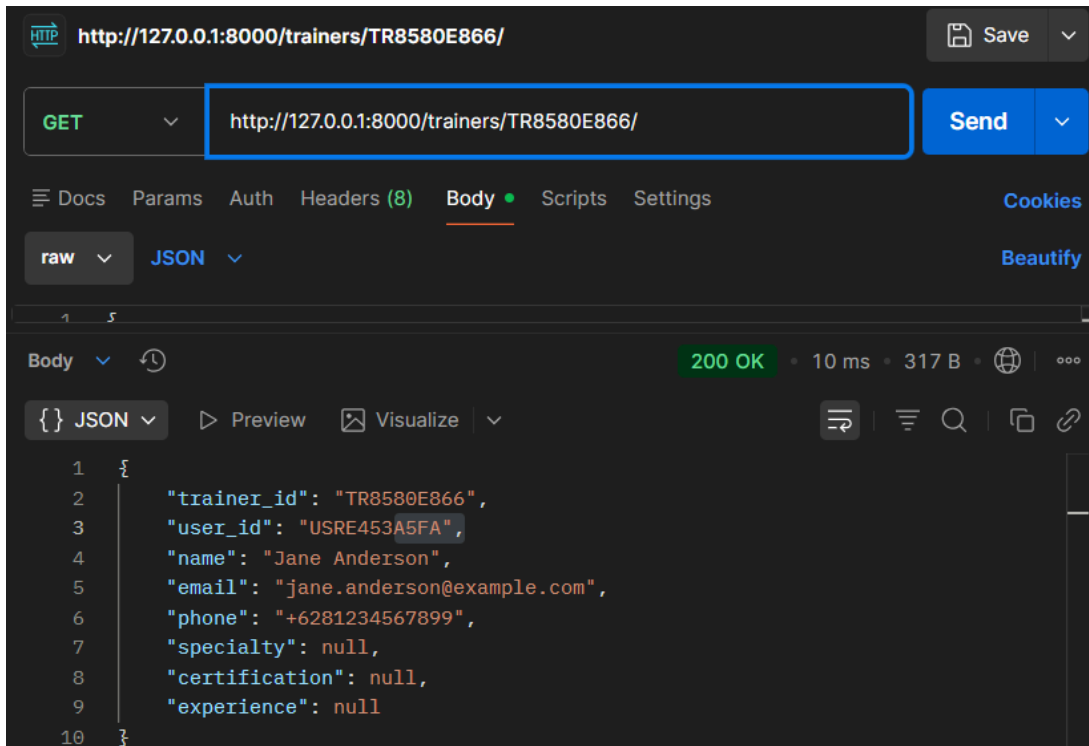
Gambar 8. Create Trainer - Jane Anderson



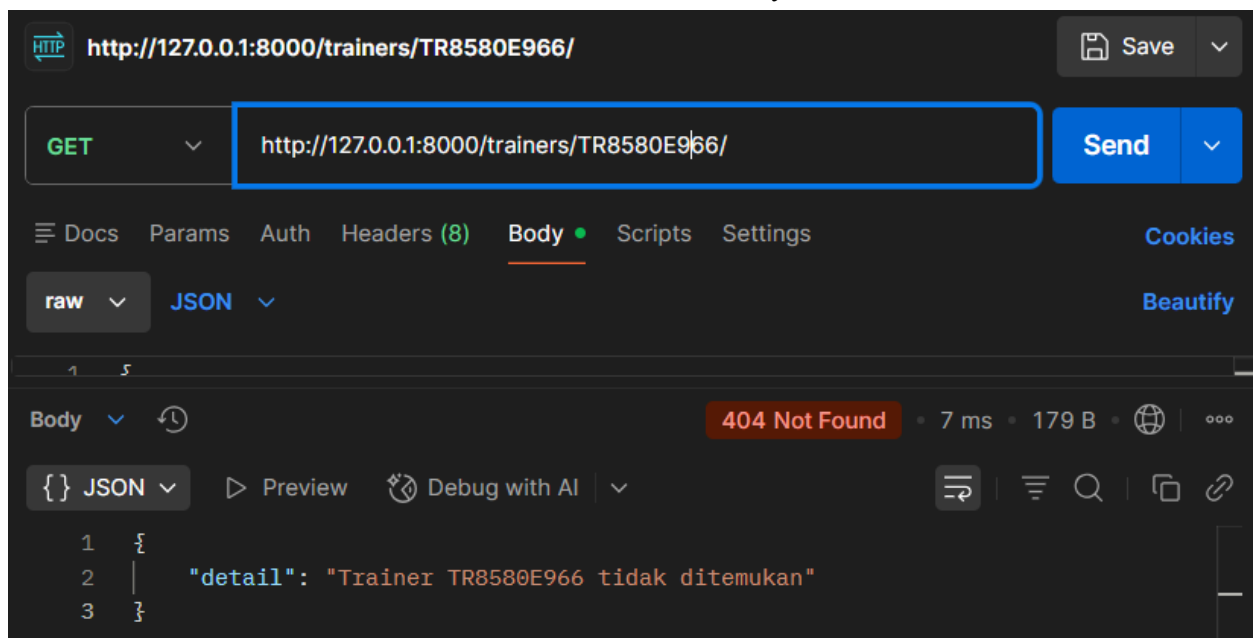
Gambar 9. Create Trainer - Sarah Williams



Gambar 10. Get All Trainer

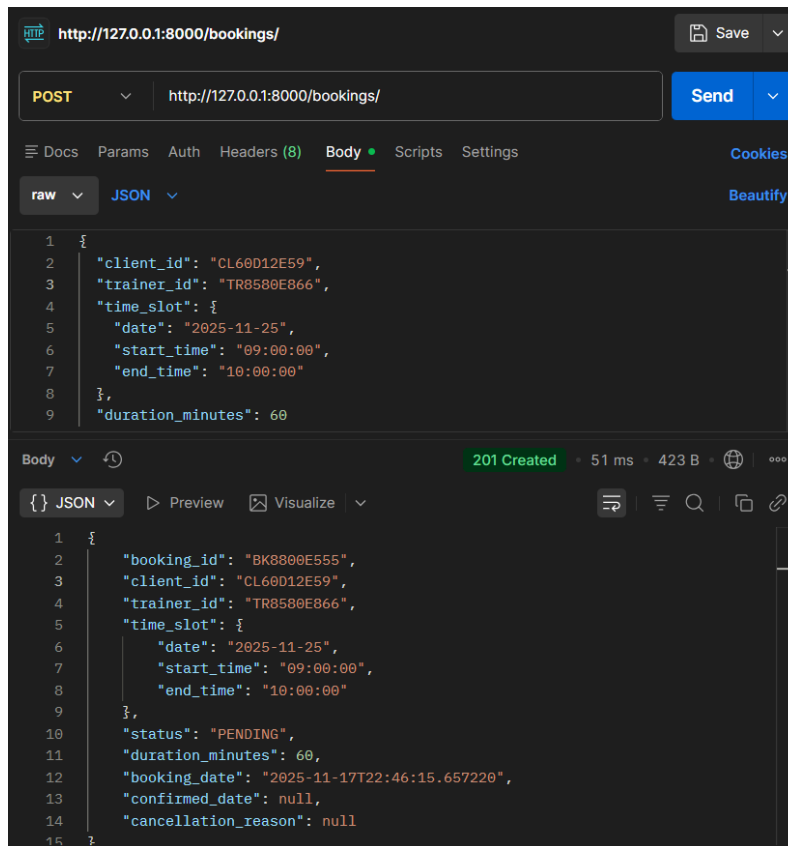


Gambar 11. Get Trainer By Valid Id

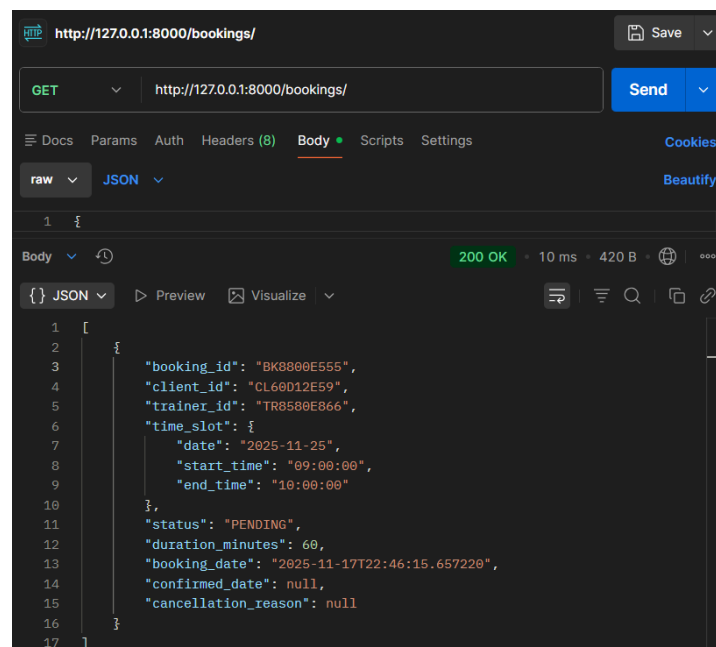


Gambar 12. Get Trainer By Invalid Id

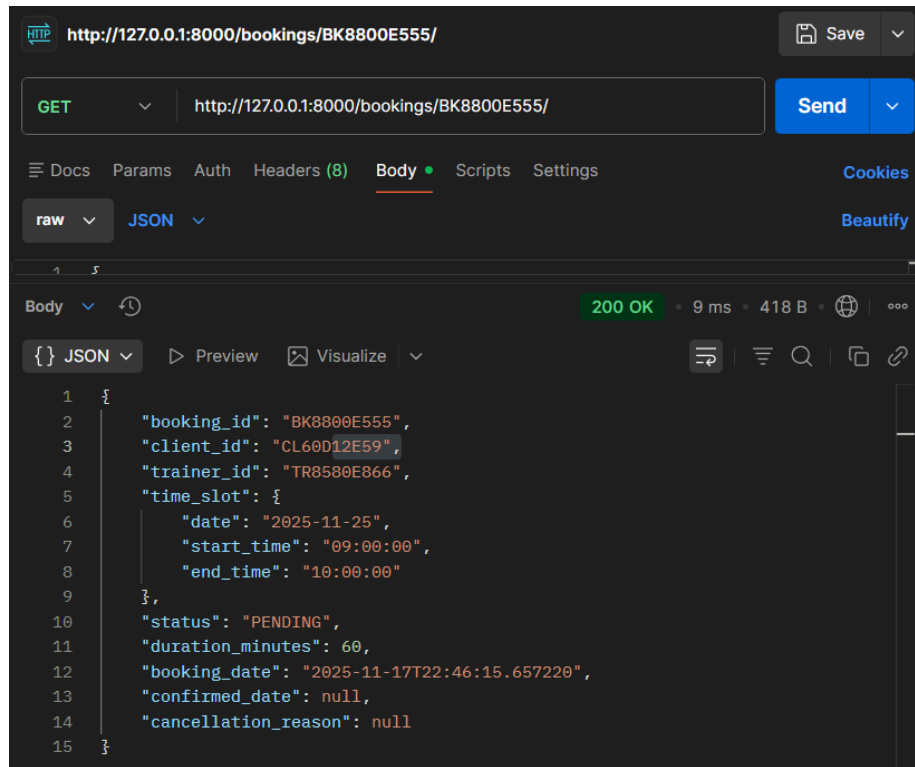
## D. Booking Management



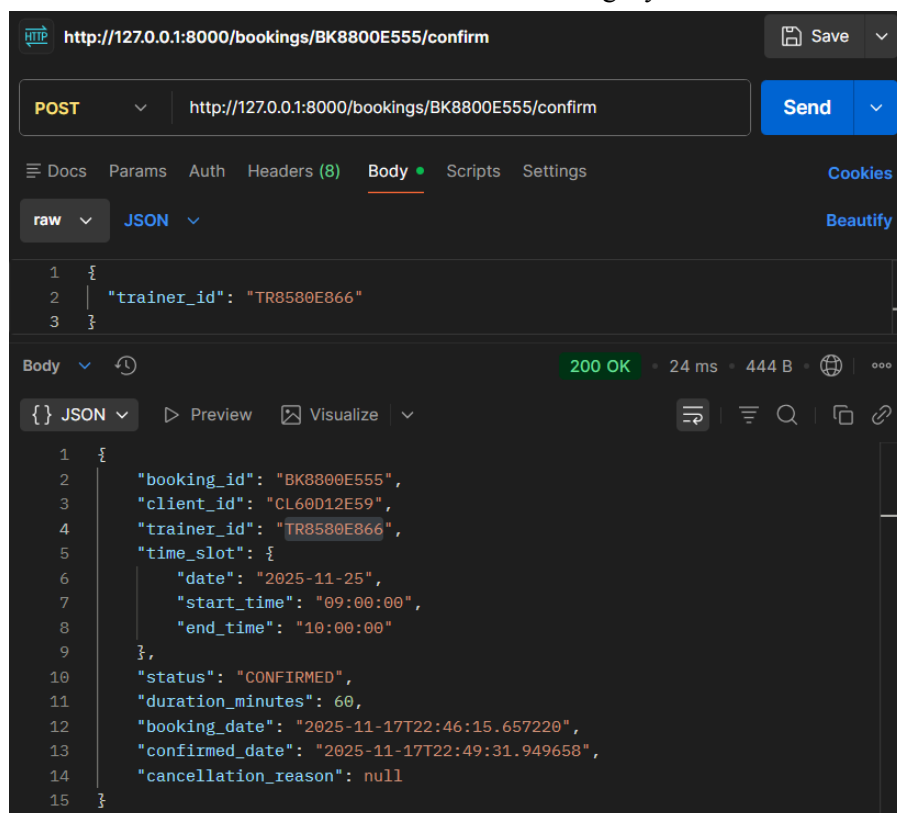
Gambar 13. Create Booking (Pending Status)



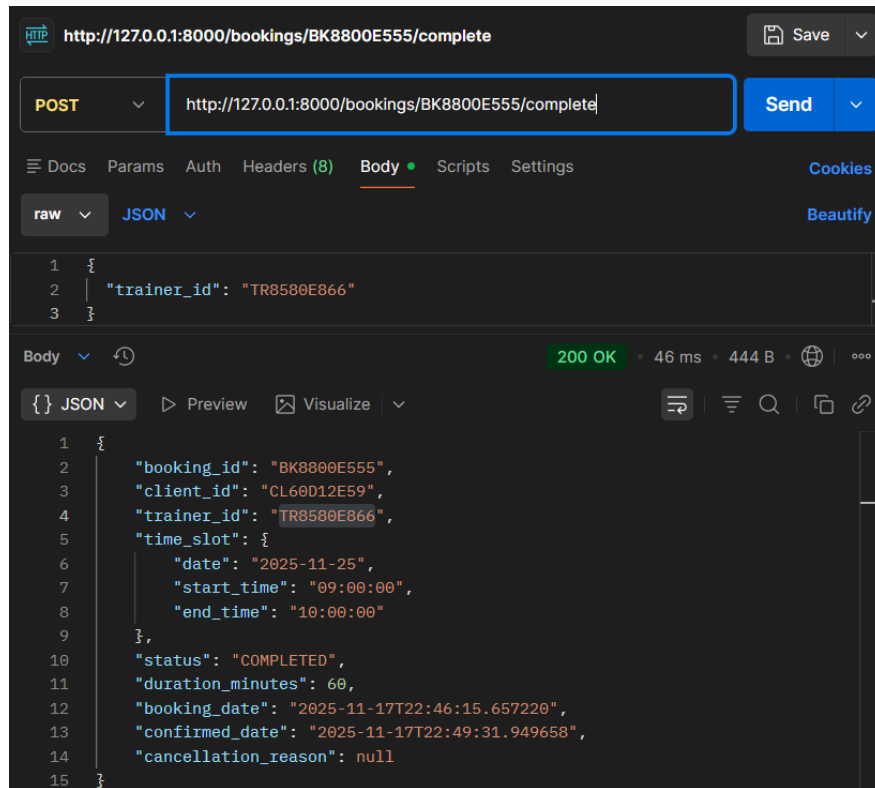
Gambar 14. Get All Booking



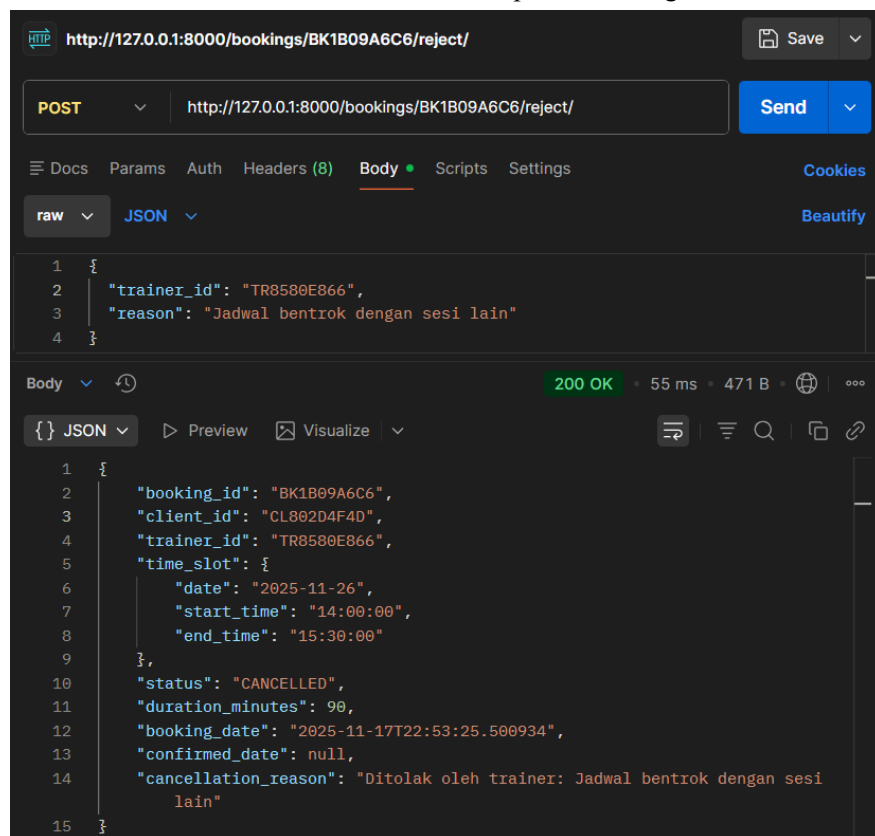
Gambar 15. Get Booking By Id



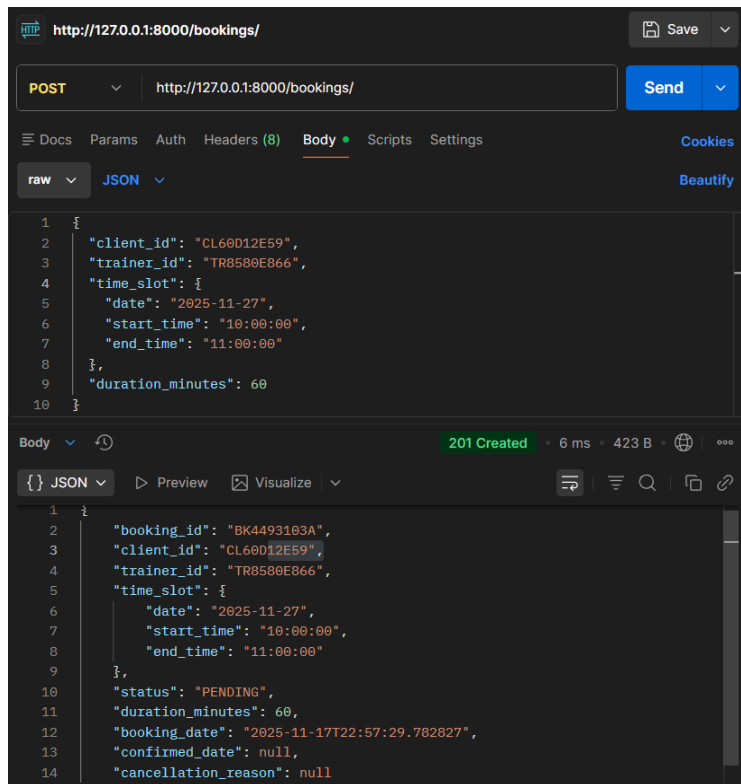
Gambar 16. Confirm Booking



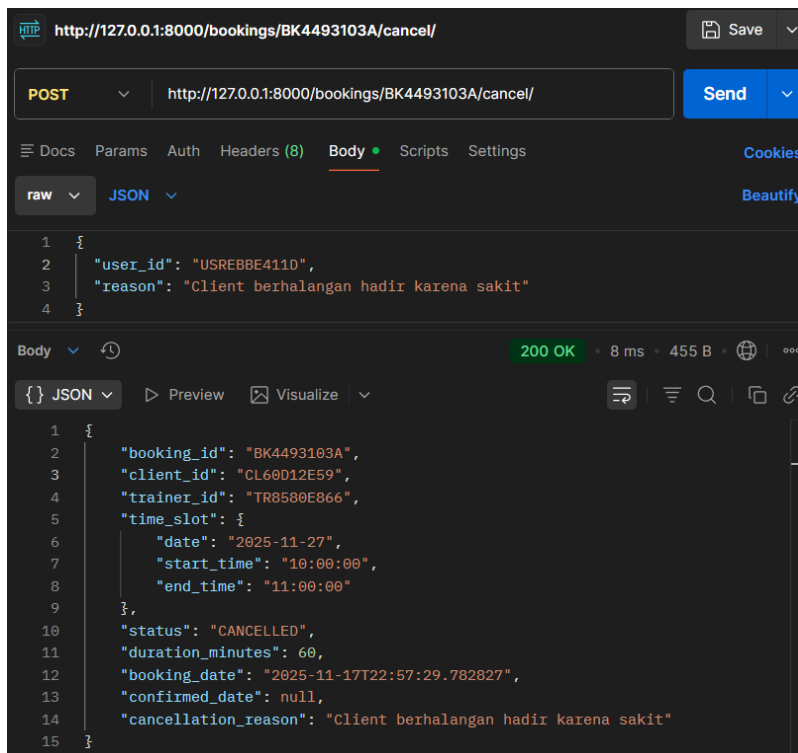
Gambar 17. Complete Booking



Gambar 18. Get Client By Invalid Id

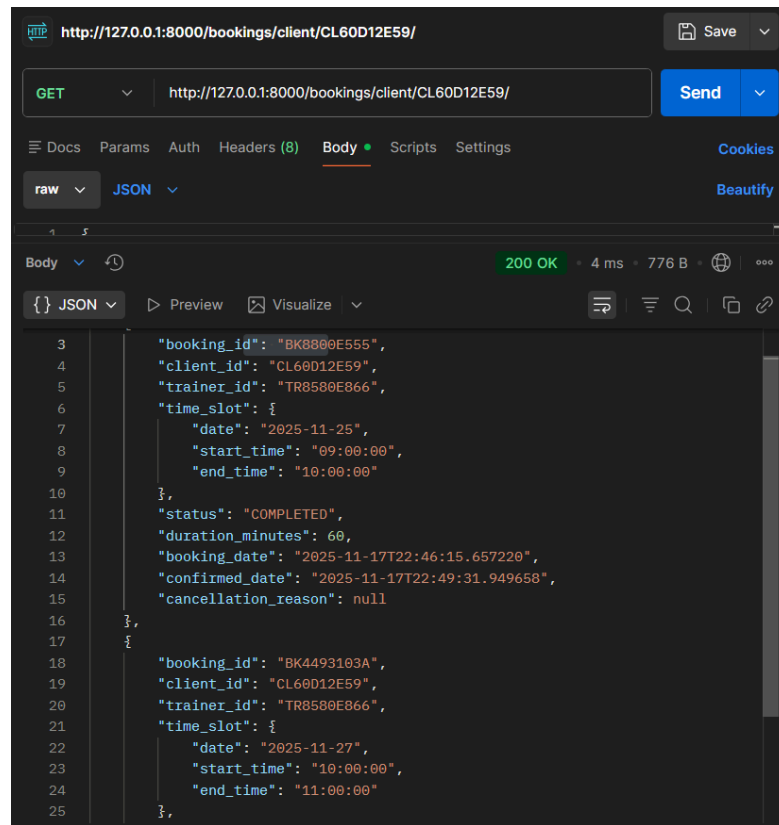


Gambar 19. Reject Booking By Trainer



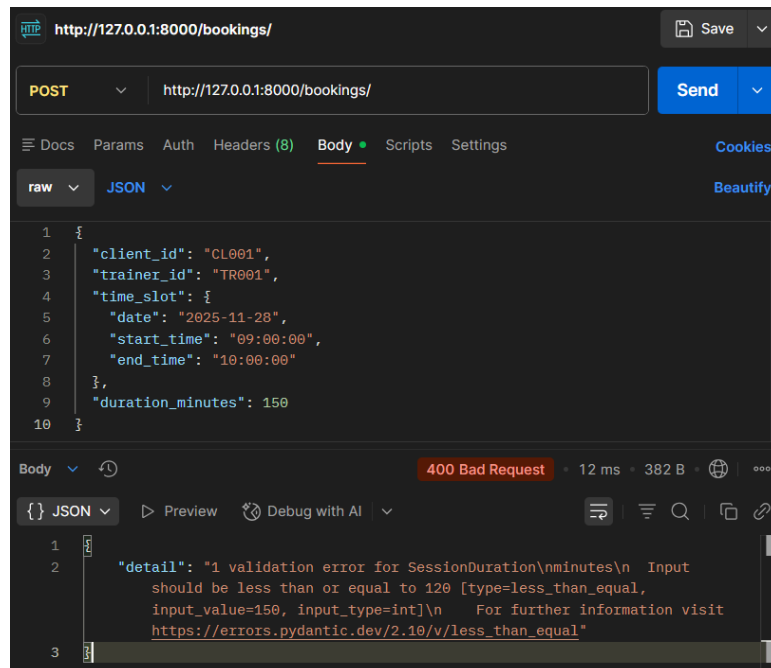
Gambar 20. Cancel Booking

## E. Query By User

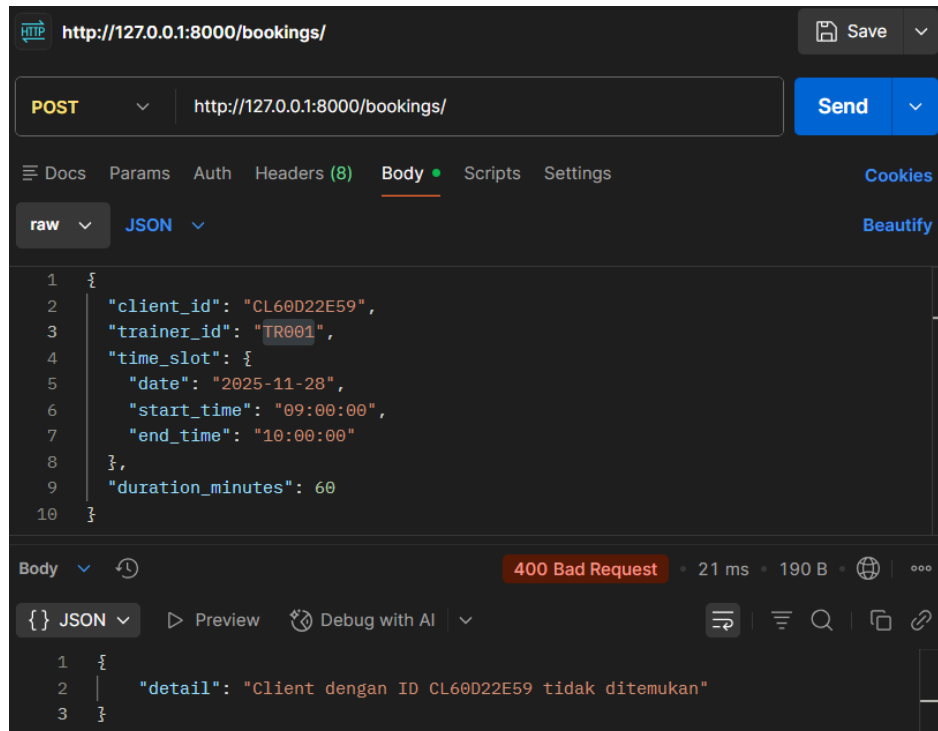


Gambar 21. Get Booking By Client Id

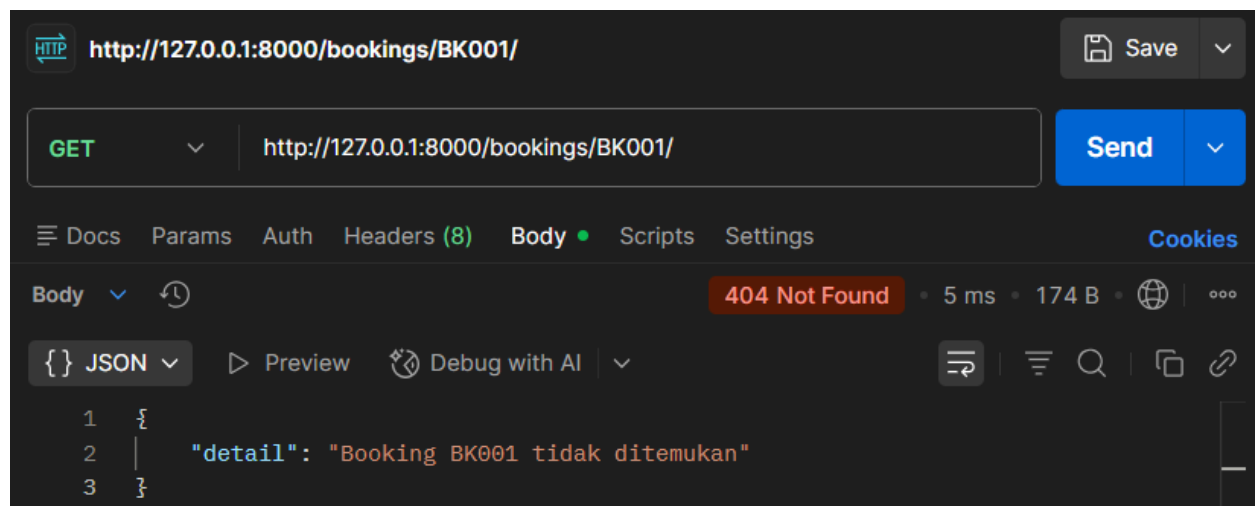
## F. Error Scenario




Gambar 22. Invalid Duration



Gambar 23. Invalid Client Id




Gambar 24. Invalid Booking Id

 **http://localhost:8000/auth/register** Save

POST

http://localhost:8000/auth/register

Send

 Docs

Params

Auth

Headers (8)

**Body**

Scripts

Settings

Cookies


raw



JSON

Beautify

```
1  {
2    "email": "newuser@example.com",
3    "password": "pass123",
4    "role": "CLIENT"
5  }
```


Body









201 Created • 321 ms • 218 B •  

{}

JSON

 Preview

 Visualize

```
1  {
2    "user_id": "USRACA3095E",
3    "email": "newuser@example.com",
4    "role": "CLIENT",
5    "is_active": true
6  }
```



http://localhost:8000/auth/me

Save



GET



http://localhost:8000/auth/me

Send



Docs

Params

Auth

Headers (9)

Body

Scripts

Settings

Cookies

Headers

8 hidden

	Key	Value	
<input checked="" type="checkbox"/>	Authorization	Bearer eyJhbGciOiJIUzI1Ni...	
	Key	Value	Description

Body



200 OK

6 ms

212 B



{}

JSON




Preview



Visualize



```
1 {
2   "user_id": "USR2F3B2E9F",
3   "email": "client@example.com",
4   "role": "CLIENT",
5   "is_active": true
6 }
```

 **http://localhost:8000/clients/** Save

POST

http://localhost:8000/clients/

Send

Docs

Params

Auth

Headers (9)

Body

Scripts

Settings

Cookies

Beautiful

raw

JSON


```
1  {
2    "name": "John Doe",
3    "email": "john@example.com",
4    "phone": "+6281234567890",
5    "fitness_goals": "Weight loss and muscle building"
6  }
```


Body

201 Created

6 ms

301 B










{}

JSON

Preview

Visualize

```
1  {
2    "client_id": "CL83D30D4B",
3    "user_id": "USRE4C8A523",
4    "name": "John Doe",
5    "email": "john@example.com",
6    "phone": "+6281234567890",
7    "fitness_goals": "Weight loss and muscle building"
8  }
```



http://localhost:8000/clients/

Save



GET



http://localhost:8000/clients/

Send



Docs

Params

Auth

Headers (9)

Body

Scripts

Settings

Cookies

Headers

8 hidden

	Key	Value		Bulk Edit	Presets
<input checked="" type="checkbox"/>	Authorization	Bearer eyJhbGciOiJIUzI1Ni...			
	Key	Value	Description		

Body



200 OK

6 ms

298 B



{ } JSON

Preview

Visualize



```
1  [
2    {
3      "client_id": "CL83D30D4B",
4      "user_id": "USRE4C8A523",
5      "name": "John Doe",
6      "email": "john@example.com",
7      "phone": "+6281234567890",
8      "fitness_goals": "Weight loss and muscle building"
9    }
10 ]
```

HTTP

http://localhost:8000/clients/CL83D30D4B

Save

GET

http://localhost:8000/clients/CL83D30D4B

Send

Docs

Params

Auth

Headers (9)

Body

Scripts

Settings

Cookies

Headers

8 hidden

	Key	Value	
<input checked="" type="checkbox"/>	Authorization	Bearer eyJhbGciOiJIUzI1NiI...	
	Key	Value	Description

Bulk Edit

Presets

Body

200 OK

8 ms

296 B

{}

JSON

Preview

Visualize

1

{

2

"client\_id": "CL83D30D4B",

3

"user\_id": "USRE4C8A523",

4

"name": "John Doe",

5

"email": "john@example.com",

6

"phone": "+6281234567890",

7

"fitness\_goals": "Weight loss and muscle building"

8

}

HTTP

http://localhost:8000/trainers

Save

POST

http://localhost:8000/trainers

Send

Docs

Params

Auth

Headers (9)

Body

Scripts

Settings

Cookies

Headers

8 hidden

	Key	Value		Bulk Edit	Presets
<input checked="" type="checkbox"/>	Authorization	Bearer eyJhbGciOiJIUzI1Ni...			
	Key	Value	Description		

Body

201 Created

5 ms

308 B

{ } JSON

Preview

Visualize

```
1  {
2    "trainer_id": "TR71B54FC1",
3    "user_id": "USR8EAB33B3",
4    "name": "John Doe",
5    "email": "john@example.com",
6    "phone": "+6281234567890",
7    "specialty": null,
8    "certification": null,
9    "experience": null
10 }
```



http://localhost:8000/trainers



Save



POST



http://localhost:8000/trainers

Send



Docs

Params

Auth

Headers (9)

Body

Scripts

Settings

Cookies

raw



JSON



Beautify

```
1  {
2    "name": "Jane Smith",
3    "email": "jane@example.com",
4    "phone": "+6281234567891",
5    "specialty": "Strength training, Weight loss",
6    "certification": "NASM-CPT, ACE",
7    "experience": 5
8  }
```

Body



201 Created

4 ms

346 B



JSON



Preview



Visualize



```
1  {
2    "trainer_id": "TR80D82EF5",
3    "user_id": "USR9D264290",
4    "name": "Jane Smith",
5    "email": "jane@example.com",
6    "phone": "+6281234567891",
7    "specialty": "Strength training, Weight loss",
8    "certification": "NASM-CPT, ACE",
9    "experience": 5
10 }
```

HTTP

http://localhost:8000/trainers

Save

GET

http://localhost:8000/trainers

Send

Docs

Params

Auth

Headers (9)

Body

Scripts

Settings

Cookies

Headers

8 hidden

	Key	Value	D	...	Bulk Edit	Presets	
<input checked="" type="checkbox"/>	Authorization	Bearer eyJhbGciOiJIUzI1Ni...					
	Key	Value				Description	

Body

200 OK

6 ms

699 B




...


{ } JSON

Preview


Visualize


```
1  [  
2    {  
3      "trainer_id": "TR9A4ED6DF",  
4      "user_id": "USR8333BABE",  
5      "name": "John Doe",  
6      "email": "john@example.com",  
7      "phone": "+6281234567890",  
8      "specialty": null,  
9      "certification": null,  
10     "experience": null  
11   },  
12   {
```

 **http://localhost:8000/trainers/TR9A4ED6DF**  Save 

GET 

http://localhost:8000/trainers/TR9A4ED6DF


Send 

 Docs

Params

Auth



Headers (9)



Body 



Scripts


Settings



Cookies






Body  

200 OK • 5 ms • 303 B •  

 JSON 

 Preview

 Visualize 

```
1  {
2    "trainer_id": "TR9A4ED6DF",
3    "user_id": "USR8333BABE",
4    "name": "John Doe",
5    "email": "john@example.com",
6    "phone": "+6281234567890",
7    "specialty": null,
8    "certification": null,
9    "experience": null
10 }
```

HTTP

http://localhost:8000/trainers

Save

GET

http://localhost:8000/trainers

Send

Docs

Params

Auth

Headers (9)

Body

Scripts

Settings

Cookies

Headers

8 hidden

	Key	Value	
<input checked="" type="checkbox"/>	Authorization	Bearer eyJhbGciOiJIUzI1Ni...	

Body

200 OK

7 ms

699 B

JSON

Preview

Visualize

1

2

3

4

5

6

7

8

[

{

"trainer\_id": "TR9A4ED6DF",

"user\_id": "USR8333BABE",

"name": "John Doe",

"email": "john@example.com",

"phone": "+6281234567890",

"specialty": null,

HTTP

http://localhost:8000/trainers/TR9A4ED6DF

Save

GET

http://localhost:8000/trainers/TR9A4ED6DF

Send

Docs

Params

Auth

Headers (9)

Body

Scripts

Settings

Cookies

Headers

8 hidden

	Key	Value	
<input checked="" type="checkbox"/>	Authorization	Bearer eyJhbGciOiJIUzI1Ni...	

Body

200 OK

8 ms

303 B

{ } JSON

Preview

Visualize

1 {

2     "trainer\_id": "TR9A4ED6DF",

3     "user\_id": "USR8333BABE",

4     "name": "John Doe",

5     "email": "john@example.com",




6     "phone": "+6281234567890",


7     "specialty": null,

8     "certification": null,


9     "experience": null


10 }

 **http://localhost:8000/bookings/**  Save 

POST 

http://localhost:8000/bookings/


Send 

 Docs

Params

Auth

Headers (9)


**Body** 


Scripts

Settings



Cookies



Beautiful



raw 


JSON 



```
1  {
2    "client_id": "CL83D30D4B",
3    "trainer_id": "TR71B54FC1".
```






Body  

201 Created • 12 ms • 423 B •  

 JSON 

 Preview

 Visualize 

```
1  {
2    "booking_id": "BK472B59D6",
3    "client_id": "CL83D30D4B",
4    "trainer_id": "TR71B54FC1",
5    "time_slot": {
6      "date": "2025-12-05",
7      "start_time": "09:00:00",
8      "end_time": "10:00:00"
9    },
10   "status": "PENDING",
11   "duration_minutes": 60,
12   "booking_date": "2025-12-01T20:37:07.047730",
13   "confirmed_date": null,
14   "cancellation_reason": null
15 }
```

<http://localhost:8000/bookings/>



Send



Docs

Auth

Bod

## Settings

## Cookies



## Beautify

$$\sum$$


- 8 ms

420



...

## JSON

 Visualize

▼

[

5

```
"booking_id": "BK472B59D6",
```

```
"client_id": "CL83D30D4B",
```

```
"trainer id": "TR71B54EC1"
```

```

"trainer_id":
"time_slot": 5

```

```
me_slot": {
  "date": "2025-12-25"
```

```
"date": "2025-12-05",
```

```
"start_time": "09:00:0
```

```
"end_time": "10:00:00"
```

7

3

```
"duration_minutes":
```

```
"duration_minutes": 60,
"booking_date": "2025-11-10T12:00:00"
```

```
"booking_date": "2025-12-01T20:37:07.047730",
```

```
"confirmed_date": null,
```

```
"cancellation_reason": null
```

7

1



http://localhost:8000/bookings/BK472B59D6



Save



GET



http://localhost:8000/bookings/BK472B59D6

Send



Docs

Params

Auth

Headers (9)

Body

Scripts

Settings

Cookies

raw



JSON



Beautify

1

{

Body



200 OK

10 ms

418 B



{}

JSON

Preview



Visualize



1

{

2

"booking\_id": "BK472B59D6",

3

"client\_id": "CL83D30D4B",

4

"trainer\_id": "TR71B54FC1",

5

"time\_slot": {

6

"date": "2025-12-05",

7

"start\_time": "09:00:00",

8

"end\_time": "10:00:00"

9

},

10

"status": "PENDING",

11

"duration\_minutes": 60,

12

"booking\_date": "2025-12-01T20:37:07.047730",

13




"confirmed\_date": null,


14

"cancellation\_reason": null


15


}

 **http://localhost:8000/bookings/BK472B59D6/confirm**  Save 

POST 

http://localhost:8000/bookings/BK472B59D6/confirm


Send 

 Docs

Params

Auth

Headers (9)


**Body** 


Scripts

Settings



Cookies



Beautify



raw 


JSON 



```
1  {
2    "booking_id": "BK472B59D6",
3    "client_id": "CL83D30D4B",
4    "trainer_id": "TR71B54FC1",
5    "time_slot": {
6      "date": "2025-12-05",
7      "start_time": "09:00:00",
8      "end_time": "10:00:00"
9    },
10   "status": "CONFIRMED",
11   "duration_minutes": 60,
12   "booking_date": "2025-12-01T20:37:07.047730",
13   "confirmed_date": "2025-12-01T20:41:29.716803",
14   "cancellation_reason": null
15 }
```






Body  

200 OK • 13 ms • 444 B •  

 JSON 

 Preview

 Visualize 

```
1  {
2    "booking_id": "BK472B59D6",
3    "client_id": "CL83D30D4B",
4    "trainer_id": "TR71B54FC1",
5    "time_slot": {
6      "date": "2025-12-05",
7      "start_time": "09:00:00",
8      "end_time": "10:00:00"
9    },
10   "status": "CONFIRMED",
11   "duration_minutes": 60,
12   "booking_date": "2025-12-01T20:37:07.047730",
13   "confirmed_date": "2025-12-01T20:41:29.716803",
14   "cancellation_reason": null
15 }
```

HTTP

http://localhost:8000/bookings/client/CL83D30D4B

Save

GET

http://localhost:8000/bookings/client/CL83D30D4B

Send

Docs

Params

Auth

Headers (9)

Body

Scripts

Settings

Cookies

raw

JSON

Beautify

2

"trainer\_id": "TR001",

3

"reason": "Jadwal bentrok"

Body

200 OK

8 ms

446 B

{}

JSON

Preview

Visualize

1

[

2

{

3

"booking\_id": "BK472B59D6",

4

"client\_id": "CL83D30D4B",

5

"trainer\_id": "TR71B54FC1",

6

"time\_slot": {

7

"date": "2025-12-05",

8

"start\_time": "09:00:00",

9

"end\_time": "10:00:00"

10

},

11

"status": "CONFIRMED",

12

"duration\_minutes": 60,

13

"booking\_date": "2025-12-01T20:37:07.047730",

14

"confirmed\_date": "2025-12-01T20:41:29.716803",

15




"cancellation\_reason": null


16

}


17


]

 **http://localhost:8000/auth/register**  Save 

POST 

http://localhost:8000/auth/register


Send 

 Docs

Params

Auth

Headers (8)


**Body** 


Scripts

Settings



Cookies



Beautify


raw 


JSON 



```
1  {
2    "email": "trainer@example.com",
3    "password": "password123",
4    "role": "TRAINER"
5  }
```






Body  

201 Created • 261 ms • 219 B •  

{ } JSON 

 Preview

 Visualize 

```
1  {
2    "user_id": "USR9049F9D6",
3    "email": "trainer@example.com",
4    "role": "TRAINER",
5    "is_active": true
6  }
```



http://localhost:8000/auth/login

Save



POST



http://localhost:8000/auth/login

Send



Docs

Params

Auth

Headers (8)

Body

Scripts

Settings

Cookies

x-www-form-urlencoded



	Key	Value	Description	...	Bulk Edit
<input checked="" type="checkbox"/>	username	trainer@example.com			
<input checked="" type="checkbox"/>	password	password123			
	Key	Value	Description		

Body



200 OK



301 ms



433 B



JSON



Preview



Visualize



```
1  {
2    "access_token": "eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJzdWIiOiJVU1I2NkUwOEZFMjYsImVtYWlsIjoidHJhaw5lckBleGFtcGxlLnVbSIsInJvbGUiOiJUUKFJTkvVSIIiwiaXNjaXNzY0NTk2MDg5fQ.0-Z7Udc8V6AAjScz2j8An0hWHwEkGe0blEyu70bTbu8",
3    "token_type": "bearer",
4    "user_id": "USR66E08FE3",
5    "email": "trainer@example.com",
6    "role": "TRAINER"
7  }
```



http://localhost:8000/auth/me



Save



GET



http://localhost:8000/auth/me

Send



Docs

Params

Auth

Headers (9)

Body

Scripts

Settings

Cookies

Headers



8 hidden

	Key	Value		Bulk Edit	Presets
<input checked="" type="checkbox"/>	Authorization	Bearer eyJhbGciOiJIUzI1NiI...			
	Key	Value	Description		

Body



200 OK



11 ms



214 B



200 OK • 11 ms • 214 B •



JSON



Preview



Visualize



1



2

"user\_id": "USR66E08FE3",

3

"email": "trainer@example.com",

4

"role": "TRAINER",

5

"is\_active": true

6

