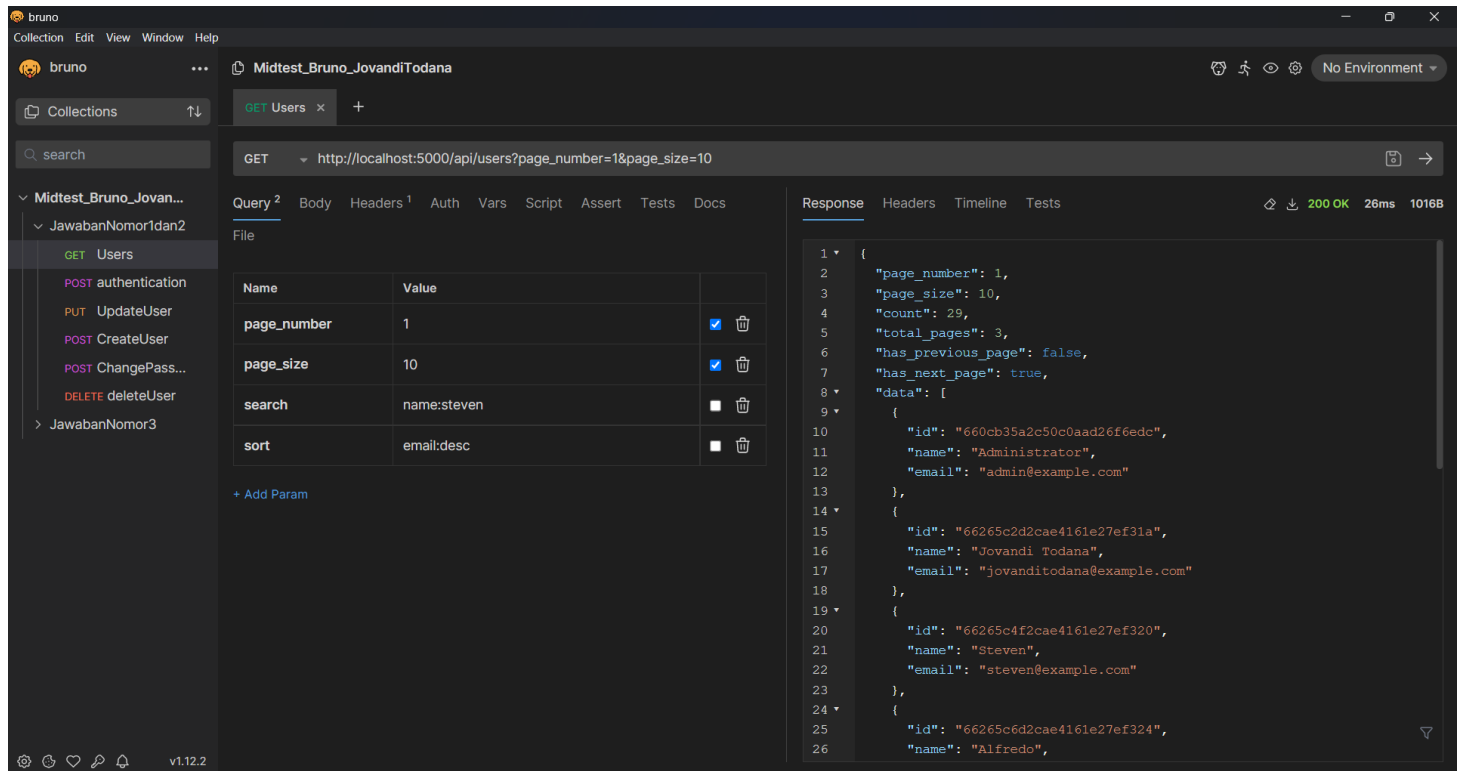


NAMA : JOVANDI TODANA
NIM : 535230027
KELAS : A
BACK-END PROGRAMMING
PROYEK UJIAN TENGAH SEMESTER 2023 / 2024

1. Pagination dan Filter

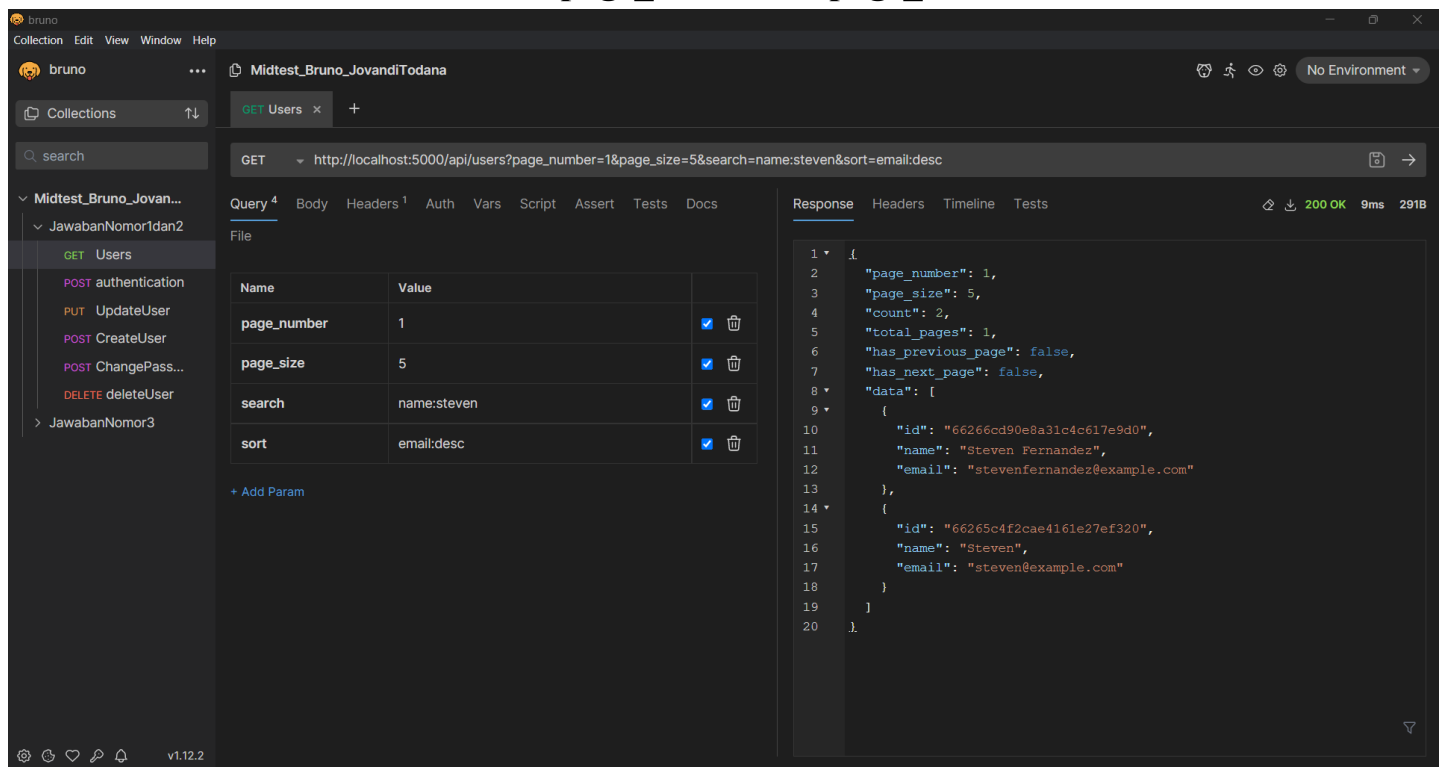
❖ End Point: GET /users → page_number dan page_size



The screenshot shows the Bruno API client interface. The request is a GET to `http://localhost:5000/api/users?page_number=1&page_size=10`. The response is a JSON object with the following structure:

```
1 {
2   "page_number": 1,
3   "page_size": 10,
4   "count": 29,
5   "total_pages": 3,
6   "has_previous_page": false,
7   "has_next_page": true,
8   "data": [
9     {
10      "id": "660cb35a2c50c0aad26f6edc",
11      "name": "Administrator",
12      "email": "admin@example.com"
13    },
14    {
15      "id": "66265c2d2cae4161e27ef31a",
16      "name": "Jovandi Todana",
17      "email": "jovanditodana@example.com"
18    },
19    {
20      "id": "66265c4f2cae4161e27ef320",
21      "name": "Steven",
22      "email": "steven@example.com"
23    },
24    {
25      "id": "66265c6d2cae4161e27ef324",
26      "name": "Alfredo",
```

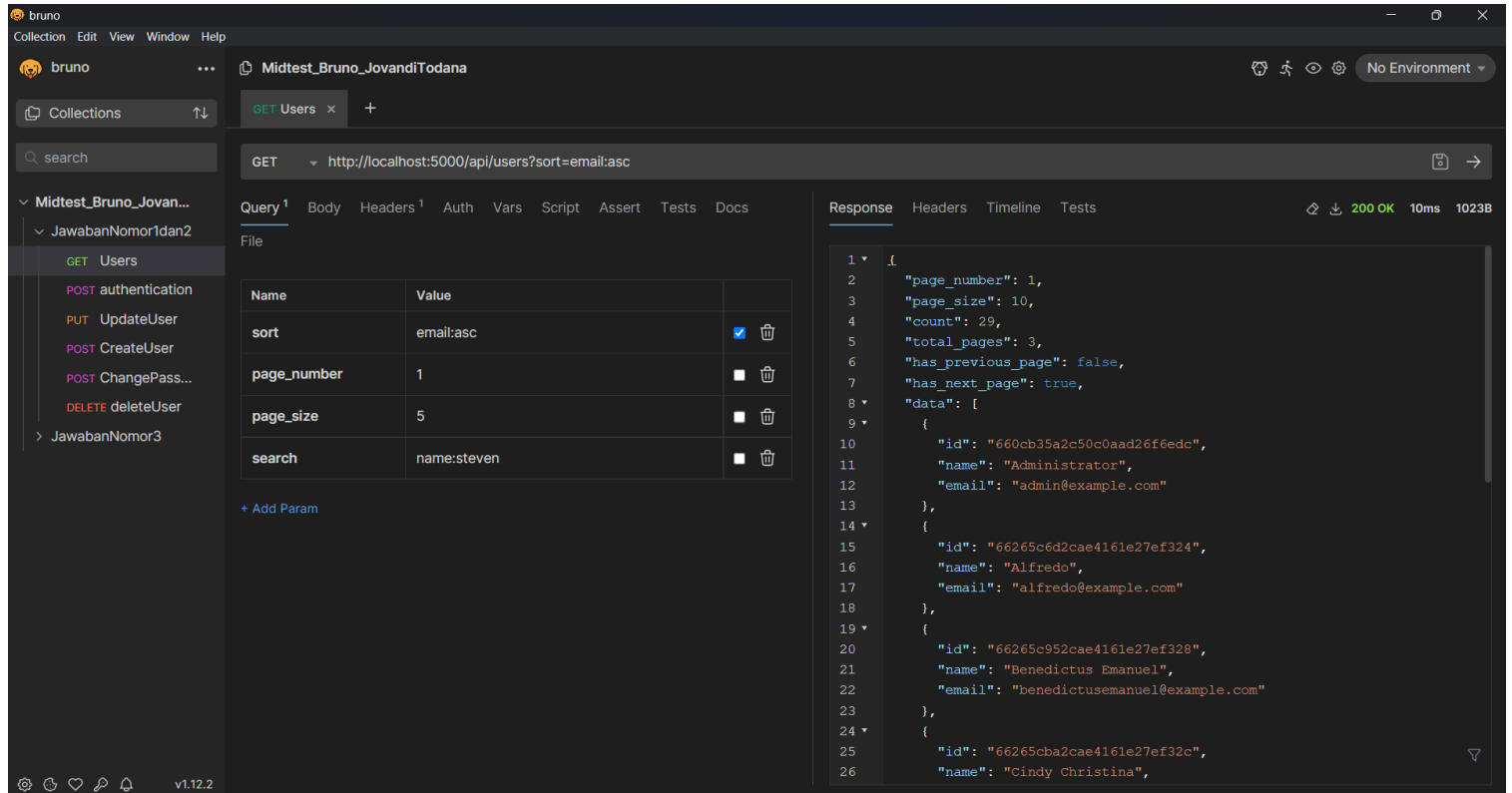
❖ End Point: GET /users → page_number & page_size & search & sort



The screenshot shows the Bruno API client interface. The request is a GET to `http://localhost:5000/api/users?page_number=1&page_size=5&search=name:steven&sort=email:desc`. The response is a JSON object with the following structure:

```
1 {
2   "page_number": 1,
3   "page_size": 5,
4   "count": 2,
5   "total_pages": 1,
6   "has_previous_page": false,
7   "has_next_page": false,
8   "data": [
9     {
10      "id": "66266cd90e8a31c4c617e9d0",
11      "name": "Steven Fernandez",
12      "email": "stevenfernandez@example.com"
13    },
14    {
15      "id": "66265c4f2cae4161e27ef320",
16      "name": "Steven",
17      "email": "steven@example.com"
18    }
19  ]
20 }
```

❖ End Point: GET /users → sort : asc



bruno
Collection Edit View Window Help

bruno ... Midtest_Bruno_JovandiTodana

GET Users x +

GET http://localhost:5000/api/users?sort=email:asc

Query 1 Body Headers 1 Auth Vars Script Assert Tests Docs

File

Name	Value
sort	email:asc
page_number	1
page_size	5
search	name:steven

+ Add Param

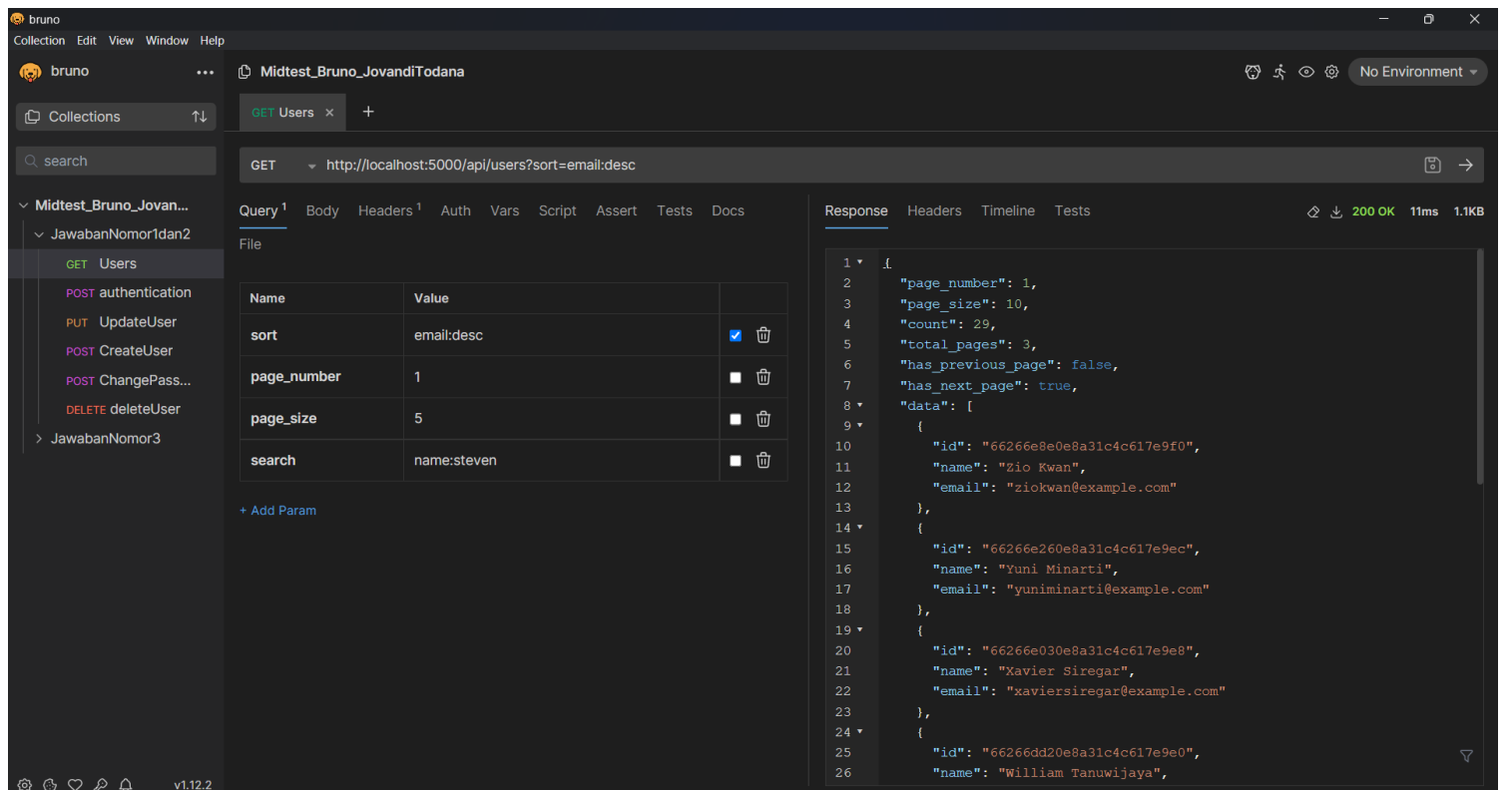
Response Headers Timeline Tests

```
1 {
2   "page_number": 1,
3   "page_size": 10,
4   "count": 29,
5   "total_pages": 3,
6   "has_previous_page": false,
7   "has_next_page": true,
8   "data": [
9     {
10      "id": "660cb35a2c50c0aad26f6edc",
11      "name": "Administrator",
12      "email": "admin@example.com"
13    },
14    {
15      "id": "66265c6d2cae4161e27ef324",
16      "name": "Alfredo",
17      "email": "alfredo@example.com"
18    },
19    {
20      "id": "66265c952cae4161e27ef328",
21      "name": "Benedictus Emanuel",
22      "email": "benedictusemanuel@example.com"
23    },
24    {
25      "id": "66265cba2cae4161e27ef32c",
26      "name": "Cindy Christina",
```

200 OK 10ms 1023B

v1.12.2

❖ End Point: GET /users → sort : desc



bruno
Collection Edit View Window Help

bruno ... Midtest_Bruno_JovandiTodana

GET Users x +

GET http://localhost:5000/api/users?sort=email:desc

Query 1 Body Headers 1 Auth Vars Script Assert Tests Docs

File

Name	Value
sort	email:desc
page_number	1
page_size	5
search	name:steven

+ Add Param

Response Headers Timeline Tests

```
1 {
2   "page_number": 1,
3   "page_size": 10,
4   "count": 29,
5   "total_pages": 3,
6   "has_previous_page": false,
7   "has_next_page": true,
8   "data": [
9     {
10      "id": "66266e8e0e8a31c4c617e9f0",
11      "name": "Zio Kwan",
12      "email": "ziokwan@example.com"
13    },
14    {
15      "id": "66266e260e8a31c4c617e9ec",
16      "name": "Yuni Minarti",
17      "email": "yuniminarti@example.com"
18    },
19    {
20      "id": "66266e030e8a31c4c617e9e8",
21      "name": "Xavier Siregar",
22      "email": "xaviersiregar@example.com"
23    },
24    {
25      "id": "66266dd20e8a31c4c617e9e0",
26      "name": "William Tanuwijaya",
```

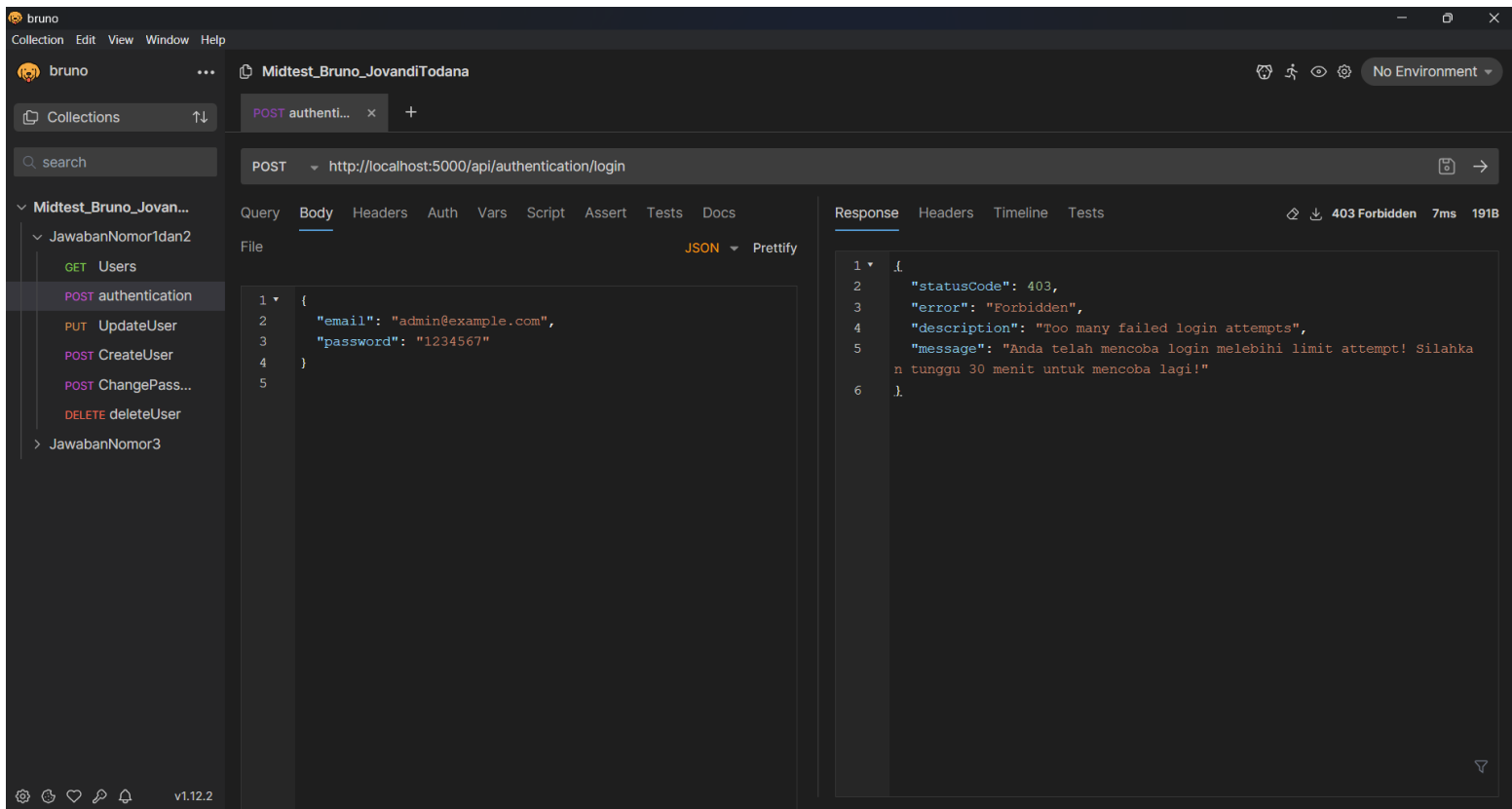
200 OK 11ms 1.1KB

v1.12.2

2. Login Attempts Limit

❖ Error 403 Forbidden: Too many failed login attempts

Setelah melakukan 5 kali percobaan login dengan memasukkan *password* yang salah, akan muncul pesan seperti berikut:



Setelah 30 menit, user dapat mencoba *login* kembali.

3. Sistem API untuk aplikasi di bidang: E-commerce atau Marketplace

❖ Fitur: Kelola Kupon Belanja

✚ Create → POST /coupons

Admin E-commerce dapat membuat diskon atau promosi baru beserta detail seperti jumlah potongan harga, tanggal expire, dan syarat dan ketentuan.

✚ Read → GET /coupons

Pengguna/pembeli dapat melihat daftar diskon dan promosi yang tersedia, serta syarat dan ketentuannya.

Pengguna juga dapat melakukan pencarian berdasarkan nama kupon yang tersedia. Serta, pengguna juga dapat melakukan sortir data kupon yang ada seperti *ascending* atau *descending*.

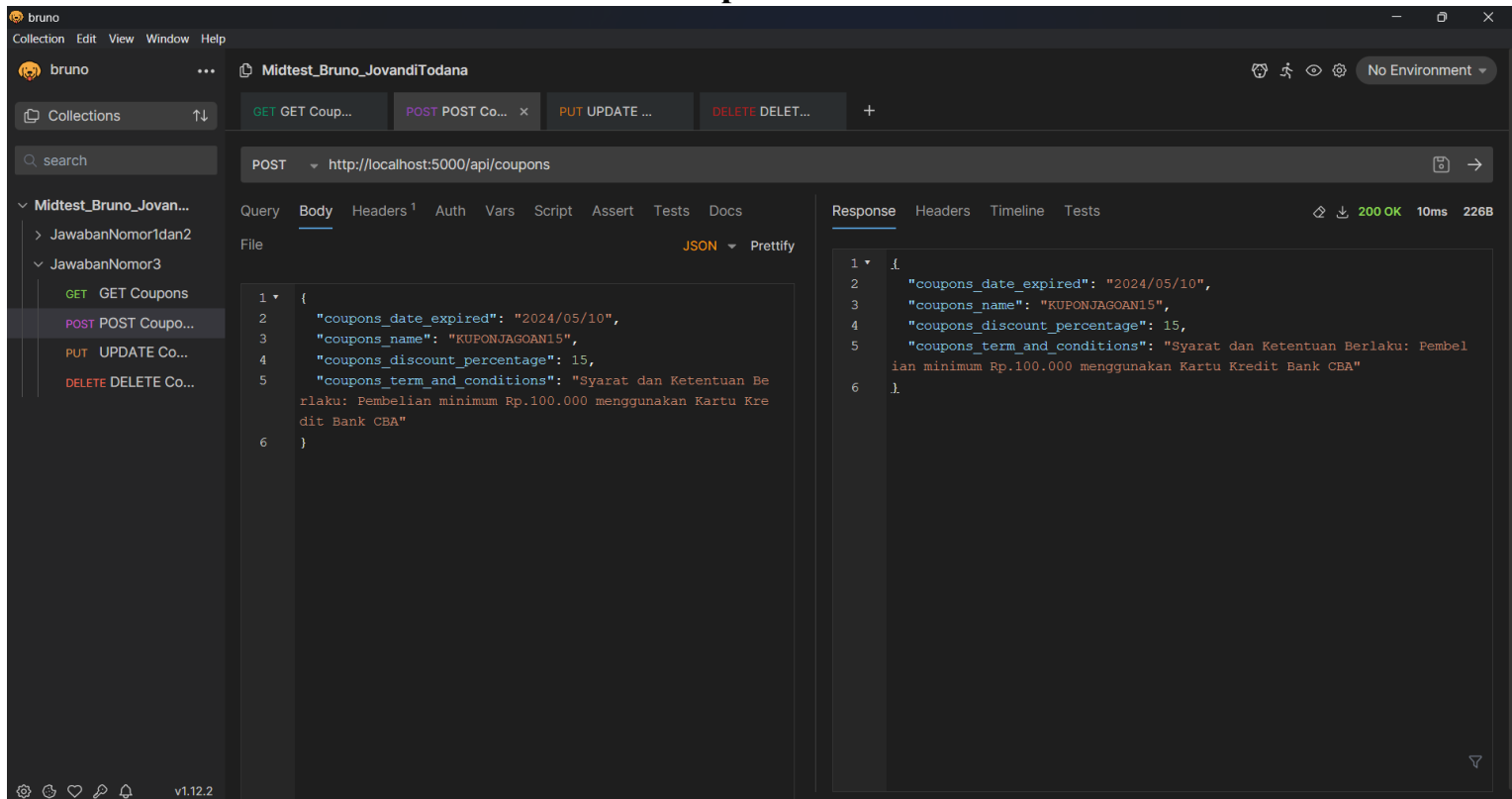
✚ Update → PUT /coupons/{id}

Admin E-commerce dapat memperbaharui detail diskon atau promosi yang sudah ada di database, seperti memperpanjang masa expire promo atau mengubah nominal potongan harga.

✚ Delete → DELETE /coupons/{id}

Admin E-commerce dapat menghapus kode diskon atau promosi yang sudah tidak berlaku dari database.

❖ END POINT: Create → POST /coupons



Collection Edit View Window Help

bruno Midtest_Bruno_JovandiTodana No Environment

GET GET Coup... POST POST Co... PUT UPDATE ... DELETE DELET...

search

POST http://localhost:5000/api/coupons

Query Body Headers¹ Auth Vars Script Assert Tests Docs

File JSON Prettify

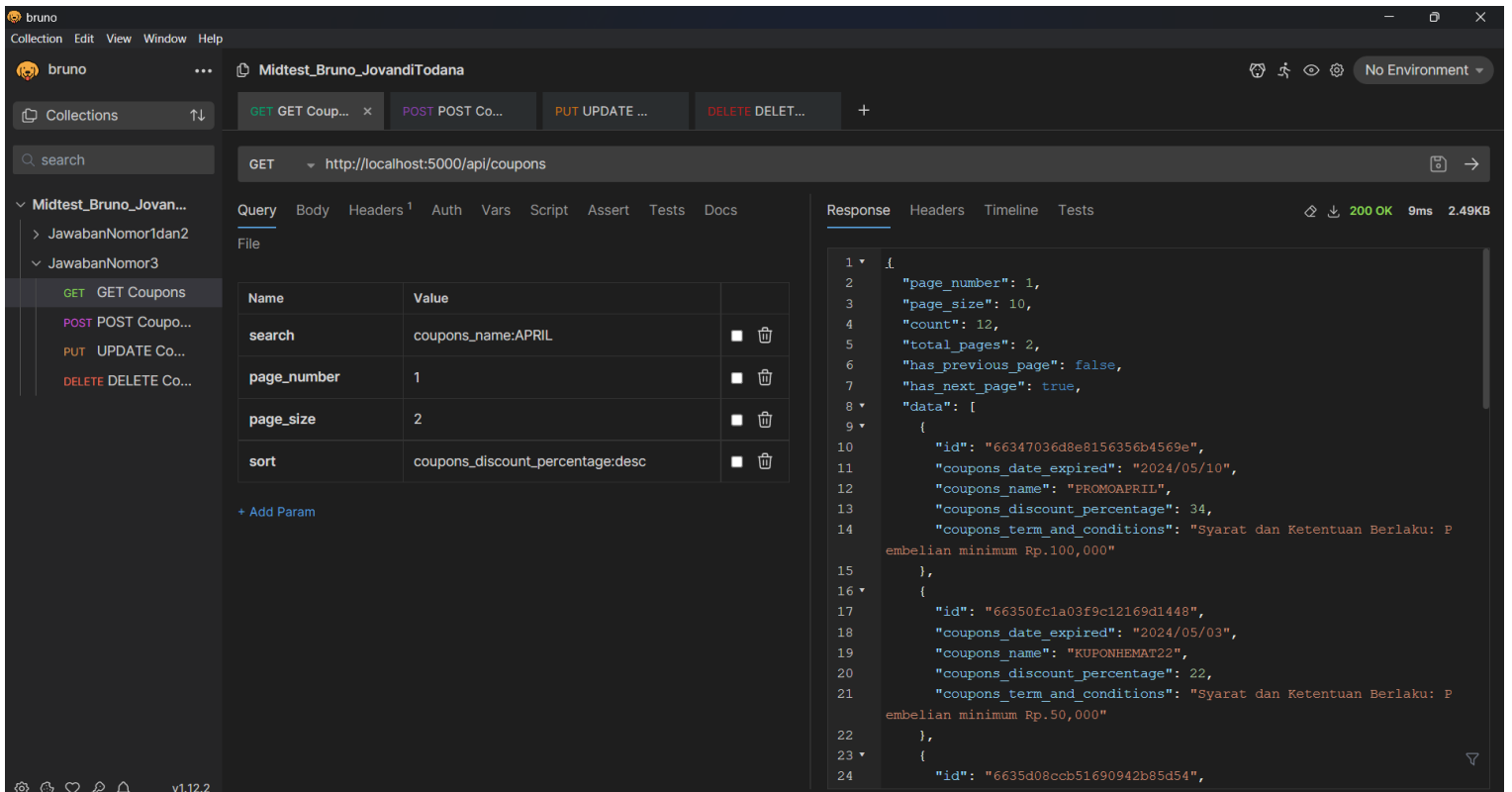
```
1 {
2   "coupons_date_expired": "2024/05/10",
3   "coupons_name": "KUPONJAGOAN15",
4   "coupons_discount_percentage": 15,
5   "coupons_term_and_conditions": "Syarat dan Ketentuan Berlaku: Pembelian minimum Rp.100.000 menggunakan Kartu Kredit Bank CBA"
6 }
```

Response Headers Timeline Tests 200 OK 10ms 226B

```
1 {
2   "coupons_date_expired": "2024/05/10",
3   "coupons_name": "KUPONJAGOAN15",
4   "coupons_discount_percentage": 15,
5   "coupons_term_and_conditions": "Syarat dan Ketentuan Berlaku: Pembelian minimum Rp.100.000 menggunakan Kartu Kredit Bank CBA"
6 }
```

v1.12.2

❖ END POINT: Read → GET /coupons



Collection Edit View Window Help

bruno Midtest_Bruno_JovandiTodana No Environment

GET GET Coup... POST POST Co... PUT UPDATE ... DELETE DELET...

search

GET http://localhost:5000/api/coupons

Query Body Headers¹ Auth Vars Script Assert Tests Docs

File

Name	Value	
search	coupons_name:APRIL	■ 🗑
page_number	1	■ 🗑
page_size	2	■ 🗑
sort	coupons_discount_percentage:desc	■ 🗑

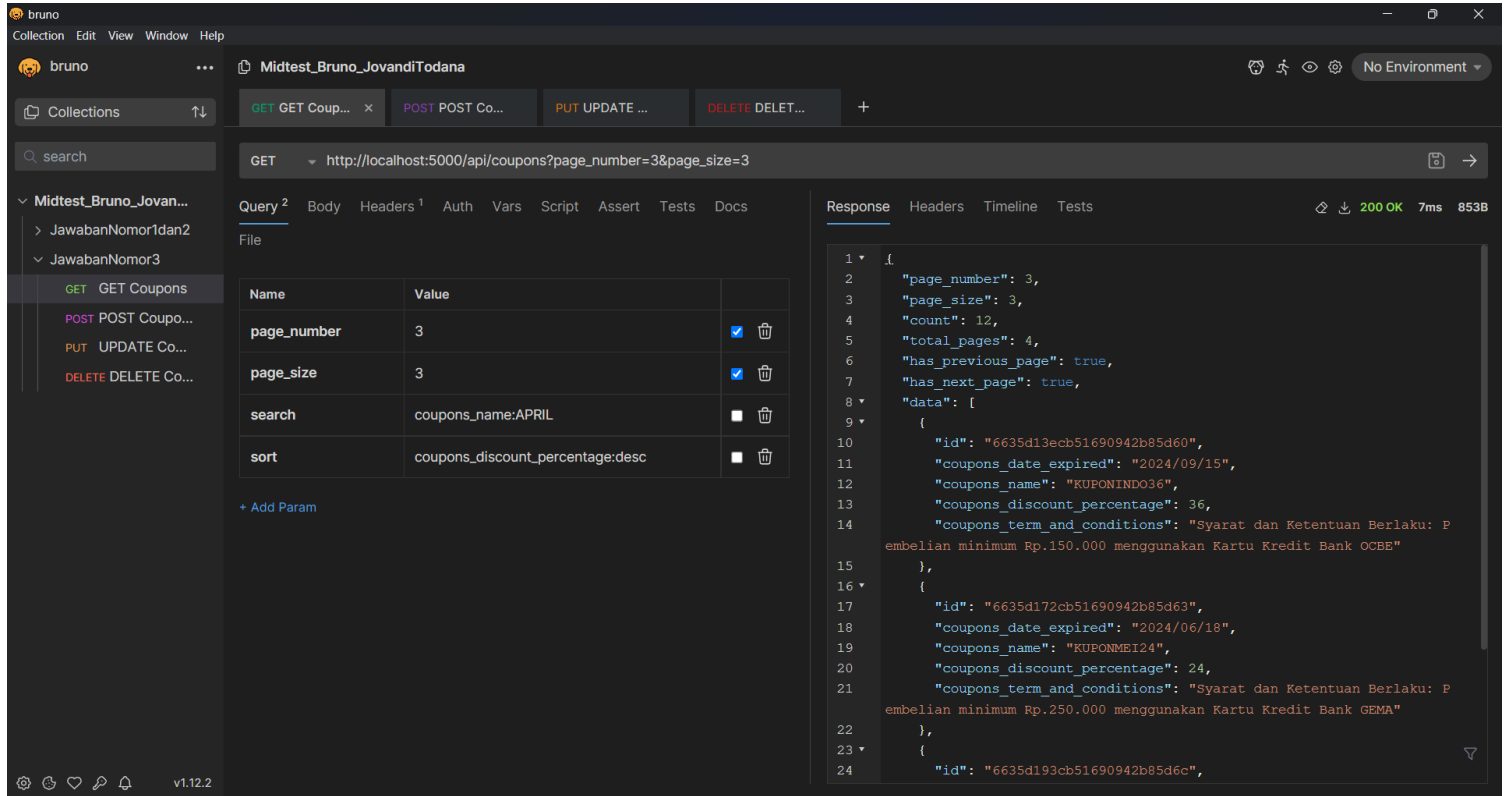
+ Add Param

Response Headers Timeline Tests 200 OK 9ms 2.49KB

```
1 {
2   "page_number": 1,
3   "page_size": 10,
4   "count": 12,
5   "total_pages": 2,
6   "has_previous_page": false,
7   "has_next_page": true,
8   "data": [
9     {
10      "id": "66347036d8e8156356b4569e",
11      "coupons_date_expired": "2024/05/10",
12      "coupons_name": "PROMOAPRIL",
13      "coupons_discount_percentage": 34,
14      "coupons_term_and_conditions": "Syarat dan Ketentuan Berlaku: Pembelian minimum Rp.100,000"
15    },
16    {
17      "id": "66350fc1a03f9c12169d1448",
18      "coupons_date_expired": "2024/05/03",
19      "coupons_name": "KUPONHEMAT22",
20      "coupons_discount_percentage": 22,
21      "coupons_term_and_conditions": "Syarat dan Ketentuan Berlaku: Pembelian minimum Rp.50,000"
22    },
23    {
24      "id": "6635d08ecb51690942b85d54",
25      "coupons_date_expired": "2024/05/10",
26      "coupons_name": "KUPONJAGOAN15",
27      "coupons_discount_percentage": 15,
28      "coupons_term_and_conditions": "Syarat dan Ketentuan Berlaku: Pembelian minimum Rp.100,000 menggunakan Kartu Kredit Bank CBA"
29    }
30  ]
31 }
```

v1.12.2

GET /users → page_number dan page_size



bruno

Collection Edit View Window Help

Midtest_Bruno_JovandiTodana

GET GET Coup... POST POST Co... PUT UPDATE ... DELETE DELET...

GET http://localhost:5000/api/coupons?page_number=3&page_size=3

Query 2 Body Headers 1 Auth Vars Script Assert Tests Docs

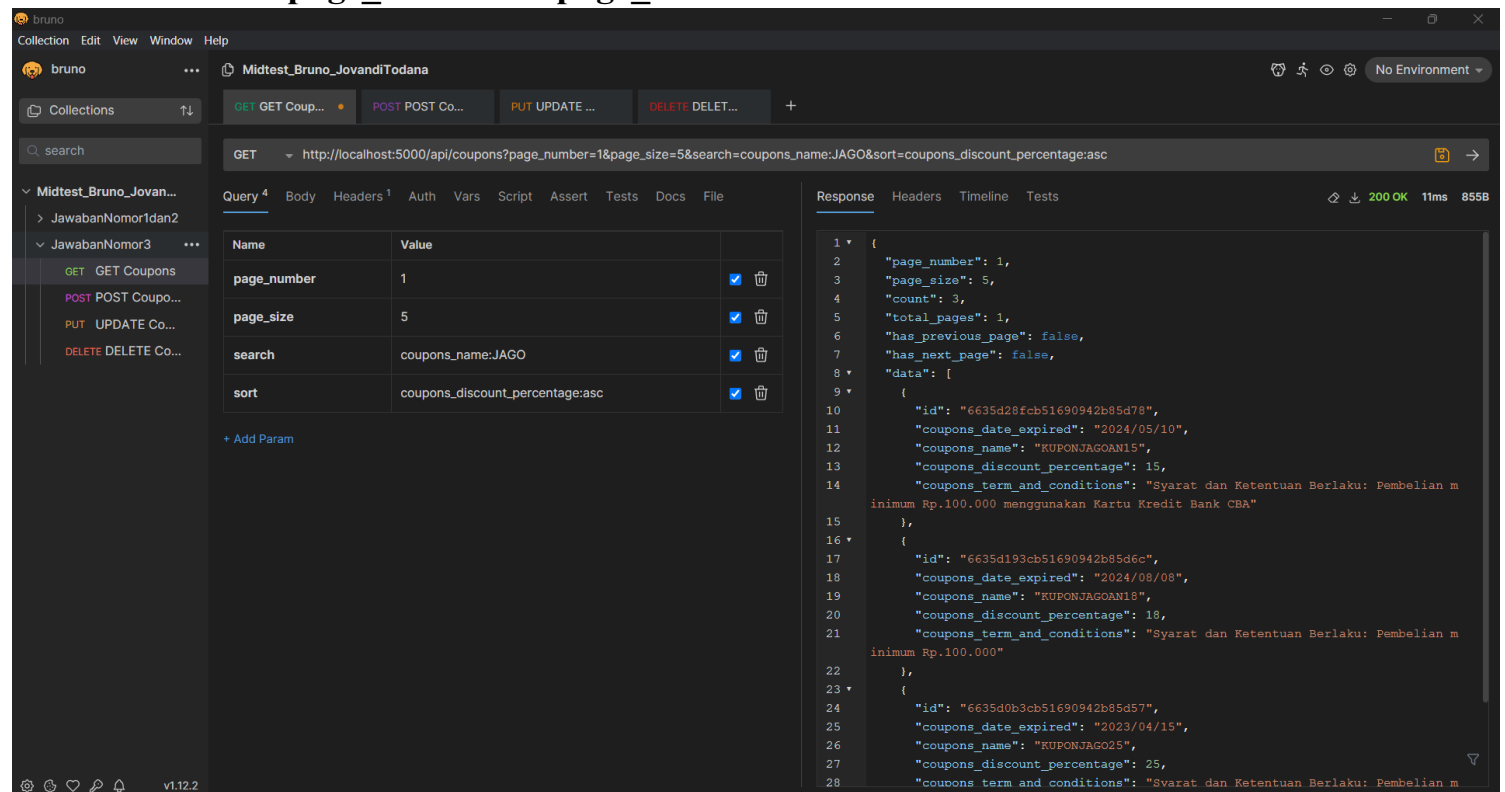
Name	Value
page_number	3
page_size	3
search	coupons_name:APRIL
sort	coupons_discount_percentage:desc

+ Add Param

Response Headers Timeline Tests

```
1 {
2   "page_number": 3,
3   "page_size": 3,
4   "count": 12,
5   "total_pages": 4,
6   "has_previous_page": true,
7   "has_next_page": true,
8   "data": [
9     {
10      "id": "6635d13ecb51690942b85d60",
11      "coupons_date_expired": "2024/09/15",
12      "coupons_name": "KUPONINDO36",
13      "coupons_discount_percentage": 36,
14      "coupons_term_and_conditions": "Syarat dan Ketentuan Berlaku: P
15      embelian minimum Rp.150.000 menggunakan Kartu Kredit Bank OCBE"
16    },
17    {
18      "id": "6635d172cb51690942b85d63",
19      "coupons_date_expired": "2024/06/18",
20      "coupons_name": "KUPONMEI24",
21      "coupons_discount_percentage": 24,
22      "coupons_term_and_conditions": "Syarat dan Ketentuan Berlaku: P
23      embelian minimum Rp.250.000 menggunakan Kartu Kredit Bank GEMA"
24    },
25    {
26      "id": "6635d193cb51690942b85d6c",
27      "coupons_date_expired": "2024/08/08",
28      "coupons_name": "KUPONJAGO25",
29      "coupons_discount_percentage": 25,
30      "coupons_term_and_conditions": "Syarat dan Ketentuan Berlaku: Pembelian m
```

GET /users → page_number & page_size & search & sort



bruno

Collection Edit View Window Help

Midtest_Bruno_JovandiTodana

GET GET Coup... POST POST Co... PUT UPDATE ... DELETE DELET...

GET http://localhost:5000/api/coupons?page_number=1&page_size=5&search=coupons_name:JAGO&sort=coupons_discount_percentage:asc

Query 4 Body Headers 1 Auth Vars Script Assert Tests Docs File

Name	Value
page_number	1
page_size	5
search	coupons_name:JAGO
sort	coupons_discount_percentage:asc

+ Add Param

Response Headers Timeline Tests

```
1 {
2   "page_number": 1,
3   "page_size": 5,
4   "count": 3,
5   "total_pages": 1,
6   "has_previous_page": false,
7   "has_next_page": false,
8   "data": [
9     {
10      "id": "6635d28fcb51690942b85d78",
11      "coupons_date_expired": "2024/05/10",
12      "coupons_name": "KUPONJAGOAN15",
13      "coupons_discount_percentage": 15,
14      "coupons_term_and_conditions": "Syarat dan Ketentuan Berlaku: Pembelian m
15      inimum Rp.100.000 menggunakan Kartu Kredit Bank CBA"
16    },
17    {
18      "id": "6635d193cb51690942b85d6c",
19      "coupons_date_expired": "2024/08/08",
20      "coupons_name": "KUPONJAGOAN18",
21      "coupons_discount_percentage": 18,
22      "coupons_term_and_conditions": "Syarat dan Ketentuan Berlaku: Pembelian m
23      inimum Rp.100.000"
24    },
25    {
26      "id": "6635d0b3cb51690942b85d57",
27      "coupons_date_expired": "2023/04/15",
28      "coupons_name": "KUPONJAGO25",
29      "coupons_discount_percentage": 25,
30      "coupons_term_and_conditions": "Syarat dan Ketentuan Berlaku: Pembelian m
```

❖ END POINT: Update → PUT /coupons/:id

The screenshot shows the Bruno API client interface. The top bar indicates the environment is 'No Environment'. The left sidebar shows a collection named 'Midtest_Bruno_JovandiTodana' with a sub-collection 'JawabanNomor3'. The main panel displays a PUT request to the endpoint `http://localhost:5000/api/coupons/6635d28fcb51690942b85d78`. The request body is a JSON object with the following fields:

```
1 {
2   "coupons_date_expired": "2024/05/10",
3   "coupons_name": "KUPONJAGOAN15",
4   "coupons_discount_percentage": 15,
5   "coupons_term_and_conditions": "Syarat dan Ketentuan Berlaku: P
6   embelian minimum Rp.100.000 menggunakan Kartu Kredit Bank CBA. Ku
7   pon berlaku di semua gerai toko di seluruh Indonesia"
8 }
```

The response is a 200 OK status with a response time of 10ms and a size of 314B. The response body is a JSON object with the following fields:

```
1 {
2   "id": "6635d28fcb51690942b85d78",
3   "coupons_date_expired": "2024/05/10",
4   "coupons_name": "KUPONJAGOAN15",
5   "coupons_discount_percentage": 15,
6   "coupons_term_and_conditions": "Syarat dan Ketentuan Berlaku: Pembelian minim
7   um Rp.100.000 menggunakan Kartu Kredit Bank CBA. Kupon berlaku di semua gerai t
8   oko di seluruh Indonesia"
9 }
```

❖ END POINT: Delete → DELETE /coupons/:id

The screenshot shows the Bruno API client interface. The top bar indicates the environment is 'No Environment'. The left sidebar shows a collection named 'Midtest_Bruno_JovandiTodana' with a sub-collection 'JawabanNomor3'. The main panel displays a DELETE request to the endpoint `http://localhost:5000/api/coupons/6635d193cb51690942b85d6c`. The request headers are:

Name	Value
Authorization	JWT eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJlbW

The response is a 200 OK status with a response time of 7ms and a size of 33B. The response body is a JSON object with the following fields:

```
1 {
2   "id": "6635d193cb51690942b85d6c"
3 }
```