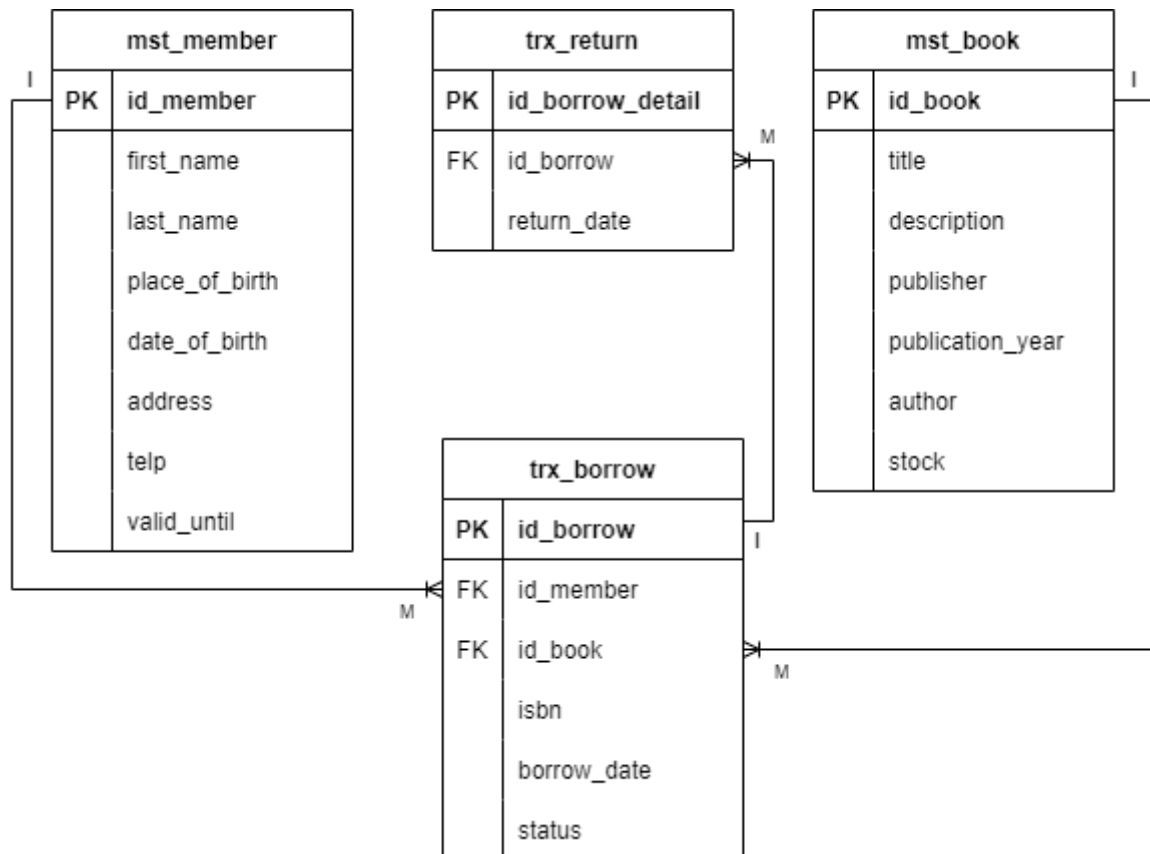


JAVA SPRING BOOT  
Application Programming Interface

[ Live Code ]  
Aplikasi Library

DICKY AGUS SETIAWAN

ERD  
(Entity Relationship Diagram)



Keterangan :

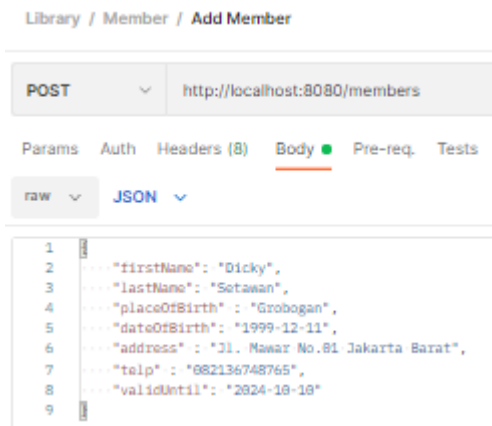
1. Table mst\_member adalah table yang menyimpan data-data member perpustakaan
2. Table mst\_book adalah table yang menyimpan data buku yang ada di perpustakaan
3. Table trx\_borrow adalah tabel untuk menyimpan data transaksi peminjaman buku oleh member
4. Table trx\_return adalah table untuk menyimpan data pengembalian buku

SCREENSHOT

A. Member

a. Add Member

Input body



## Input body

PUT ▼ http://localhost:8080/members

Params Auth Headers (8) **Body** Pre-req. Tests Settings

raw ▼ JSON ▼

```

1
2
3
4
5
6
7
8
9
10
{
  "id": "8a8ab2a3804080680180408246e90000",
  "firstName": "Mira",
  "lastName": "Setiawan",
  "placeOfBirth": "Sulawesi",
  "dateOfBirth": "1997-01-11",
  "address": "Jl. Anggur No.01 Sulawesi",
  "telp": "082229198265",
  "validUntil": "2026-10-10"
}
```

## Output

Pretty Raw Preview Visualize JSON ▼ ≡

```

1
2
3
4
5
6
7
8
9
10
11
12
13
{
  "message": "Update member success",
  "data": {
    "id": "8a8ab2a3804080680180408246e90000",
    "firstName": "Mira",
    "lastName": "Setiawan",
    "placeOfBirth": "Sulawesi",
    "dateOfBirth": "1997-01-11",
    "address": "Jl. Anggur No.01 Sulawesi",
    "telp": "082229198265",
    "validUntil": "2026-10-10"
  }
}
```

## Data table member after Update

9	8a8ab2a380405448018040546bd40000	Jl. Anggur No.01 Tangerang	1999-01-11	Iwan	Gumilar	Tangerang	082229298265	2026-10-10
10	8a8ab2a3804080680180408246e90000	Jl. Anggur No.01 Sulawesi	1997-01-11	Mira	Setiawan	Sulawesi	082229198265	2026-10-10

Keterangan :

Data awal : "lastName" : "Guntur"

Data After Update : "lastName" : "Setiawan"

Terdapat message "Update member success" ketika user berhasil update data member

## d. Delete Member

### Data

Data Output									Explain	Messages	Notifications
	id_member	address	date_of_birth	first_name	last_name	place_of_birth	telp	valid_until			
	[PK] character varying (255)	character varying (255)	date	character varying (255)	character varying (255)	character varying (255)	character varying (255)	date			
1	8a8ab2a38034db9e018034ddb...	Jl. Mawar No.01 Jakarta B...	1999-12-11	Dicky	Ferdiansyah	Grobogan	082136748765	2024-10-10			

## Input param

Library / Member / Delete Member

DELETE ▼ http://localhost:8080/members?id=8a8ab2a38034db9e018034ddb9c60000

Params ● Authorization Headers (6) Body Pre-request Script Tests Settings

Query Params

KEY	VALUE
<input checked="" type="checkbox"/> id	8a8ab2a38034db9e018034ddb9c60000

## Data after Delete

Data Output									Explain	Messages	Notifications
	id_member	address	date_of_birth	first_name	last_name	place_of_birth	telp	valid_until			
	[PK] character varying (255)	character varying (255)	date	character varying (255)	character varying (255)	character varying (255)	character varying (255)	date			

Keterangan :

User Delete member dengan id : "8a8ab2a38034db9e018034ddb9c60000"

## e. Custom PageResponWrapper

Before

```
24      "id": "8a8ab2a38034db9e@180352849aa9002",
25      "firstName": "Bayu",
26      "lastName": "Panungkas",
27      "placeOfBirth": "Jakarta Timur",
28      "dateOfBirth": "1999-06-16",
29      "address": "Jl. Anggur No.01 Jakarta Timur",
30      "telp": "082136158765",
31      "validUntil": "2024-10-10"
32    },
33  ],
34  "pageable": {
35    "sort": {
36      "empty": false,
37      "sorted": true,
38      "unsorted": false
39    },
40    "offset": 0,
41    "pageSize": 3,
42    "pageNumber": 0,
43    "paged": true,
44    "unpaged": false
45  },
46  "totalElements": 9,
47  "totalPages": 3,
48  "last": false,
49  "size": 3,
50  "number": 0,
51  "sort": {
52    "empty": false,
53    "sorted": true,
54    "unsorted": false
55  },
56  "numberOfElements": 3,
57  "first": true,
58  "empty": false
59}
```

After

```
1  {
2    "content": [
3      {
4        "id": "8a8ab2a38034db9e@180352849aa9002",
5        "firstName": "Angga",
6        "lastName": "Andinata",
7        "placeOfBirth": "Jakarta Selatan",
8        "dateOfBirth": "1999-02-10",
9        "address": "Jl. Anggur No.01 Jakarta Selatan",
10       "telp": "082136148765",
11       "validUntil": "2024-10-10"
12     },
13     {
14       "id": "8a8ab2a38034db9e@180352768429001",
15       "firstName": "Ari",
16       "lastName": "Setiawan",
17       "placeOfBirth": "Grobogan",
18       "dateOfBirth": "1999-12-10",
19       "address": "Jl. Mawar No.01 Grobogan",
20       "telp": "082136748765",
21       "validUntil": "2024-10-10"
22     },
23     {
24       "id": "8a8ab2a38034db9e@180352a2ed30003",
25       "firstName": "Bayu",
26       "lastName": "Panungkas",
27       "placeOfBirth": "Jakarta Timur",
28       "dateOfBirth": "1999-06-16",
29       "address": "Jl. Anggur No.01 Jakarta Timur",
30       "telp": "082136158765",
31       "validUntil": "2024-10-10"
32     }
33   ],
34   "count": 9,
35   "totalPages": 3,
36   "page": 0,
37   "size": 3
38 }
```

Keterangan :

Cusom PageResponWrapper menjadi lebih sederhana dan simple

## f. View All Member with Pagination

Page 0

```
1  {
2    "content": [
3      {
4        "id": "8a8ab2a38034db9e@180352849aa9002",
5        "firstName": "Angga",
6        "lastName": "Andinata",
7        "placeOfBirth": "Jakarta Selatan",
8        "dateOfBirth": "1999-02-10",
9        "address": "Jl. Anggur No.01 Jakarta Selatan",
10       "telp": "082136148765",
11       "validUntil": "2024-10-10"
12     },
13     {
14       "id": "8a8ab2a38034db9e@180352768429001",
15       "firstName": "Ari",
16       "lastName": "Setiawan",
17       "placeOfBirth": "Grobogan",
18       "dateOfBirth": "1999-12-10",
19       "address": "Jl. Mawar No.01 Grobogan",
20       "telp": "082136748765",
21       "validUntil": "2024-10-10"
22     },
23     {
24       "id": "8a8ab2a38034db9e@180352a2ed30003",
25       "firstName": "Bayu",
26       "lastName": "Panungkas",
27       "placeOfBirth": "Jakarta Timur",
28       "dateOfBirth": "1999-06-16",
29       "address": "Jl. Anggur No.01 Jakarta Timur",
30       "telp": "082136158765",
31       "validUntil": "2024-10-10"
32     }
33   ],
34   "count": 9,
35   "totalPages": 3,
36   "page": 0,
37   "size": 3
38 }
```

Page 1

```
GET http://localhost:8080/members?page=1

Params Auth Headers (8) Body Pre-req. Tests Settings

Body
Pretty Raw Preview Visualize JSON

1  {
2    "content": [
3      {
4        "id": "8a8ab2a38034db9e@180352aa89e0004",
5        "firstName": "Bunga",
6        "lastName": "Pranesti",
7        "placeOfBirth": "Jakarta Utara",
8        "dateOfBirth": "1999-06-15",
9        "address": "Jl. Anggur No.01 Jakarta Utara",
10       "telp": "082836158765",
11       "validUntil": "2024-10-10"
12     },
13     {
14       "id": "8a8ab2a38034db9e@180352dc5180008",
15       "firstName": "Candra",
16       "lastName": "Febriyanto",
17       "placeOfBirth": "Malang",
18       "dateOfBirth": "1999-09-10",
19       "address": "Jl. Anggur No.01 Malang",
20       "telp": "082229238265",
21       "validUntil": "2026-10-10"
22     },
23     {
24       "id": "8a8ab2a38034db9e@180352cc4970007",
25       "firstName": "Cika",
26       "lastName": "Ceki",
27       "placeOfBirth": "Surabaya",
28       "dateOfBirth": "1999-06-10",
29       "address": "Jl. Anggur No.01 Surabaya",
30       "telp": "082229958265",
31       "validUntil": "2024-10-10"
32     }
33   ],
34   "count": 10,
35   "totalPages": 4,
36   "page": 1,
37   "size": 3
38 }
```

## g. Get Member ById Path Variable

```
GET http://localhost:8080/members/8a8ab2a38034db9e0180352bd3c80006

Params Authorization Headers (6) Body Pre-request Script Tests Settings

Body Cookies Headers (5) Test Results

Pretty Raw Preview Visualize JSON

1 2 "id": "8a8ab2a38034db9e0180352bd3c80006",
3 3 "firstName": "Dicky",
4 4 "lastName": "Setiawan",
5 5 "placeOfBirth": "Surakarta",
6 6 "dateOfBirth": "1999-07-10",
7 7 "address": "Jl. Anggur No.01 Surakarta",
8 8 "telp": "082839958265",
9 9 "validUntil": "2024-10-10",
10 10 "borrows": []
11 11
```

## h. Exception Member Id Tidak ada ( null )

```
GET http://localhost:8080/members/6666

Params Authorization Headers (6) Body Pre-request Script Tests Settings

Body Cookies Headers (5) Test Results

Pretty Raw Preview Visualize JSON

1 2 "timestamp": "2022-04-19T08:18:47.987+00:00",
3 3 "status": 404,
4 4 "error": "Not Found",
5 5 "message": "Resource customer with ID not found",
6 6 "path": "/members/6666"
7 7
```

## i. Search/ Filter Member ById

Input body

```
GET http://localhost:8080/members

Params Auth Headers (8) Body Pre-req. Tests Settings

raw JSON

1 2
3 3
4 4
5 5
6 6
7 7
8 8
```

Output

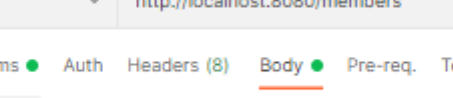
```
Pretty Raw Preview Visualize JSON

1 2 "content": [
3 3   {
4 4     "id": "8a8ab2a38034db9e0180352bd3c80006",
5 5     "firstName": "Dicky",
6 6     "lastName": "Setiawan",
7 7     "placeOfBirth": "Surakarta",
8 8     "dateOfBirth": "1999-07-10",
9 9     "address": "Jl. Anggur No.01 Surakarta",
10 10    "telp": "082839958265",
11 11    "validUntil": "2024-10-09T17:00:00.000+00:00"
12 12   },
13 13 ],
14 14 "pageable": {
15 15   "sort": {
16 16     "empty": false,
17 17     "sorted": true,
18 18     "unsorted": false
19 19   },
20 20   "offset": 0,
21 21   "pageNumber": 0,
22 22   "pageSize": 3,
23 23   "paged": true,
24 24   "unpaged": false
25 25 },
26 26 "last": true,
27 27 "totalPages": 1,
28 28 "totalElements": 1,
29 29 "size": 3,
30 30 "number": 0,
31 31 "sort": {
32 32   "empty": false,
33 33   "sorted": true,
34 34   "unsorted": false
35 35 },
36 36 "numberOfElements": 1,
37 37 "first": true,
38 38 "empty": false
39 39
```

j. Search/ Filter Member By firstName

Input body

## Output



GET <http://localhost:8080/members>

Params Auth Headers (8) **Body** Pre-req. Tests Settings

raw JSON

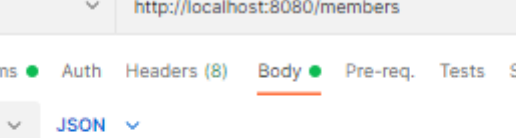
```
1 {
2   "searchMemberId": "",
3   "searchMemberFirstName": "dicky",
4   "searchMemberLastName": "",
5   "searchMemberPlaceOfBirth": "",
6   "searchMemberAddress": "",
7   "searchMemberTelp": ""
8 }
```

```
1  | Raw Preview Visualize JSON
2  |
3  | {
4  |   "content": [
5  |     {
6  |       "id": "8a8ab2a38034db9e0180352bd3c80006",
7  |       "firstName": "Dicky",
8  |       "lastName": "Setiawan",
9  |       "placeOfBirth": "Surakarta",
10 |       "dateOfBirth": "1999-07-10",
11 |       "address": "Jl. Anggur No.01 Surakarta",
12 |       "telp": "082839958265",
13 |       "validUntil": "2024-10-09T17:00:00.000+00:00"
14 |     }
15 |   ],
16 |   "pageable": {
17 |     "sort": {
18 |       "empty": false,
19 |       "sorted": true,
20 |       "unsorted": false
21 |     },
22 |     "offset": 0,
23 |     "pageNumber": 0,
24 |     "pageSize": 3,
25 |     "paged": true,
26 |     "unpaged": false
27 |   },
28 |   "last": true,
29 |   "totalPages": 1,
30 |   "totalElements": 1,
31 |   "size": 3,
32 |   "number": 0,
33 |   "sort": {
34 |     "empty": false,
35 |     "sorted": true,
36 |     "unsorted": false
37 |   },
38 |   "numberOfElements": 1,
39 |   "first": true,
40 |   "empty": false
41 | }
```

k. Search / Filter Member By lastName

Input body

## Output



GET ▼ http://localhost:8080/members

Params ● Auth Headers (8) Body ● Pre-req. Tests Settings

raw ▼ JSON ▼

```

1  [
2    {
3      "searchMemberId" : "",
4      "searchMemberFirstName" : "",
5      "searchMemberLastName" : "setiawan",
6      "searchMemberPlaceOfBirth" : "",
7      "searchMemberAddress" : "",
8      "searchMemberTelp" : ""
9    }
10 ]

```

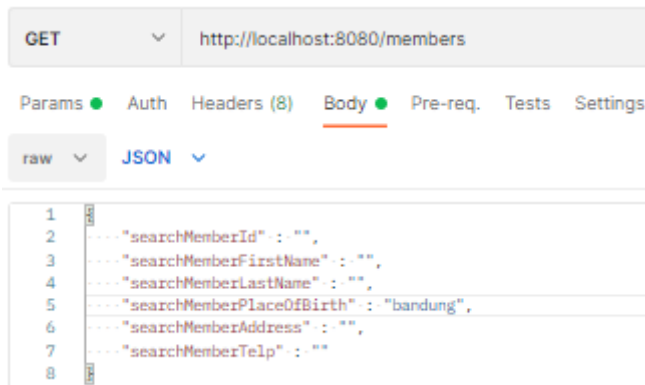
```

1  |
2  |
3  |
4  |   "content": [
5  |       {
6  |           "id": "8a8ab2a38034db9e0180352768420001",
7  |           "firstName": "Ari",
8  |           "lastName": "Setiawan",
9  |           "placeOfBirth": "Grobogan",
10 |           "dateOfBirth": "1999-12-10",
11 |           "address": "Jl. Mamar No.01 Grobogan",
12 |           "telp": "082136748765",
13 |           "validUntil": "2024-10-09T17:00:00.000+00:00"
14 |       },
15 |       {
16 |           "id": "8a8ab2a38034db9e0180352b3dc00006",
17 |           "firstName": "Dicky",
18 |           "lastName": "Setiawan",
19 |           "placeOfBirth": "Surakarta",
20 |           "dateOfBirth": "1999-07-10",
21 |           "address": "Jl. Anggur No.01 Surakarta",
22 |           "telp": "082839958265",
23 |           "validUntil": "2024-10-09T17:00:00.000+00:00"
24 |       }
25 |   ],
26 |   "pageable": {
27 |       "sort": {
28 |           "empty": false,
29 |           "sorted": true,
30 |           "unsorted": false
31 |       },
32 |       "offset": 0,
33 |       "pageNumber": 0,
34 |       "pageSize": 3,
35 |       "paged": true,
36 |       "unpaged": false
37 |   },
38 |   "last": true,
39 |   "totalPages": 1,
40 |   "totalElements": 2,
41 |   "size": 3,
42 |   "number": 0,

```

### 1. Search / Filter Member By placeOfBirth

Input body

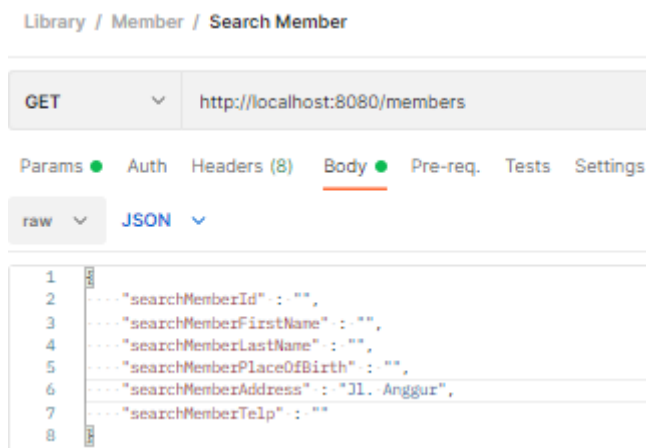


## Output



m. Search / Filter Member By address

## Input body



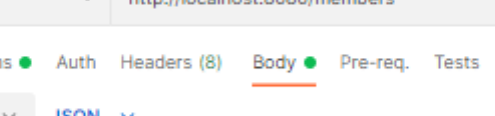
## Output



## n. Search / Filter Member By telp

## Input body

## Output



The screenshot shows a REST client interface. The top bar indicates a GET request to the URL `http://localhost:8080/members`. Below the bar, there are tabs for Params, Auth, Headers (8), Body, Pre-req., Tests, and Settings. The 'Body' tab is selected and underlined. On the left, there is a dropdown menu set to 'raw'. The main area displays a JSON body with the following content:

```

1  {
2    "searchMemberId": "",
3    "searchMemberFirstName": "",
4    "searchMemberLastName": "",
5    "searchMemberPlaceOfBirth": "",
6    "searchMemberAddress": "",
7    "searchMemberTelp": "002136148765"
8  }

```

```

1  |
2  |   "content": [
3  |       {
4  |           "id": "8a8ab2a38034db9e0180352849aa0002",
5  |           "firstName": "Angga",
6  |           "lastName": "Andinata",
7  |           "placeOfBirth": "Jakarta Selatan",
8  |           "dateOfBirth": "1999-02-10",
9  |           "address": "Jl. Anggur No.01 Jakarta Selatan",
10 |           "telp": "082136148765",
11 |           "validUntil": "2024-10-09T17:00:00.000+00:00"
12 |       }
13 |   ],
14 |   "pageable": {
15 |       "sort": {
16 |           "empty": false,
17 |           "sorted": true,
18 |           "unsorted": false
19 |       },
20 |       "offset": 0,
21 |       "pageNumber": 0,
22 |       "pageSize": 3,
23 |       "paged": true,
24 |       "unpaged": false
25 |   },
26 |   "last": true,
27 |   "totalPages": 1,
28 |   "totalElements": 1,
29 |   "size": 3,
30 |   "number": 0,
31 |   "sort": {
32 |       "empty": false,
33 |       "sorted": true,
34 |       "unsorted": false
35 |   },
36 |   "numberOfElements": 1,
37 |   "first": true,
38 |   "empty": false
39 | }

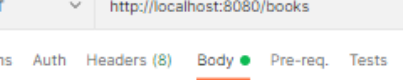
```

## B. Book

a. Add Book

## Input body

## Output



The screenshot shows the REST Client interface. The top bar indicates a POST request to `http://localhost:8080/books`. Below the bar, there are tabs for Params, Auth, Headers (8), Body, Pre-req., Tests, and Settings. The 'Body' tab is selected and underlined. Under the 'Body' tab, there is a dropdown menu set to 'raw' and another dropdown menu set to 'JSON'. The main area displays the JSON body of the request, which is:

```

1 {
2   "title": "Pemrograman Dasar Java",
3   "description": "Description",
4   "publisher": "EnigmaCamp",
5   "publicationYear": "2022",
6   "author": "Dickhy Agus Setiawan",
7   "stock": "100"
8 }
```

```
1  {
2    "id": "8a8ab2a380353ba601803542c0fa0000",
3    "title": "Pemograman Dasar Java",
4    "description": "Description",
5    "publisher": "EnigmaCamp",
6    "publicationYear": 2022,
7    "author": "Dicky Agus Setiawan",
8    "stock": 100
9  }
```

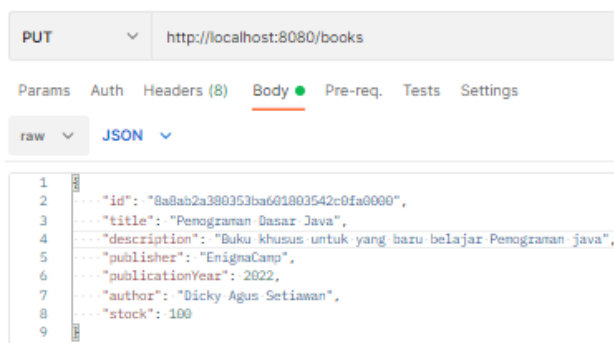
### b. Update Book

## Data

Data Output								Explain	Messages	Notifications
	id_book [PK] character varying (255)	author character varying (255)	description character varying (255)	publication_year integer	publisher character varying (255)	stock integer	title character varying (255)			
1	8a8ab2a380353ba601803542...	Dicky Agus Setiawan	Description	2022	Enigma Camp	100	Pemrograman Dasar Java			



## Input body



## Data After Update

Data Output	Explain	Messages	Notifications				
	<div><div>id_book</div><div>[PK] character varying (255)</div></div>	<div><div>author</div><div>character varying (255)</div></div>	<div><div>description</div><div>character varying (255)</div></div>	<div><div>publication_year</div><div>integer</div></div>	<div><div>publisher</div><div>character varying (255)</div></div>	<div><div>stock</div><div>integer</div></div>	<div><div>title</div><div>character varying (255)</div></div>
1	8a8ab2a380353ba601803542...	Dicky Agus Setiawan	Buku khusus untuk yang ...	2022	EnigmaCamp	100	Pemograman Dasar Java

Keterangan :

Data awal : "description" : "Description"

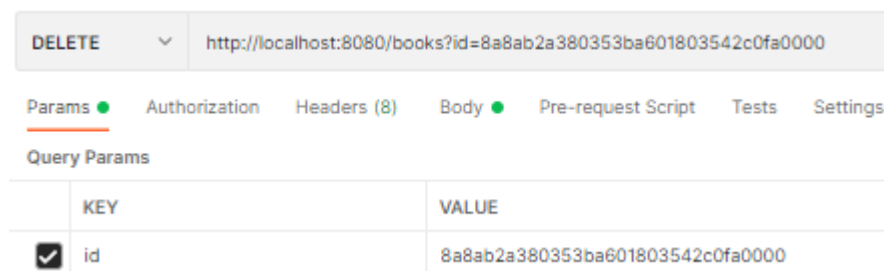
Data After Update : "description" : "Buku khusus untuk yang baru belajar Pemograman java"

## c. Delete Book

### Data

Data Output	Explain	Messages	Notifications				
	id_book [PK] character varying (255)	author character varying (255)	description character varying (255)	publication_year integer	publisher character varying (255)	stock integer	title character varying (255)
1	8a8ab2a380353ba601803542...	Dicky Agus Setiawan	Buku khusus untuk yang ...	2022	EnigmaCamp	100	Pemograman Dasar Java

## Input param



## Data after Delete

Data Output	Explain	Messages	Notifications			
<div><div></div><div><div>id_book</div><div>[PK] character varying (255)</div></div></div>	<div><div></div><div><div>author</div><div>character varying (255)</div></div></div>	<div><div></div><div><div>description</div><div>character varying (255)</div></div></div>	<div><div></div><div><div>publication_year</div><div>integer</div></div></div>	<div><div></div><div><div>publisher</div><div>character varying (255)</div></div></div>	<div><div></div><div><div>stock</div><div>integer</div></div></div>	<div><div></div><div><div>title</div><div>character varying (255)</div></div></div>

Keterangan :

User Delete member dengan id : "8a8ab2a380353ba601803542c0fa0000"

#### d. View All Book

Page 0

GET ▼ http://localhost:8080/books

Params Authorization Headers (8) Body ● Pre-request Script

Body Cookies Headers (5) Test Results

Pretty Raw Preview Visualize JSON ▼ ≡

```
1  {
2    "content": [
3      {
4        "id": "8a8ab2a380358ce0018035e106b80000",
5        "title": "Akuntansi Pengantar 1",
6        "description": "Description",
7        "publisher": "Gava Media",
8        "publicationYear": 2009,
9        "author": "Supardi",
10       "stock": 10
11      },
12      {
13        "id": "8a8ab2a380358ce0018035e207cd0001",
14        "title": "Aplikasi Praktis Asuhan Keperawatan Keluarga",
15        "description": "Description",
16        "publisher": "Sagung Seto",
17        "publicationYear": 2012,
18        "author": "Komang Ayu Heni",
19        "stock": 10
20      },
21      {
22        "id": "8a8ab2a380358ce0018035e629f0005",
23        "title": "Aplikasi Program Akutansi dengan Visual FoxPro",
24        "description": "Description",
25        "publisher": "Gava Media",
26        "publicationYear": 2008,
27        "author": "Peter Wanto",
28        "stock": 10
29      }
30    ],
31    "pageable": {
32      "sort": {
33        "empty": false,
34        "sorted": true,
35        "unsorted": false
36      },
37      "offset": 0,
38      "pageNumber": 0,
39      "pageSize": 3,
40      "paged": true
41    }
42  }
```

Page 1

GET ▼ http://localhost:8080/books?page=1

Params ● Authorization Headers (8) Body ● Pre-request Script

Body Cookies Headers (5) Test Results

Pretty Raw Preview Visualize JSON ▼ ≡

```
1  {
2    "content": [
3      {
4        "id": "8a8ab2a380358ce0018035e9e3c0009",
5        "title": "Dasar-dasar Ilmu perpustakaan",
6        "description": "Description",
7        "publisher": "Ar-Ruzz Media",
8        "publicationYear": 2013,
9        "author": "Abdul Qadir Shaleh",
10       "stock": 10
11      },
12      {
13        "id": "8a8ab2a380358ce0018035e35cb40002",
14        "title": "Dasar Dasar Uroginokologi",
15        "description": "Description",
16        "publisher": "Sagung Seto",
17        "publicationYear": 2011,
18        "author": "Pribakti B",
19        "stock": 10
20      },
21      {
22        "id": "8a8ab2a380358ce0018035e46a9f0003",
23        "title": "Kesejahteraan Sosial",
24        "description": "Description",
25        "publisher": "Rajagrafindo Persada",
26        "publicationYear": 2015,
27        "author": "Isbandi Rukminto Adi",
28        "stock": 10
29      }
30    ],
31    "pageable": {
32      "sort": {
33        "empty": false,
34        "sorted": true,
35        "unsorted": false
36      },
37      "offset": 0,
38      "pageNumber": 0,
39      "pageSize": 3,
40      "paged": true
41    }
42  }
```

#### e. Get Book ById

GET ▼ http://localhost:8080/books/8a8ab2a380358ce0018035e106b80000

Params Authorization Headers (6) Body Pre-request Script Tests Settings

Body Cookies Headers (5) Test Results

Pretty Raw Preview Visualize JSON ▼ ≡

```
1  {
2    "id": "8a8ab2a380358ce0018035e106b80000",
3    "title": "Akuntansi Pengantar 1",
4    "description": "Description",
5    "publisher": "Gava Media",
6    "publicationYear": 2009,
7    "author": "Supardi",
8    "stock": 10
9  }
```

#### f. Exception Book Id tidak ada ( null )

GET ▼ http://localhost:8080/books/6666

Params Authorization Headers (6) Body Pre-request Script Tests Settings

Body Cookies Headers (5) Test Results

Pretty Raw Preview Visualize JSON ▼ ≡

```
1  {
2    "timestamp": "2022-04-19T08:23:10.710+00:00",
3    "status": 404,
4    "error": "Not Found",
5    "message": "Resource customer with ID not found",
6    "path": "/books/6666"
7  }
```

## g. Search / Filter Book ById

### Input body

GET ▼ http://localhost:8080/books

Params Auth Headers (8) **Body** ● Pre-req. Tests Settings

raw ▼ JSON ▼

```
1  {
2    "searchBookId": "8a8ab2a380358ce0018035ea9e3c0009",
3    "searchBookTitle": "",
4    "searchBookDescription": "",
5    "searchBookPublisher": "",
6    "searchBookAuthor": ""
7  }
```

### Output

GET ▼ http://localhost:8080/books

Params Authorization Headers (8) **Body** ● Pre-request Script

Body Cookies Headers (5) Test Results

Pretty Raw Preview Visualize JSON ▼ ≡

```
1  {
2    "content": [
3      {
4        "id": "8a8ab2a380358ce0018035ea9e3c0009",
5        "title": "Dasar-dasar Ilmu perpustakaan",
6        "description": "Description",
7        "publisher": "Ar-Ruzz Media",
8        "publicationYear": 2013,
9        "author": "Abdul Qadir Shaleh",
10       "stock": 10
11     }
12   ],
13   "pageable": {
14     "sort": {
15       "empty": false,
16       "sorted": true,
17       "unsorted": false
18     },
19     "offset": 0,
20     "pageNumber": 0,
21     "pageSize": 3,
22     "paged": true,
23     "unpaged": false
24   },
25   "totalPages": 1,
26   "totalElements": 1,
27   "last": true,
28   "size": 3,
29   "number": 0,
30   "sort": {
31     "empty": false,
32     "sorted": true,
33     "unsorted": false
34   },
35   "numberOfElements": 1,
36   "first": true,
37   "empty": false
38 }
```

## h. Search / Filter Book By title

### Input body

GET ▼ http://localhost:8080/books

Params Auth Headers (8) **Body** ● Pre-req. Tests Settings

raw ▼ JSON ▼

```
1  {
2    "searchBookId": "",
3    "searchBookTitle": "Dasar-dasar Ilmu perpustakaan",
4    "searchBookDescription": "",
5    "searchBookPublisher": "",
6    "searchBookAuthor": ""
7  }
```

### Output

GET ▼ http://localhost:8080/books

Params Authorization Headers (8) **Body** ● Pre-request Script

Body Cookies Headers (5) Test Results

Pretty Raw Preview Visualize JSON ▼ ≡

```
1  {
2    "content": [
3      {
4        "id": "8a8ab2a380358ce0018035ea9e3c0009",
5        "title": "Dasar-dasar Ilmu perpustakaan",
6        "description": "Description",
7        "publisher": "Ar-Ruzz Media",
8        "publicationYear": 2013,
9        "author": "Abdul Qadir Shaleh",
10       "stock": 10
11     }
12   ],
13   "pageable": {
14     "sort": {
15       "empty": false,
16       "sorted": true,
17       "unsorted": false
18     },
19     "offset": 0,
20     "pageNumber": 0,
21     "pageSize": 3,
22     "paged": true,
23     "unpaged": false
24   },
25   "totalPages": 1,
26   "totalElements": 1,
27   "last": true,
28   "size": 3,
29   "number": 0,
30   "sort": {
31     "empty": false,
32     "sorted": true,
33     "unsorted": false
34   },
35   "numberOfElements": 1,
36   "first": true,
37   "empty": false
38 }
```

i. Search / Filter Book By description

Input body

GET http://localhost:8080/books

Params Auth Headers (8) **Body** Pre-req. Tests Settings

raw JSON

```
1 {
2   "searchBookId": "",
3   "searchBookTitle": "",
4   "searchBookDescription": "Description",
5   "searchBookPublisher": "",
6   "searchBookAuthor": ""
7 }
```

Output

GET http://localhost:8080/books

Params Authorization Headers (8) **Body** Pre-request Script

Body Cookies Headers (5) Test Results

Pretty Raw Preview Visualize JSON

```
1 {
2   "content": [
3     {
4       "id": "8a8ab2a380358ce0018035e106b80000",
5       "title": "Akutansi Pengantar 1",
6       "description": "Description",
7       "publisher": "Gava Media",
8       "publicationYear": 2009,
9       "author": "Supardi",
10      "stock": 10
11    },
12    {
13      "id": "8a8ab2a380358ce0018035e207cd8001",
14      "title": "Aplikasi Praktis Asuhan Keperawatan Keluarga",
15      "description": "Description",
16      "publisher": "Sagung Seto",
17      "publicationYear": 2012,
18      "author": "Komang Ayu Heni",
19      "stock": 10
20    },
21    {
22      "id": "8a8ab2a380358ce0018035e6829f0005",
23      "title": "Aplikasi Program Akutansi dengan Visual FoxPro",
24      "description": "Description",
25      "publisher": "Gava Media",
26      "publicationYear": 2008,
27      "author": "Peter Wanto",
28      "stock": 10
29    }
30  ],
31 }
```

j. Search / Filter Book By publisher

Input body

GET http://localhost:8080/books

Params Auth Headers (8) **Body** Pre-req. Tests Settings

raw JSON

```
1 {
2   "searchBookId": "",
3   "searchBookTitle": "",
4   "searchBookDescription": "",
5   "searchBookPublisher": "Sagung Seto",
6   "searchBookAuthor": ""
7 }
```

Output

Pretty Raw Preview Visualize JSON

```
1 {
2   "content": [
3     {
4       "id": "8a8ab2a380358ce0018035e207cd0001",
5       "title": "Aplikasi Praktis Asuhan Keperawatan Keluarga",
6       "description": "Description",
7       "publisher": "Sagung Seto",
8       "publicationYear": 2012,
9       "author": "Komang Ayu Heni",
10      "stock": 10
11    },
12    {
13      "id": "8a8ab2a380358ce0018035e35cb40002",
14      "title": "Dasar Dasar Uroginekologi",
15      "description": "Description",
16      "publisher": "Sagung Seto",
17      "publicationYear": 2011,
18      "author": "Pribakti B",
19      "stock": 10
20    }
21  ],
22   "pageable": {
23     "sort": {
24       "empty": false,
25       "sorted": true,
26       "unsorted": false
27     },
28     "offset": 0,
29     "pageNumber": 0,
30     "pageSize": 3,
31     "unpaged": false,
32     "paged": true
33   },
34   "totalPages": 1,
35   "totalElements": 2,
36   "last": true,
37   "size": 3,
38   "number": 0,
39   "sort": {
40     "empty": false,
```

## k. Search / Filter Book By author

### Input body

GET ▼ http://localhost:8080/books

Params Auth Headers (8) **Body** ● Pre-req. Tests Settings

raw ▼ JSON ▼

```
1 {}
2 ----"searchBookId": "",
3 ----"searchBookTitle": "",
4 ----"searchBookDescription": "",
5 ----"searchBookPublisher": "",
6 ----"searchBookAuthor": "Ari Kurnia"
7 {}
```

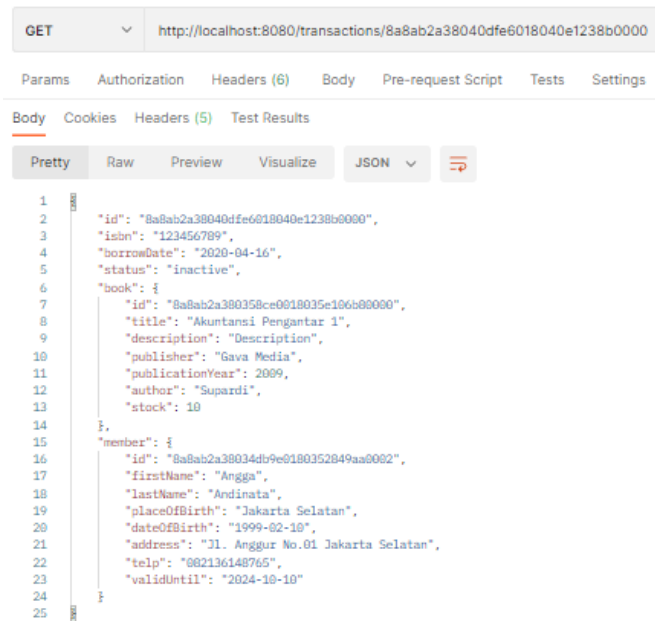
### Output

Pretty Raw Preview Visualize JSON ▼ 

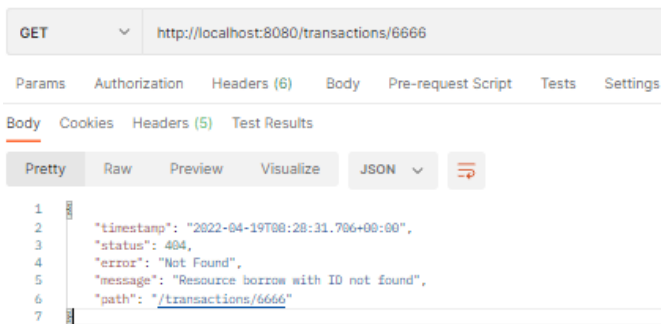
```
1 {}
2 "content": [
3   {
4     "id": "8a8ab2a380350ce0018035e9e2130000",
5     "title": "Smart Creativepreneur",
6     "description": "Description",
7     "publisher": "Andi Offset",
8     "publicationYear": 2013,
9     "author": "Ari Kurnia",
10    "stock": 10
11  }
12 ],
13 "pageable": {
14   "sort": {
15     "empty": false,
16     "sorted": true,
17     "unsorted": false
18   },
19   "offset": 0,
20   "pageNumber": 0,
21   "pageSize": 3,
22   "unpaged": false,
23   "paged": true
24 },
25 "totalPages": 1,
26 "totalElements": 1,
27 "last": true,
28 "size": 3,
29 "number": 0,
30 "sort": {
31   "empty": false,
32   "sorted": true,
33   "unsorted": false
34 },
35 "numberOfElements": 1,
36 "first": true,
37 "empty": false
38 {}
```

C. Borrow

a. Get Borrow ById



b. Exception Borrow Id tidak ada ( null )



c. Transaksi Borrow Book

Data table buku sebelum transaksi

	id_book	author	description	publication_year	publisher	stock	title
	[PK] character varying (255)	character varying (255)	character varying (255)	integer	character varying (255)	integer	character varying (255)
1	8a8ab2a380358ce0018035e1...	Supardi	Description	2009	Gaya Media	10	Akuntansi Pengantar 1
2	8a8ab2a380358ce0018035e2...	Komang Ayu Heni	Description	2012	Sagung Seto	10	Aplikasi Praktis Asuhan Keperawatan Keluarga
3	8a8ab2a380358ce0018035e3...	Pribakti B	Description	2011	Sagung Seto	10	Dasar Dasar Uroginekologi

Library / Borrow / Add Borrow

POST

▼

http://localhost:8080/transactions?memberId=8a8ab2a38034db9e0180352849aa0002&bookId=8a8ab2a380358ce0018035e106b80000&isbn=123456789&date=2020-04-17

Params

Authorization

Headers (7)

Body

Pre-request Script

Tests

Settings

Query Params

	KEY	VALUE
<input checked="" type="checkbox"/>	memberId	8a8ab2a38034db9e0180352849aa0002
<input checked="" type="checkbox"/>	bookId	8a8ab2a380358ce0018035e106b80000
<input checked="" type="checkbox"/>	isbn	123456789
<input checked="" type="checkbox"/>	date	2020-04-17

### Data table buku setelah transaksi

Data Output								Explain	Messages	Notifications
	<b>id_book</b> [PK] character varying (255)	<b>author</b> character varying (255)	<b>description</b> character varying (255)	<b>publication_year</b> integer	<b>publisher</b> character varying (255)	<b>stock</b> integer	<b>title</b> character varying (255)			
1	8a8ab2a380358ce0018035e1...	Supardi	Description	2009	Gaya Media	9	Akuntansi Pengantar 1			
2	8a8ab2a380358ce0018035e2...	Komang Ayu Heni	Description	2012	Sagung Seto	10	Aplikasi Praktis Asuhan Keperawatan Keluarga			
3	8a8ab2a380358ce0018035e3...	Pribakti B	Description	2011	Sagung Seto	10	Dasar Dasar Uroginekologi			

### Data table borrow

Data Output		Explain	Messages	Notifications		
	<b>id_borrow</b> [PK] character varying (255)	<b>borrow_date</b> date	<b>isbn</b> character varying (255)	<b>status</b> character varying (255)	<b>id_book</b> character varying (255)	<b>id_member</b> character varying (255)
1	8a8ab2a3803669d20180367...	2020-04-17	123456789	active	8a8ab2a380358ce00180...	8a8ab2a38034db9e01803...

Keterangan :

1. Ketika admin input data borrow atau transaksi, secara otomatis buku yang dipilih stockNya berkurang satu
2. Data buku Akuntansi Pengantar 1 yang sebelumnya 10 berubah menjadi 9
3. Ketika transaksi dibuat column status auto generate “active”
4. Column status [active] artinya member sedang meminjam buku, jika member sudah mengembalikan buku status berubah secara otomatis menjadi inactive

### D. Return Book

Data table borrow sebelum transaksi

Data Output	Explain	Messages	Notifications			
	<b>id_borrow</b> [PK] character varying (255)	<b>borrow_date</b> date	<b>isbn</b> character varying (255)	<b>status</b> character varying (255)	<b>id_book</b> character varying (255)	<b>id_member</b> character varying (255)
1	8a8ab2a3803669d20180367...	2020-04-17	123456789	active	8a8ab2a380358ce00180...	8a8ab2a38034db9e01803...

Data table borrow setelah transaksi

Data Output						
<a href="#">Data Output</a> <a href="#">Explain</a> <a href="#">Messages</a> <a href="#">Notifications</a>						
	id_borrow [PK] character varying (255)	borrow_date date	isbn character varying (255)	status character varying (255)	id_book character varying (255)	id_member character varying (255)
1	8a8ab2a3803669d20180367a3...	2020-04-17	123456789	inactive	8a8ab2a380359ce001803...	8a8ab2a38034db9e01803...

Data table buku sebelum transaksi

Data Output							
	id_book	author	description	publication_year	publisher	stock	title
	[PK] character varying (255)	character varying (255)	character varying (255)	integer	character varying (255)	integer	character varying (255)
1	8a8ab2a380358ce0018035e1...	Supardi	Description	2009	Gaya Media	9	Akuntansi Pengantar 1
2	8a8ab2a380358ce0018035e2...	Komang Ayu Heni	Description	2012	Sagung Seto	10	Aplikasi Praktis Asuhan Keperawatan Keluarga
3	8a8ab2a380358ce0018035e3...	Prinbakti B	Description	2011	Sagung Seto	10	Dasar Dasar Uroinekologi

### Data table buku setelah transaksi

	id_bokk [PK] character varying (255)	author character varying (255)	description character varying (255)	publication_year integer	publisher character varying (255)	stock integer	title character varying (255)
1	8a8ab2a380358ce0018035e1...	Supardi	Description	2009	Gaya Media	10	Akuntansi Pengantar 1
2	8a8ab2a380358ce0018035e2...	Komang Ayu Heni	Description	2012	Sagung Seto	10	Aplikasi Praktis Asuhan Keperawatan Kelurga
3	8a8ab2a380358ce0018035e3...	Rizkiati B	Description	2011	Sagung Seto	10	Dasar-Dasar Unggulankepon

### Data table return

Data Output		Explain	Messages	Notifications
	id_return [PK] character varying (255)	return_date date	id_borrow character varying (255)	
1	8a8ab2a38036904701803691a...	2022-04-21	8a8ab2a3803669d201803...	

Keterangan :

5. Ketika transaksi return dibuat, tabel borrow column [status] yang awalnya activ berubah menjadi inactive
6. Ketika transaksi return dibuat, secara otomatis stock buku bertambah satu (dikembalikan)
7. Data buku Akuntansi Pengantar 1 yang sebelumnya 9 berubah menjadi 10