

Pada tutorial kali ini saya belajar bagaimana cara melakukan test fungsionalitas sebuah program tanpa harus menggunakan/menampilkan melalui html menggunakan postman, saya juga belajar bagaimana cara menghubungkan program dari berbagai server menggunakan API.

1. Pada latihan 1 saya melakukan hal yang sama seperti pada langkah-langkah tutorial, tetapi kali ini untuk membuat API rest program flight. Saya membuat 5 API yaitu add, update, delete, view dan view all.

Controller berisikan:

```
@RestController
@RequestMapping("/flight")
public class FlightController {
    @Autowired
    private FlightService flightService;

    @PostMapping(value = "/add")
    public FlightModel addFlightSubmit(@RequestBody FlightModel flight) {
        return flightService.addFlight(flight);
    }

    @PutMapping(value = "/update/{flightId}")
    public String updateFlightSubmit(@PathVariable("flightId") long flightId,
        @RequestParam("destination") String destination,
        @RequestParam("origin") String origin,
        @RequestParam("time") Date time) {
        FlightModel flight = flightService.getFlightDetailById(flightId);
        if (flight.equals(null)) {
            return "Couldn't find your flight";
        }
        flight.setDestination(destination);
        flight.setOrigin(origin);
        flight.setTime(time);
        flightService.addFlight(flight);
        return "update";
    }

    @GetMapping(value = "/view/{flightNumber}")
    public FlightModel flightView(@PathVariable("flightNumber") String flightNumber) {
        FlightModel flight = flightService.getFlightDetailByFlightNumber(flightNumber).get();
        return flight;
    }

    @GetMapping(value = "/all")
    public List<FlightModel> flightViewAll() {
        return flightService.getAllFlight();
    }

    @DeleteMapping(value = "/{flightId}")
    public String deleteFlight(@PathVariable("flightId") long flightId) {
        FlightModel flight = flightService.getFlightDetailById(flightId);
        flightService.deleteFlight(flight);
        return "flight has been deleted";
    }
}
```

Add

► Add a Flight Examples (0)

POST `{{url-tutorial7}}/flight/add` Send Save

Params ● Authorization Headers (1) **Body** ● Pre-request Script Tests Cookies Code

● form-data ● x-www-form-urlencoded ● raw ● binary JSON (application/json)

```
1 {
2   "destination" : "Paris",
3   "flightNumber" : "JKT48",
4   "origin" : "Jakarta",
5   "time" : "2018-09-12",
6   "pilot" : {
7     "id" : 1,
8     "flyHour" : 900,
9     "licenseNumber" : "1010",
10    "name" : "Desmosedici"
11  }
12 }
```

Body Cookies Headers (3) Test Results Status: 200 OK Time: 5650 ms Size: 313 B Save Download

Pretty Raw Preview JSON ≡

```
1 {
2   "id": 2,
3   "flightNumber": "JKT48",
4   "origin": "Jakarta",
5   "destination": "Paris",
6   "time": "2018-09-12",
7   "pilot": {
8     "id": 1,
9     "licenseNumber": "1010",
10    "name": "Desmosedici",
11    "flyHour": 900,
12    "listFlight": []
13  }
14 }
```

Update

GET `{{pilot}}` ● GET Get a Pilot ● DEL Delete a Pilot ● PUT Update a Pilot ● POST Get Sta ● [CONFLICT] F + ... APAP 👁 ⚙

► Update a Flight Examples (0)

PUT `{{url-tutorial7}}/flight/update/2?destination=Seoul&origin=Jakarta&time=2018-11-12` Send Save

Params ● Authorization Headers (1) **Body** ● Pre-request Script Tests Cookies Code

	KEY	VALUE	DESCRIPTION	...	Bulk Edit
<input checked="" type="checkbox"/>	destination	Seoul			
<input type="checkbox"/>	flightNumber	Jkt49			
<input checked="" type="checkbox"/>	origin	Jakarta			
<input checked="" type="checkbox"/>	time	2018-11-12			
<input type="checkbox"/>	pilot	1010			
	Key	Value	Description		

Body Cookies Headers (3) Test Results Status: 200 OK Time: 854 ms Size: 121 B Save Download

Pretty Raw Preview Auto ≡

✖ 1 update

Delete

DELETE

{{url-tutorial7}}/flight/2

Send

Save

Params

Authorization

Headers (1)

Body

Pre-request Script

Tests

Cookies

Code

	KEY	VALUE	DESCRIPTION		Bulk Edit
<input type="checkbox"/>	flightNumber	Jkt49			
<input type="checkbox"/>	pilot	1010			
	Key	Value	Description		

Body

Cookies

Headers (3)

Test Results

Status: 200 OK

Time: 331 ms

Size: 139 B

Save

Download

Pretty

Raw

Preview

Auto

✖ 1

flight has been deleted

View

GET

{{url-tutorial7}}flight/view/JKT48

Send

Save

Params

Authorization

Headers (1)

Body

Pre-request Script

Tests

Cookies

Code

KEY	VALUE	DESCRIPTION	...	Bulk Edit
<input type="checkbox"/> flightNumber	Jkt49			
<input type="checkbox"/> pilot	1010			
Key	Value	Description		

Body

Cookies

Headers (3)

Test Results

Status: 200 OK

Time: 795 ms

Size: 159.91 KB

Save

Download

Pretty

Raw

Preview

JSON

1

```
{
  "id": 1,
  "flightNumber": "JKT48",
  "origin": "Jakarta",
  "destination": "Paris",
  "time": "2018-09-12",
  "pilot": {
    "id": 1,
    "licenseNumber": "1010",
    "name": "Desmosedici",
    "flyHour": 900
  },
  "listFlight": [
    {
      "id": 1,
      "flightNumber": "JKT48",
      "origin": "Jakarta",
      "destination": "Paris",
      "time": "2018-09-12"
    }
  ]
}
```

Viewall

GET	{{url-tutorial7}}flight/all	Send	Save
Params Authorization Headers (1) Body Pre-request Script Tests Cookies Code			
	KEY	VALUE	DESCRIPTION ... Bulk Edit
<input type="checkbox"/>	flightNumber	Jkt49	
<input type="checkbox"/>	pilot	1010	
	Key	Value	Description

Body	Cookies	Headers (3)	Test Results	Status: 200 OK Time: 419 ms Size: 159.9 KB	Save	Download
Pretty Raw Preview JSON						
<pre>[{"id":1,"flightNumber":"JKT48","origin":"Jakarta","destination":"Paris","time":"2018-09-12","pilot":{"id":1,"licenseNumber":"1010"}, "name":"Desmosedici","flyHour":900,"listFlight":[{"id":1,"flightNumber":"JKT48","origin":"Jakarta","destination":"Paris","time": "2018-09-12","pilot":{"id":1,"licenseNumber":"1010"},"name":"Desmosedici","flyHour":900,"listFlight":[{"id":1,"flightNumber": "JKT48","origin":"Jakarta","destination":"Paris","time":"2018-09-12","pilot":{"id":1,"licenseNumber":"1010"},"name":"Desmosedici", "flyHour":900,"listFlight":[{"id":1,"flightNumber":"JKT48","origin":"Jakarta","destination":"Paris","time":"2018-09-12","pilot": {"id":1,"licenseNumber":"1010"},"name":"Desmosedici","flyHour":900,"listFlight":[{"id":1,"flightNumber":"JKT48","origin":"Jakar ta","destination":"Paris","time":"2018-09-12","pilot":{"id":1,"licenseNumber":"1010"},"name":"Desmosedici","flyHour":900,"listFligh t":[{"id":1,"flightNumber":"JKT48","origin":"Jakarta","destination":"Paris","time":"2018-09-12","pilot":{"id":1,"licenseNumbe r":"1010"},"name":"Desmosedici","flyHour":900,"listFlight":[{"id":1,"flightNumber":"JKT48","origin":"Jakarta","destination":"Pa ris","time":"2018-09-12","pilot":{"id":1,"licenseNumber":"1010"},"name":"Desmosedici"}]}]}]}]</pre>						

2. Pada latihan ke 2 saya belajar untuk menyambungkan program/aplikasi yang saya miliki dengan program yang berada di server lain menggunakan API, dalam latihan ini yaitu API daftar bandar udara yang ada.

Disambungkan melalui API yang ada pada url:

```
1 package com.apap.tutorial7.rest;
2
3 public class Setting {
4     final public static String pilotUrl = "https://7ae20a13-2321-4f6f-98df-29752c4e6448.mock.pstmn.io" ;
5     public static String airportUrl = "https://api.sandbox.amadeus.com/v1.2/airports/autocomplete?apikey=qn7XuWZc
6 }
7 |
```

Dan dengan membuat sebuah controller baru yaitu airport

```
1 package com.apap.tutorial7.controller;
2
3 import org.springframework.beans.factory.annotation.Autowired;
4 import org.springframework.context.annotation.Bean;
5 import org.springframework.web.bind.annotation.GetMapping;
6 import org.springframework.web.bind.annotation.PathVariable;
7 import org.springframework.web.bind.annotation.RequestMapping;
8 import org.springframework.web.bind.annotation.RestController;
9 import org.springframework.web.client.RestTemplate;
10
11 import com.apap.tutorial7.rest.Setting;
12
13 @RestController
14 @RequestMapping("/airport")
15 public class AirportController {
16     @Autowired
17     RestTemplate restTemplate;
18
19     @Bean
20     public RestTemplate restAirport() {
21         return new RestTemplate();
22     }
23
24     @GetMapping(value =("/{city}")
25     public String getAirport(@PathVariable("city") String city) throws Exception {
26         String path = Setting.airportUrl + city + "&country=ID&all_airports=true";
27         return restTemplate.getForEntity(path, String.class).getBody();
28     }
29 }
```

Lalu test program melalui postman:

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APAP - C

GET

{{url-tutorial7}}/airport/Jakarta

Send

Save

Params

Authorization

Headers

Body

Pre-request Script

Tests

Cookies

Code

KEY	VALUE	DESCRIPTION	...	Bulk Edit
Key	Value	Description		

Body

Cookies

Headers (3)

Test Results

Status: 200 OK

Time: 1745 ms

Size: 400 B

Download

Pretty

Raw

Preview

JSON

1

[

2

{

3

"value": "JKT",

4

"label": "Jakarta [JKT]"

5

},

6

{

7

"value": "CGK",

8

"label": "Jakarta - Soekarno - Hatta International Airport [CGK]"

9

},

10

{

11

"value": "HLP",

12

"label": "Jakarta - Halim Perdanakusuma Airport [HLP]"

13

}

14

]