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APAP - C

Membuat testing untuk JPA

1. Mengapa perlu menginisiasi object PilotModel, sedangkan yang di test hanya FlightModel?
Karena pada class FlightModel ada atribut Pilot yang perlu diisi sehingga dibutuhkan object dari PilotModel untuk mengisi atribut tersebut.

2. Jelaskan apa yang akan terjadi jika object PilotModel dihapus dan tidak dilakukan setPilot pada FlightModel?

Akan muncul error saat test dijalankan karena ada constraint pada database yang menyatakan bahwa pilot license number tidak bisa bernilai null. Ketika PilotModel telah dihapus, maka tidak bisa menghubungkan antara object PilotModel ke FlightModel.

Membuat testing untuk Service

3. Jelaskan apa yang dilakukan oleh code

```
Mockito.when(flightDb.findByFlightNumber(flight.get().getFlightNumber())).thenReturn(flight);
```

Code line di atas berfungsi untuk mengkonfigurasi supaya Mock melakukan return object flight ketika memanggil method findByFlightNumber().

Membuat testing untuk Controller

4. Jelaskan apa yang dilakukan oleh code

```
Mockito.when(flightService.getFlightDetailByFlightNumber(flight.get().getFlightNumber())).thenReturn(flight);
```

Code line di atas berfungsi untuk mengkonfigurasi supaya Mock melakukan return object flight ketika memanggil method getFlightDetailByFlightNumber().

5. Jelaskan apa yang ditest oleh code

```
.andExpect(MockMvcResultMatchers.status().isOk())
```

Code line di atas berfungsi untuk memeriksa apakah response status http yang diterima adalah OK ketika mengakses link yang bersangkutan.

6. Jelaskan apa yang ditest oleh code

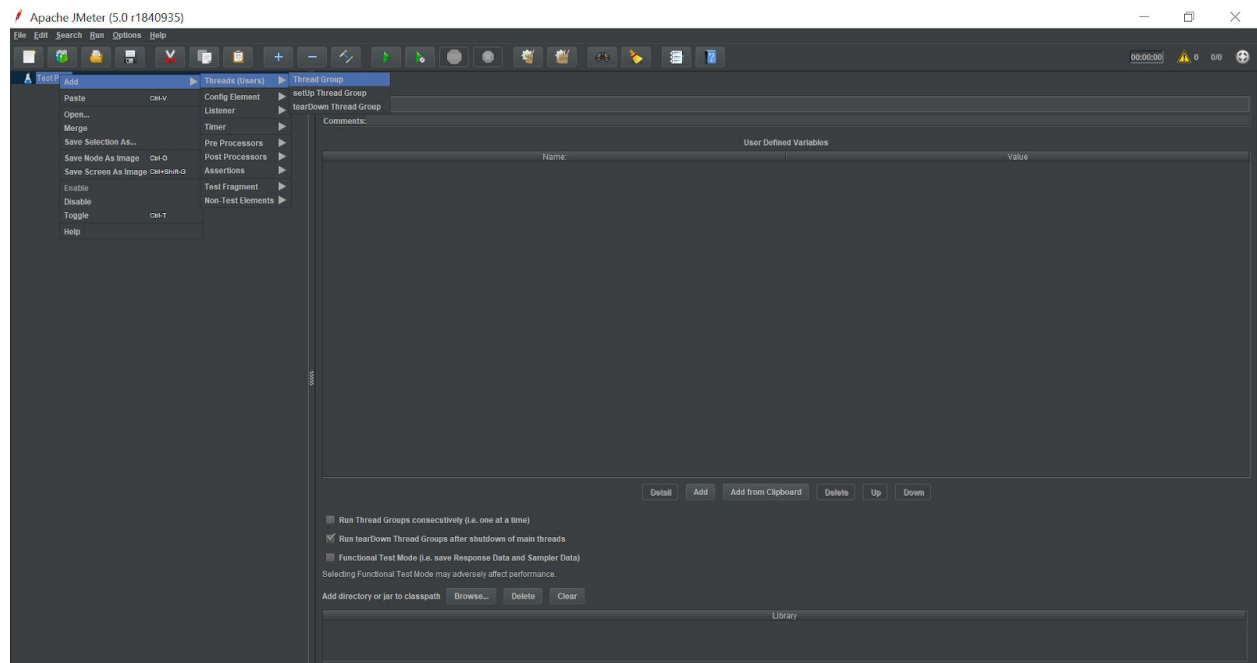
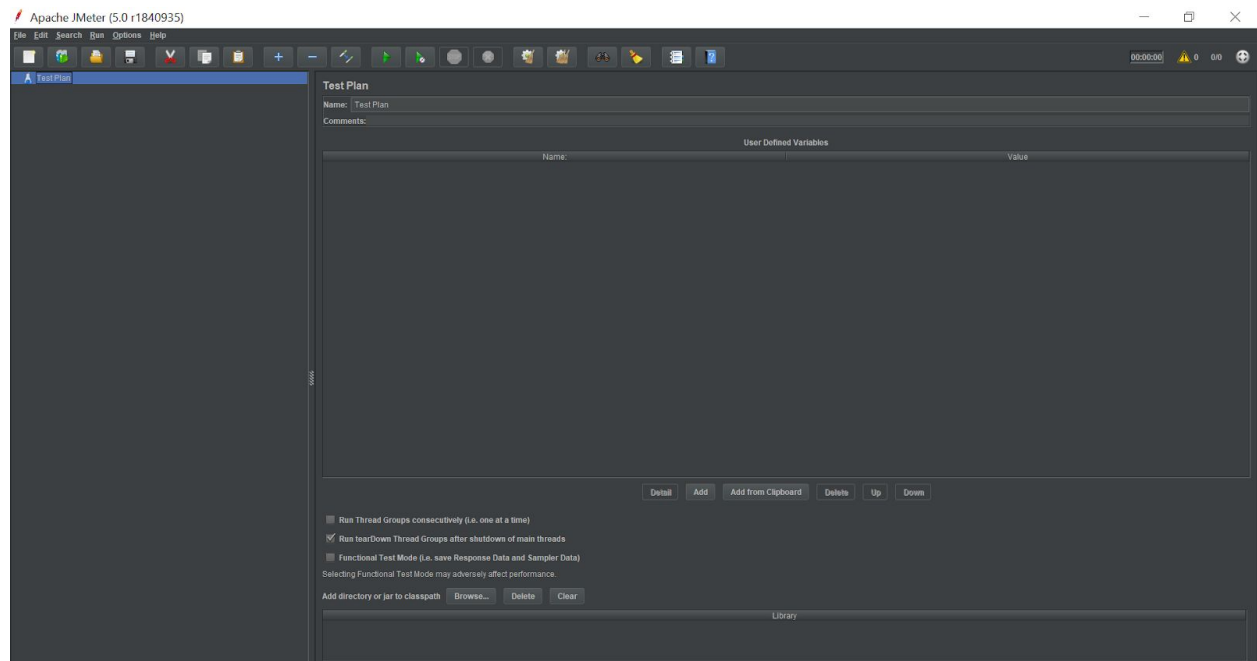
```
.andExpect(MockMvcResultMatchers.jsonPath("$.flightNumber",Matchers.is(flight.get().getFlightNumber())));
```

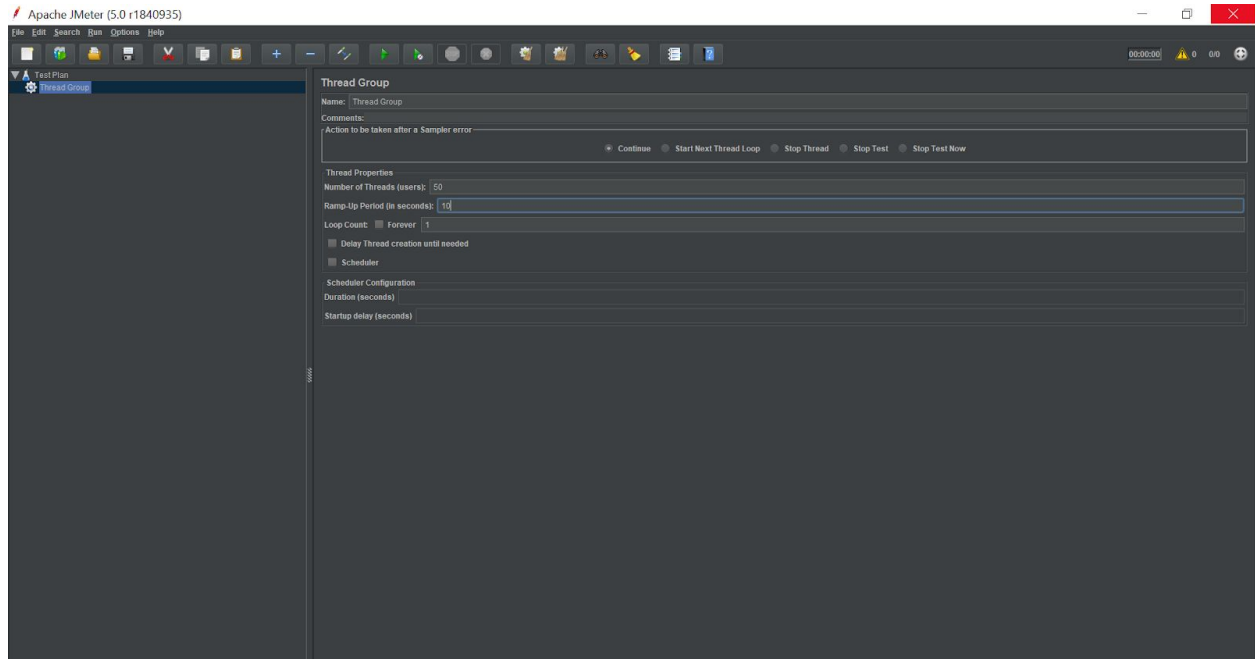
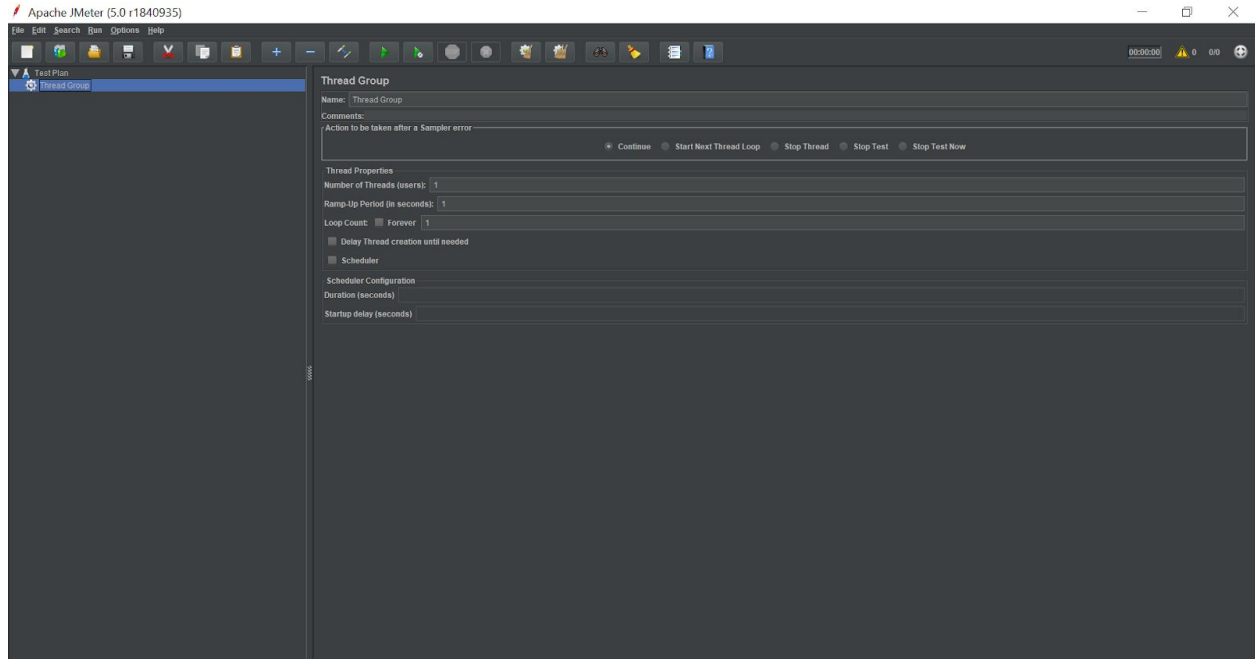
Code line di atas berfungsi untuk memeriksa apakah parameter flightNumber ketika melakukan view flight cocok dengan flightNumber dari object flight. JSON berfungsi untuk mengambil bagian yang hanya diperlukan dari JSON yang direturn.

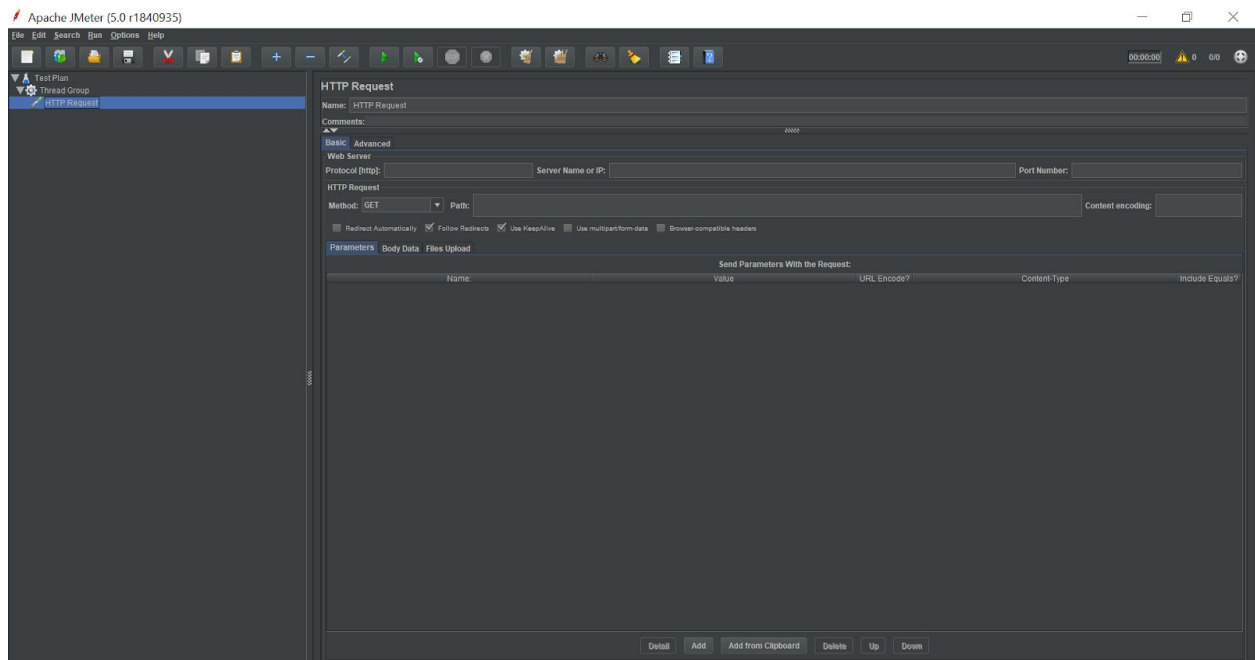
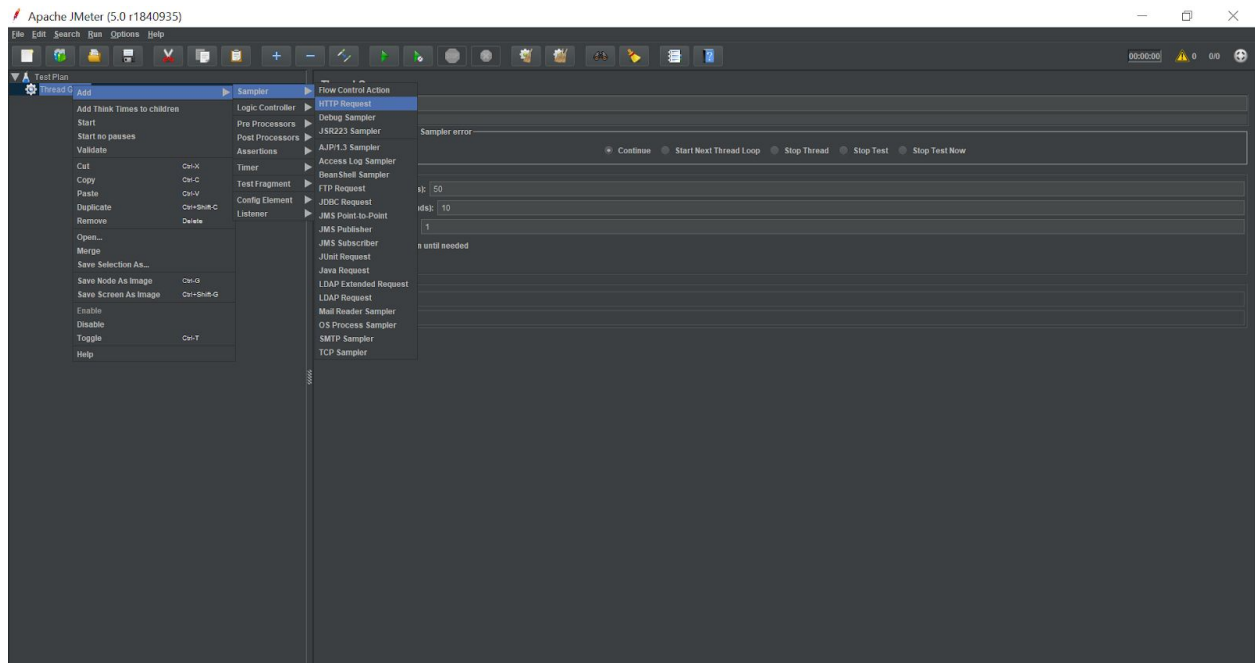
7. Jelaskan anotasi @ResponseBody yang ada pada route “/flight/view”

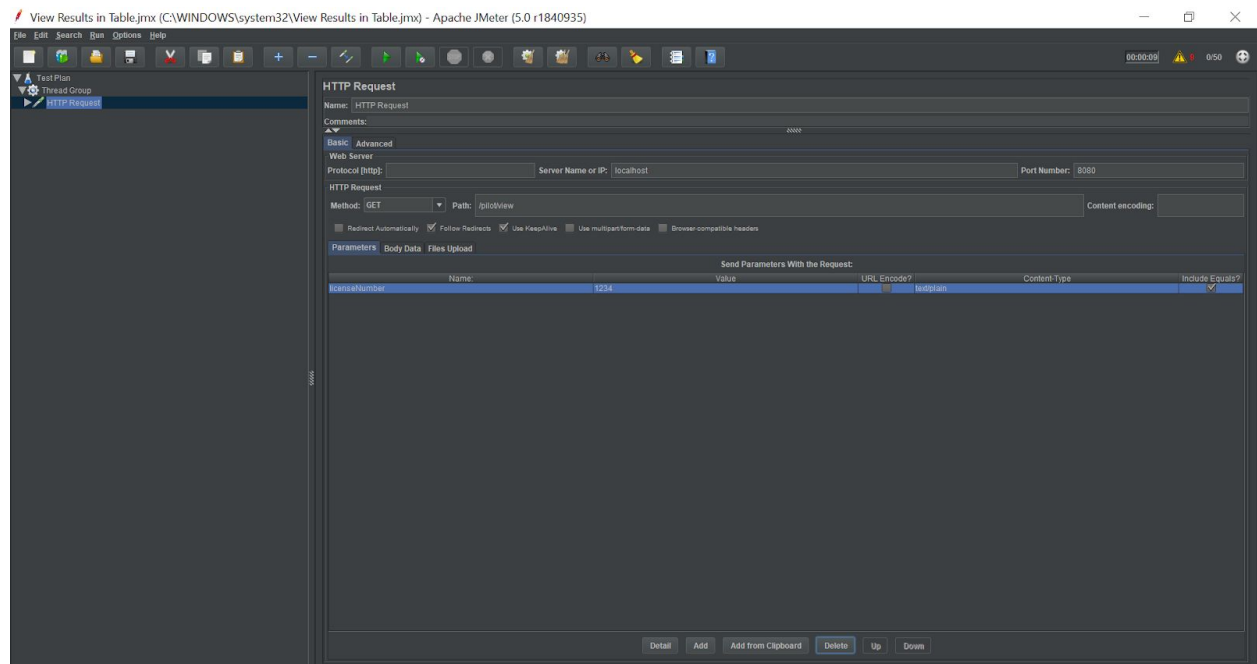
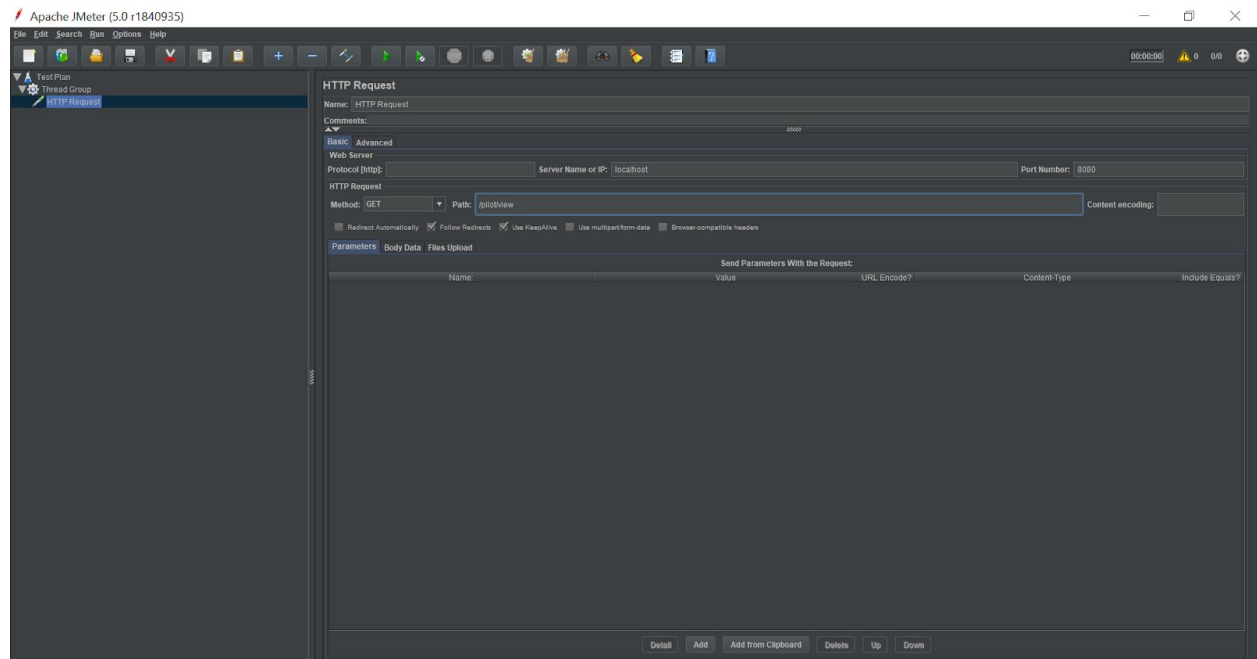
Anotasi tersebut berfungsi untuk memberitahu controller bahwa object yang direturn secara otomatis telah diterjemahkan menjadi JSON dan dikirim kembali menjadi object HttpResponse.

Menjalankan testing pada Spring Boot









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Test Plan
Thread Group
HTTP Request
View Results in Table

View Results in Table

Name: View Results in Table

Comments:

Write results to file / Read from file

Filename: Browse Log/Display Only: Errors Successes Configure

Sample #	Start Time	Thread Name	Label	Sample Time(ms)	Status	Bytes	Sent Bytes	Latency	Connect Time(ms)
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Sample #	Start Time	Thread Name	Label	Sample Time(ms)	Status	Bytes	Sent Bytes	Latency	Connect Time(ms)
1	17:02:08.324	Thread Group 1-2	HTTP Request	7377		517182	147	628	1
2	17:02:09.333	Thread Group 1-7	HTTP Request	8918		517182	147	136	1
3	17:02:08.731	Thread Group 1-4	HTTP Request	8611		517182	147	403	1
4	17:02:08.526	Thread Group 1-3	HTTP Request	6593		517182	147	609	1
5	17:02:08.937	Thread Group 1-5	HTTP Request	8543		517182	147	209	1
6	17:02:09.925	Thread Group 1-10	HTTP Request	9210		517182	147	114	1
7	17:02:09.140	Thread Group 1-4	HTTP Request	9382		517182	147	154	1
8	17:02:09.825	Thread Group 1-4	HTTP Request	9180		517182	147	120	1
9	17:02:09.125	Thread Group 1-1	HTTP Request	10782		517182	147	1921	64
10	17:02:09.732	Thread Group 1-9	HTTP Request	9712		517182	147	225	1
11	17:02:10.325	Thread Group 1-12	HTTP Request	13893		517182	147	916	1
12	17:02:10.132	Thread Group 1-11	HTTP Request	14651		517182	147	5793	1
13	17:02:11.533	Thread Group 1-18	HTTP Request	13518		517182	147	6701	1
14	17:02:10.983	Thread Group 1-15	HTTP Request	14629		517182	147	9729	1
15	17:02:10.533	Thread Group 1-13	HTTP Request	15294		517182	147	6561	1
16	17:02:10.733	Thread Group 1-14	HTTP Request	15027		517182	147	6945	1
17	17:02:11.333	Thread Group 1-17	HTTP Request	14782		517182	147	7255	1
18	17:02:11.733	Thread Group 1-19	HTTP Request	14696		517182	147	7174	1
19	17:02:11.933	Thread Group 1-20	HTTP Request	14441		517182	147	7705	1
20	17:02:11.133	Thread Group 1-16	HTTP Request	15384		517182	147	7677	1
21	17:02:12.332	Thread Group 1-22	HTTP Request	18799		517182	147	11892	1
22	17:02:12.533	Thread Group 1-23	HTTP Request	19529		517182	147	12318	1
23	17:02:12.334	Thread Group 1-27	HTTP Request	18886		517182	147	13136	1
24	17:02:12.132	Thread Group 1-21	HTTP Request	20285		517182	147	13007	1
25	17:02:12.734	Thread Group 1-24	HTTP Request	20563		517182	147	13106	1
26	17:02:13.133	Thread Group 1-26	HTTP Request	20714		517182	147	12631	1
27	17:02:13.733	Thread Group 1-29	HTTP Request	20893		517182	147	12460	1
28	17:02:14.333	Thread Group 1-32	HTTP Request	20339		517182	147	12754	1
29	17:02:13.534	Thread Group 1-28	HTTP Request	21463		517182	147	13721	1
30	17:02:12.835	Thread Group 1-25	HTTP Request	22653		517182	147	13418	1
31	17:02:14.132	Thread Group 1-31	HTTP Request	25594		517182	147	17063	1
32	17:02:14.533	Thread Group 1-33	HTTP Request	26544		517182	147	17754	1
33	17:02:13.932	Thread Group 1-30	HTTP Request	27440		517182	147	18227	1
34	17:02:14.732	Thread Group 1-34	HTTP Request	26974		517182	147	17626	1
35	17:02:14.933	Thread Group 1-35	HTTP Request	27150		517182	147	18930	1
36	17:02:15.533	Thread Group 1-38	HTTP Request	27307		517182	147	19852	1
37	17:02:15.333	Thread Group 1-37	HTTP Request	27821		517182	147	19632	1
38	17:02:15.132	Thread Group 1-36	HTTP Request	28429		517182	147	19805	1
39	17:02:15.933	Thread Group 1-40	HTTP Request	28084		517182	147	19812	1
40	17:02:16.735	Thread Group 1-39	HTTP Request	29839		517182	147	19868	1
41	17:02:16.934	Thread Group 1-45	HTTP Request	32327		517182	147	24002	1
42	17:02:16.533	Thread Group 1-43	HTTP Request	33086		517182	147	25556	1
43	17:02:16.723	Thread Group 1-44	HTTP Request	32962		517182	147	24774	1
44	17:02:16.933	Thread Group 1-49	HTTP Request	31476		517182	147	24166	1

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Sample #	StartTime	Thread Name	Label	Sample Time(ms)	Status	Bytes	517182	Sent Bytes	Latency	Connect Time(ms)	
86	17-09-28 8:06	Thread Group 1-36	HTTP Request	28495	Success	517182	147	20879	1		1
87	17-09-28 9:31	Thread Group 1-37	HTTP Request	29555	Success	517182	147	21767	1		1
88	17-09-30 0:55	Thread Group 1-38	HTTP Request	30212	Success	517182	147	22465	1		1
89	17-09-28 8:81	Thread Group 1-35	HTTP Request	31188	Success	517182	147	21182	1		1
90	17-09-30 1:83	Thread Group 1-39	HTTP Request	30694	Success	517182	147	22087	1		1
91	17-09-31 1:83	Thread Group 1-47	HTTP Request	31490	Success	434	147	31399	1		2
92	17-09-30 4:33	Thread Group 1-87	HTTP Request	30540	Success	434	147	30940	1		1
93	17-09-32 3:09	Thread Group 1-56	HTTP Request	30570	Success	434	147	30870	1		1
94	17-09-30 1:83	Thread Group 1-55	HTTP Request	30796	Success	434	147	30796	1		1
95	17-09-31 8:09	Thread Group 1-52	HTTP Request	31172	Success	434	147	31172	1		1
96	17-09-31 9:35	Thread Group 1-53	HTTP Request	31048	Success	434	147	31048	1		1
97	17-09-31 6:83	Thread Group 1-51	HTTP Request	31530	Success	434	147	31530	1		1
98	17-09-32 0:50	Thread Group 1-54	HTTP Request	30930	Success	434	147	30930	1		1
99	17-09-30 3:07	Thread Group 1-40	HTTP Request	32751	Success	517182	147	23311	1		1
100	17-09-33 0:22	Thread Group 1-38	HTTP Request	30266	Success	434	147	30266	1		1
101	17-09-33 2:05	Thread Group 1-62	HTTP Request	30029	Success	434	147	30028	14		1
102	17-09-33 2:25	Thread Group 1-63	HTTP Request	30641	Success	434	147	30641	13		1
103	17-09-33 3:10	Thread Group 1-64	HTTP Request	31286	Success	434	147	31286	1		1
104	17-09-33 0:57	Thread Group 1-61	HTTP Request	31474	Success	434	147	31474	1		1
105	17-09-33 4:34	Thread Group 1-65	HTTP Request	31180	Success	434	147	31099	1		1
106	17-09-33 8:11	Thread Group 1-68	HTTP Request	30723	Success	434	147	30722	1		1
107	17-09-33 8:88	Thread Group 1-67	HTTP Request	30852	Success	434	147	30851	1		1
108	17-09-33 0:27	Thread Group 1-60	HTTP Request	31511	Success	434	147	31511	1		1
109	17-09-33 0:36	Thread Group 1-69	HTTP Request	30713	Success	434	147	30713	1		1
110	17-09-34 3:12	Thread Group 1-72	HTTP Request	30379	Success	434	147	30378	1		1
111	17-09-34 0:62	Thread Group 1-70	HTTP Request	30632	Success	434	147	30632	1		1
112	17-09-34 1:87	Thread Group 1-71	HTTP Request	30510	Success	434	147	30510	1		1
113	17-09-35 1:94	Thread Group 1-77	HTTP Request	30354	Success	434	147	30354	1		1
114	17-09-35 3:55	Thread Group 1-80	HTTP Request	30271	Success	434	147	30271	1		1
115	17-09-35 3:53	Thread Group 1-79	HTTP Request	30288	Success	434	147	30288	2		1
116	17-09-34 9:29	Thread Group 1-75	HTTP Request	30703	Success	434	147	30703	1		1
117	17-09-34 9:01	Thread Group 1-74	HTTP Request	30733	Success	434	147	30733	1		1
118	17-09-34 8:57	Thread Group 1-73	HTTP Request	30779	Success	434	147	30779	2		1
119	17-09-34 9:15	Thread Group 1-76	HTTP Request	30724	Success	434	147	30724	6		1
120	17-09-30 4:25	Thread Group 1-61	HTTP Request	32316	Success	517182	147	27831	1		1
121	17-09-30 6:84	Thread Group 1-63	HTTP Request	30948	Success	517182	147	27014	1		1
122	17-09-30 8:33	Thread Group 1-65	HTTP Request	30622	Success	517182	147	27574	2		1
123	17-09-31 0:62	Thread Group 1-66	HTTP Request	30670	Success	517182	147	28843	1		1
124	17-09-30 8:10	Thread Group 1-64	HTTP Request	30377	Success	517182	147	27935	1		1
125	17-09-31 5:59	Thread Group 1-50	HTTP Request	30862	Success	517182	147	28779	2		1
126	17-09-30 5:57	Thread Group 1-62	HTTP Request	30965	Success	517182	147	28685	1		1
127	17-09-31 3:08	Thread Group 1-68	HTTP Request	30821	Success	517182	147	28727	1		1
128	17-09-31 4:33	Thread Group 1-69	HTTP Request	37728	Success	517182	147	29581	1		1
129	17-09-31 0:14	Thread Group 1-60	HTTP Request	38418	Success	517182	147	30588	1		1

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Status yang muncul adalah seperti gambar di atas. Status hijau menandakan bahwa hasil tes berhasil sedangkan yang merah menandakan kalau tes gagal. Tes yang gagal dikarenakan performa komputer tidak memadai untuk jumlah percobaan yang telah dilakukan.