

1. Mengapa perlu menginisiasi object PilotModel, sedangkan yang di test hanya FlightModel?
  - Karena FlightModel memiliki foreign key menuju PilotModel. Sehingga untuk membuat Flight diperlukan inisiasi objek Pilot.
2. Jelaskan apa yang akan terjadi jika object PilotModel dihapus dan tidak dilakukan setPilot pada FlightModel?
  - Maka hasil test akan muncul 1 error, dengan error statement tidak dapat dieksekusi terjadi pada line entityManager.persist(flightModel); jika pilot tidak di set kepada flight
3. Jelaskan apa yang dilakukan oleh code

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

  - Menginformasikan kepada mock untuk mengembalikan objek flight ketika memanggil method findByFlightNumber terhadap flightDB.
4. Jelaskan apa yang dilakukan oleh code

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

  - Menginformasikan kepada mock untuk mengembalikan objek flight ketika memanggil method getFlightDetailByFlightNumber terhadap flight service.
5. Jelaskan apa yang ditest oleh code

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

  - Memeriksa apakah hasil dari http response yang didapatkan 200 atau OK.
6. Jelaskan apa yang ditest oleh code

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

  - Memeriksa apakah flight yang ditampilkan dengan flight yang diberikan sama dengan membandingkan kedua flight number.
7. Jelaskan anotasi @ResponseBody yang ada pada route “/flight/view”

```
@RequestMapping(value = "/flight/view", method = RequestMethod.GET)
private @ResponseBody FlightModel view(@RequestParam(value = "flightNumber") String flightNumber, Model model) {
    FlightModel archive = flightService.getFlightDetailByFlightNumber(flightNumber).get();
    return archive;
}
```

  - Memberi tahu controller untuk menerima objek yang di kembalikan dan telah dikonversi menjadi JSON secara otomatis, kemudian mengirim kembali objek dalam bentuk http response.

## Screenshot hasil LOAD TESTING

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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	517182	Sent Bytes	147	Latency	1337	Connet Time(ms)
1	15:45:57.684	Thread Group 1-3	HTTP Request	11230	<div></div>		517182	147	1337			1
2	15:45:58.102	Thread Group 1-5	HTTP Request	10926	<div></div>		517182	147	1006			1
3	15:45:58.900	Thread Group 1-9	HTTP Request	10468	<div></div>		517182	147	230			1
4	15:45:57.903	Thread Group 1-4	HTTP Request	11717	<div></div>		517182	147	1210			2
5	15:45:58.500	Thread Group 1-7	HTTP Request	11172	<div></div>		517182	147	531			1
6	15:45:57.371	Thread Group 1-1	HTTP Request	12308	<div></div>		517182	147	1709			33
7	15:45:57.494	Thread Group 1-2	HTTP Request	12432	<div></div>		517182	147	1569			1
8	15:45:58.700	Thread Group 1-8	HTTP Request	11427	<div></div>		517182	147	339			1
9	15:45:58.303	Thread Group 1-6	HTTP Request	11890	<div></div>		517182	147	728			1
10	15:45:59.101	Thread Group 1-10	HTTP Request	11497	<div></div>		517182	147	298			1
11	15:45:59.501	Thread Group 1-12	HTTP Request	20110	<div></div>		517182	147	9688			1
12	15:45:59.301	Thread Group 1-11	HTTP Request	20473	<div></div>		517182	147	9770			1
13	15:45:59.701	Thread Group 1-13	HTTP Request	20372	<div></div>		517182	147	9933			1
14	15:46:00.918	Thread Group 1-19	HTTP Request	19340	<div></div>		517182	147	9475			1
15	15:46:00.309	Thread Group 1-16	HTTP Request	20334	<div></div>		517182	147	9663			1
16	15:45:59.903	Thread Group 1-14	HTTP Request	20775	<div></div>		517182	147	10067			1
17	15:46:00.514	Thread Group 1-17	HTTP Request	20297	<div></div>		517182	147	9636			1
18	15:46:01.117	Thread Group 1-20	HTTP Request	19720	<div></div>		517182	147	9672			1
19	15:46:00.715	Thread Group 1-18	HTTP Request	20160	<div></div>		517182	147	9719			1
20	15:46:00.109	Thread Group 1-15	HTTP Request	21170	<div></div>		517182	147	9798			1
21	15:46:01.913	Thread Group 1-24	HTTP Request	28741	<div></div>		517182	147	18533			1
22	15:46:01.317	Thread Group 1-21	HTTP Request	29348	<div></div>		517182	147	18651			1
23	15:46:01.712	Thread Group 1-23	HTTP Request	29389	<div></div>		517182	147	18603			2
24	15:46:01.512	Thread Group 1-22	HTTP Request	29729	<div></div>		517182	147	18486			1
25	15:46:02.531	Thread Group 1-27	HTTP Request	29280	<div></div>		517182	147	18463			2
26	15:46:02.357	Thread Group 1-26	HTTP Request	29698	<div></div>		517182	147	18520			3
27	15:46:02.919	Thread Group 1-29	HTTP Request	29196	<div></div>		517182	147	18107			30
28	15:46:02.413	Thread Group 1-25	HTTP Request	30186	<div></div>		517182	147	18894			1
29	15:46:02.727	Thread Group 1-28	HTTP Request	29888	<div></div>		517182	147	18355			1
30	15:46:03.153	Thread Group 1-30	HTTP Request	29501	<div></div>		517182	147	18269			1
31	15:46:05.515	Thread Group 1-42	HTTP Request	30470	<div></div>	9359		147	30468			1
32	15:46:05.316	Thread Group 1-41	HTTP Request	30672	<div></div>	9359		147	30671			1
33	15:46:05.918	Thread Group 1-44	HTTP Request	30071	<div></div>	9359		147	30071			1
34	15:46:05.718	Thread Group 1-43	HTTP Request	30269	<div></div>	9359		147	30269			1
35	15:46:06.130	Thread Group 1-45	HTTP Request	30191	<div></div>	9359		147	30190			1
36	15:46:06.309	Thread Group 1-46	HTTP Request	30139	<div></div>	9359		147	30139			1
37	15:46:06.516	Thread Group 1-47	HTTP Request	30117	<div></div>	9359		147	30116			0
38	15:46:06.715	Thread Group 1-48	HTTP Request	30104	<div></div>	9359		147	30104			1
39	15:46:06.915	Thread Group 1-49	HTTP Request	30140	<div></div>	9359		147	30139			2
40	15:46:07.118	Thread Group 1-50	HTTP Request	30130	<div></div>	9359		147	30130			1
41	15:46:03.522	Thread Group 1-32	HTTP Request	38427	<div></div>		517182	147	27425			1
42	15:46:03.348	Thread Group 1-31	HTTP Request	39140	<div></div>		517182	147	27622			1
43	15:46:04.523	Thread Group 1-37	HTTP Request	38086	<div></div>		517182	147	27713			1
44	15:46:04.313	Thread Group 1-36	HTTP Request	38415	<div></div>		517182	147	27986			7
45	15:46:03.924	Thread Group 1-34	HTTP Request	38856	<div></div>		517182	147	27571			1
46	15:46:04.794	Thread Group 1-38	HTTP Request	38017	<div></div>		517182	147	27651			2
47	15:46:03.747	Thread Group 1-33	HTTP Request	39254	<div></div>		517182	147	27551			1
48	15:46:04.139	Thread Group 1-35	HTTP Request	38956	<div></div>		517182	147	27870			1
49	15:46:05.113	Thread Group 1-40	HTTP Request	38173	<div></div>		517182	147	27705			1
50	15:46:04.923	Thread Group 1-39	HTTP Request	38444	<div></div>		517182	147	27616			1

Scroll automatically?

Child samples?

No of Samples 50

Latest Sample 38401

Average 53017

Deviation 9290