

MICROSERVICES WITH SECURITY IN API AND DOCKERIZE

KUNAL GARG

1) Newman

Flight Service

```
C:\Users\kunal>newman run "C:\Users\kunal\OneDrive\Desktop\Flight_service_MicroService.postman_collection.json"
newman

Flight_Service_MicroService

→ add flight
  POST http://localhost:9999/api/flight/airline/inventory [201 Created, 368B, 3.4s]

→ search flight
  POST http://localhost:9999/api/flight/search [201 Created, 1.02kB, 702ms]



|                        | executed                                 | failed |
|------------------------|------------------------------------------|--------|
| iterations             | 1                                        | 0      |
| requests               | 2                                        | 0      |
| test-scripts           | 0                                        | 0      |
| prerequest-scripts     | 0                                        | 0      |
| assertions             | 0                                        | 0      |
| total run duration:    | 4.2s                                     |        |
| total data received:   | 1.23kB (approx)                          |        |
| average response time: | 2s [min: 702ms, max: 3.4s, s.d.: 1352ms] |        |


```

Booking Service

```
C:\Users\kunal>newman run "C:\Users\kunal\OneDrive\Desktop\Booking_service_MicroService.postman_collection.json"
newman

Booking_Service_MicroService

→ book flight
  POST http://localhost:9998/api/flight/booking/692c45f86a221baaf8ad3055 [201 Created, 510B, 1629ms]

→ get by email
  GET http://localhost:9998/api/flight/booking/history/amankumar@gmail.com [200 OK, 924B, 201ms]

→ get by pnr
  GET http://localhost:9998/api/flight/ticket/BIKZG4 [404 Not Found, 219B, 119ms]

→ delete by pnr
  DELETE http://localhost:9998/api/flight/booking/cancel/BIKZG4 [404 Not Found, 224B, 56ms]



|                        | executed                                    | failed |
|------------------------|---------------------------------------------|--------|
| iterations             | 1                                           | 0      |
| requests               | 4                                           | 0      |
| test-scripts           | 0                                           | 0      |
| prerequest-scripts     | 0                                           | 0      |
| assertions             | 0                                           | 0      |
| total run duration:    | 2.3s                                        |        |
| total data received:   | 1.56kB (approx)                             |        |
| average response time: | 501ms [min: 56ms, max: 1629ms, s.d.: 653ms] |        |


```

POSTMAN

1) Add Flight

The screenshot shows the Postman interface for a 'Flight_service_MicroService / add flight' collection. A POST request is made to `http://localhost:9999/api/flight/airline/inventory`. The Body tab contains the following JSON payload:

```
1 {  
2   "airlineName": "INDIGO",  
3   "flightNumber": "AE101",  
4   "fromPlace": "Vellore",  
5   "toPlace": "MUMBAI",  
6   "departureTime": "2025-12-09T09:00:00",  
7   "arrivalTime": "2025-12-09T11:00:00",  
8   "totalSeats": 180,  
9   "price": 4500,  
10  "specialFare": 3500,  
11  "fareCategory": "STUDENT"  
12 }
```

The response status is 201 Created, with a response time of 560 ms and a response body of `6934a3d304430477dc40de92`.

2) Search Flight

The screenshot shows the Postman interface for a 'Flight_service_MicroService / search flight' collection. A POST request is made to `http://localhost:9999/api/flight/search`. The Body tab contains the following JSON payload:

```
1 {  
2   "fromPlace": "vellore",  
3   "toPlace": "MUMBAI",  
4   "travelDate": "2025-12-09",  
5   "travelTime": "",  
6   "tripType": "ROUND_TRIP",  
7   "returnDate": "2025-12-09"  
8 }
```

The response status is 201 Created, with a response time of 288 ms and a response body of a JSON array containing flight details:

```
1 [  
2   {  
3     "airlineName": "INDIGO",  
4     "flightNumber": "AE101",  
5     "departureTime": "2025-12-09T09:00:00",  
6     "arrivalTime": "2025-12-09T11:00:00",  
7     "oneWayPrice": 4500.0,  
8     "roundTripPrice": 9000.0,
```

Docker for booking service (kafka) working fine

```
C:\Users\kunal\Documents\workspace-spring-tools-for-eclipse-4.32.2.RELEASE\booking-service-micro-assignment-1>docker-compose up -d
time="2025-12-07T03:30:02+05:30" level=warning msg="C:\Users\kunal\Documents\workspace-spring-tools-for-eclipse-4.32.2.RELEASE\booking-service-micro-assignment-1\docker-compose.yml: the attribute 'version' is obsolete, it will be ignored, please remove it to avoid potential confusion"
[+] Running 3/3
  ✓ Container booking-service-micro-assignment-1-mailhog-1    Started          1.5s
  ✓ Container booking-service-micro-assignment-1-zookeeper-1  Started          1.5s
  ✓ Container booking-service-micro-assignment-1-kafka-1       Started          0.5s

C:\Users\kunal\Documents\workspace-spring-tools-for-eclipse-4.32.2.RELEASE\booking-service-micro-assignment-1>docker ps
CONTAINER ID   IMAGE           COMMAND                  CREATED        STATUS        PORTS
55c4f7fa4793   spring-boot-login-app   "/usr/local/bin/mvn..."   11 hours ago   Up 5 minutes   0.0.0.0:6868->8080/tcp, [::]:6868->8080/tcp
d1b518b6a1d8   postgres          "docker-entrypoint.s..."   12 hours ago   Up 5 minutes   0.0.0.0:5432->5432/tcp, [::]:5432->5432/tcp
6aeb81e0dfa8   wurstmeister/kafka    "start-kafka.sh"      5 days ago    Up 7 seconds   0.0.0.0:9092->9092/tcp, [::]:9092->9092/tcp
a05ff055e9a4   wurstmeister/zookeeper  "/bin/sh -c '/usr/sb..."  5 days ago    Up 9 seconds   0.0.0.0:2181->2181/tcp, [::]:2181->2181/tcp
4451a4629abd   mailhog/mailhog     "MailHog"            5 days ago    Up 9 seconds   0.0.0.0:1025->1025/tcp, [::]:1025->1025/tcp, 0.0.0.0:8025->8025/tcp, [::]:8025->8025/tcp, booking-service-micro-assignment-1-mailhog-1
```

```
C:\Users\kunal\Documents\workspace-spring-tools-for-eclipse-4.32.2.RELEASE\booking-service-micro-assignment-1>docker exec -it booking-service-micro-assignment-1-kafka-1 bash
root@6aeb81e0dfa8:/# kafka-topics.sh \
--create \
--topic booking-confirmed \
--bootstrap-server localhost:9092 \
--replication-factor 1 \
--partitions 1
Error while executing topic command : Topic 'booking-confirmed' already exists.
[2025-12-06 22:06:57,491] ERROR org.apache.kafka.common.errors.TopicExistsException: Topic 'booking-confirmed' already exists.
(kafka.admin.TopicCommand$)
root@6aeb81e0dfa8:/# ^C
root@6aeb81e0dfa8:/# ^C
root@6aeb81e0dfa8:/# kafka-topics.sh --list --bootstrap-server localhost:9092
__consumer_offsets
booking-confirmed
root@6aeb81e0dfa8:/# |
```

Logs

```
2025-12-07T03:39:54.274+05:30  INFO 24456 --- [booking-service-micro-assignment] [ad
2025-12-07T03:39:54.290+05:30  INFO 24456 --- [booking-service-micro-assignment] [ad
  Booking Event Published to Kafka for PNR: 5DSK27
2025-12-07T03:39:54.308+05:30 DEBUG 24456 --- [booking-service-micro-assignment] [nt
2025-12-07T03:39:54.308+05:30 DEBUG 24456 --- [booking-service-micro-assignment] [nt
2025-12-07T03:39:54.320+05:30 DEBUG 24456 --- [booking-service-micro-assignment] [nid
2025-12-07T03:39:54.322+05:30 DEBUG 24456 --- [booking-service-micro-assignment] [nid
2025-12-07T03:39:54.330+05:30 DEBUG 24456 --- [booking-service-micro-assignment] [nid
2025-12-07T03:39:54.330+05:30 DEBUG 24456 --- [booking-service-micro-assignment] [nid
2025-12-07T03:39:54.345+05:30 DEBUG 24456 --- [booking-service-micro-assignment] [nid
2025-12-07T03:39:54.426+05:30 DEBUG 24456 --- [booking-service-micro-assignment] [bea
2025-12-07T03:39:54.427+05:30 DEBUG 24456 --- [booking-service-micro-assignment] [bea
2025-12-07T03:39:54.430+05:30 DEBUG 24456 --- [booking-service-micro-assignment] [res
2025-12-07T03:39:54.431+05:30 DEBUG 24456 --- [booking-service-micro-assignment] [res
2025-12-07T03:39:54.431+05:30 DEBUG 24456 --- [booking-service-micro-assignment] [bea
2025-12-07T03:39:54.435+05:30 DEBUG 24456 --- [booking-service-micro-assignment] [res
2025-12-07T03:39:54.436+05:30 DEBUG 24456 --- [booking-service-micro-assignment] [res
Received Booking Event for PNR: 5DSK27
Email successfully sent to amankumar@gmail
2025-12-07T03:40:01.869+05:30 DEBUG 24456 --- [booking-service-micro-assignment] [loc
```

POSTMAN(BOOKING SERVICE)

1) Book flight

The screenshot shows a POST request to `http://localhost:9998/api/flight/booking/6934a3d304430477dc40de92`. The response status is `201 Created`. The JSON response body is as follows:

```
1 {  
2   "pnr": "5DSK27",  
3   "email": "amankumar@gmail.com",  
4   "numberOfSeats": 2,  
5   "totalPrice": 9000.0,  
6   "bookingTime": "2025-12-06T22:09:53.869495300Z",  
7   "message": "Booking successful",  
8   "passengers": [  
9     {  
10        "name": "aman",  
11        "seatNumber": 101,  
12        "gender": "MALE",  
13        "age": 31,  
14        "meal": "VEG",  
15        "fareCategory": null,  
16      }  
17    ]  
18 }
```

2) Get by email

The screenshot shows a GET request to `http://localhost:9998/api/flight/booking/history/amankumar@gmail.com`. The response status is `200 OK`. The JSON response body is as follows:

```
1 [  
2   {  
3     "pnr": "5DSK27",  
4     "email": "amankumar@gmail.com",  
5     "numberOfSeats": 2,  
6     "totalPrice": 9000.0,  
7     "bookingTime": "2025-12-06T22:09:53.869Z",  
8     "message": "History item",  
9     "passengers": [  
10       {  
11         "name": "aman",  
12         "seatNumber": 101,  
13         "gender": "MALE",  
14         "age": 31,  
15         "meal": "VEG",  
16       }  
17     ]  
18 }
```

3) Get by PNR

The screenshot shows a Postman request for "Booking_Service_MicroService / get by pnr". The method is "GET" and the URL is "http://localhost:9998/api/flight/ticket/F36UXH". The response status is "200 OK" with a response time of 63 ms and a body size of 590 B. The response body is a JSON object representing a flight ticket:

```
1 {  
2   "pnr": "F36UXH",  
3   "email": "amankumar@gmail.com",  
4   "numberOfSeats": 2,  
5   "totalPrice": 9000.0,  
6   "bookingTime": "2025-11-30T19:17:50.043Z",  
7   "message": "Ticket retrieved",  
8   "passengers": [  
9     {  
10        "name": "aman",  
11        "seatNumber": 105,  
12        "gender": "MALE",  
13        "age": 31,  
14        "meal": "VEG",  
15        "fareCategory": null,  
16        "fareApplied": 4500.0,  
17        "fareMessage": null  
18      },  
19    ]  
}
```

4) Delete By PNR

The screenshot shows a Postman request for "Booking_Service_MicroService / delete by pnr". The method is "DELETE" and the URL is "http://localhost:9998/api/flight/booking/cancel/F36UXH". The response status is "200 OK". The response body is a simple message: "1 Ticket with PNR F36UXH has been cancelled successfully."

SCHEMAS

The screenshot shows the MongoDB Compass interface with the following details:

- Database:** webfluxdb
- Collection:** flight_inventory
- Documents:** 7
- Aggregations:** Schema, Indexes (1), Validation
- Query Bar:** Type a query: { field: 'value' } or [Generate query](#)
- Toolbar:** Create, Find, Edit, Delete
- Results:** 75 documents, 1 - 7 of 7
- Document Preview:** Two documents are shown in expanded form:

```
price : 4500
special_fare : 3500
fare_category : "STUDENT"
_class : "com.flight_service.Model.FlightInventory"

_id: ObjectId('6934a3d304430477dc40de92')
airline_name : "INDIGO"
flight_number : "AE101"
from_place : "Vellore"
to_place : "MUMBAI"
departure_time : 2025-12-09T03:30:00.000+00:00
arrival_time : 2025-12-09T05:30:00.000+00:00
total_seats : 180
available_seats : 180
price : 4500
special_fare : 3500
fare_category : "STUDENT"
_class : "com.flight_service.Model.FlightInventory"
```

webfluxdb > test > booking_ticket

The screenshot shows the MongoDB Compass interface with the following details:

- Database:** webfluxdb
- Collection:** test
- Documents:** 9
- Aggregations:** Schema, Indexes (1), Validation
- Query Bar:** Type a query: { field: 'value' } or [Generate query](#)
- Toolbar:** Create, Find, Edit, Delete
- Results:** 75 documents
- Document Preview:** Two documents are shown in expanded form:

```
number_of_seats : 2
total_price : 9000
status : "BOOKED"
cancelled : false
passengers : Array (empty)
_class : "com.booking_service.Model.BookingTicket"

_id: ObjectId('6934a9b16b97294023200f13')
pnr : "5DSK27"
email : "amankumar@gmail.com"
flight_id : "6934a3d304430477dc40de92"
booking_time : 2025-12-06T22:09:53.869+00:00
number_of_seats : 2
total_price : 9000
status : "BOOKED"
cancelled : false
passengers : Array (empty)
_class : "com.booking_service.Model.BookingTicket"
```

API GATEWAY (AUTHENTICATION)

1) signup

The screenshot shows a Postman request for a POST method to the URL `http://localhost:9996/auth/signup`. The Headers tab shows 9 items, and the Body tab is selected with the raw JSON content:

```
1 {  
2   "username": "kunal",  
3   "email": "kunal@gmail.com",  
4   "password": "K9254490344k@",  
5   "roles": ["user"]  
6 }
```

The response body is also in JSON format:

```
1 {  
2   "message": "User registered successfully!"  
3 }
```

2) Signin

The screenshot shows a Postman request for a POST method to the URL `http://localhost:9996/auth/signin`. The Headers tab shows 9 items, and the Body tab is selected with the raw JSON content:

```
1 {  
2   "id": 3,  
3   "username": "kunal123",  
4   "email": "kunal494@gmail.com",  
5   "roles": [  
6     "ROLE_USER"  
7   ],  
8   "token": "eyJhbGciOiJIUzI1NiJ9.  
9     eyJzdWIiOiJrdW5hbDEyMyIsImV4cCI6MTc2NTA3MTY0OSwiaWF0IjoxNzY1MDcxNjE5LCJyb2xlcI6WyJST0xFX1VTRVIiXX0.  
nx5hgAHwt4IWui0CoAdh5DwmXRtGnwjo_09DcdcYVoQ"
```

3) Add flight

The screenshot shows a Postman request to `http://localhost:9996/flight-service-micro-assignment/api/flight/airline/inventory`. The Authorization tab is selected, showing a Bearer Token. The response status is `201 Created`.

```
1 6934db2560dfcb59bf9bb6d7
```

4) Search Flight

The screenshot shows a Postman request to `http://localhost:9996/flight-service-micro-assignment/api/flight/search`. The Authorization tab is selected, showing a Bearer Token. The response status is `201 Created`.

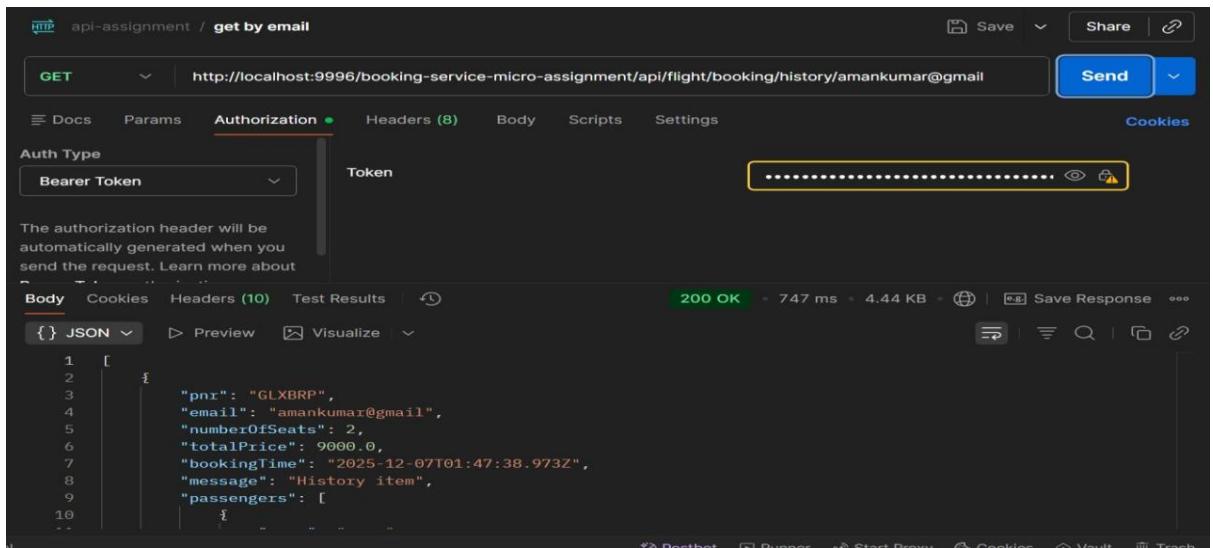
```
1 [ { "airlineName": "INDIGO", "flightNumber": "AE101", "departureTime": "2025-12-09T09:00:00", "arrivalTime": "2025-12-09T11:00:00", "oneWayPrice": 4500.0, "roundTripPrice": 9000.0, "message": "Only onward flight available. Return flight not found.", "returnDepartureTime": null, "returnArrivalTime": null, "returnFlightNumber": null }, { "airlineName": "INDIGO", "flightNumber": "AE102", "departureTime": "2025-12-09T11:00:00", "arrivalTime": "2025-12-09T13:00:00", "oneWayPrice": 4500.0, "roundTripPrice": 9000.0, "message": "Only onward flight available. Return flight not found.", "returnDepartureTime": null, "returnArrivalTime": null, "returnFlightNumber": null } ]
```

5) Book Ticket

The screenshot shows a Postman request to `http://localhost:9996/booking-service-micro-assignment/api/flight/booking/6934db2560dfcb59bf9bb6d7`. The Authorization tab is selected, showing a Bearer Token. The response status is `201 Created`.

```
1 { "pnr": "GLXBRP", "email": "amankumar@gmail.com", "numberOfSeats": 2, "totalPrice": 9000.0, "bookingTime": "2025-12-07T01:47:38.973993Z", "message": "Booking successful", "passengers": [ { "name": "aman", "seatNumber": 18, "gender": "MALE", "age": 31, "meal": "VEG", "fareCategory": null } ] }
```

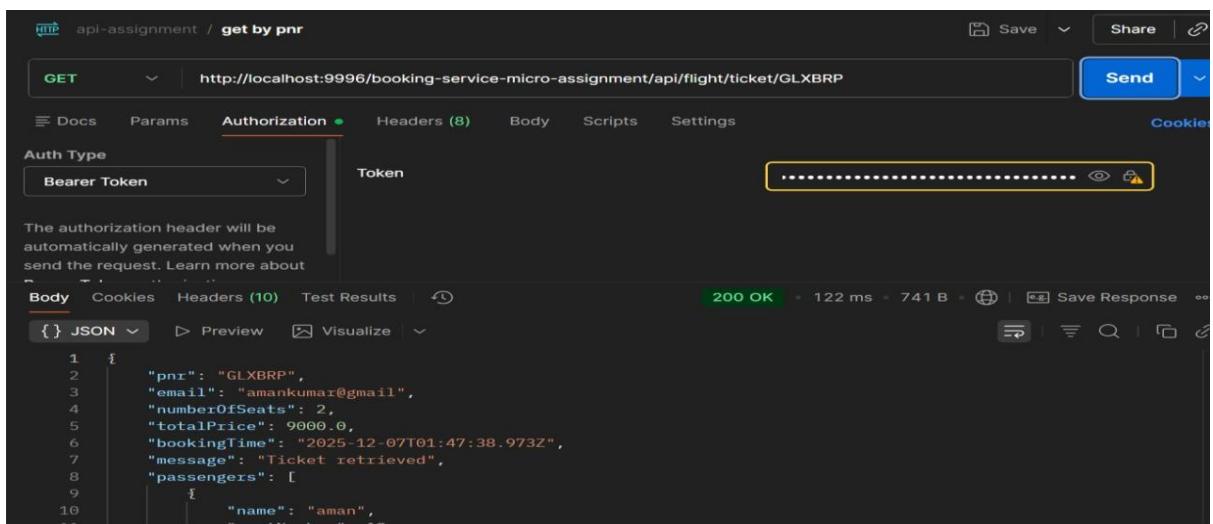
6) Get By email



The screenshot shows a Postman request for `http://localhost:9996/booking-service-micro-assignment/api/flight/booking/history/amankumar@gmail.com`. The Authorization tab is selected, showing a Bearer Token. The response is a 200 OK status with a JSON body containing flight booking details:

```
1  [
2    {
3      "pnr": "GLXBRP",
4      "email": "amankumar@gmail.com",
5      "numberOfSeats": 2,
6      "totalPrice": 9000.0,
7      "bookingTime": "2025-12-07T01:47:38.973Z",
8      "message": "History item",
9      "passengers": [
10        {
11          "name": "aman",
12          "age": 25
13        }
14      ]
15    }
16  ]
```

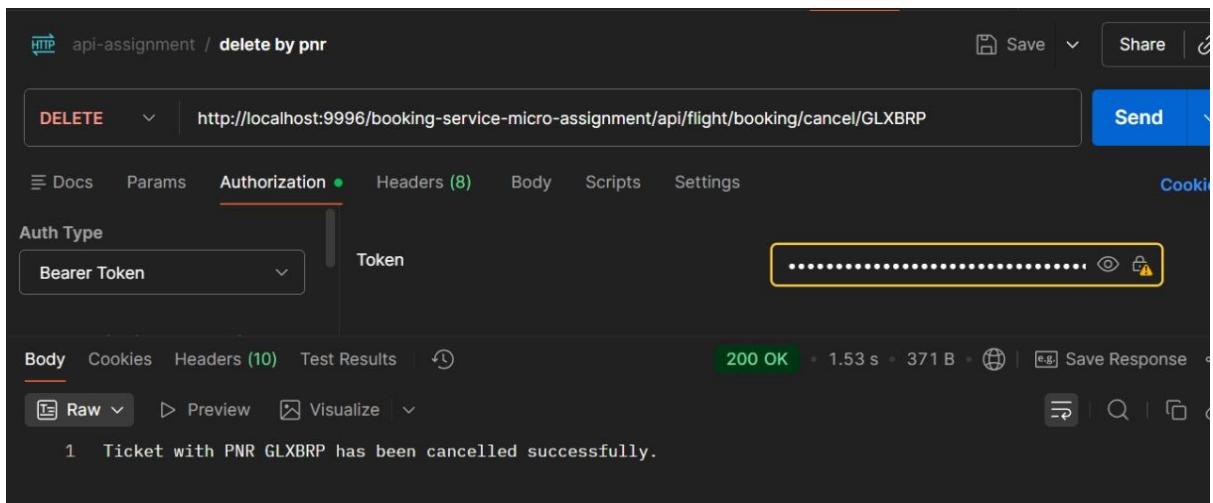
7) Get By PNR



The screenshot shows a Postman request for `http://localhost:9996/booking-service-micro-assignment/api/flight/ticket/GLXBRP`. The Authorization tab is selected, showing a Bearer Token. The response is a 200 OK status with a JSON body containing ticket details:

```
1  [
2    {
3      "pnr": "GLXBRP",
4      "email": "amankumar@gmail.com",
5      "numberOfSeats": 2,
6      "totalPrice": 9000.0,
7      "bookingTime": "2025-12-07T01:47:38.973Z",
8      "message": "Ticket retrieved",
9      "passengers": [
10        {
11          "name": "aman",
12          "age": 25
13        }
14      ]
15    }
16  ]
```

8) Delete by PNR



The screenshot shows a Postman request for `http://localhost:9996/booking-service-micro-assignment/api/flight/booking/cancel/GLXBRP`. The Authorization tab is selected, showing a Bearer Token. The response is a 200 OK status with a message indicating the ticket was cancelled successfully.

```
1  Ticket with PNR GLXBRP has been cancelled successfully.
```

9) SignOut

The screenshot shows a Postman interface with the following details:

- Method:** POST
- URL:** <http://localhost:9996/auth/signout>
- Params:** Key
- Headers:** (9)
- Body:** { } JSON
- Test Results:** 200 OK • 266 ms • 437 B
- Body Response:**

```
1 {
2   "message": "You've been signed out! Please delete the token on client side."
3 }
```

EUREKA SERVER WORKING PERFECTLY :

The screenshot shows a browser window displaying the Eureka server dashboard at localhost:9997. The interface includes the following sections:

- DS Replicas:** Shows registered instances:

Application	AMIs	Availability Zones	Status
API-GATEWAY-ASSIGNMENT	n/a (1)	(1)	UP (1) - Kunal.mshome.net:api-gateway-assignment:9996
BOOKING-SERVICE-MICRO-ASSIGNMENT	n/a (1)	(1)	UP (1) - Kunal:booking-service-micro-assignment:9998
FLIGHT-SERVICE-MICRO-ASSIGNMENT	n/a (1)	(1)	UP (1) - Kunal:flight-service-micro-assignment:9999
- General Info:** Shows system statistics:

Name	Value
total-avail-memory	101mb
num-of-cpus	12
current-memory-usage	48mb (47%)

Jacoco (Flight Service)

flight-service-micro-assignment											Sessions	
Element	Missed Instructions	Cov.	Missed Branches	Cov.	Missed	Cxty	Missed	Lines	Missed	Methods	Missed	Classes
com.flight.service.Controller	100%	n/a	0	8	0	12	0	8	0	8	0	3
com.flight.service	77%	n/a	1	3	2	6	1	3	0	0	1	
com.flight.service.ServiceImplementation	100%	0	16	0	69	0	11	0	11	0	0	1
com.flight.service.exception	98%	50%	6	32	1	94	1	27	0	0	3	
Total	12 of 714	98%	5 of 20	75%	7	59	3	181	2	49	0	8

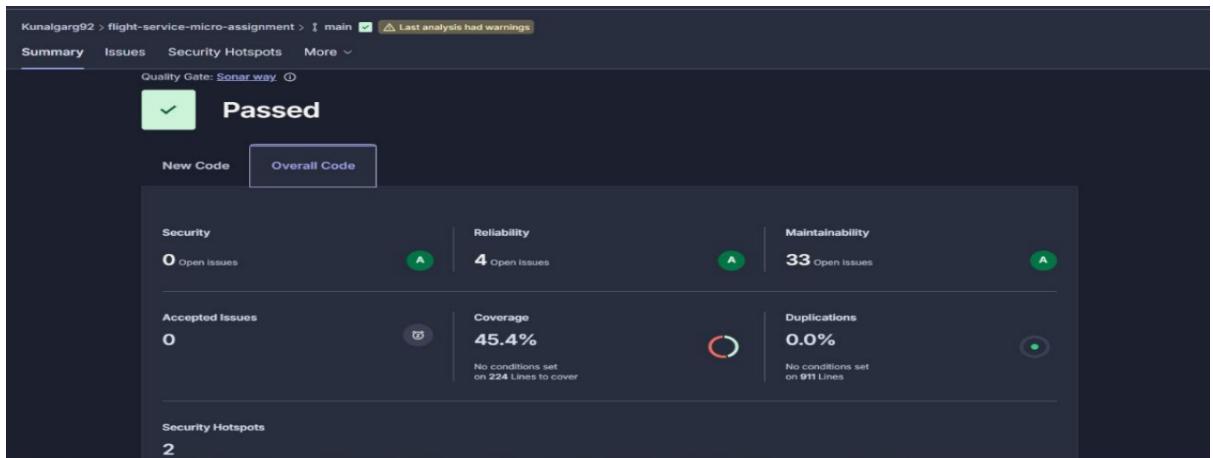
Created with JaCoCo 0.8.11 202310140853

Jacoco (Booking Service)

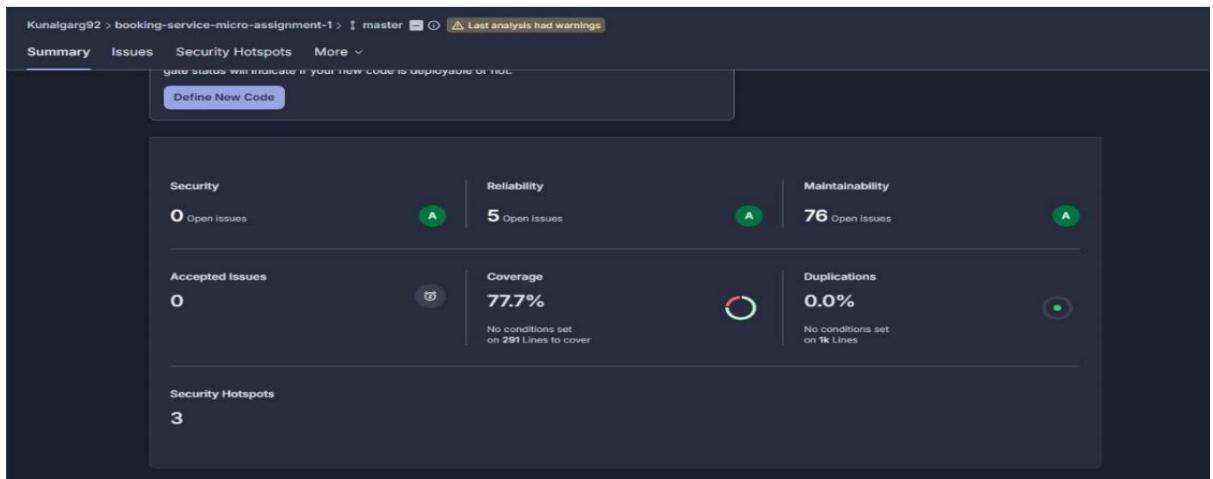
booking-service-micro-assignment-1											Sessions	
Element	Missed Instructions	Cov.	Missed Branches	Cov.	Missed	Cxty	Missed	Lines	Missed	Methods	Missed	Classes
com.booking.service.DTO	89%	59%	83	207	0	40	0	91	0	6		
com.booking.service.Model	92%	71%	38	120	0	26	0	51	0	3		
com.booking.service.exception	91%	50%	12	32	12	94	7	27	0	3		
com.booking.service.serviceImplementation	98%	93%	2	33	1	111	1	25	0	1		
com.booking.service.Controller	100%	n/a	0	6	0	7	0	6	0	2		
com.booking.service.Feign	100%	n/a	0	4	0	10	0	4	0	1		
com.booking.service	100%	n/a	0	2	0	3	0	2	0	1		
Total	243 of 3,071	92%	140 of 396	64%	135	404	13	291	8	206	0	17

Created with JaCoCo 0.8.10 202304240956

SonarQube(Flight Service)



Booking Service



Jmeter Testing (in CLI)

```
C:\Users\kunal>"C:\Users\kunal\Downloads\apache-jmeter-5.6.3\apache-jmeter-5.6.3\bin\jmeter.bat" -n -t "C:\Users\kunal\OneDrive\Desktop\microassignment.jmx" -l results.jtl -e -o report
WARN StatusConsoleListener The use of package scanning to locate plugins is deprecated and will be removed in a future release
WARN StatusConsoleListener The use of package scanning to locate plugins is deprecated and will be removed in a future release
WARN StatusConsoleListener The use of package scanning to locate plugins is deprecated and will be removed in a future release
WARN StatusConsoleListener The use of package scanning to locate plugins is deprecated and will be removed in a future release
Creating summariser <summary>
Created the tree successfully using C:\Users\kunal\OneDrive\Desktop\microassignment.jmx
Starting standalone test @ 2025 Dec 1 22:45:40 IST (1764609340122)
Waiting for possible Shutdown/StopTestNow/HeapDump/ThreadDump message on port 4445
Warning: Nashorn engine is planned to be removed from a future JDK release
summary = 20 in 00:00:02 = 10.5/s Avg: 1308 Min: 881 Max: 1583 Err: 0 (0.00%)
Tidying up ... @ 2025 Dec 1 22:45:42 IST (1764609342662)
... end of run
```

Message-Broker

```
2025-12-02T02:47:48.046+05:30 INFO 2652 --- [booking-service-micro-assignment] [main] o.a.k.clients.consumer
    allow.auto.create.topics = true
    auto.commit.interval.ms = 5000
    auto.include.jmx.reporter = true
    auto.offset.reset = latest
    bootstrap.servers = [localhost:9092]
    check.crcs = true
    client.dns.lookup = use_all_dns_ips
    client.id = consumer-booking-service-group-1
    client.rack =
    connections.max.idle.ms = 540000
    default.api.timeout.ms = 60000
    enable.auto.commit = false
    exclude.internal.topics = true
    fetch.max.bytes = 52428800
    fetch.max.wait.ms = 500
    fetch.min.bytes = 1
    group.id = booking-service-group
    group.instance.id = null
    heartbeat.interval.ms = 3000
    interceptor.classes = []
    internal.leave.group.on.close = true
    internal.throw.on.fetch.stable.offset.unsupported = false
    isolation.level = read_uncommitted
    key.deserializer = class org.apache.kafka.common.serialization.StringDeserializer
```

The screenshot shows a web-based email client interface. At the top, there's a header bar with navigation icons and a search bar. Below it is a toolbar with a mail icon, a GitHub icon, and other controls. The main area is titled 'MailHog' and shows an 'Inbox (1)'. A single message is listed:

- From:** Jim
- Subject:** Your Flight Booking is Confirmed | PNR: ILTHZ7
- Timestamp:** 2 minutes ago
- Size:** 942 B

The message preview shows the text 'Your Flight Booking is Confirmed | PNR: ILTHZ7' and a small Giphy sticker. At the bottom of the message view, there's a button labeled 'Enable Jim'.

DOCKERIZE ALL THE MICROSERVICES (SUCCESSFULLY RUNNING)

```

=> [eureka-server] exporting to image
=> => exporting layers
=> => writing image sha256:b107db36df33f9f759328cebc4589988dcf6463af5b36e80e7eae11133135a00
=> => naming to docker.io/library/microservices-eureka-server
=> [eureka-server] resolving provenance for metadata file
=> [booking-service builder 5/6] COPY src ./src
=> [booking-service builder 6/6] RUN mvn clean package -DskipTests
=> [booking-service stage-1 3/3] COPY --from=builder /app/target/*.jar app.jar
=> [booking-service] exporting to image
=> => exporting layers
=> => writing image sha256:869314750fbaf0b4b0f42007986de0616e277acb16eca602637886644b59fc54
=> => naming to docker.io/library/microservices-booking-service
=> [booking-service] resolving provenance for metadata file
[+] Running 10/10
✓microservices-eureka-server    Built
✓microservices-booking-service   Built
✓microservices-flight-service   Built
✓microservices-api-gateway     Built
✓Network microservices_micro-net Created
✓Container eureka-server       Created
✓Container mysql                Created
✓Container flight-service      Created
✓Container api-gateway        Created
✓Container booking-service     Created
Attaching to api-gateway, booking-service, eureka-server, flight-service, mysql
eureka-server |
eureka-server |
eureka-server |   \ \ / ---' - - - ( ) - - - \ \ \ \
eureka-server |   ( ( )\---| ' - | | ' - V - ' | \ \ \ \
eureka-server |   \ \ \ \ ) | ) | | | | ( | | ) ) )

```

Logs :

```

C:\Users\kunal>docker logs api-gateway

:: Spring Boot ::          (v3.4.0)

2025-12-07T10:37:12.750Z INFO 1 --- [api-gateway-assignment] [           main] c.a.ApiGatewayAssignmentApplication : Starting Application
piGatewayAssignmentApplication v0.0.1-SNAPSHOT using Java 21.0.9 with PID 1 (/app/app.jar started by root in /app)
2025-12-07T10:37:12.755Z INFO 1 --- [api-gateway-assignment] [           main] c.a.ApiGatewayAssignmentApplication : No active
profile set, falling back to 1 default profile: "default"
2025-12-07T10:37:14.872Z INFO 1 --- [api-gateway-assignment] [           main] .s.d.r.c.RepositoryConfigurationDelegate : Bootstrapping Spring Data JPA repositories in DEFAULT mode.
2025-12-07T10:37:15.171Z INFO 1 --- [api-gateway-assignment] [           main] .s.d.r.c.RepositoryConfigurationDelegate : Finished Spring Data repository scanning in 272 ms. Found 2 JPA repository interfaces.
2025-12-07T10:37:15.912Z INFO 1 --- [api-gateway-assignment] [           main] o.s.cloud.context.scope.GenericScope : BeanFactory
id=e20502cd-f8cb-3732-9ef2-4830bad30e0b
2025-12-07T10:37:17.386Z INFO 1 --- [api-gateway-assignment] [           main] o.hibernate.jpa.internal.util.LogHelper : HHH000204:
Processing PersistenceUnitInfo [name: default]
2025-12-07T10:37:17.881Z INFO 1 --- [api-gateway-assignment] [           main] org.hibernate.Version : HHH000412:
Hibernate ORM core version 6.6.2.Final
2025-12-07T10:37:18.005Z INFO 1 --- [api-gateway-assignment] [           main] o.h.c.internal.RegionFactoryInitiator : HHH000026:
Second-level cache disabled
2025-12-07T10:37:18.859Z INFO 1 --- [api-gateway-assignment] [           main] o.s.o.j.p.SpringPersistenceUnitInfo : No LoadTim
eWeaver setup: ignoring JPA class transformer
2025-12-07T10:37:18.935Z INFO 1 --- [api-gateway-assignment] [           main] com.zaxxer.hikari.HikariDataSource : HikariPool
-1 - Starting...
2025-12-07T10:37:19.467Z INFO 1 --- [api-gateway-assignment] [           main] com.zaxxer.hikari.pool.HikariPool : HikariPool

```

```

Client initialized at timestamp 1765103847978 with initial instances count: 0
2025-12-07T10:37:27.987Z INFO 1 --- [api-gateway-assignment] [           main] o.s.c.n.e.s.EurekaServiceRegistry : Registering application API-GATEWAY-ASSIGNMENT with eureka with status UP
2025-12-07T10:37:27.988Z INFO 1 --- [api-gateway-assignment] [           main] com.netflix.discovery.DiscoveryClient : Saw local status change event StatusChangeEvent [timestamp=1765103847988, current=UP, previous=STARTING]
2025-12-07T10:37:27.993Z INFO 1 --- [api-gateway-assignment] [foReplicator-%d] com.netflix.discovery.DiscoveryClient : DiscoveryClient_API-GATEWAY-ASSIGNMENT/e443bdbbe2be:api-gateway-assignment:9996: registering service...
2025-12-07T10:37:28.457Z INFO 1 --- [api-gateway-assignment] [           main] o.s.b.web.embedded.netty.NettyWebServer : Netty started on port 9996 (http)
2025-12-07T10:37:28.460Z INFO 1 --- [api-gateway-assignment] [           main] .s.c.n.e.s.EurekaAutoServiceRegistration : Updating port to 9996
2025-12-07T10:37:28.536Z INFO 1 --- [api-gateway-assignment] [           main] c.a.ApiGatewayAssignmentApplication : Started ApiGatewayAssignmentApplication in 16.726 seconds (process running for 19.926)
2025-12-07T10:37:28.610Z INFO 1 --- [api-gateway-assignment] [foReplicator-%d] com.netflix.discovery.DiscoveryClient : DiscoveryClient_API-GATEWAY-ASSIGNMENT/e443bdbbe2be:api-gateway-assignment:9996 - registration status: 204
2025-12-07T10:37:57.964Z INFO 1 --- [api-gateway-assignment] [reshExecutor-%d] com.netflix.discovery.DiscoveryClient : Disable delta property : false
2025-12-07T10:37:57.964Z INFO 1 --- [api-gateway-assignment] [reshExecutor-%d] com.netflix.discovery.DiscoveryClient : Single vip registry refresh property : null
2025-12-07T10:37:57.964Z INFO 1 --- [api-gateway-assignment] [reshExecutor-%d] com.netflix.discovery.DiscoveryClient : Force full registry fetch : false
2025-12-07T10:37:57.964Z INFO 1 --- [api-gateway-assignment] [reshExecutor-%d] com.netflix.discovery.DiscoveryClient : Application is null : false
2025-12-07T10:37:57.964Z INFO 1 --- [api-gateway-assignment] [reshExecutor-%d] com.netflix.discovery.DiscoveryClient : Registered Applications size is zero : true
2025-12-07T10:37:57.964Z INFO 1 --- [api-gateway-assignment] [reshExecutor-%d] com.netflix.discovery.DiscoveryClient : Application version is -1: false
2025-12-07T10:37:57.964Z INFO 1 --- [api-gateway-assignment] [reshExecutor-%d] com.netflix.discovery.DiscoveryClient : Getting all instance registry info from the eureka server
2025-12-07T10:37:58.025Z INFO 1 --- [api-gateway-assignment] [reshExecutor-%d] com.netflix.discovery.DiscoveryClient : The response status is 200
C:\Users\kunal>

```

CONTAINER ID	IMAGE	COMMAND	CREATED	STATUS	PORTS
7f8a8d441f5e	microservices-flight-service	"java -jar app.jar"	About a minute ago	Up About a minute	0.0.0.0:99
99->9999/tcp, [::]:9999->9999/tcp			flight-service		
729cbalcd3	microservices-booking-service	"java -jar app.jar"	About a minute ago	Up About a minute	0.0.0.0:99
98->9998/tcp, [::]:9998->9998/tcp			booking-service		
e443bdbbe2be	microservices-api-gateway	"java -jar app.jar"	22 minutes ago	Up About a minute	0.0.0.0:99
96->9996/tcp, [::]:9996->9996/tcp			api-gateway		
109d3eeb7487	microservices-eureka-server	"java -jar app.jar"	22 minutes ago	Up About a minute	0.0.0.0:99
97->9997/tcp, [::]:9997->9997/tcp			eureka-server		
73648b1fd969	mysql:8.0	"docker-entrypoint.s..."	22 minutes ago	Up About a minute (healthy)	0.0.0.0:33
07->3306/tcp, [::]:3306->3306/tcp			mysql		

C:\Users\kunal>docker images					
IMAGE	ID	DISK USAGE	CONTENT SIZE	EXTRA	
mailhog/mailhog:latest	4de68494cd0d	392MB	0B	U	
microservices-api-gateway:latest	aa7279772a53	372MB	0B	U	
microservices-booking-service:latest	646afde58a8c	342MB	0B	U	
microservices-eureka-server:latest	ae58eb214801	342MB	0B	U	
microservices-flight-service:latest	93c5d846a63c	321MB	0B	U	
mysql:8.0	95f1309164f3	781MB	0B	U	
postgres:latest	80c0891f5de9	456MB	0B	U	
spring-boot-login-app:latest	60384964b36d	1.06GB	0B	U	
wurstmeister/kafka:latest	a692873757c0	468MB	0B	U	
wurstmeister/zookeeper:latest	3f43f72cb283	510MB	0B	U	

WORKING -FINE (tested)

System Status

Environment	test	Current time	2025-12-07T11:11:01 +0000
Data center	default	Uptime	00:03
		Lease expiration enabled	true
		Renews threshold	6
		Renews (last min)	12

THE SELF PRESERVATION MODE IS TURNED OFF. THIS MAY NOT PROTECT INSTANCE EXPIRY IN CASE OF NETWORK/OTHER PROBLEMS.

DS Replicas

localhost

Instances currently registered with Eureka

Application	AMIs	Availability Zones	Status
API-GATEWAY-ASSIGNMENT	n/a (1)	(1)	UP (1) - e443bdbbe2be:api-gateway-assignment:9996
BOOKING-SERVICE-MICRO-ASSIGNMENT	n/a (1)	(1)	UP (1) - 2067b1396c72:booking-service-micro-assignment:9998
FLIGHT-SERVICE-MICRO-ASSIGNMENT	n/a (1)	(1)	UP (1) - 278aa7de168:flight-service-micro-assignment:9999

General Info

Config-link : https://github.com/Kunalgarg92/config_dockerized_services