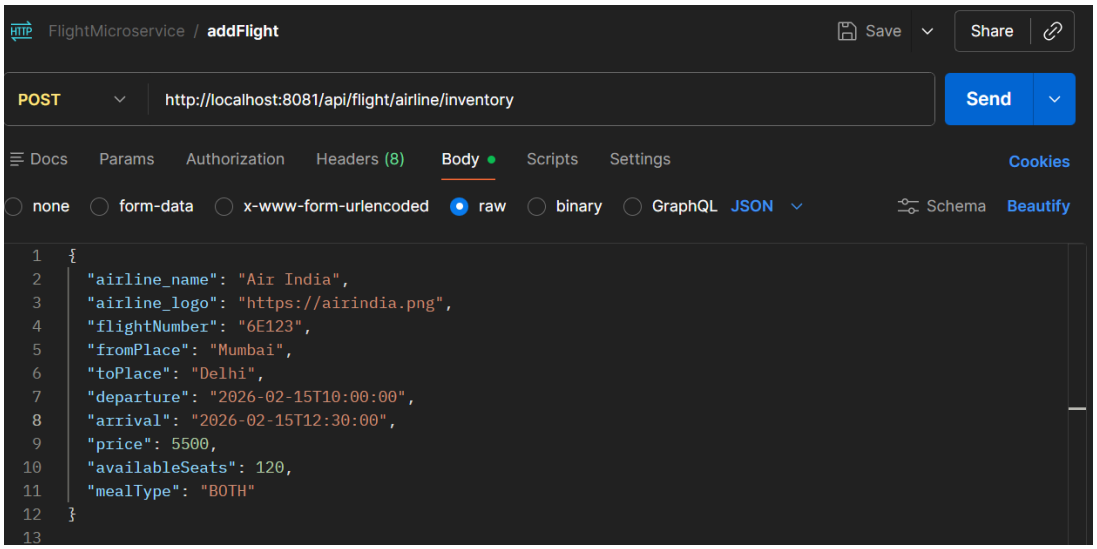
MICROSERVICES ASSIGNMENT

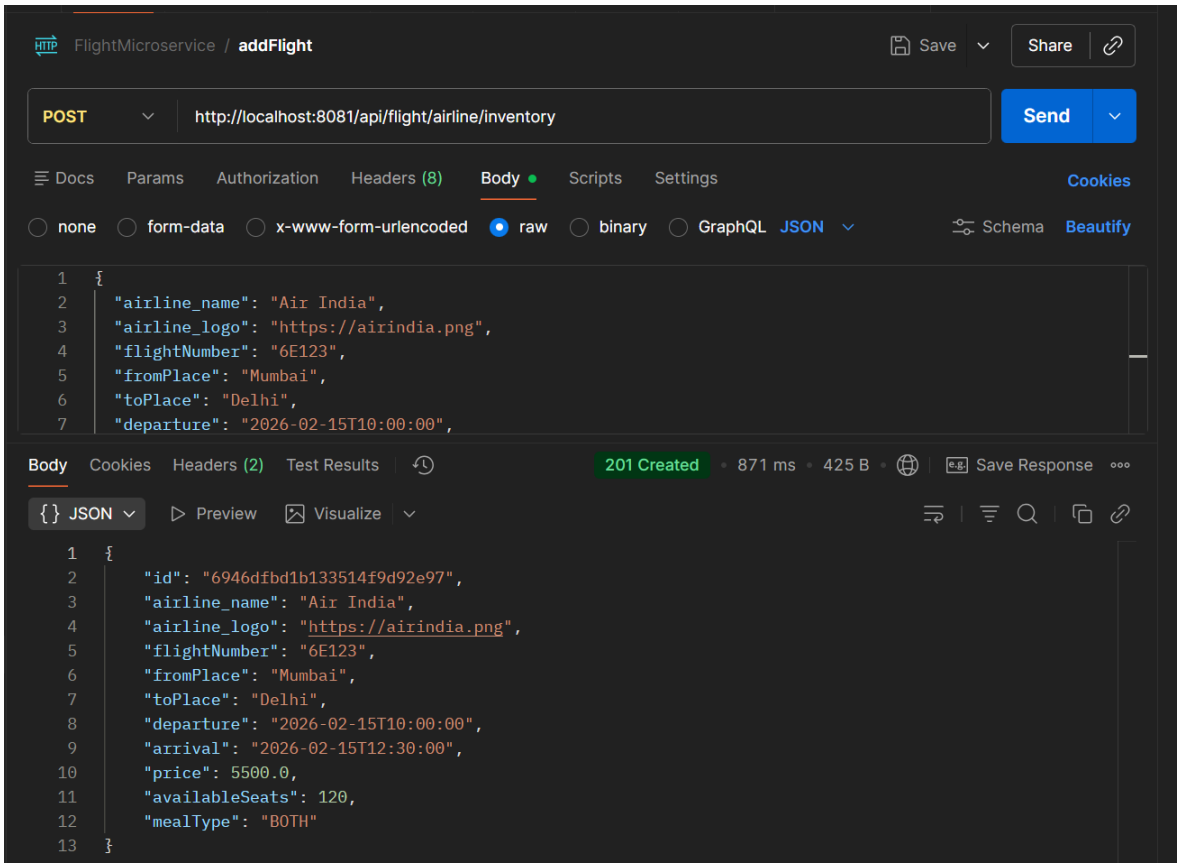
NEHA SHARMA

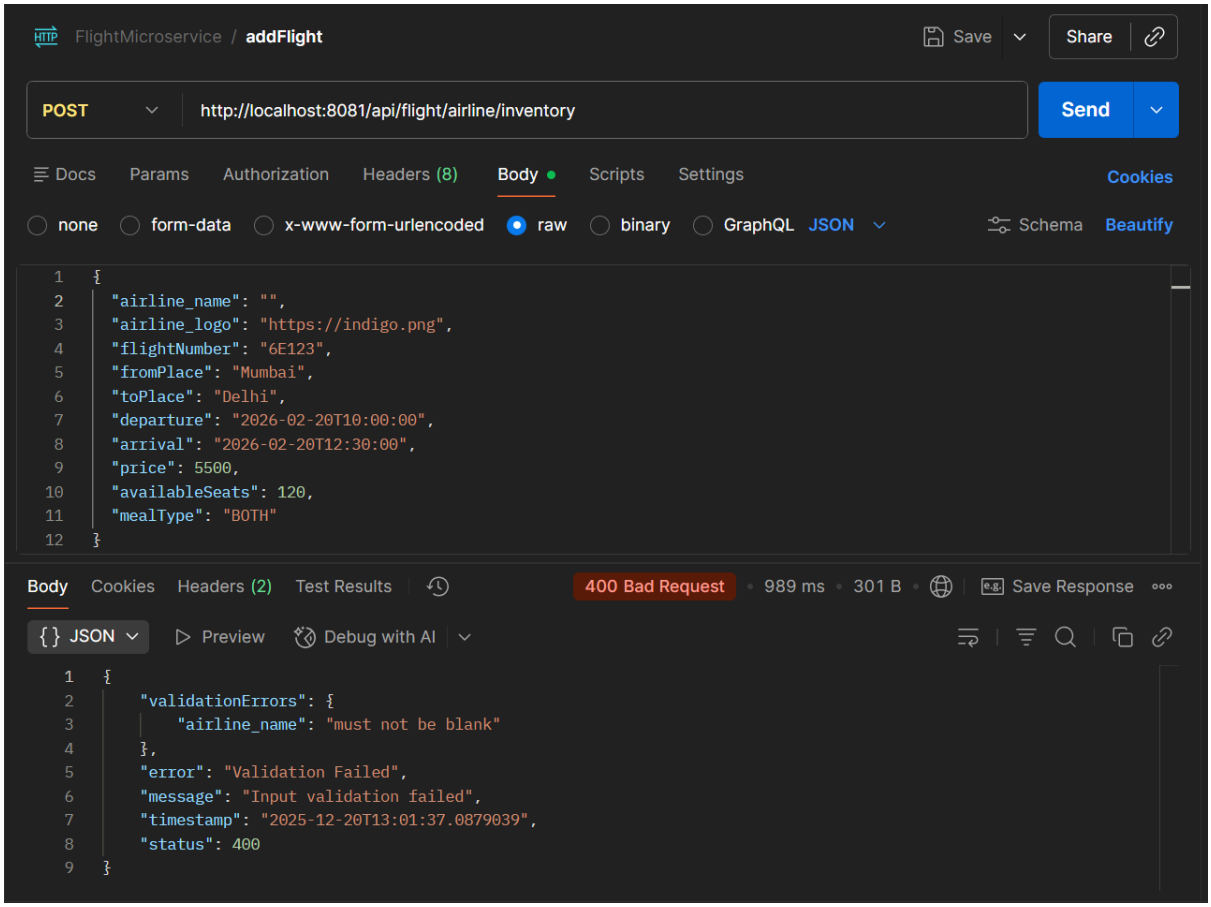
POSTMAN

1) FLIGHT_MICROSERVICE

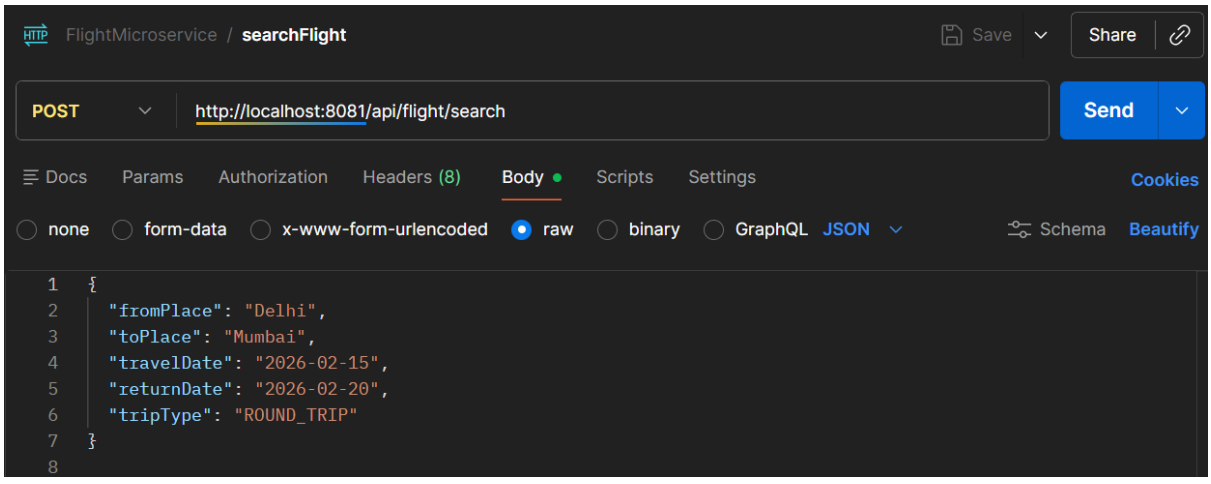
http://localhost:8081/api/flight/airline/inventory







http://localhost:8081/api/flight/search



Body Cookies Headers (2) Test Results 200 OK 377 ms 1.42 KB Save Response

JSON Preview Visualize


```
[
    {
        "id": "694317de950e240f7686bc79",
        "airline_name": "AIRASIA",
        "airline_logo": "https://indigo.png",
        "flightNumber": "6E123",
        "fromPlace": "Mumbai",
        "toPlace": "Delhi",
        "departure": "2026-02-20T10:00:00",
        "arrival": "2026-02-20T12:30:00",
        "price": 5500.0,
        "availableSeats": 104,
        "mealType": "BOTH"
    },
```


Body Cookies Headers (2) Test Results 200 OK 377 ms 1.42 KB Save Response

JSON Preview Visualize


```
    {
        "id": "6945af0a0d7f02024a7d82c5",
        "airline_name": "INDIGO",
        "airline_logo": "https://indigo.png",
        "flightNumber": "6E123",
        "fromPlace": "Mumbai",
        "toPlace": "Delhi",
        "departure": "2026-02-20T10:00:00",
        "arrival": "2026-02-20T12:30:00",
        "price": 5500.0,
        "availableSeats": 120,
        "mealType": "BOTH"
    }
]
```


FlightMicroservice / **searchFlight** Save Share

POST http://localhost:8081/api/flight/search Send

Docs Params Authorization Headers (8) Body Scripts Settings Cookies

none form-data x-www-form-urlencoded raw binary GraphQL JSON Schema Beautify

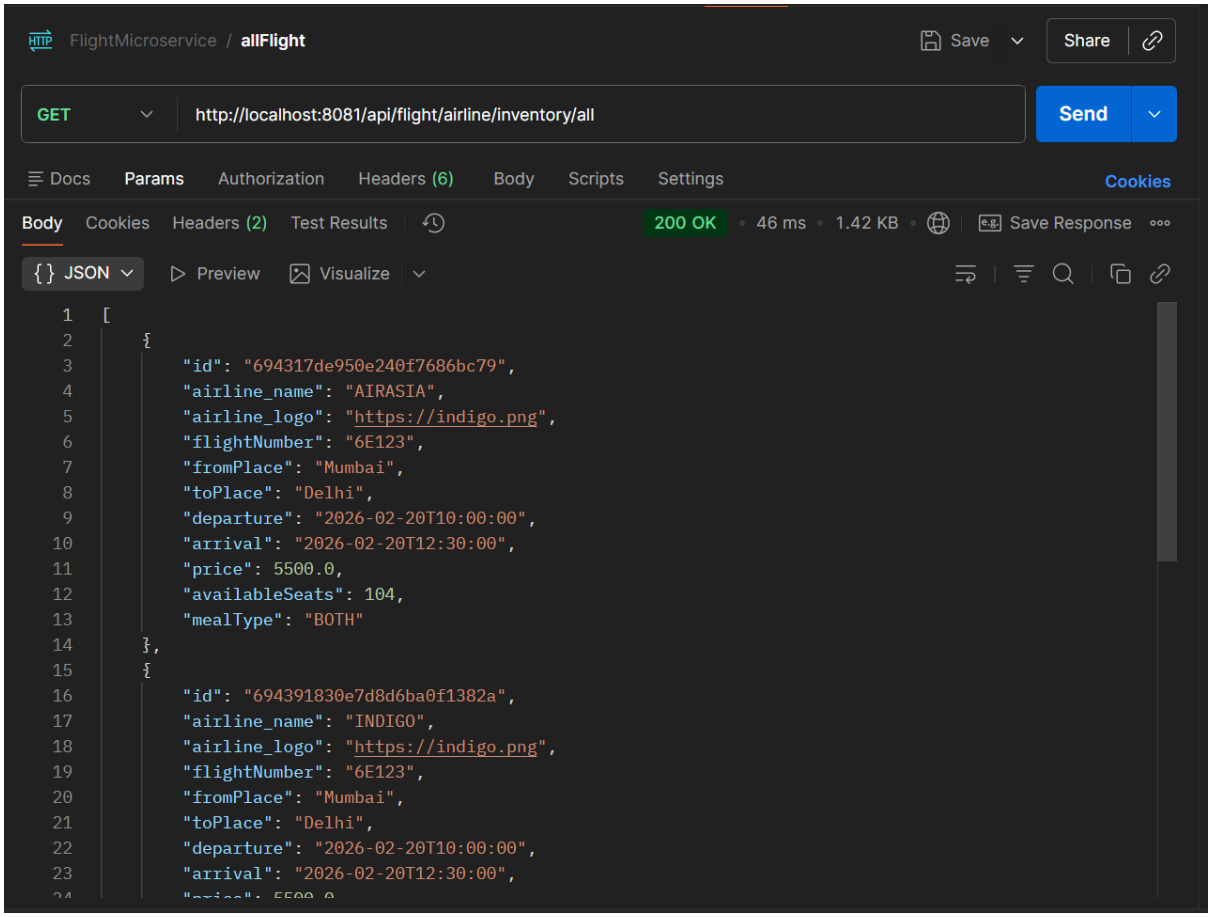

```
{
  "fromPlace": "Delhi",
  "toPlace": "Mumbai",
  "travelDate": "2025-02-15",
  "returnDate": "2025-02-16",
  "tripType": "ROUND_TRIP"
}
```


Body Cookies Headers (2) Test Results 400 Bad Request 17 ms 315 B Save Response

JSON Preview Debug with AI

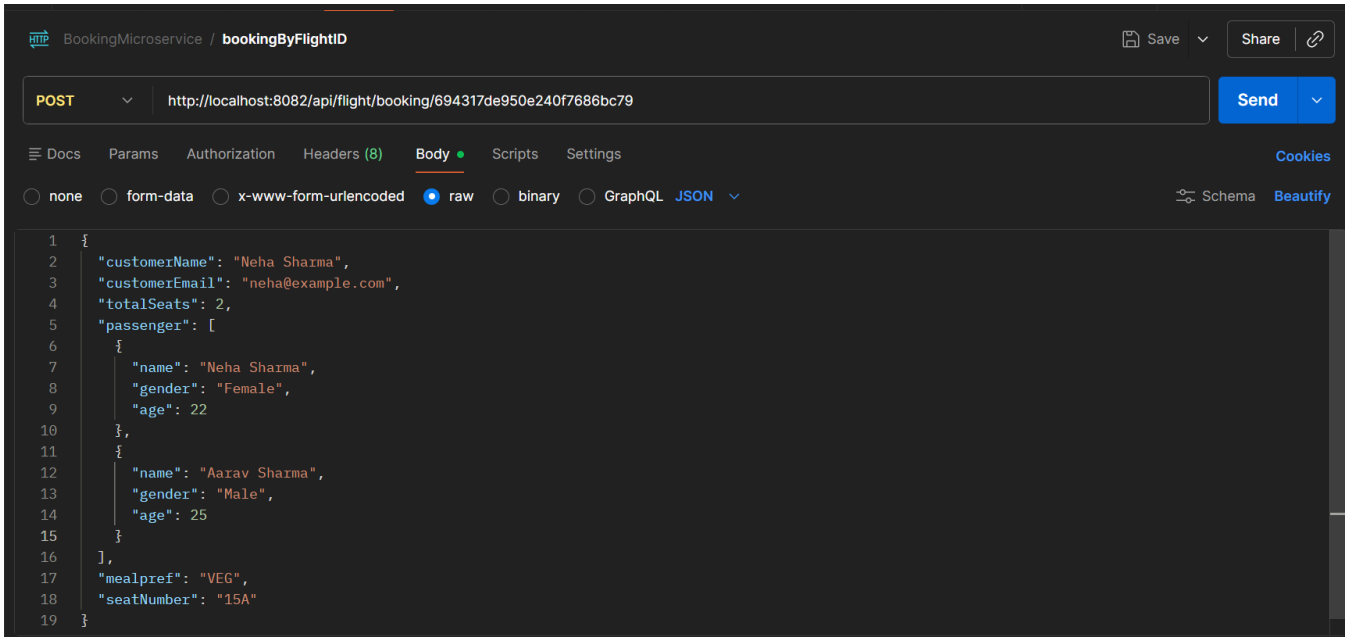

```
{
    "validationErrors": {
        "travelDate": "Travel date must be in the future"
    },
    "error": "Validation Failed",
    "message": "Input validation failed",
    "timestamp": "2025-12-20T13:03:25.2404484",
    "status": 400
}
```

http://localhost:8081/api/flight/airline/inventory/all

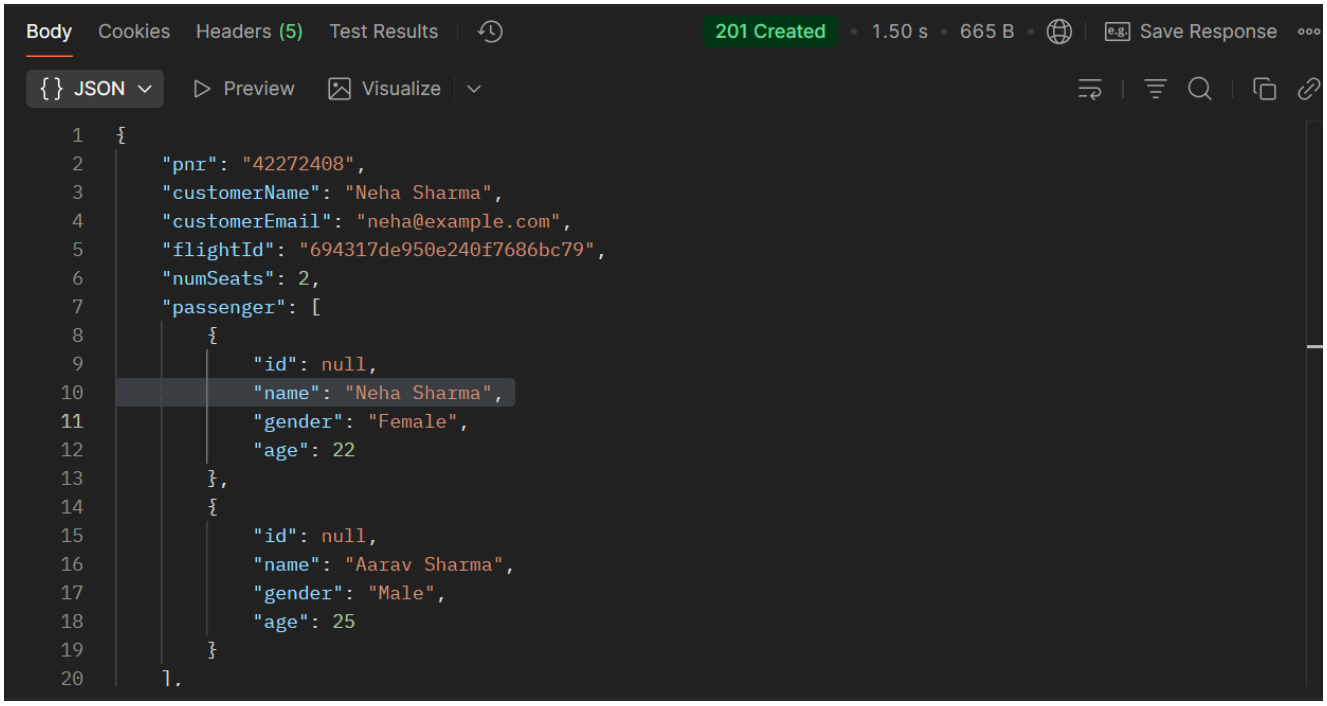


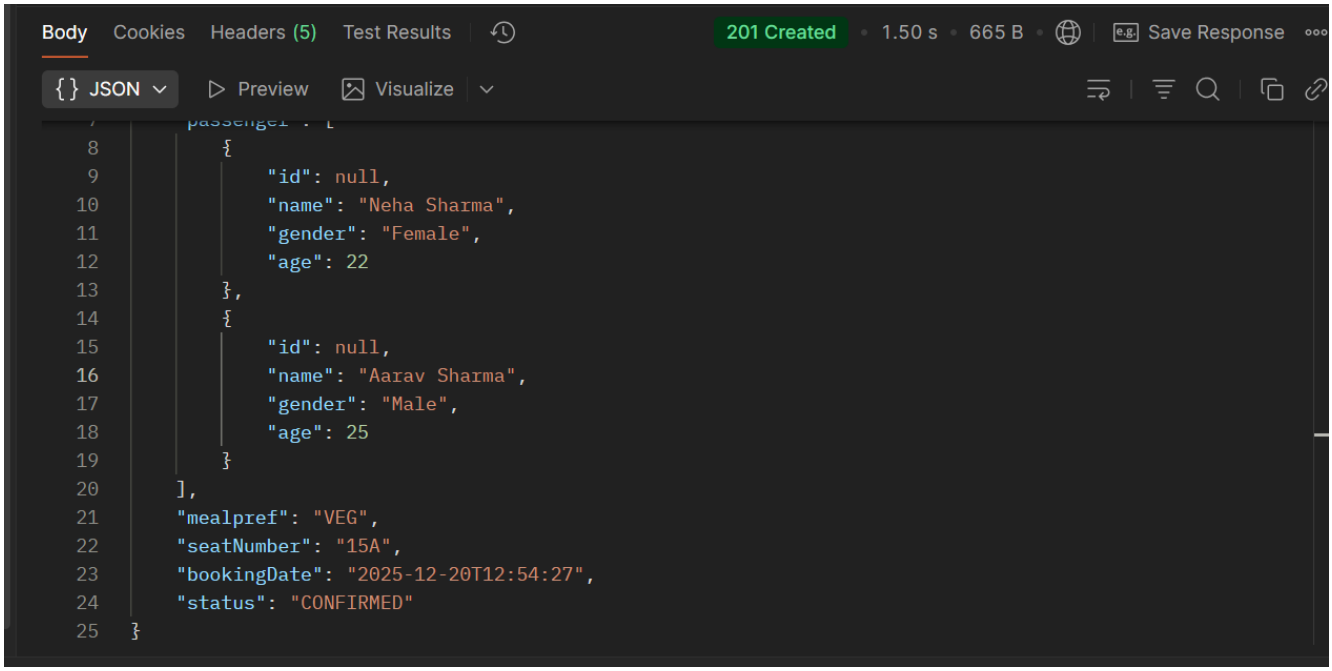
2) BOOKING_MICROSERVICE

http://localhost:8082/api/flight/booking/694317de950e240f7686bc79

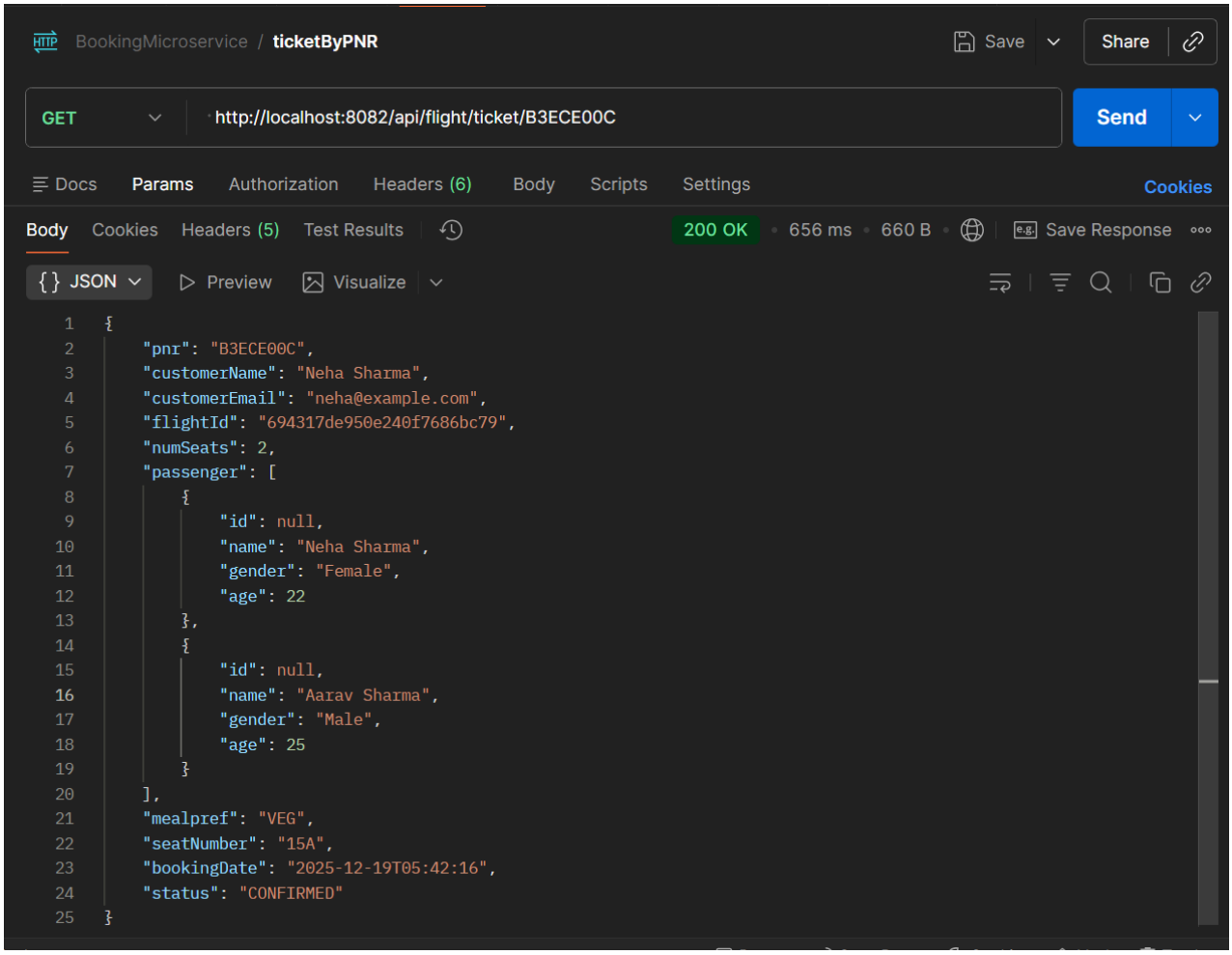


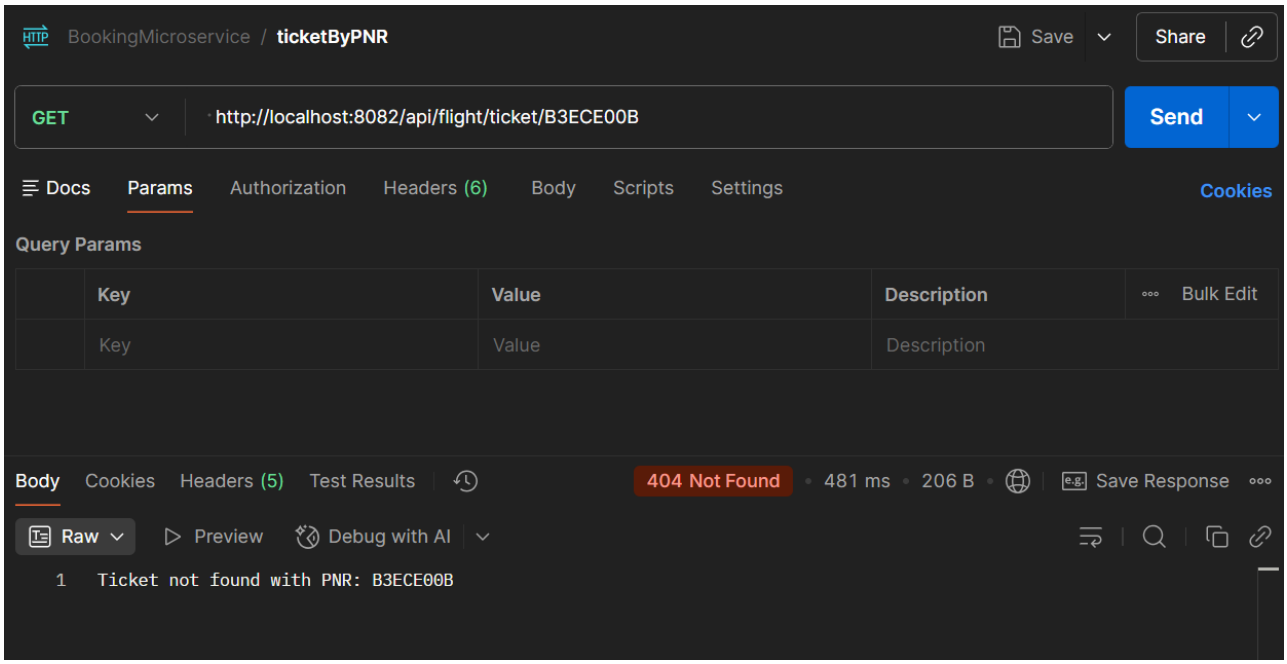
OUTPUT:


Body
Cookies
Headers (5)
Test Results
201 Created
1.50 s
665 B
Save Response
JSON
Preview
Visualize
{
"pnr": "42272408",
"customerName": "Neha Sharma",
"customerEmail": "neha@example.com",
"flightId": "694317de950e240f7686bc79",
"numSeats": 2,
"passenger": [
{
"id": null,
"name": "Neha Sharma",
"gender": "Female",
"age": 22
},
{
"id": null,
"name": "Aarav Sharma",
"gender": "Male",
"age": 25
}
],

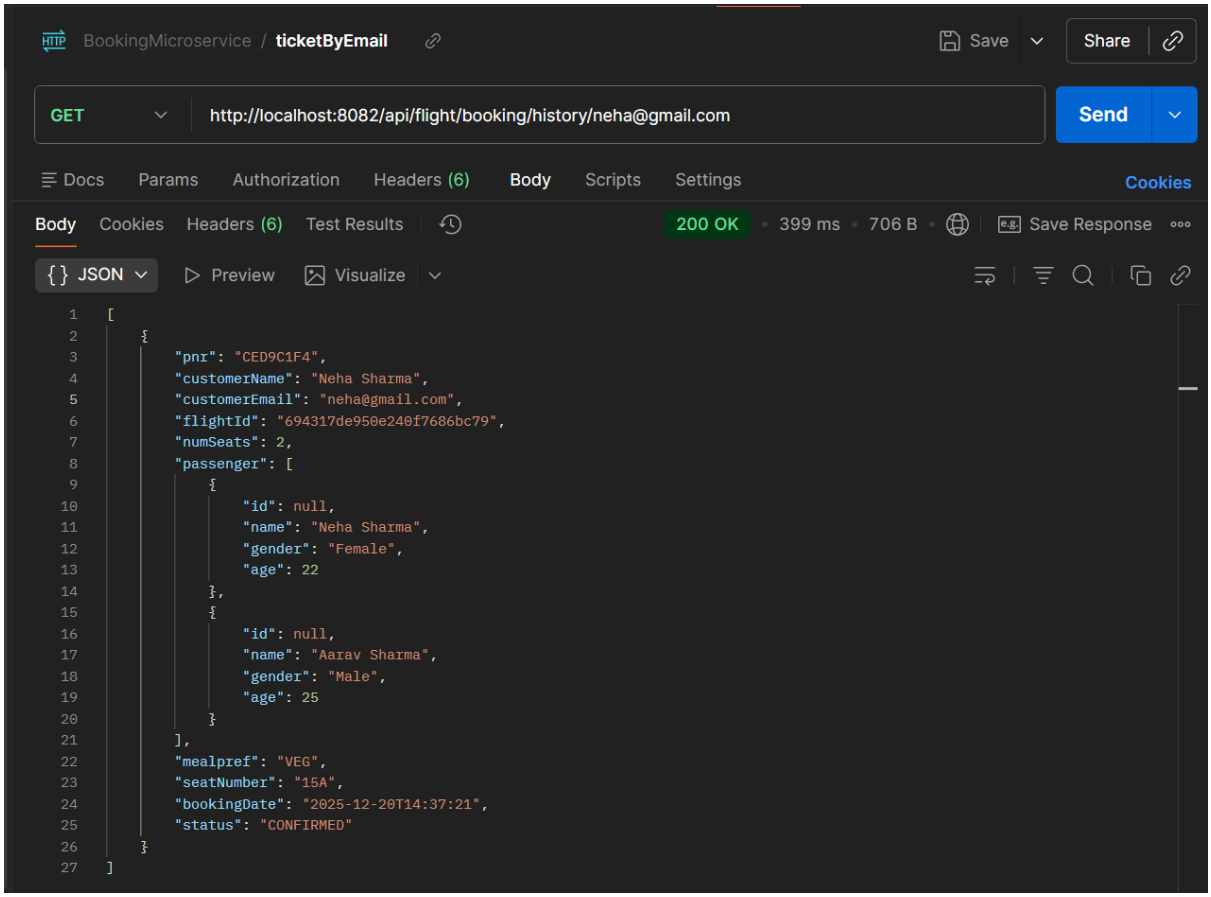

Body
Cookies
Headers (5)
Test Results
201 Created
1.50 s
665 B
Save Response
JSON
Preview
Visualize
{
"id": null,
"name": "Neha Sharma",
"gender": "Female",
"age": 22
},
{
"id": null,
"name": "Aarav Sharma",
"gender": "Male",
"age": 25
}
],
"mealpref": "VEG",
"seatNumber": "15A",
"bookingDate": "2025-12-20T12:54:27",
"status": "CONFIRMED"
}

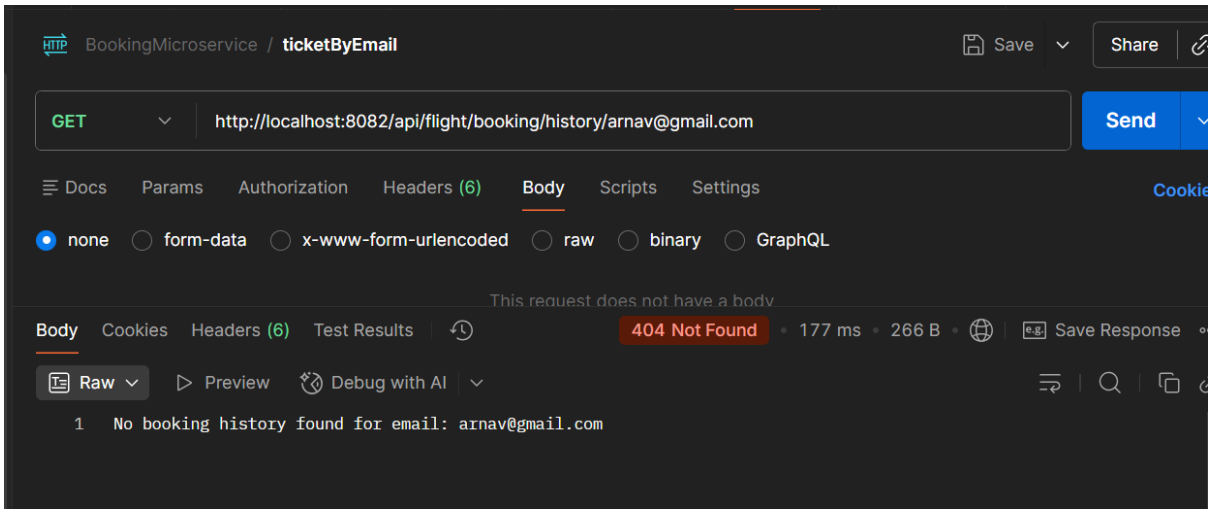
http://localhost:8082/api/flight/ticket/B3ECE00C



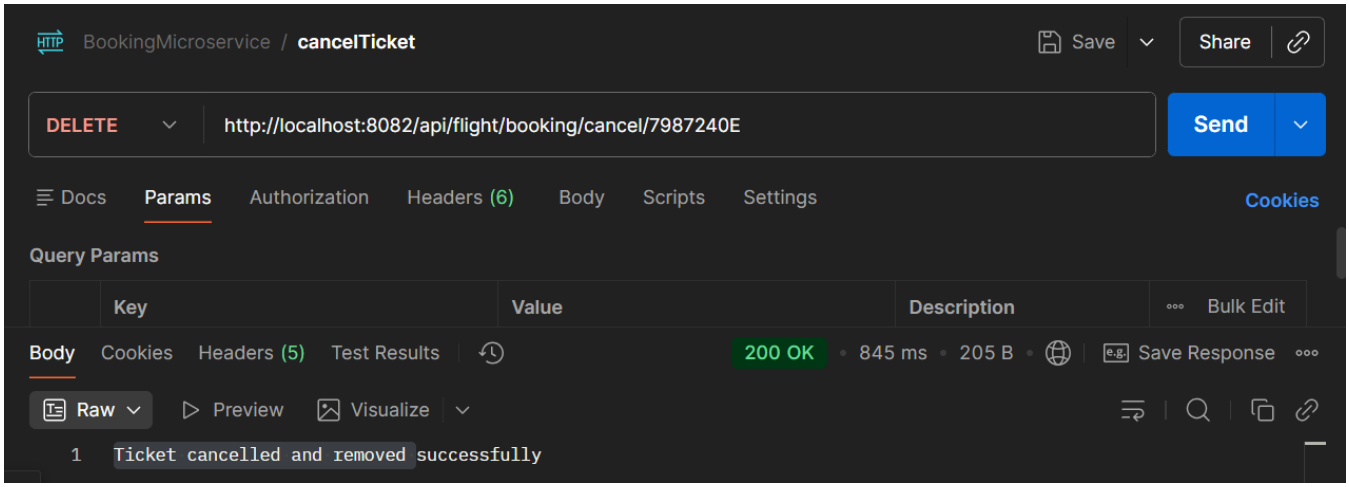


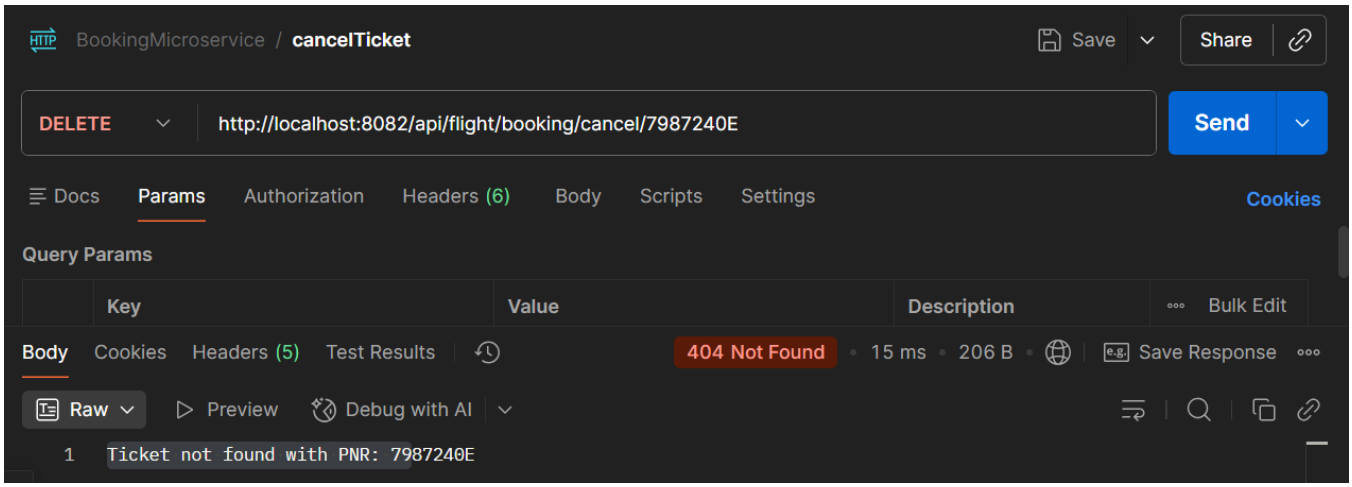
http://localhost:8082/api/flight/booking/history/neha@gmail.com





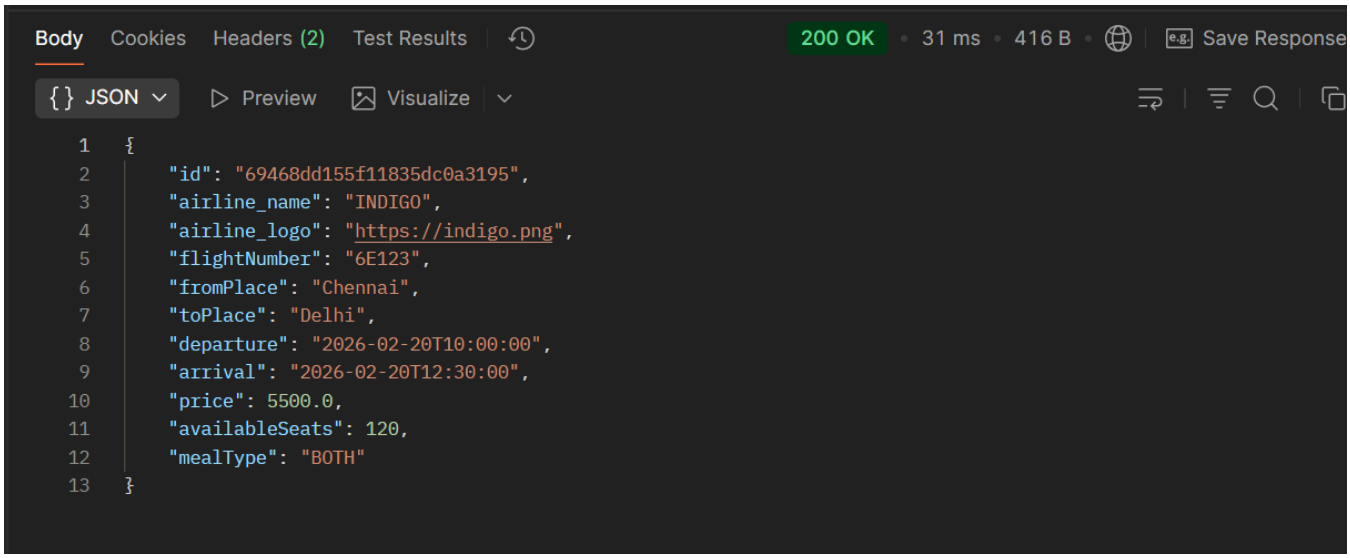
http://localhost:8082/api/flight/booking/cancel/7987240E



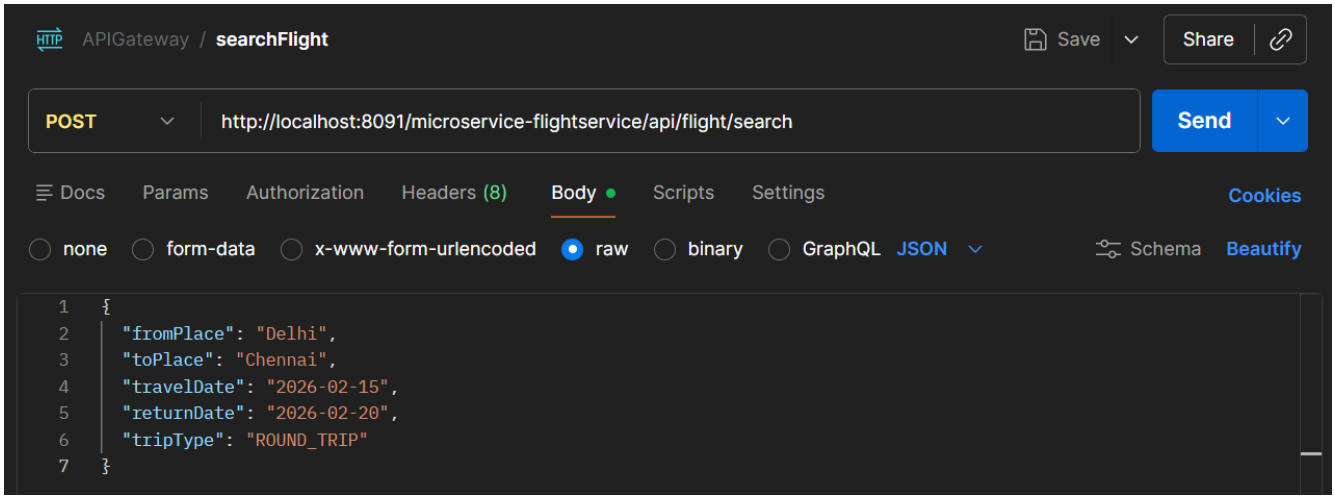


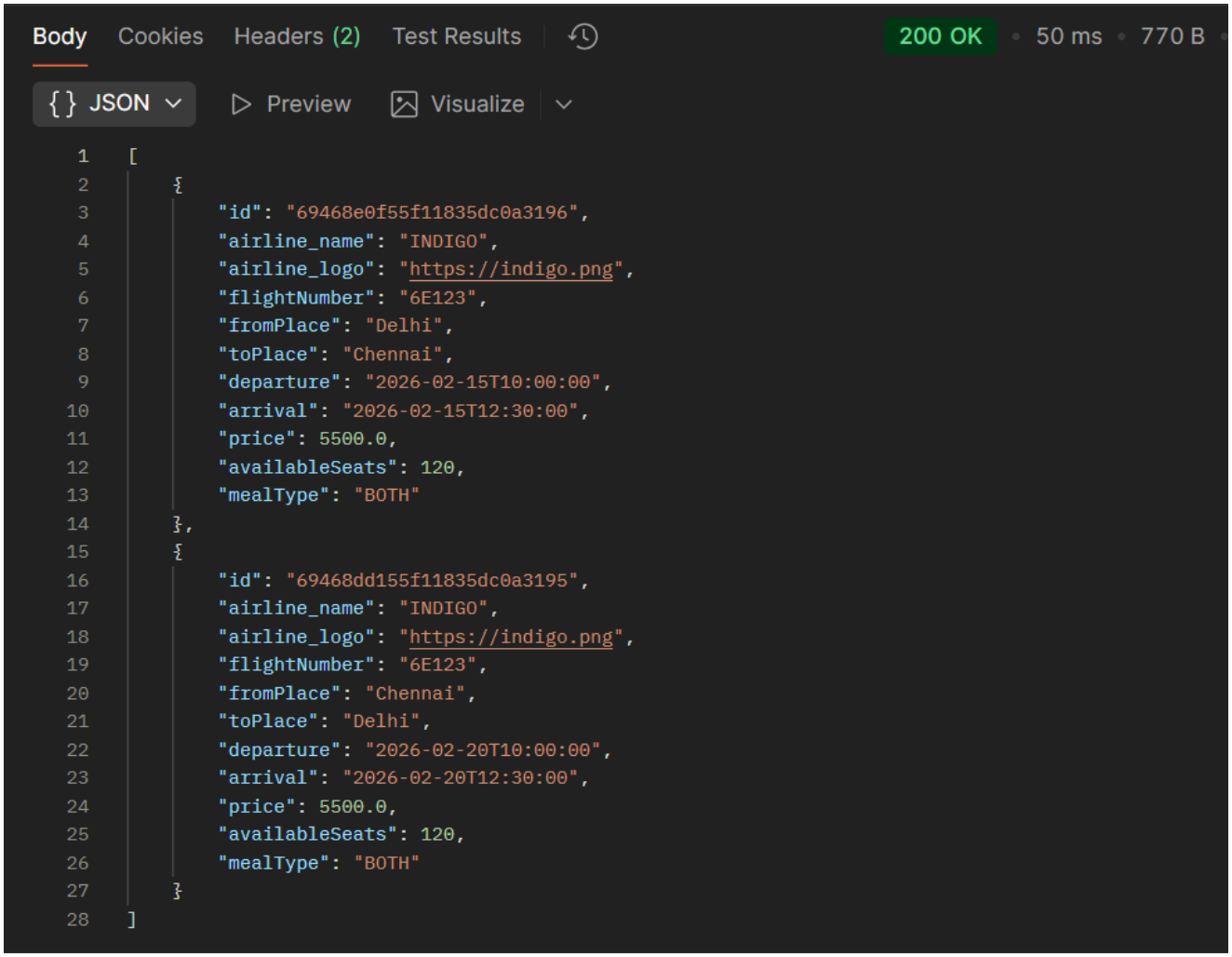
3) API_GATEWAY

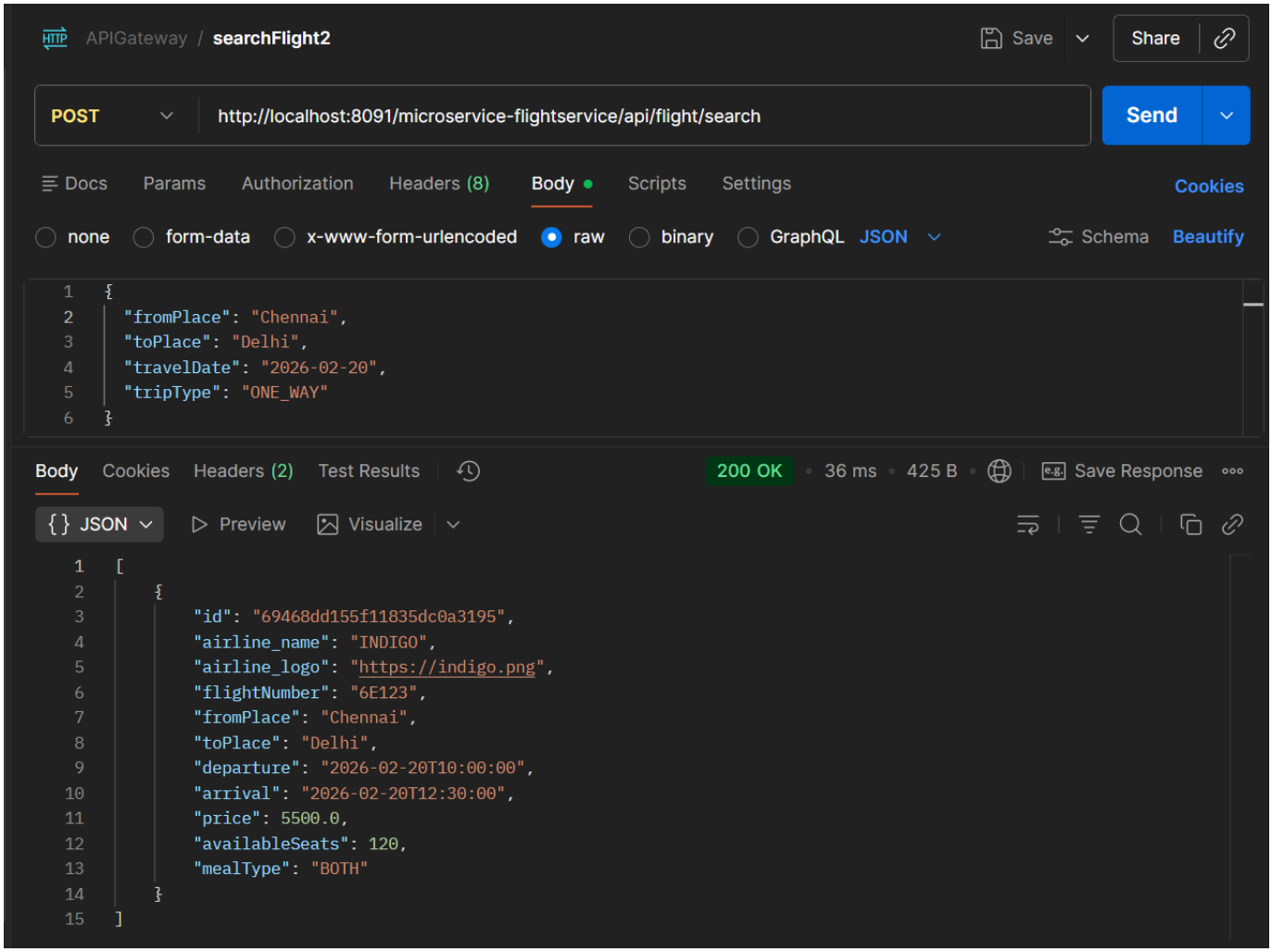
http://localhost:8091/microservice-flightservice/api/flight/airline/inventory



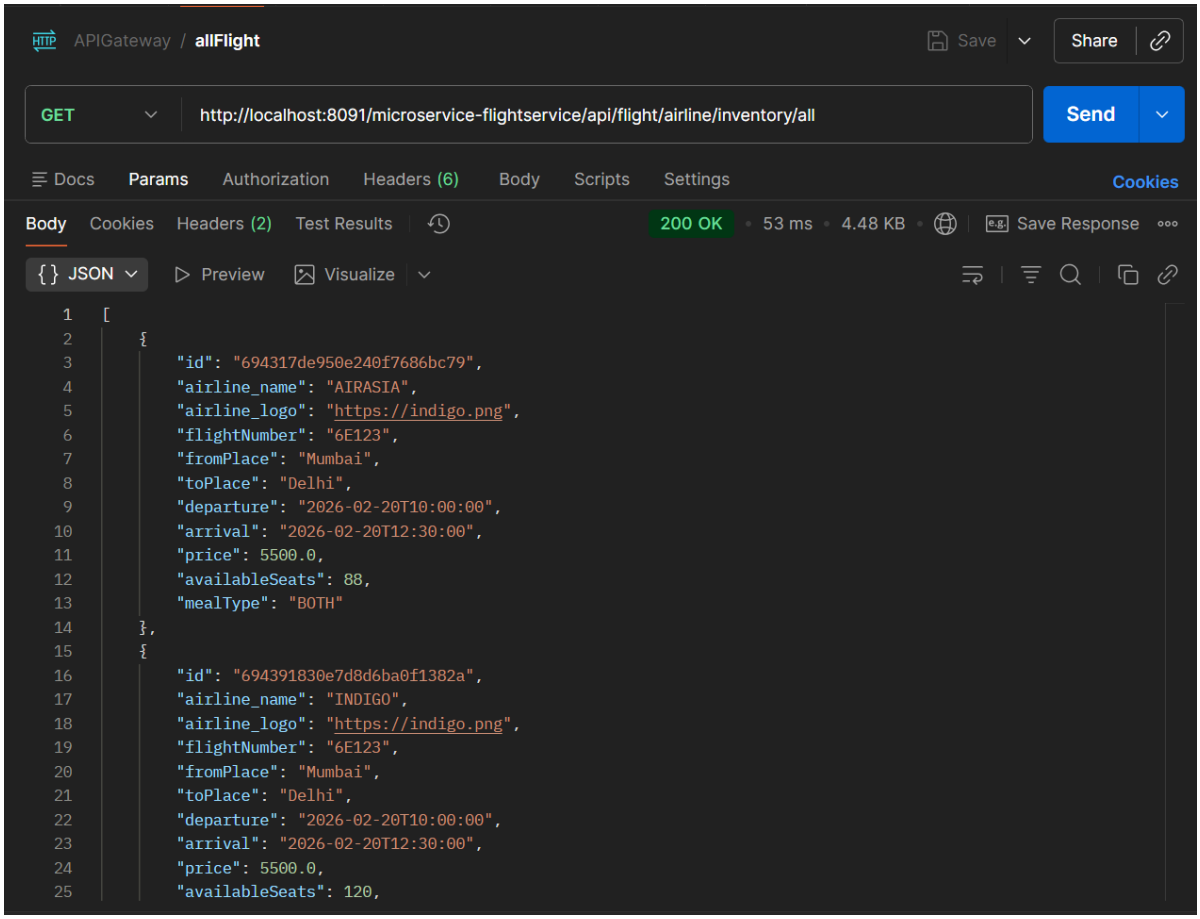
http://localhost:8091/microservice-flightservice/api/flight/search



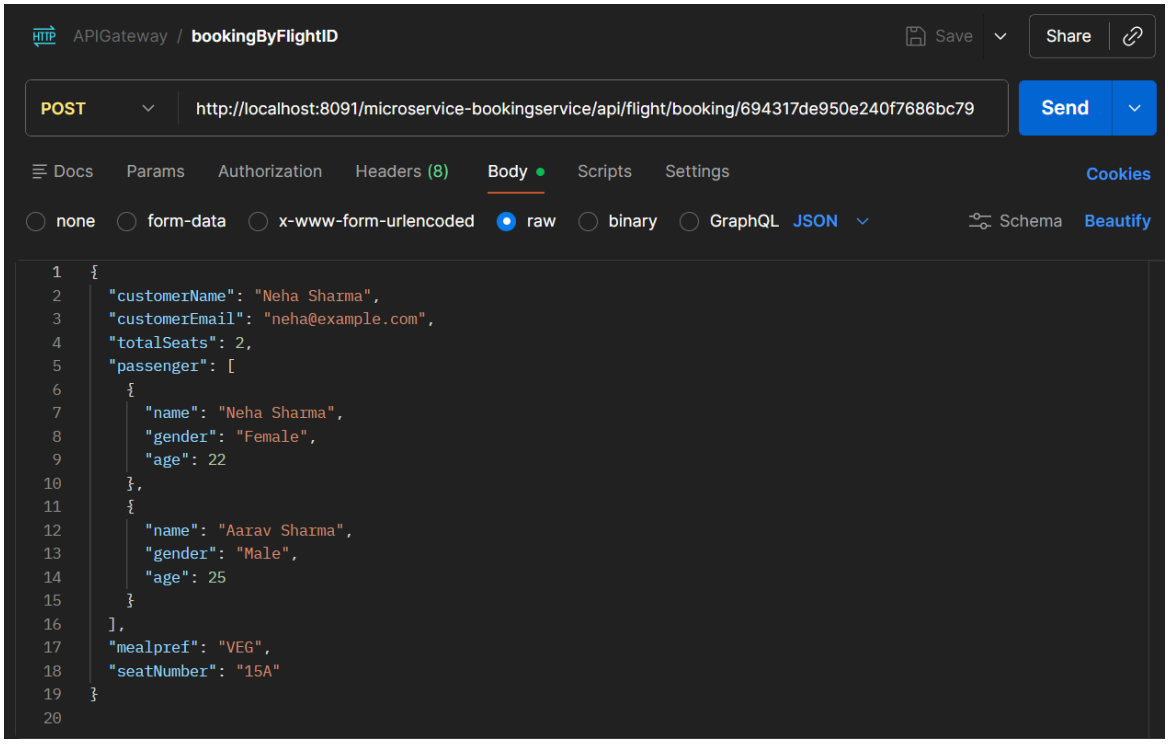


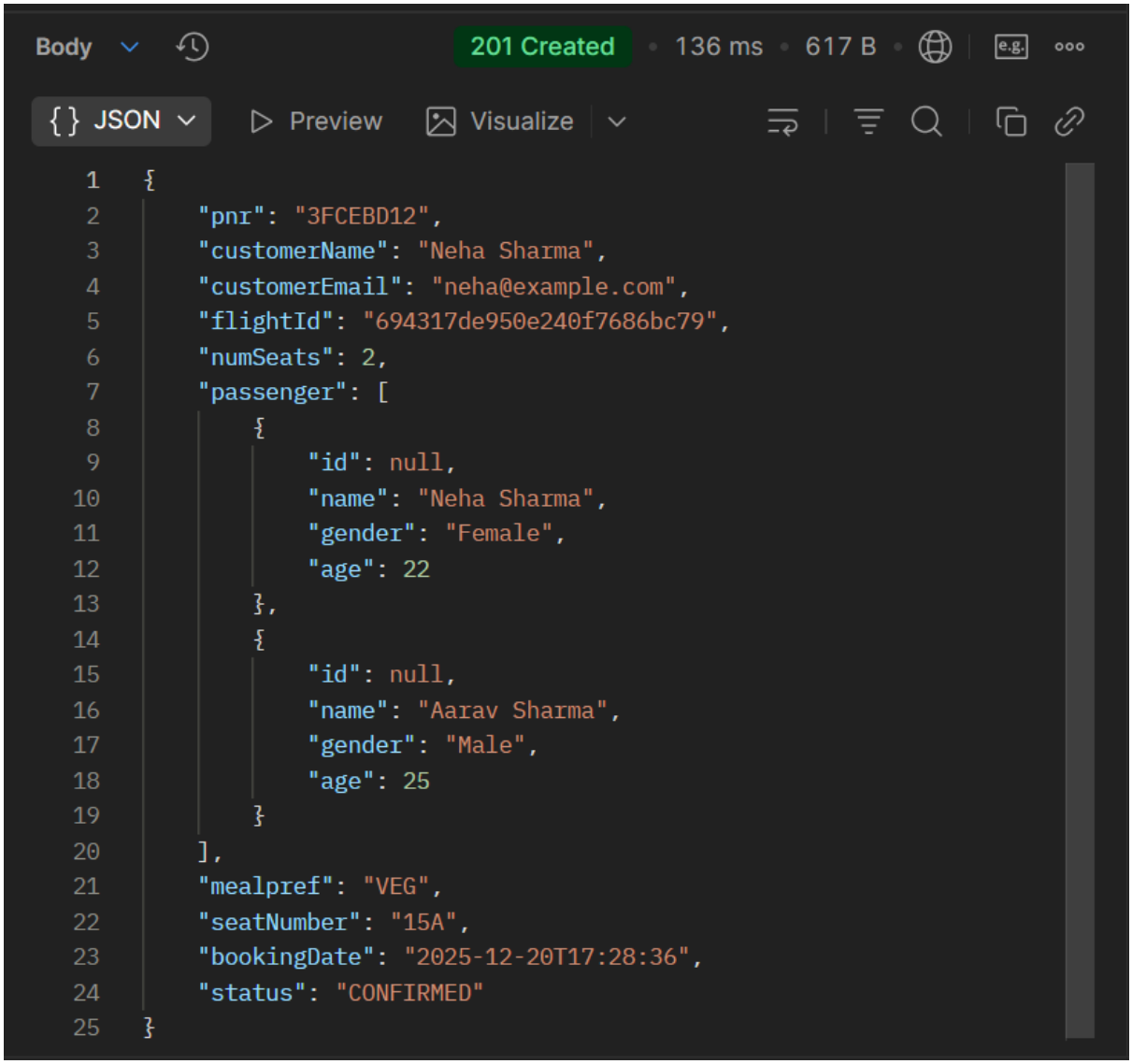

APIGateway / searchFlight2
Save
Share
POST
http://localhost:8091/microservice-flightservice/api/flight/search
Send
Docs
Params
Authorization
Headers (8)
Body
Scripts
Settings
Cookies
none
form-data
x-www-form-urlencoded
raw
binary
GraphQL
JSON
Schema
Beautify
{
"fromPlace": "Chennai",
"toPlace": "Delhi",
"travelDate": "2026-02-20",
"tripType": "ONE_WAY"
}
Body
Cookies
Headers (2)
Test Results
200 OK
36 ms
425 B
Save Response
JSON
Preview
Visualize
[
{
"id": "69468dd155f11835dc0a3195",
"airline_name": "INDIGO",
"airline_logo": "https://indigo.png",
"flightNumber": "6E123",
"fromPlace": "Chennai",
"toPlace": "Delhi",
"departure": "2026-02-20T10:00:00",
"arrival": "2026-02-20T12:30:00",
"price": 5500.0,
"availableSeats": 120,
"mealType": "BOTH"
}
]

http://localhost:8091/microservice-flightservice/api/flight/airline/inventory/all

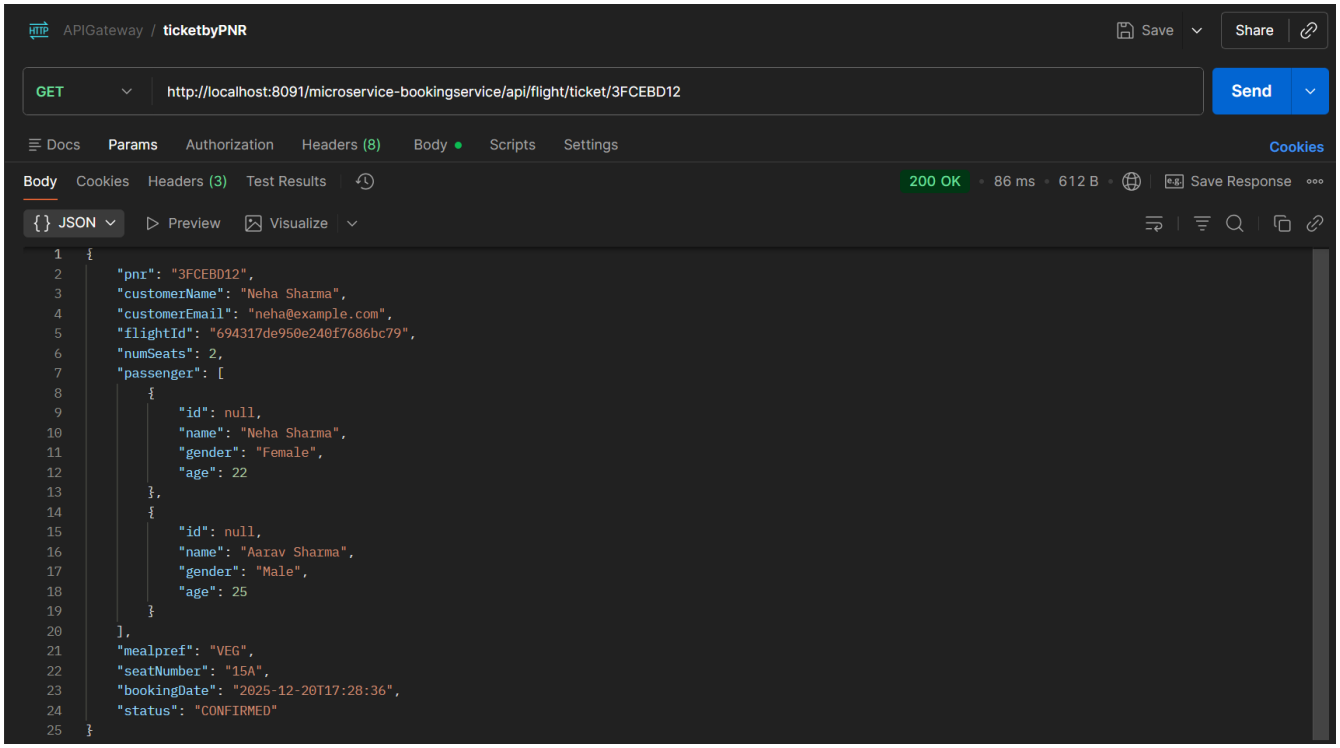


http://localhost:8091/microservice-bookingservice/api/flight/booking/694317de950e240f7686bc79

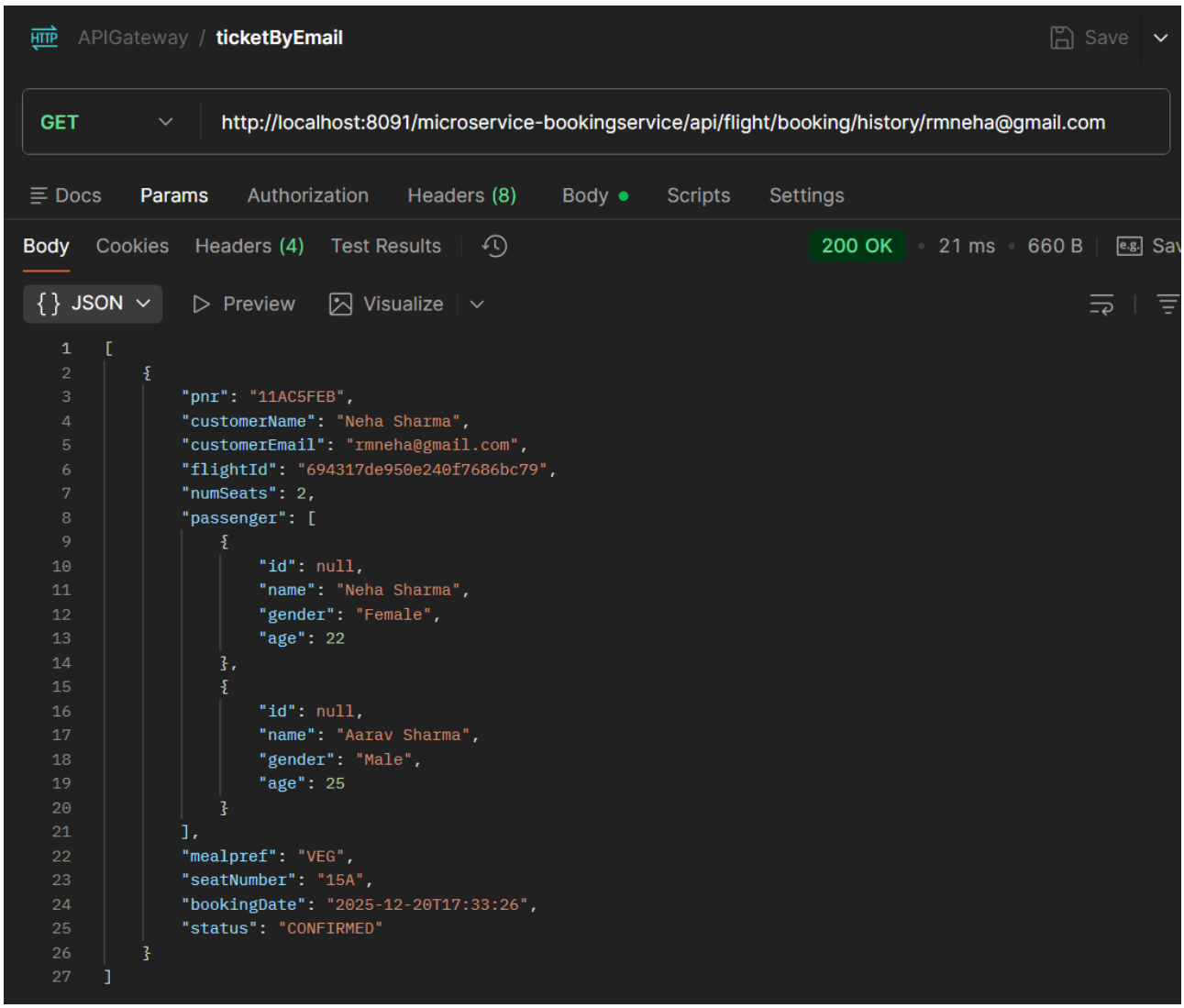



Body
201 Created
136 ms
617 B
JSON
Preview
Visualize
{
"pnr": "3FCEBD12",
"customerName": "Neha Sharma",
"customerEmail": "neha@example.com",
"flightId": "694317de950e240f7686bc79",
"numSeats": 2,
"passenger": [
{
"id": null,
"name": "Neha Sharma",
"gender": "Female",
"age": 22
},
{
"id": null,
"name": "Aarav Sharma",
"gender": "Male",
"age": 25
}
],
"mealpref": "VEG",
"seatNumber": "15A",
"bookingDate": "2025-12-20T17:28:36",
"status": "CONFIRMED"
}

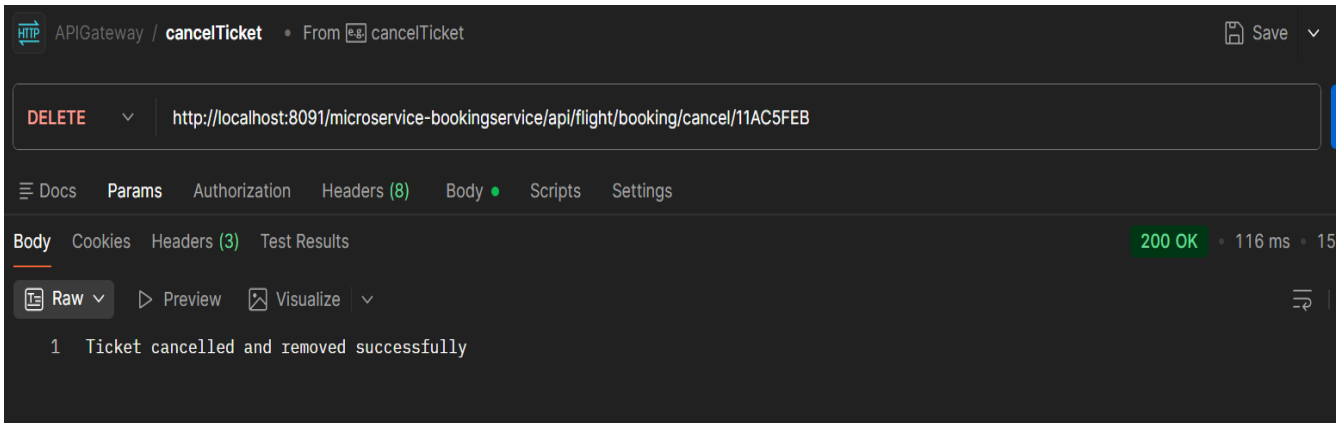
http://localhost:8091/microservice-bookingservice/api/flight/ticket/3FCEBD12



http://localhost:8091/microservice-bookingservice/api/flight/booking/history/rmneha@gmail.com



http://localhost:8091/microservice-bookingservice/api/flight/booking/cancel/11AC5FEB



4) NewMan (POSTMAN using CLI)

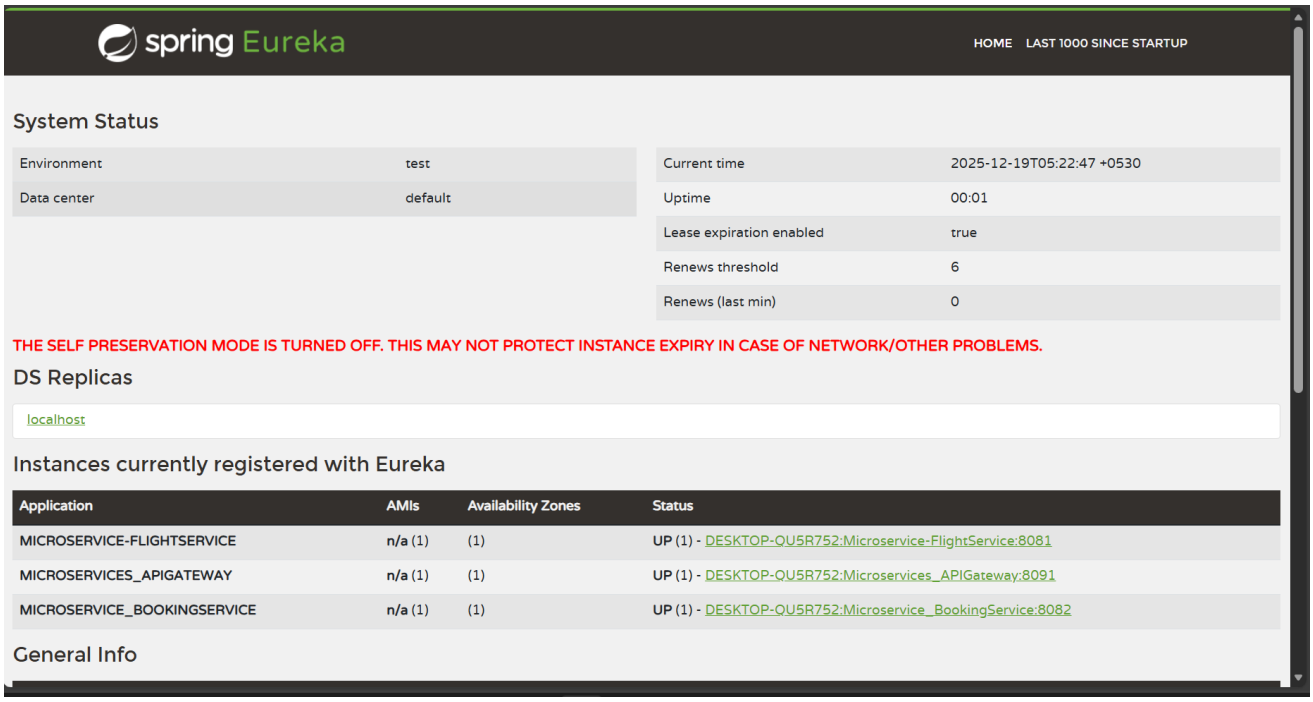
```
C:\Users\Neha Sharma>newman run "C:\Users\Neha Sharma\Desktop\FlightMicroservice.postman_collection.json"
newman

FlightMicroservice

→ addFlight
  POST http://localhost:8081/api/flight/airline/inventory [200 OK, 415B, 40ms]

→ searchFlight
  POST http://localhost:8081/api/flight/search [200 OK, 3.19kB, 13ms]

→ allFlight
  GET http://localhost:8081/api/flight/airline/inventory/all [200 OK, 5.27kB, 16ms]

┌─────────────────────────┬──────────┬──────────┐
│                         │ executed │   failed │
├─────────────────────────┼──────────┼──────────┤
│              iterations │        1 │        0 │
├─────────────────────────┼──────────┼──────────┤
│                requests │        3 │        0 │
├─────────────────────────┼──────────┼──────────┤
│            test-scripts │        0 │        0 │
├─────────────────────────┼──────────┼──────────┤
│      prerequest-scripts │        0 │        0 │
├─────────────────────────┼──────────┼──────────┤
│              assertions │        0 │        0 │
├─────────────────────────┴──────────┴──────────┤
│ total run duration: 325ms                     │
├───────────────────────────────────────────────┤
│ total data received: 8.64kB (approx)          │
├───────────────────────────────────────────────┤
│ average response time: 23ms [min: 13ms, max: 40ms, s.d.: 12ms] │
└───────────────────────────────────────────────┘

C:\Users\Neha Sharma>
```

```
C:\Users\Neha Sharma>newman run "C:\Users\Neha Sharma\Desktop\BookingMicroservice.postman_collection.json"
newman

BookingMicroservice

→ bookingByFlightID
  POST http://localhost:8082/api/flight/booking/694317de950e240f7686bc79 [201 Created, 665B, 59ms]

→ ticketByPNR
  GET http://localhost:8082/api/flight/ticket/DC6EA884 [200 OK, 658B, 20ms]

→ ticketByEmail
  GET http://localhost:8082/api/flight/booking/history/arnav@example.com [404 Not Found, 268B, 19ms]

→ cancelTicket
  DELETE http://localhost:8082/api/flight/booking/cancel/F174B495 [404 Not Found, 206B, 16ms]

┌─────────────────────────┬──────────┬──────────┐
│                         │ executed │   failed │
├─────────────────────────┼──────────┼──────────┤
│              iterations │        1 │        0 │
├─────────────────────────┼──────────┼──────────┤
│                requests │        4 │        0 │
├─────────────────────────┼──────────┼──────────┤
│            test-scripts │        0 │        0 │
├─────────────────────────┼──────────┼──────────┤
│      prerequest-scripts │        0 │        0 │
├─────────────────────────┼──────────┼──────────┤
│              assertions │        0 │        0 │
├─────────────────────────┴──────────┴──────────┤
│ total run duration: 407ms                     │
├───────────────────────────────────────────────┤
│ total data received: 1.08kB (approx)          │
├───────────────────────────────────────────────┤
│ average response time: 28ms [min: 16ms, max: 59ms, s.d.: 17ms] │
└───────────────────────────────────────────────┘
```

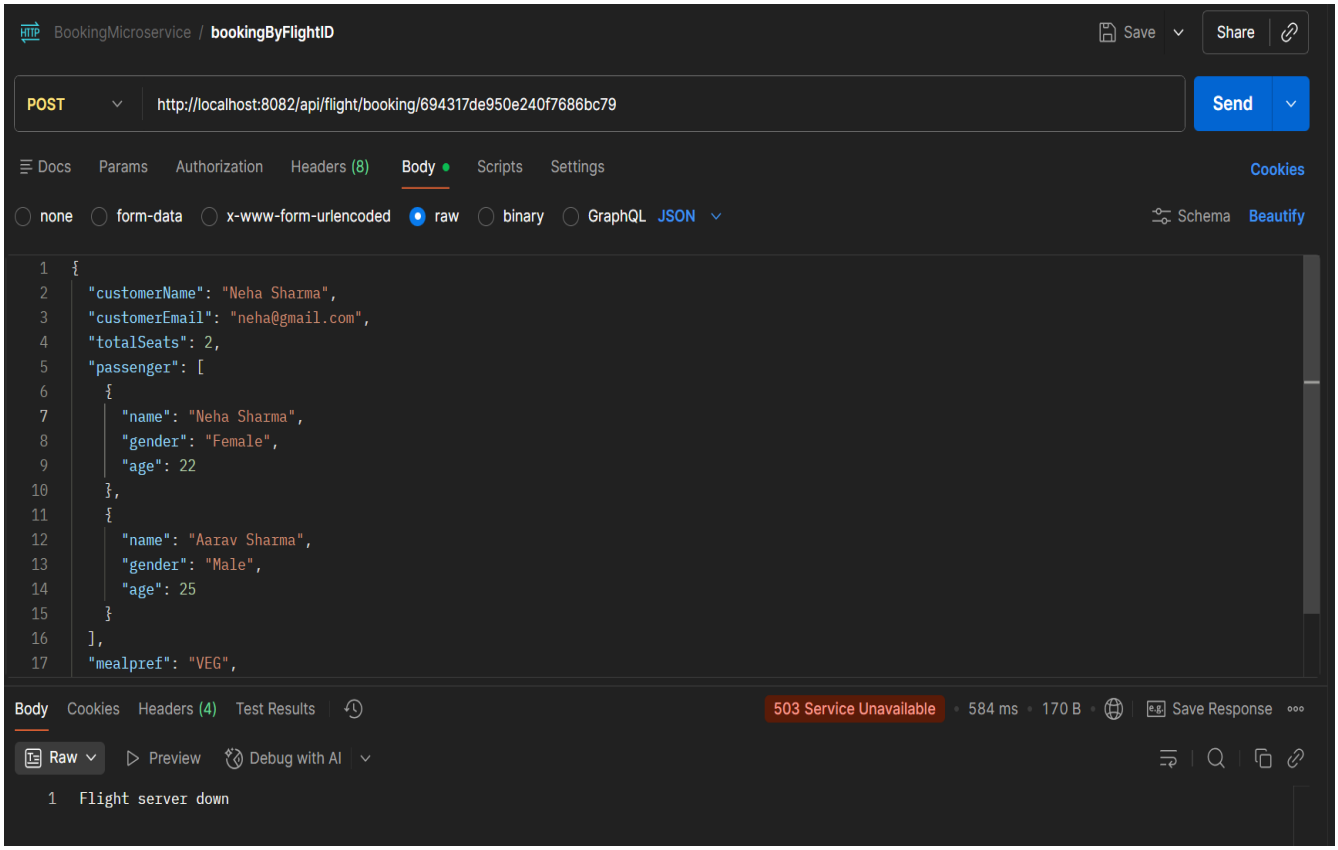
```
C:\Users\Neha Sharma>newman run "C:\Users\Neha Sharma\Desktop\APIGateway.postman_collection.json"
newman

APIGateway

→ addFlight
  POST http://localhost:8091/microservice-flightservice/api/flight/airline/inventory [200 OK, 415B, 64ms]

→ searchFlight
  POST http://localhost:8091/microservice-flightservice/api/flight/search [200 OK, 3.53kB, 31ms]

→ searchFlight2
  POST http://localhost:8091/microservice-flightservice/api/flight/search [200 OK, 3.53kB, 26ms]

→ allFlight
  GET http://localhost:8091/microservice-flightservice/api/flight/airline/inventory/all [200 OK, 5.62kB, 23ms]

→ bookingByFlightID
  POST http://localhost:8091/microservice-bookingservice/api/flight/booking/694317de950e240f7686bc79 [201 Created, 617B, 78ms]

→ ticketbyPNR
  GET http://localhost:8091/microservice-bookingservice/api/flight/ticket/B3ECE00C [404 Not Found, 158B, 27ms]

→ ticketByEmail
  GET http://localhost:8091/microservice-bookingservice/api/flight/booking/history/rmneha@gmail.com [404 Not Found, 219B, 27ms]

→ cancelTicket
  DELETE http://localhost:8091/microservice-bookingservice/api/flight/booking/cancel/11AC5FEB [404 Not Found, 158B, 24ms]

┌─────────────────────────┬────────────────────┬────────────────────┐
│                         │           executed │             failed │
├─────────────────────────┼────────────────────┼────────────────────┤
│              iterations │                  1 │                  0 │
├─────────────────────────┼────────────────────┼────────────────────┤
│                requests │                  8 │                  0 │
```

```
→ ticketByEmail
  GET http://localhost:8091/microservice-bookingservice/api/flight/booking/history/rmneha@gmail.com [404 Not Found, 219B, 27ms]

→ cancelTicket
  DELETE http://localhost:8091/microservice-bookingservice/api/flight/booking/cancel/11AC5FEB [404 Not Found, 158B, 24ms]

┌─────────────────────────┬────────────────────┬────────────────────┐
│                         │           executed │             failed │
├─────────────────────────┼────────────────────┼────────────────────┤
│              iterations │                  1 │                  0 │
├─────────────────────────┼────────────────────┼────────────────────┤
│                requests │                  8 │                  0 │
├─────────────────────────┼────────────────────┼────────────────────┤
│            test-scripts │                  0 │                  0 │
├─────────────────────────┼────────────────────┼────────────────────┤
│      prerequest-scripts │                  0 │                  0 │
├─────────────────────────┼────────────────────┼────────────────────┤
│              assertions │                  0 │                  0 │
├─────────────────────────┴────────────────────┴────────────────────┤
│ total run duration: 910ms                                         │
├───────────────────────────────────────────────────────────────────┤
│ total data received: 13.4kB (approx)                              │
├───────────────────────────────────────────────────────────────────┤
│ average response time: 37ms [min: 23ms, max: 78ms, s.d.: 19ms]    │
└───────────────────────────────────────────────────────────────────┘

C:\Users\Neha Sharma>
```

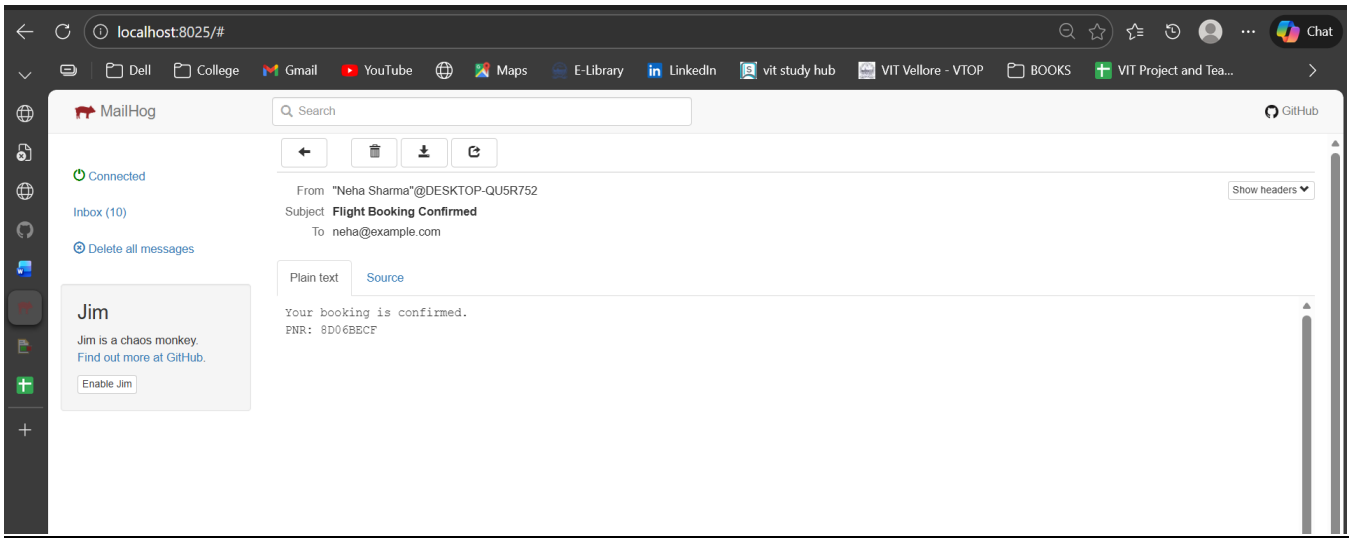
5) Eureka Integration

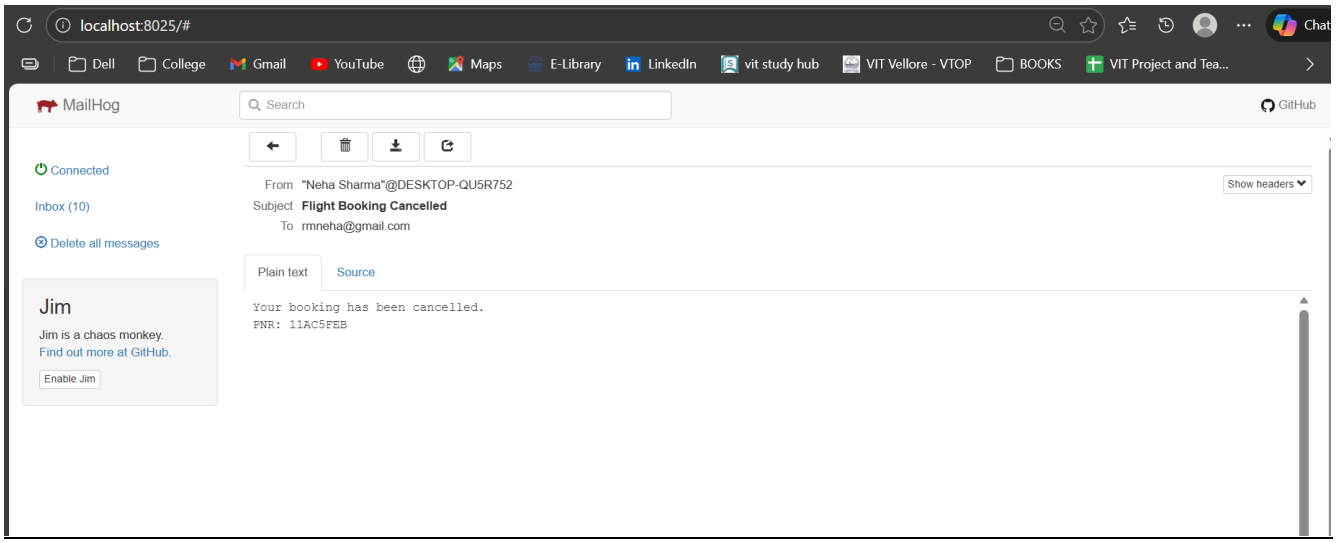


6) Circuit Breaker



7) Message Broker (KAFKA+ MailHog)





```
2025-12-20T21:25:23.022+05:30  INFO 40048 --- [MICROSERVICE-BOOKINGSERVICE] [           main] o.a.k.clients.consumer.ConsumerConfig
  : ConsumerConfig values:
        allow.auto.create.topics = true
        auto.commit.interval.ms = 5000
        auto.include.jmx.reporter = true
        auto.offset.reset = earliest
        bootstrap.servers = [localhost:9092]
        check.crcs = true
        client.dns.lookup = use_all_dns_ips
        client.id = consumer-booking-email-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-email-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.springframework.kafka.support.serializer.ErrorHandlingDeserializer
        max.partition.fetch.bytes = 1048576
        max.poll.interval.ms = 300000
        max.poll.records = 500
        metadata.max.age.ms = 300000
        metric.reporters = []
        metrics.num.samples = 2
        metrics.recording.level = INFO
        metrics.sample.window.ms = 30000
        partition.assignment.strategy = [class org.apache.kafka.clients.consumer.RangeAssignor, class org.apache.kafka.clients.consum
er.CooperativeStickyAssignor]
```

8) JACOCO REPORT

a) Booking Service

Microservice_BookingService — Sessions

Microservice_BookingService

Element	Missed Instructions	Cov.	Missed Branches	Cov.	Missed	Cxty	Missed	Lines	Missed	Methods	Missed	Classes
com.micro.booking		100%		n/a	0	4	0	12	0	4	0	1
com.micro.booking.client		100%		n/a	0	6	0	7	0	6	0	2
com.micro.booking.controller		93%		100%	1	16	1	28	1	15	0	1
com.micro.booking.entity		86%		44%	53	100	0	24	0	41	0	3
com.micro.booking.event		86%		45%	21	42	0	9	0	18	0	1
com.micro.booking.exception		100%		n/a	0	18	0	46	0	18	0	6
com.micro.booking.kafka		100%		100%	0	5	0	15	0	4	0	2
com.micro.booking.requests		86%		47%	33	68	0	13	0	29	0	2
com.micro.booking.service		94%		68%	7	27	4	80	0	16	0	1
Total	215 of 2,220	90%	140 of 270	48%	115	286	5	234	1	151	0	19

Created with JaCoCo 0.8.10.202304240956

b) Flight Service

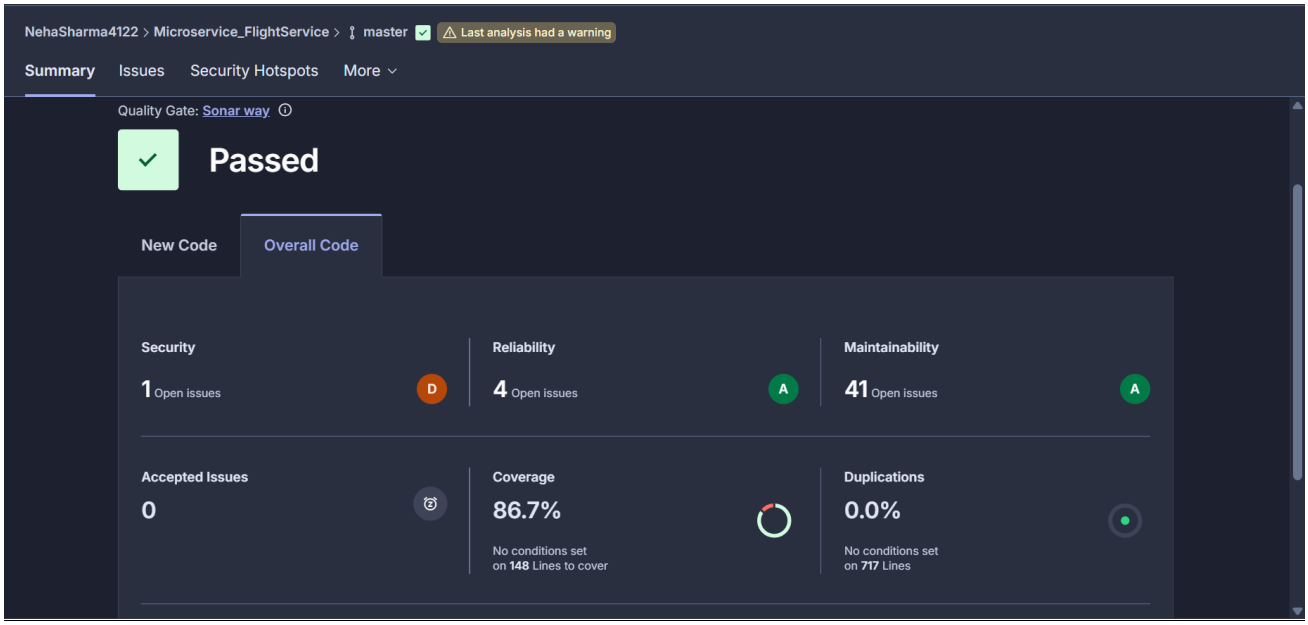
Microservice_FlightService — Sessions

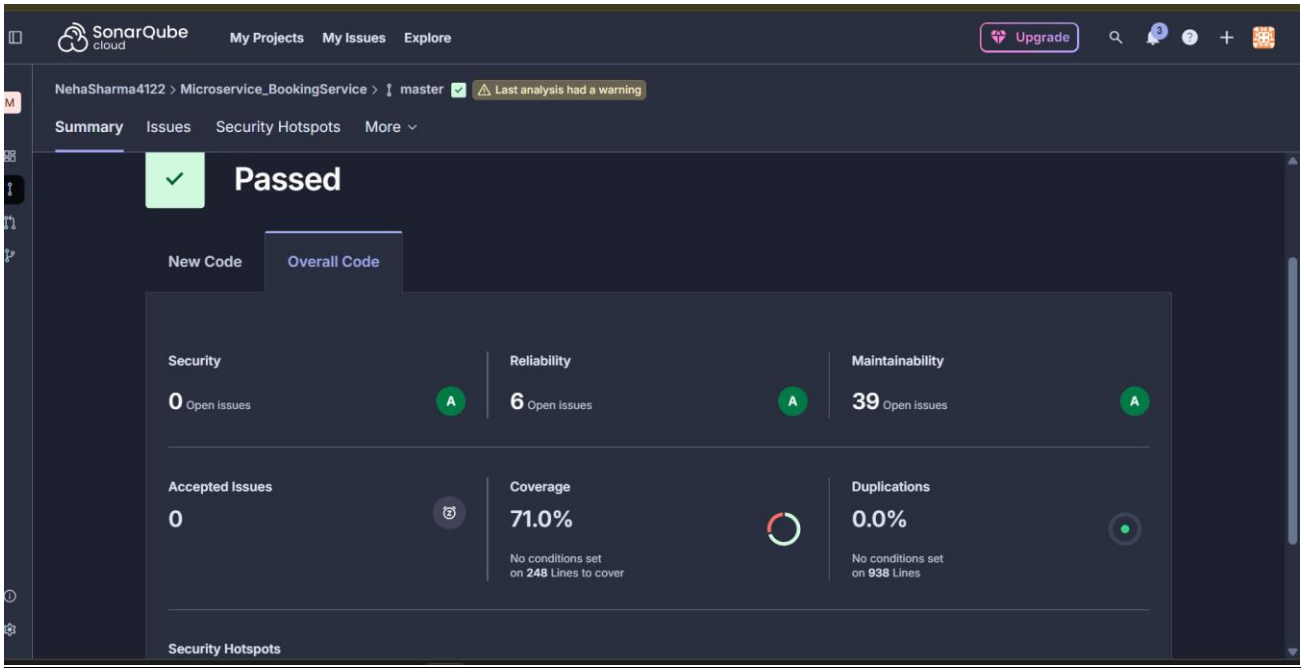
Microservice_FlightService

Element	Missed Instructions	Cov.	Missed Branches	Cov.	Missed	Cxty	Missed	Lines	Missed	Methods	Missed	Classes
com.micro.flight.service		97%		100%	1	14	1	47	1	10	0	2
com.micro.flight.requests		92%		74%	17	63	0	15	0	28	0	3
com.micro.flight.entity		93%		73%	21	70	0	18	0	29	0	2
com.micro.flight.exception		100%		n/a	0	18	0	46	0	18	0	6
com.micro.flight.controller		100%		n/a	0	7	0	10	0	7	0	2
com.micro.flight		100%		n/a	0	4	0	12	0	4	0	1
Total	69 of 1,412	95%	40 of 160	75%	39	176	1	148	1	96	0	16

Created with JaCoCo 0.8.10.202304240956

9) SONARCUBE





10)JMETER TESTING

```
C:\Users\Neha Sharma>"C:\Users\Neha Sharma\Downloads\apache-jmeter-5.6.3\apache-jmeter-5.6.3\bin\jmeter.bat" -n -t "C:\Users\Neha Sha
rma\Desktop\GET.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\Neha Sharma\Desktop\GET.jmx
Starting standalone test @ 2025 Dec 20 22:07:23 IST (1766248643549)
Waiting for possible Shutdown/StopTestNow/HeapDump/ThreadDump message on port 4445
summary +     71 in 00:00:07 =   10.1/s Avg:    10 Min:     5 Max:    58 Err:     0 (0.00%) Active: 1 Started: 8 Finished: 7
summary +     29 in 00:00:02 =   13.5/s Avg:    10 Min:     6 Max:    61 Err:     0 (0.00%) Active: 0 Started: 10 Finished: 10
summary =    100 in 00:00:09 =   10.9/s Avg:    10 Min:     5 Max:    61 Err:     0 (0.00%)
Tidying up ...    @ 2025 Dec 20 22:07:32 IST (1766248652931)
... end of run
```

11) CONFIG SERVER

https://github.com/NehaSharma4122/Microservices_configServer