

IMPORTANT SCREENSHOTS:

Working eureka:

The screenshot shows the Spring Eureka dashboard in a web browser. The top navigation bar includes the Spring Eureka logo and links for HOME and LAST 1000 SINCE STARTUP. The main content area is divided into several sections:

- System Status:** A table showing environment details.

Environment	test	Current time	2025-11-30T04:32:26 +0530
Data center	default	Uptime	00:02
		Lease expiration enabled	false
		Renews threshold	6
		Renews (last min)	2
- DS Replicas:** A section showing the local host as a replica.

localhost
- Instances currently registered with Eureka:** A table listing registered applications.

Application	AMIs	Availability Zones	Status
API-GATEWAY	n/a (1)	(1)	UP (1) - 172.18.148.113:api-gateway:8080
BOOKING-SERVICE	n/a (1)	(1)	UP (1) - 172.18.148.113:booking-service:8082
FLIGHT-SERVICE	n/a (1)	(1)	UP (1) - 172.18.148.113:flight-service:8081
- General Info:** A table showing system metrics.

Name	Value
total-avail-memory	88mb
num-of-cpus	8
current-memory-usage	58mb (65%)
server-up-time	00:02

MongoDB:(2 databases)

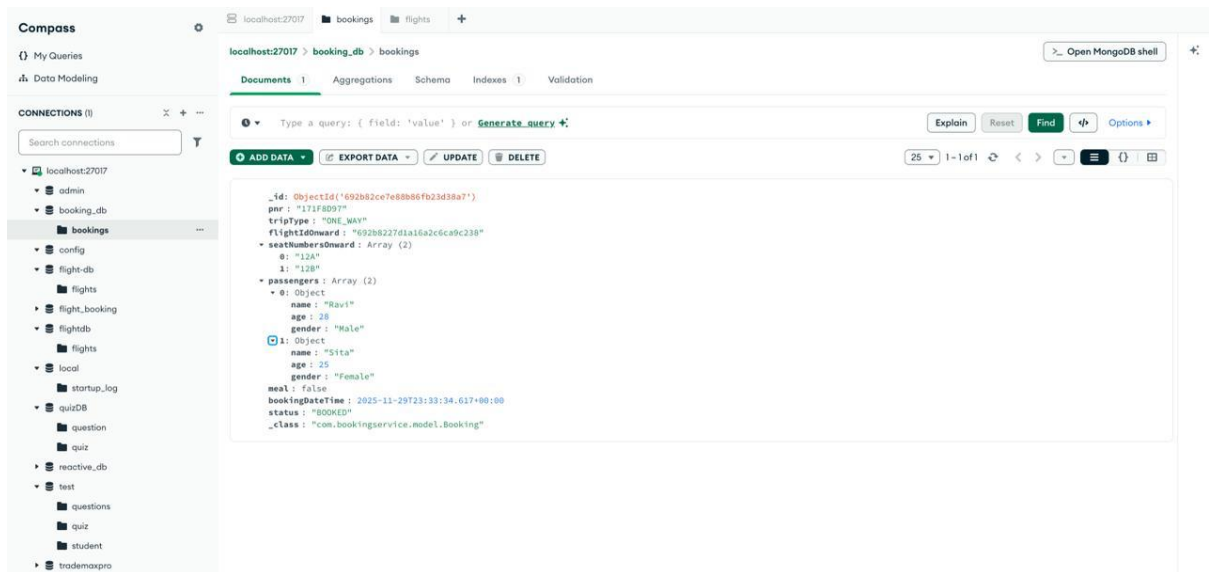
booking_db	20.48 kB	1	1
config	12.29 kB	0	2
flightdb	20.48 kB	1	1

FlightDB:

The screenshot shows the MongoDB Compass interface. The left sidebar displays the database structure, including the flightdb database and its collections. The main panel shows the flightdb database selected, with a sample document displayed in the Documents tab.

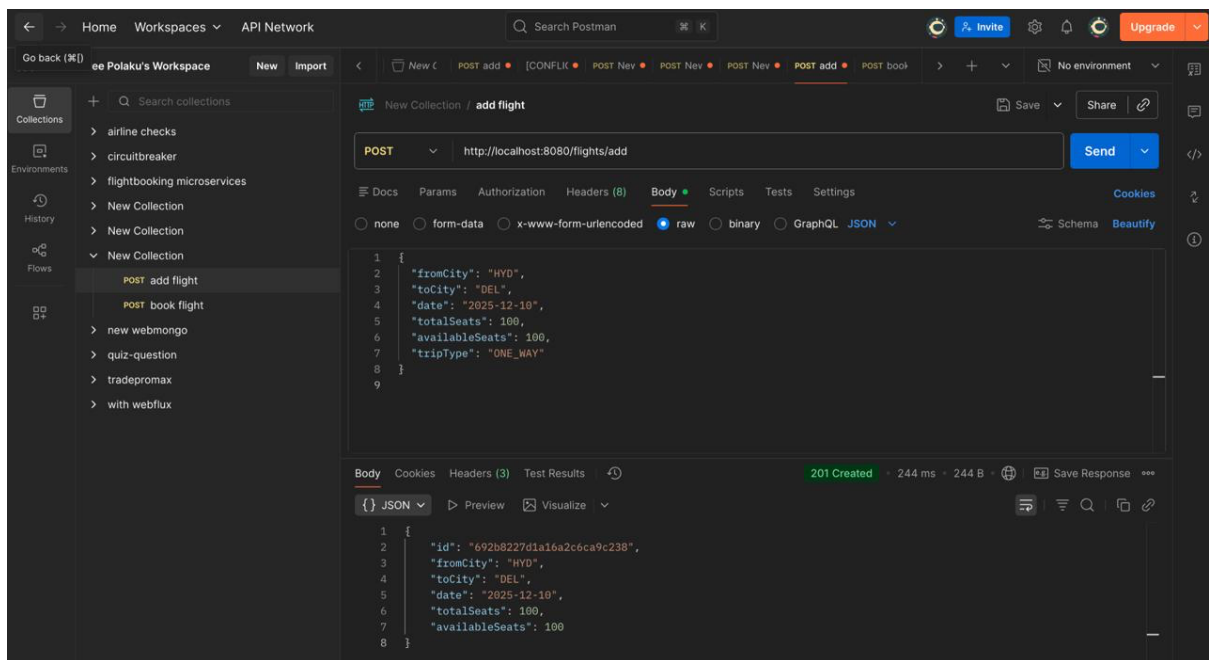
```
{
  "_id": ObjectId("692b8227d1a16a2c6ca9c238"),
  "fromCity": "NYC",
  "toCity": "DEL",
  "date": "2025-12-18",
  "totalSeats": 100,
  "availableSeats": 100,
  "_class": "com.flightservice.model.Flight"
}
```

BookingDB:

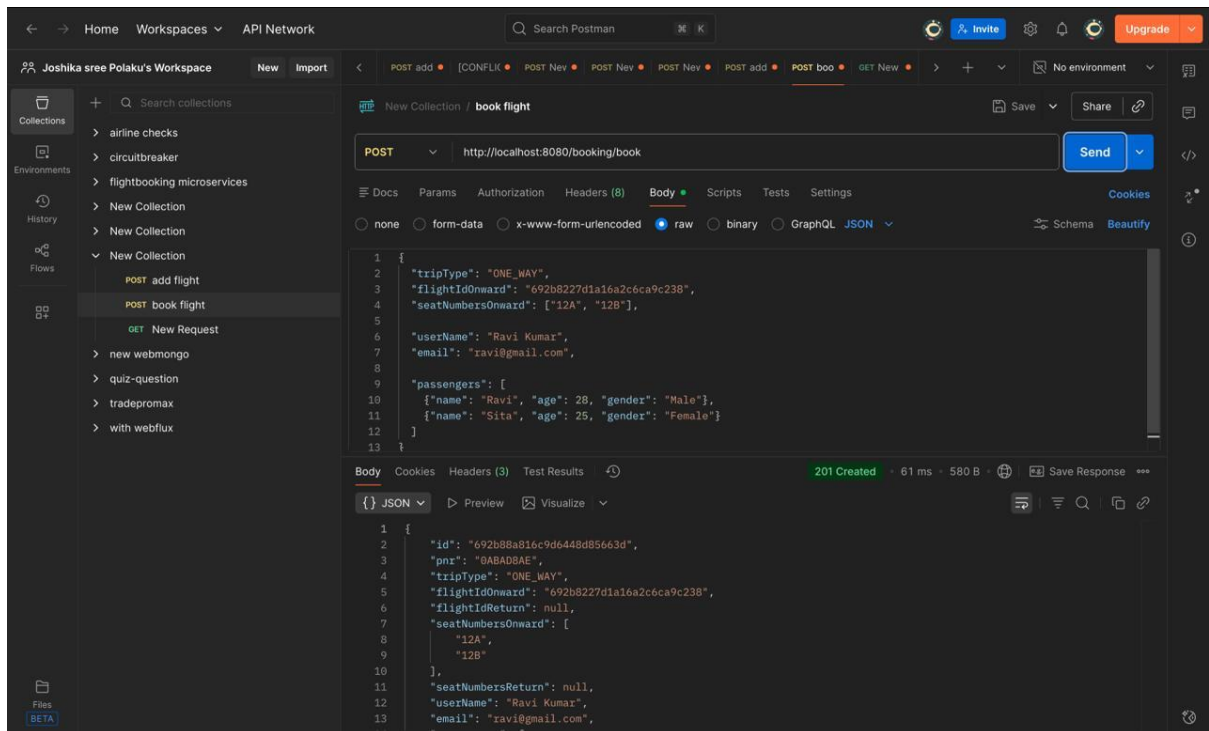


Postman:

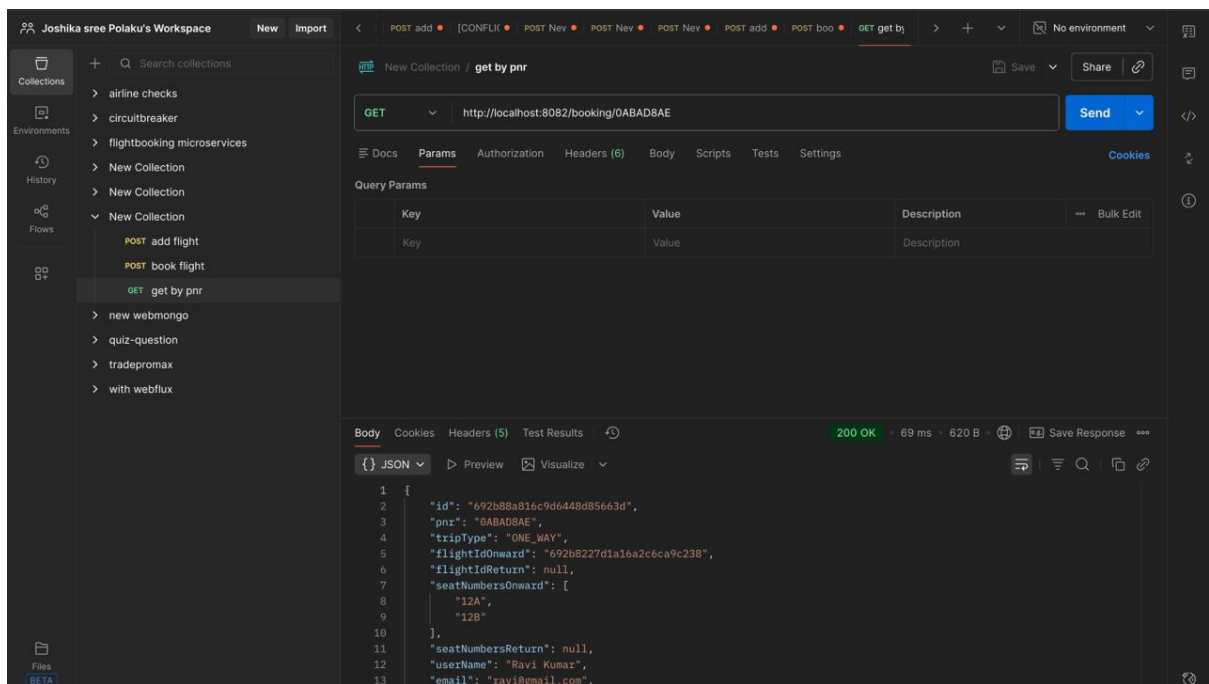
Add Inventory:



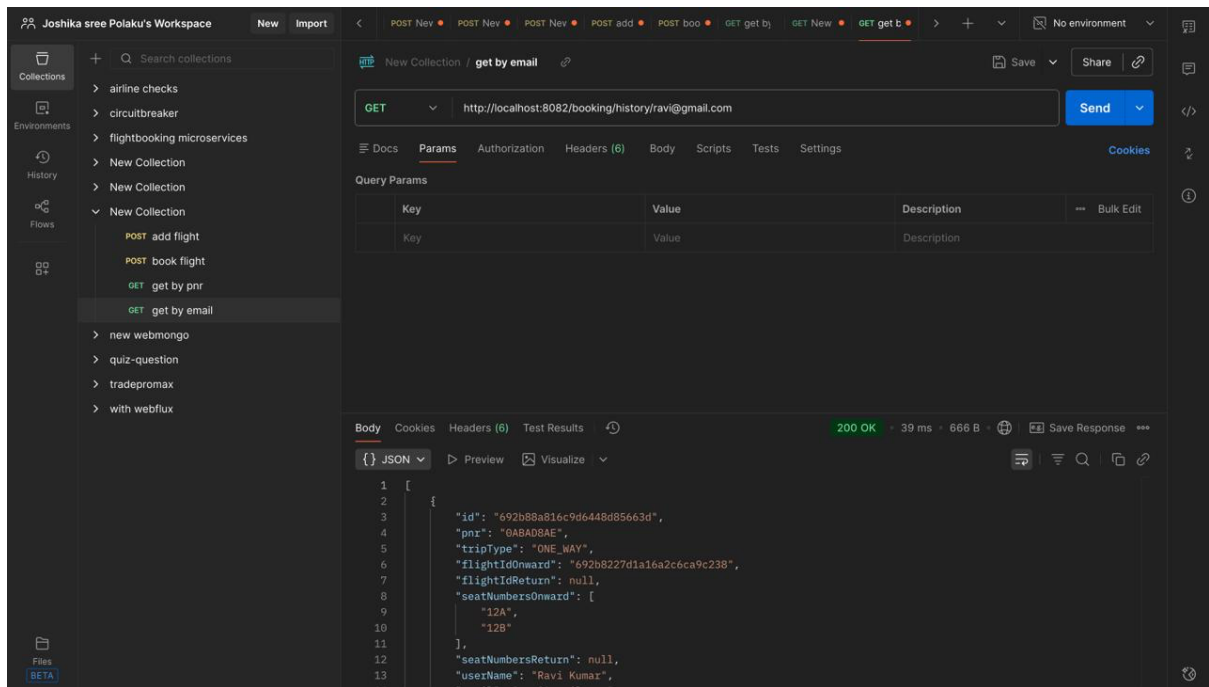
Book Flight:



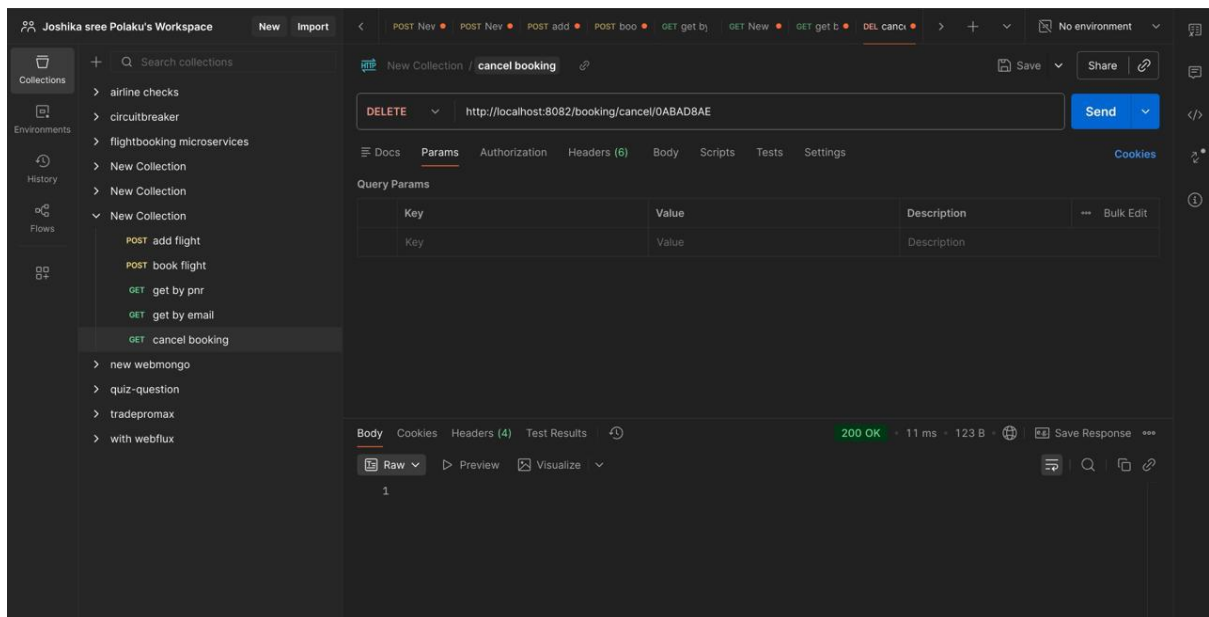
Get details by PNR:



Get details by EmailID:



Cancel Booking:



Spring Implementation:

```
Console X
config-server - ConfigServerApplication (Spring Boot App) /Applications/SpringToolsForEclipse.app/Contents/Eclipse/plugins/org.eclipse.justi.openjdk.hotspot.jre.full.macosx.aarch64_21.0.9.v20251105-0741/jre/bin/java (30-Nov-2025, 5:51:11 am etc)

Spring
:: Spring Boot ::
(v3.2.2)

2025-11-30T05:51:12.332+05:30 INFO 28643 --- [config-server] [
2025-11-30T05:51:12.333+05:30 INFO 28643 --- [config-server] [
2025-11-30T05:51:12.568+05:30 INFO 28643 --- [config-server] [
2025-11-30T05:51:12.644+05:30 INFO 28643 --- [config-server] [
2025-11-30T05:51:12.648+05:30 INFO 28643 --- [config-server] [
2025-11-30T05:51:12.648+05:30 INFO 28643 --- [config-server] [
2025-11-30T05:51:12.668+05:30 INFO 28643 --- [config-server] [
2025-11-30T05:51:12.668+05:30 INFO 28643 --- [config-server] [
2025-11-30T05:51:14.154+05:30 INFO 28643 --- [config-server] [
2025-11-30T05:51:14.162+05:30 INFO 28643 --- [config-server] [

main] c.configserver.ConfigServerApplication : Starting ConfigServerApplication using Java 21.0.9 with P
main] c.configserver.ConfigServerApplication : No active profile set, falling back to 1 default profile:
main] o.s.cloud.context.scope.GenericScope : BeanFactory id=171b3913-6937-3282-b2d4-cb8ce22af875
main] o.s.b.w.embedded.tomcat.TomcatWebServer : Tomcat initialized with port 8888 (http)
main] o.apache.catalina.core.StandardService : Starting service [Tomcat]
main] o.apache.catalina.core.StandardEngine : Starting Servlet engine: [Apache Tomcat/10.1.18]
main] o.a.c.c.C.[Tomcat].[localhost].[/] : Initializing Spring embedded WebApplicationContext
main] w.s.c.ServletWebServerApplicationContext : Root WebApplicationContext: initialization completed in 3
main] o.s.b.w.embedded.tomcat.TomcatWebServer : Tomcat started on port 8888 (http) with context path ''
main] c.configserver.ConfigServerApplication : Started ConfigServerApplication in 1.941 seconds (process
```

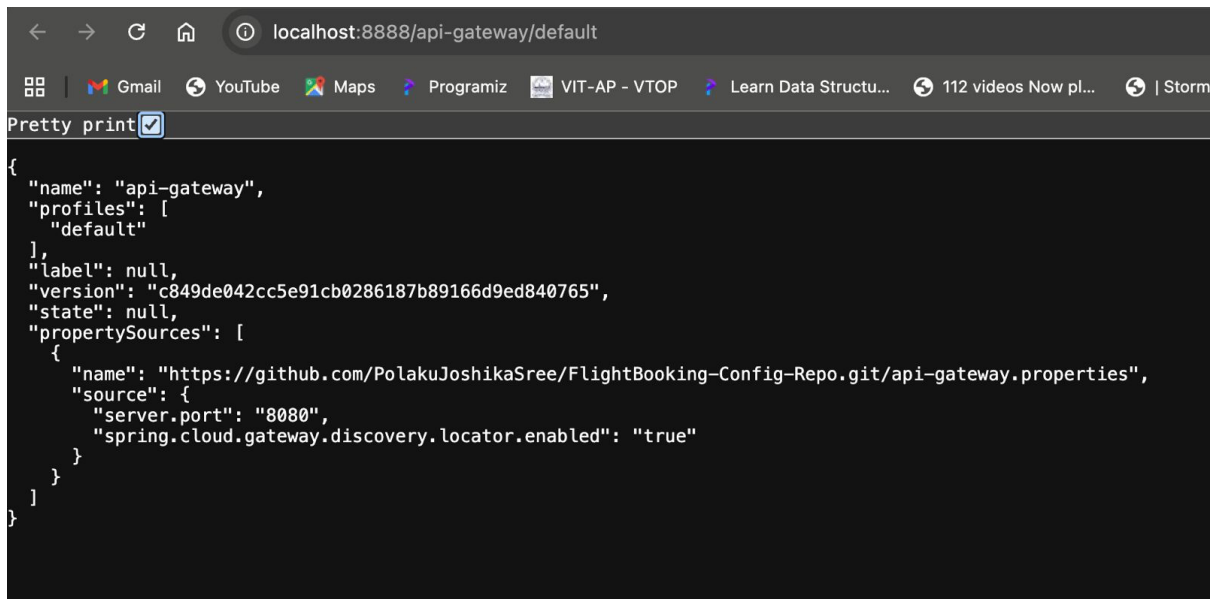
Localhosts:

```
localhost:8888/flight-service/default

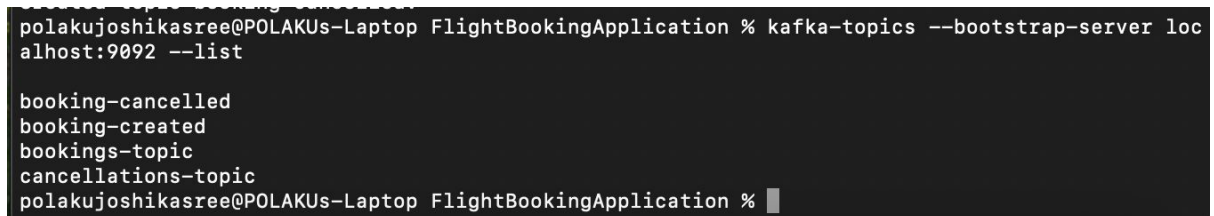
Pretty print
{
  "name": "flight-service",
  "profiles": [
    "default"
  ],
  "label": null,
  "version": "c849de042cc5e91cb0286187b89166d9ed840765",
  "state": null,
  "propertySources": [
    {
      "name": "https://github.com/PolakuJoshikaSree/FlightBooking-Config-Repo.git/flight-service.properties",
      "source": {
        "server.port": "8081",
        "spring.data.mongodb.uri": "mongodb://localhost:27017/flightdb"
      }
    }
  ]
}
```

```
localhost:8888/booking-service/default

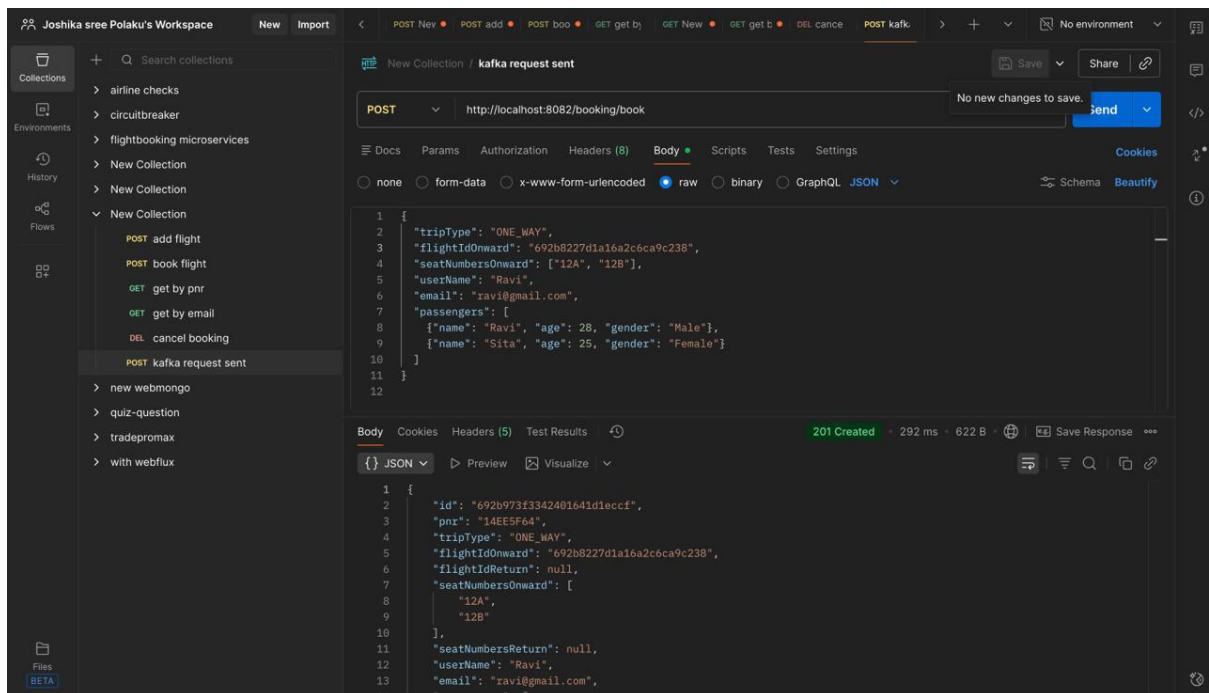
Pretty print
{
  "name": "booking-service",
  "profiles": [
    "default"
  ],
  "label": null,
  "version": "c849de042cc5e91cb0286187b89166d9ed840765",
  "state": null,
  "propertySources": [
    {
      "name": "https://github.com/PolakuJoshikaSree/FlightBooking-Config-Repo.git/booking-service.properties",
      "source": {
        "server.port": "8082",
        "spring.data.mongodb.uri": "mongodb://localhost:27017/bookingdb"
      }
    }
  ]
}
```



Kafka :



Running kafka :



Kafka Notification:

```
polakujoshikasree@POLAKUs-Laptop FlightBookingApplication % brew services list

Name      Status User      File
kafka     started polakujoshikasree ~/Library/LaunchAgents/homebrew.mxcl.kafka.plist
mongodb-community started polakujoshikasree ~/Library/LaunchAgents/homebrew.mxcl.mongodb-community.plist
zookeeper started polakujoshikasree ~/Library/LaunchAgents/homebrew.mxcl.zookeeper.plist
polakujoshikasree@POLAKUs-Laptop FlightBookingApplication % kafka-console-consumer --bootstrap-server localhost:9092 --topic booking-events --from-beginning

Booking Successful - PNR: 38A6510D
```

JMeter:

Post request (add inventory):

The first screenshot shows the JMeter 'View Results Tree' for a test plan named 'View Results Tree'. The test plan contains a 'Thread Group' with an 'HTTP Request' sampler. The request is a POST to 'http://localhost:8080/flights/add' with the following JSON body:

```
{
  "fromCity": "MUM",
  "toCity": "DEL",
  "date": "2023-12-10",
  "ticketPrice": 100,
  "availability": 100,
  "tripType": "ONE_WAY"
}
```

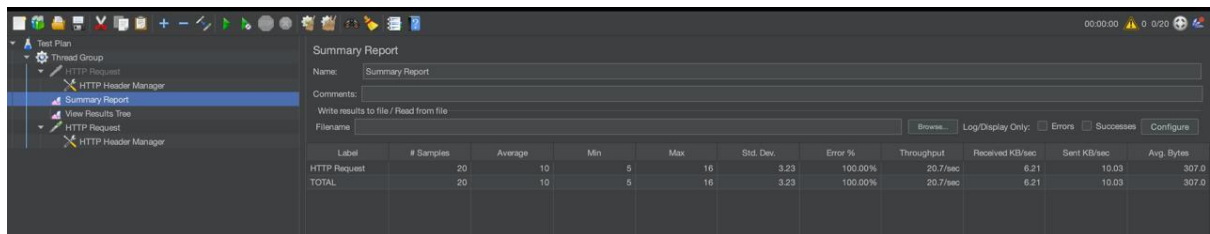
The second screenshot shows the 'Summary Report' for the same test plan. The report shows the following statistics:

Label	# Samples	Average	Min	Max	Std. Dev.	Error %	Throughput	Received KB/sec	Sent KB/sec	Avg. Bytes
HTTP Request	20	13	11	18	1.97	0.00%	20.7/sec	5.16	6.61	255.0
TOTAL	20	13	11	18	1.97	0.00%	20.7/sec	5.16	6.61	255.0

Add Booking :

The screenshot shows the JMeter 'View Results Tree' for a test plan named 'View Results Tree'. The test plan contains a 'Thread Group' with an 'HTTP Request' sampler. The request is a POST to 'http://localhost:8080/booking/book' with the following JSON body:

```
{
  "tripType": "ONE_WAY",
  "flightId": "987654321012345678901234",
  "ticketPrice": 100,
  "user": {
    "name": "Ravi Kumar",
    "email": "ravi.kumar@gmail.com",
    "password": "1234567890"
  },
  "passenger": [
    {
      "name": "Ravi",
      "age": 28,
      "gender": "Male",
      "seat": "11A",
      "price": 25,
      "status": "Booked"
    }
  ]
}
```

Summary Report

Name: Summary Report

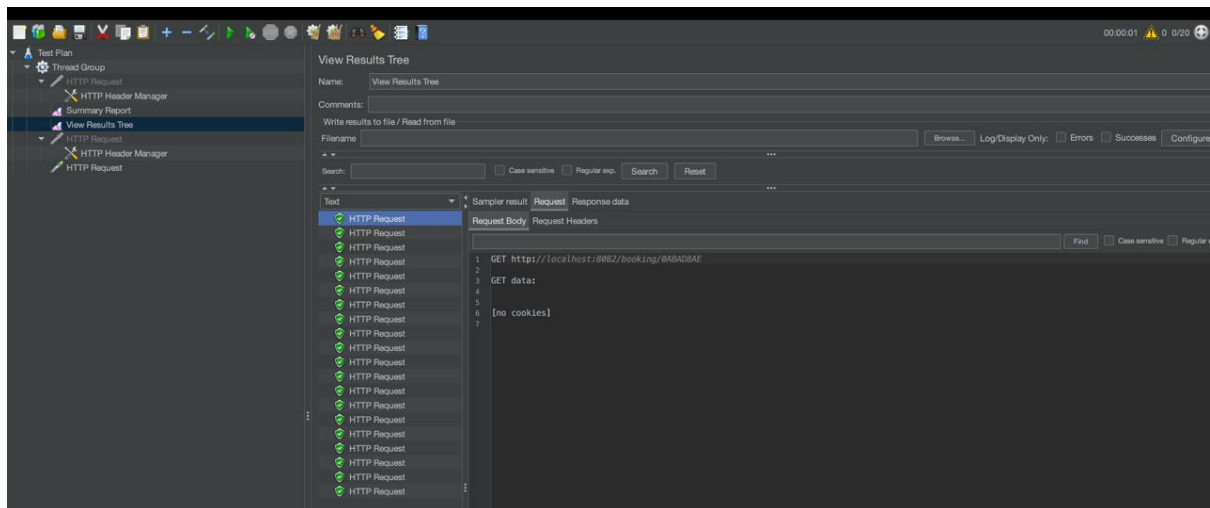
Comments:

Write results to file / Read from file

Filename: Log/Display Only: ☐ Errors ☐ Successes

Label	# Samples	Average	Min	Max	Std. Dev.	Error %	Throughput	Received KB/sec	Sent KB/sec	Avg. Bytes
HTTP Request	20	10	5	16	3.23	100.00%	20.7/sec	6.21	10.03	307.0
TOTAL	20	10	5	16	3.23	100.00%	20.7/sec	6.21	10.03	307.0

Get PNR:



View Results Tree

Name: View Results Tree

Comments:

Write results to file / Read from file

Filename: Log/Display Only: ☐ Errors ☐ Successes

Search: ☐ Case sensitive ☐ Regular exp.

Text

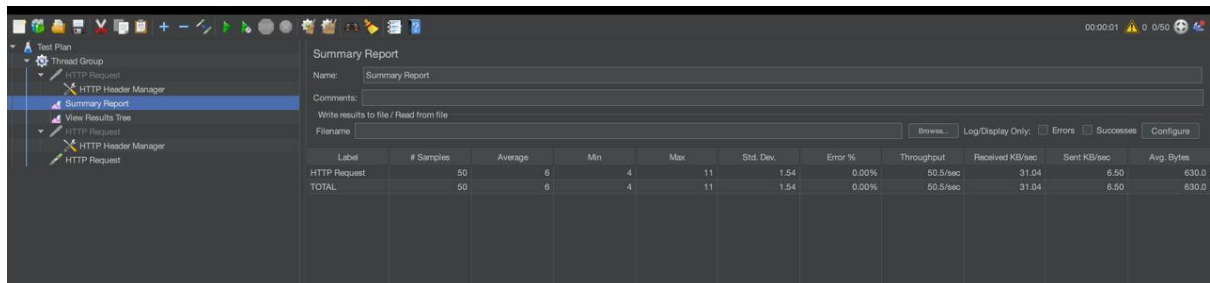
Sampler result: Request Response data

Request Body Request Headers

```

1 GET http://localhost:8082/booking/8ABAD8AE
2
3 GET data:
4
5
6 [no cookies]
7

```



Summary Report

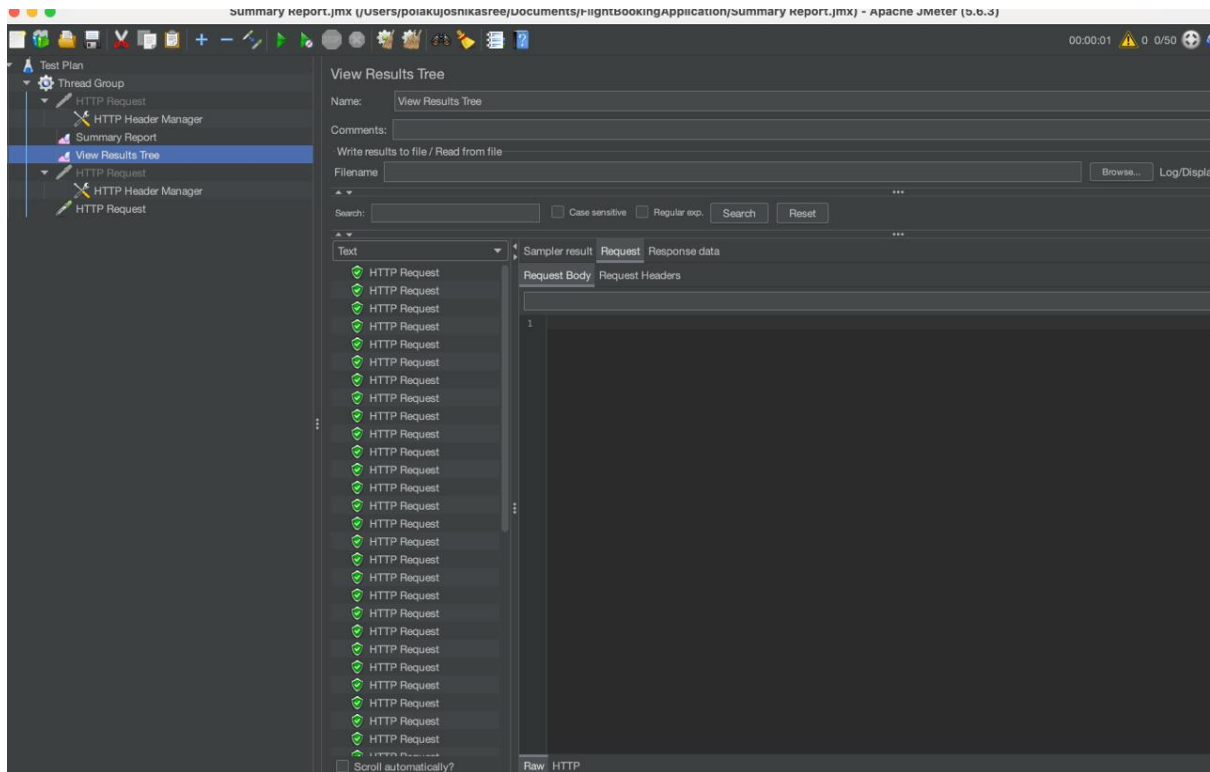
Name: Summary Report

Comments:

Write results to file / Read from file

Filename: Log/Display Only: ☐ Errors ☐ Successes

Label	# Samples	Average	Min	Max	Std. Dev.	Error %	Throughput	Received KB/sec	Sent KB/sec	Avg. Bytes
HTTP Request	50	6	4	11	1.54	0.00%	50.5/sec	31.04	6.50	630.0
TOTAL	50	6	4	11	1.54	0.00%	50.5/sec	31.04	6.50	630.0



SonarAnalysis:

