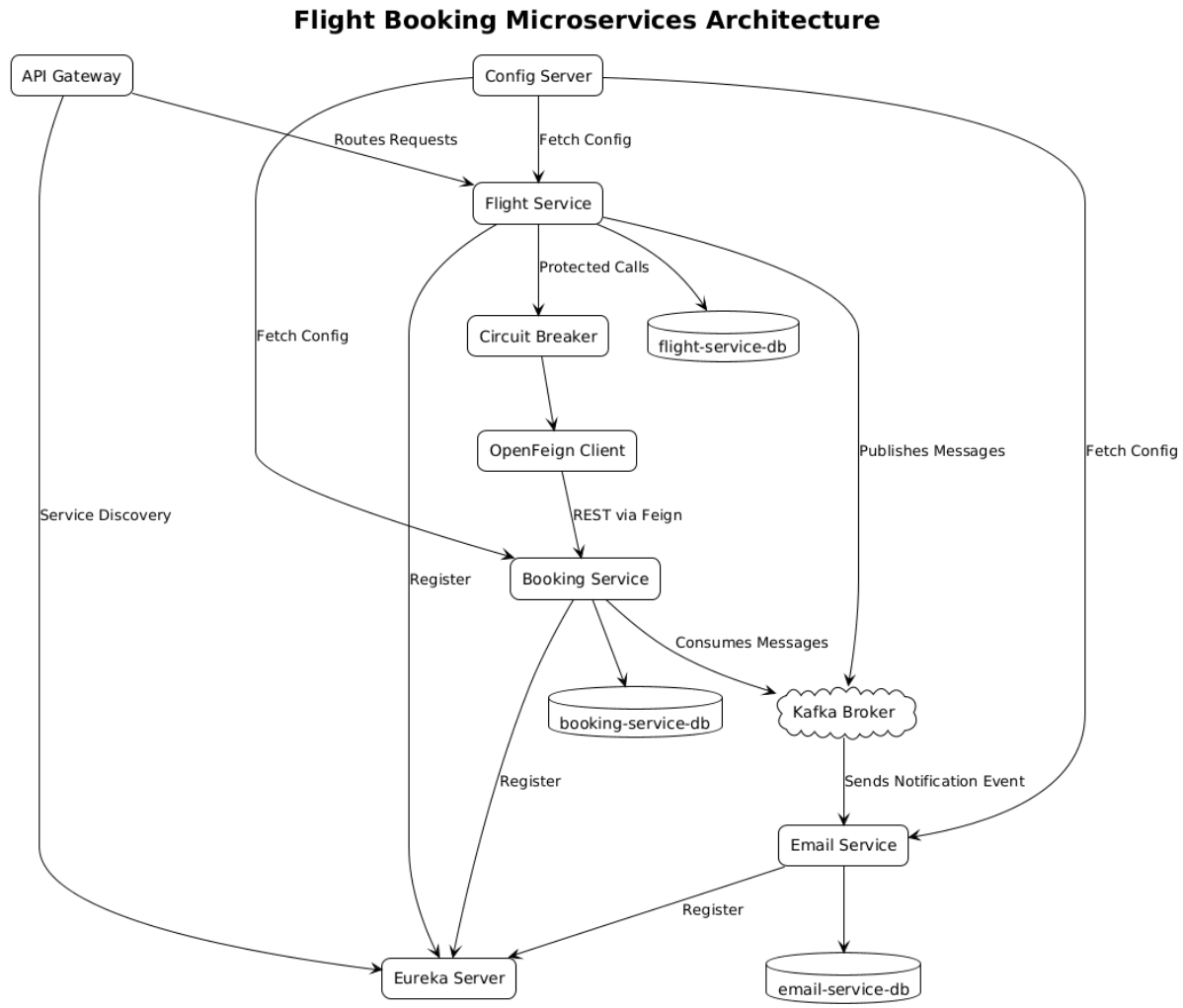
Current Microservices Architecture:



Eureka-server:

Application	AMIs	Availability Zones	Status
EMAIL-SERVICE	n/a (1)	(1)	UP (1) - host.docker.internal:email-service:8085
API-GATEWAY	n/a (1)	(1)	UP (1) - host.docker.internal:api-gateway:8080
BOOKING-SERVICE	n/a (1)	(1)	UP (1) - host.docker.internal:booking-service:8082
CONFIG-SERVER	n/a (1)	(1)	UP (1) - host.docker.internal:config-server:8888
FLIGHT-SERVICE	n/a (1)	(1)	UP (1) - host.docker.internal:flight-service:8081

General Info

Jacoco coverage:

FlightService:

FlightService

FlightService

Element	Missed Instructions	Cov.	Missed Branches	Cov.	Missed	Cxty	Missed	Lines	Missed	Methods	Missed	Classes
com.flightservice		37%		n/a	1	2	2	3	1	2	0	1
com.flightservice.services		100%		100%	0	10	0	40	0	9	0	1
com.flightservice.controllers		100%		100%	0	8	0	13	0	5	0	1
Total	5 of 231	97%	0 of 8	100%	1	20	2	56	1	16	0	3

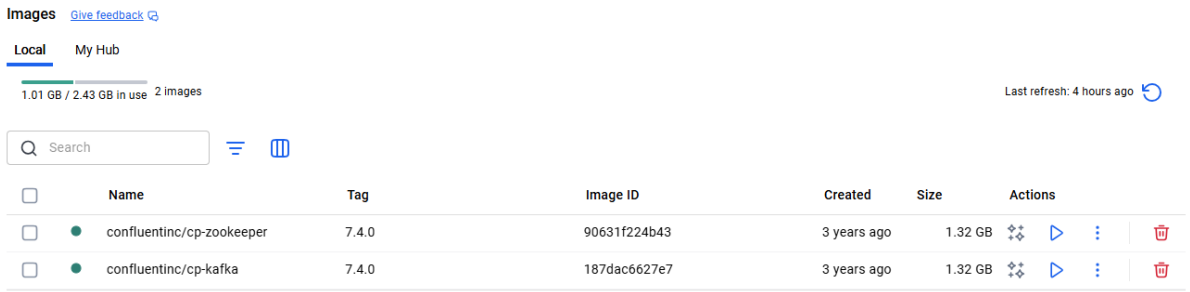
BookingService:

booking-service

booking-service

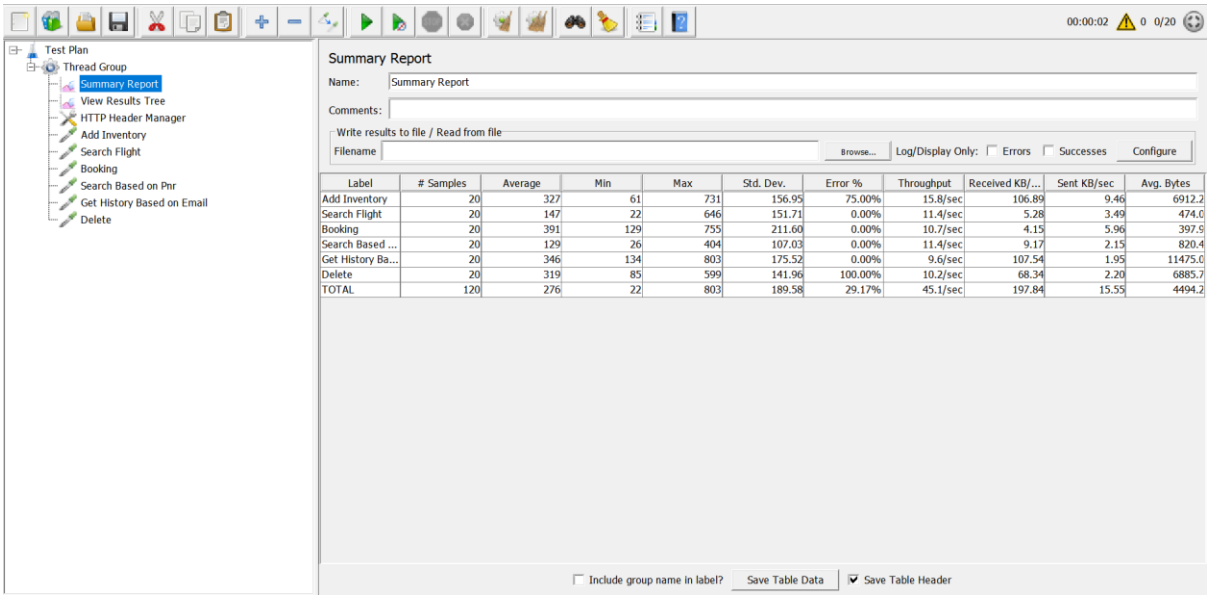
Element	Missed Instructions	Cov.	Missed Branches	Cov.	Missed	Cxty	Missed	Lines	Missed	Methods	Missed	Classes
com.bookingservice		22%		n/a	2	4	5	7	2	4	0	2
com.bookingservice.kafka		0%		n/a	1	1	2	2	1	1	1	1
com.bookingservice.services		100%		100%	0	9	0	54	0	8	0	1
com.bookingservice.config		100%		n/a	0	3	0	7	0	3	0	1
com.bookingservice.controller		100%		n/a	0	4	0	5	0	4	0	1
Total	28 of 275	89%	0 of 2	100%	3	21	7	75	3	20	1	6

Docker for kafaka and zookeeper:

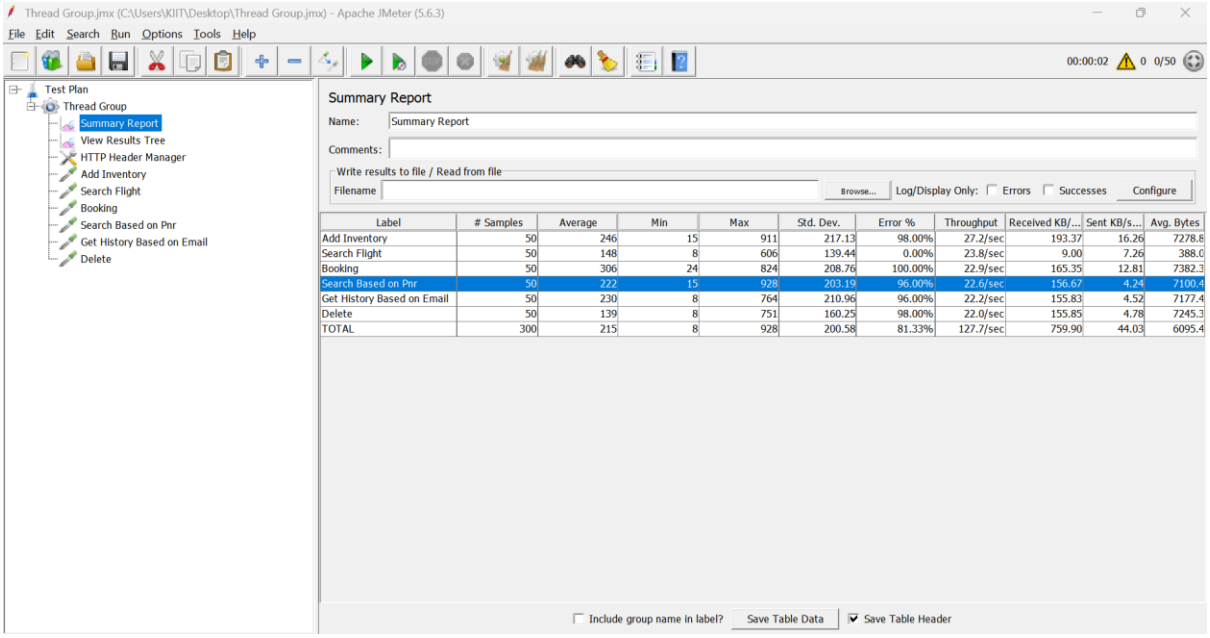


Jmeter reports:

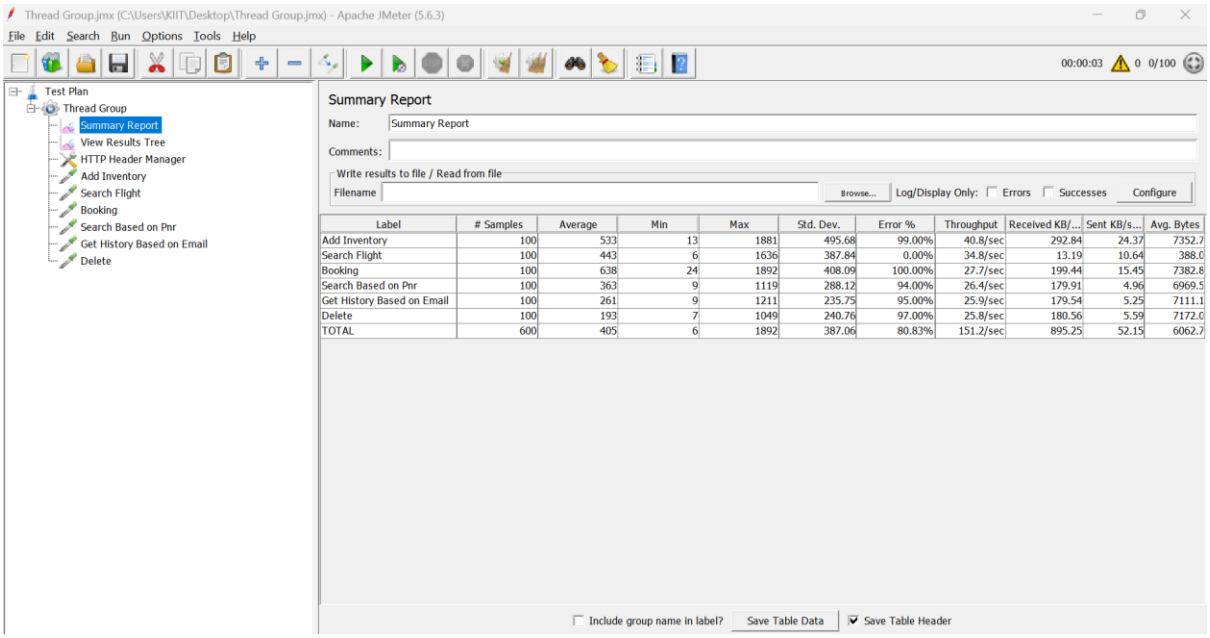
For 20 requests:



For 50 requests:



For 100 requests:



Label	# Samples	Average	Min	Max	Std. Dev.	Error %	Throughput	Received KB/...	Sent KB/s...	Avg. Bytes
Add Inventory	100	533	13	1881	495.68	99.00%	40.8/sec	292.84	24.37	7352.7
Search Flight	100	443	6	1636	387.84	0.00%	34.8/sec	13.19	10.64	388.0
Booking	100	638	24	1892	408.09	100.00%	27.7/sec	199.44	15.45	7382.8
Search Based on Pnr	100	363	9	1119	288.12	94.00%	26.4/sec	179.91	4.96	6969.5
Get History Based on Email	100	261	9	1211	235.75	95.00%	25.9/sec	179.54	5.25	7111.1
Delete	100	193	7	1049	240.76	97.00%	25.8/sec	180.56	5.59	7172.0
TOTAL	600	405	6	1892	387.06	80.83%	151.2/sec	895.25	52.15	6062.7

Newman report:

to add flight

Method
POST
URL
http://localhost:8080/api/flight/inventory

Mean time per request
465ms

Mean size per request
1.91KB

Total passed tests
0
Total failed tests
0

Status code
200

to book ticket from bookinservice taking help of flight service

Method
POST
URL
http://localhost:8080/api/flights/booking

Mean time per request
358ms

Mean size per request
341B

Total passed tests
0
Total failed tests
0

Status code
201

to search flights by details

Method
POST
URL
http://localhost:8080/api/booking/search

Mean time per request
66ms

Mean size per request
291B

Total passed tests
0
Total failed tests
0

Status code
200

to get ticket by pnr

Method
GET
URL
http://localhost:8080/api/booking/getByPnr/PNR20251130G9YA

Mean time per request
69ms

Mean size per request
341B

Total passed tests
0
Total failed tests
0

Status code
200

to delete by pnr

Method
DELETE
URL
http://localhost:8080/api/booking/delete/PNR20251130G9YA

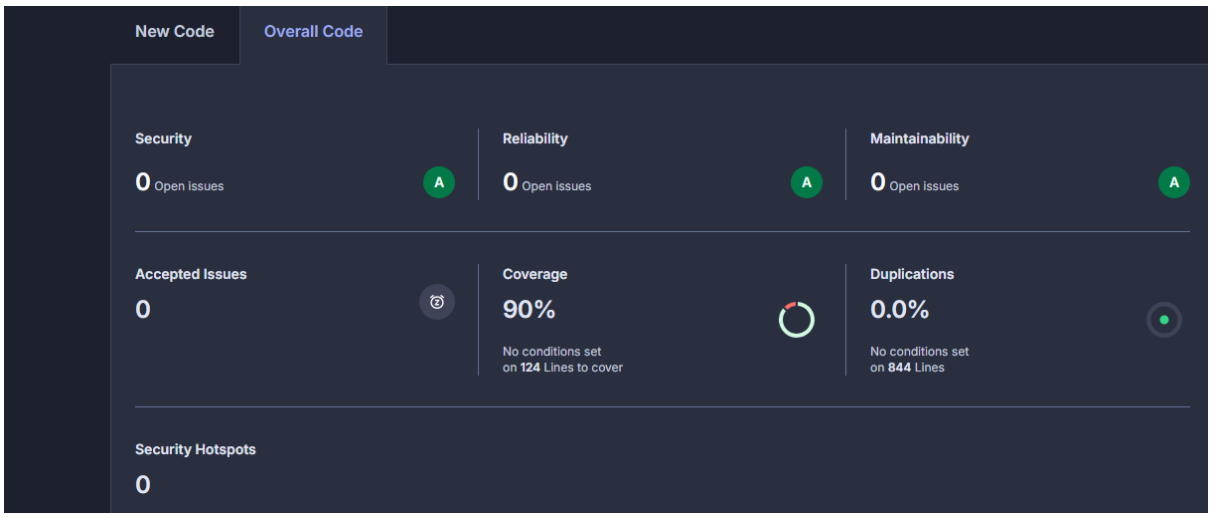
Mean time per request
47ms

Mean size per request
105B

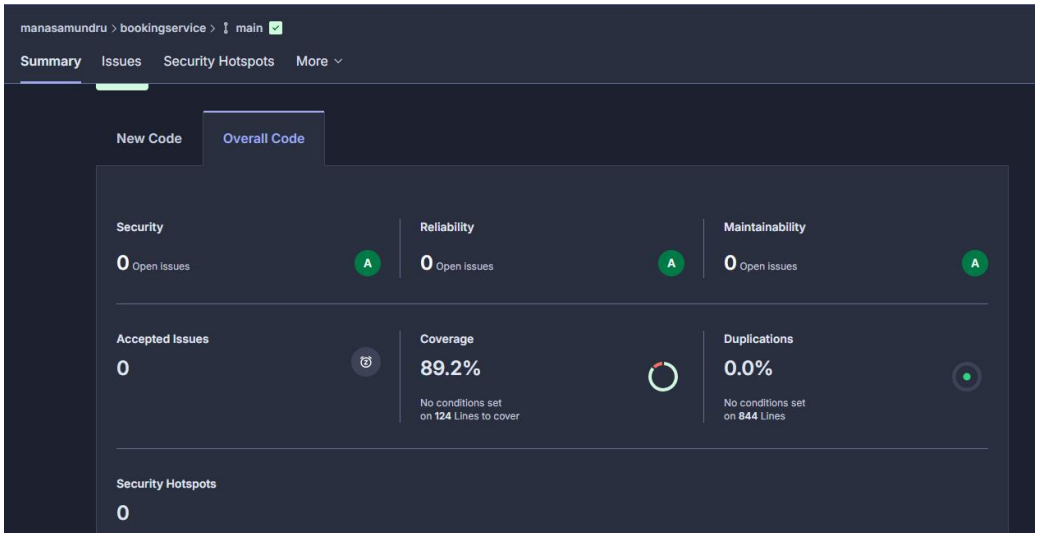
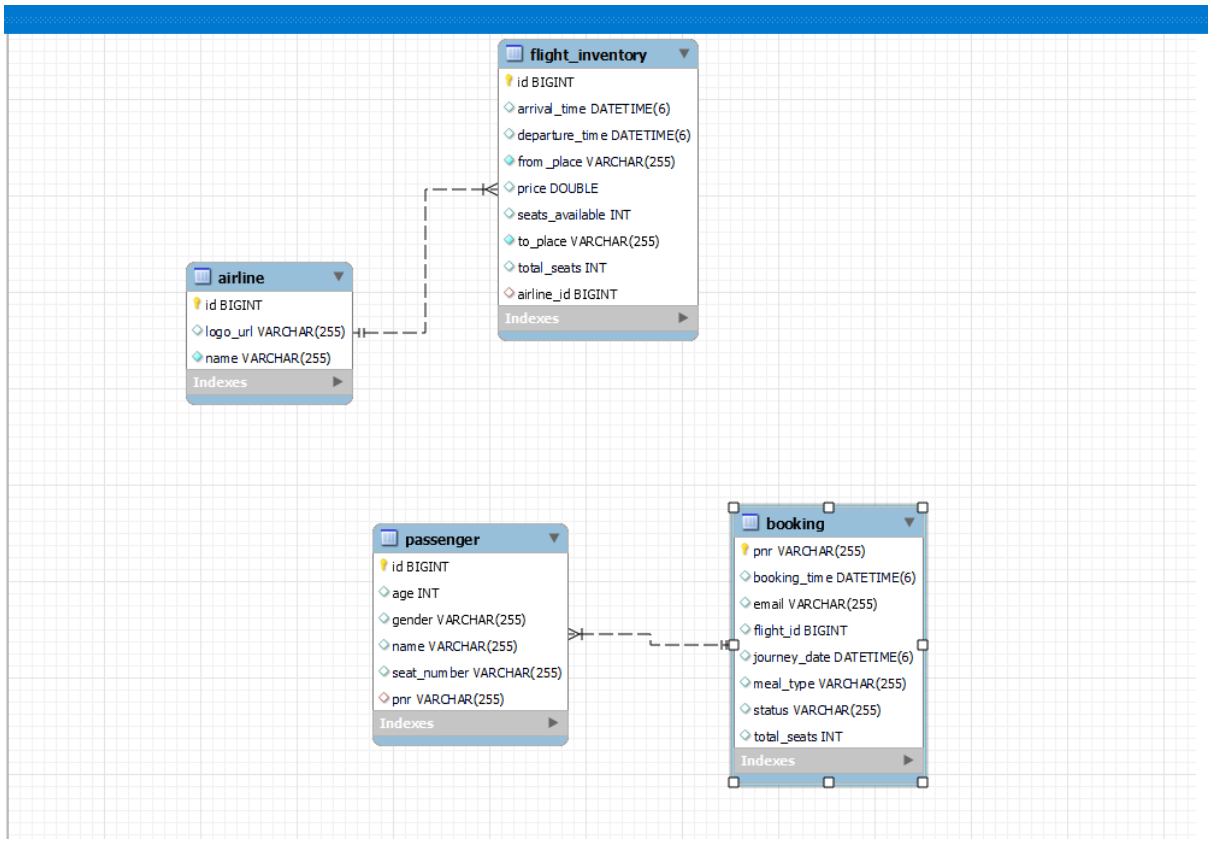
Total passed tests
0
Total failed tests
0

Status code
200

SonarQube for flightservice:



SonarQube for bookingservice:



Mysql for flight db and booking db