Execution Report – Booking API POST /places

Contents

1.Executive summary

- **Always-201 behaviour.** The endpoint returns **201 Created** for any JSON Valid or invalid, giving a functional pass-rate of **2 / 4 (50 %)**.

- **Performance OK.** load test (100 VU, 5 min, 30 s ramp) meets the SLA (**95-percentile = 0 .53 s ≤ 2 s**).

- **Key defects.**
  - No server-side field/date validation.
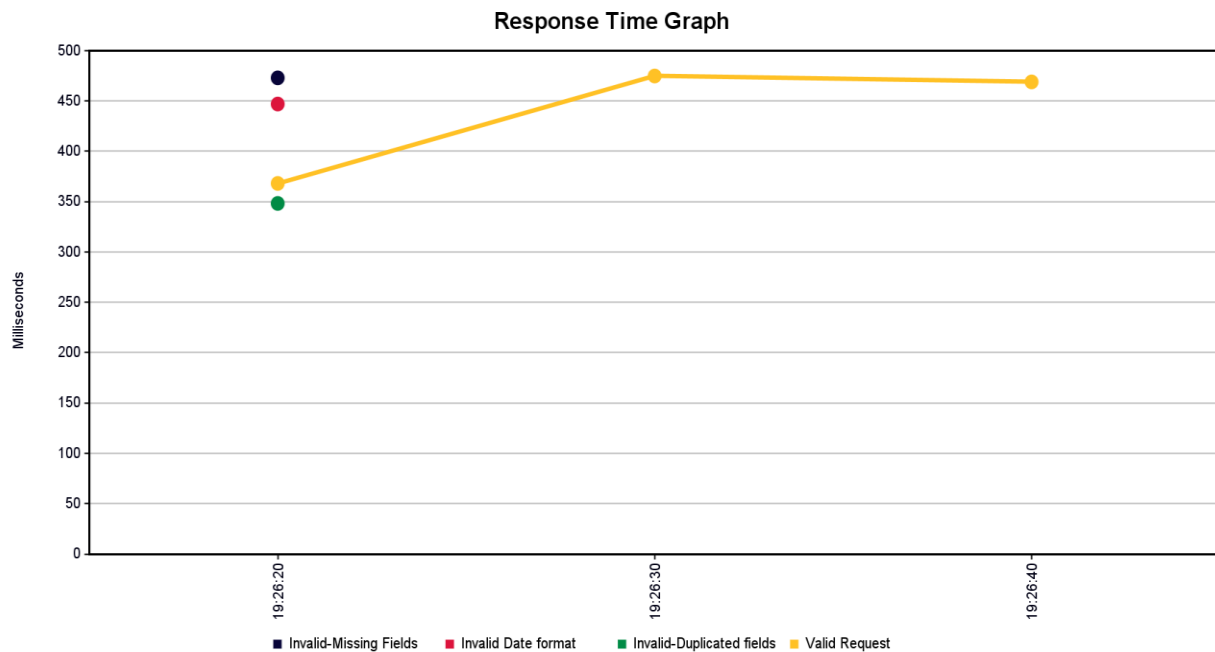 - No uniqueness / idempotency enforcement on (user_id, place_id).

2.Functional testing – Postman collection

TC #	Scenario	Expected HTTP	Actual	Result
01	Valid payload	201	201	Pass
02	Empty-string fields	400	201	Fail
03	Invalid date format	400	201	Fail
04	Large & special IDs *	2xx / 400	201	Pass

Runner outcome: **2 pass / 2 fail** (Booking API Tests.postman_test_run.json).

3.Performance testing – JMeter (100 Threads × 5 min, 30 s ramp)

Metric (valid requests only)	Value
Samples	97
Avg. response time	467 ms
90-percentile	521 ms
95-percentile	533 ms
Max	652 ms
Throughput	3.3 req/s
Error % (valid)	0 %
Error % (overall)*	3.96 %

Response Time Graph

Legend: ■ Invalid-Missing Fields ■ Invalid Date format ■ Invalid-Duplicated fields ■ Valid Request

*The Overall Error is related to Invalid-input samplers fail their assertions (still receive 201).
Documents : summary.csv, aggregate.csv, result.jtl, plus screenshots.

4 Idempotency test – Postman

Step	Request	Expected	Actual	Status
1	POST /places (payload A)	201	201	**Pass**
2	Repeat payload A	409 Conflict	201	**Fail**

Runner export: Test Idempotency.postman_test_run.json.

Finding: duplicates are inserted instead of returning 409.

5.Database-consistency check – JMeter

Variable	Value
createdCount (successful POSTs)	7
id_matchNr (rows from GET /places)	7
JSR223 assertion	**PASS**

Counts align ⇒ no lost writes, but duplicates/invalid rows remain because validation is missing.

6.KPI Performance

KPI	Target	Result	Status
Latency (95 %)	≤ 2 s	0.53 s	**Pass**
Error rate (valid)	< 3 %	0 %	**Pass**
Idempotency	Duplicate → 409	201	**Fail**
Missing Input validation	Reject empty / bad → 400	Accepts →201	**Fail**
DB consistency	POST = GET count	7 = 7 **	**Pass**

7.Recommendations & priority

Priority	Root-cause	Recommendations
P0	**No server-side field/date validation** → empty strings & bad dates accepted.	Implement value validation
P0	**No uniqueness constraint** on (user_id, place_id) → duplicates succeed.	Add DB unique index or application check → return **409 Conflict** on duplicates.

8.Attachments / evidence

File	Description
Booking API Tests.postman_test_run.json	Functional-suite results
Test Idempotency.postman_test_run.json	Duplicate-booking evidence
Bonus-Database summary.csv, Bonus-Database aggregate.csv, Database consistency result1.jtl	
Load Test summary.csv, Load Test aggregate.csv, Load Test result.jtl	Raw JMeter metrics
summary_report.png, aggregate_report.png, results_tree.png	Performance screenshots

10.Assumptions & limitations

- Endpoint is a **MockAPI** instance; latency in production may differ.

- Load test ran from a single machine; no network variance simulated.