

## Tasks with high level complexity

### Task 5

**Travel Booking Application:** Develop a travel booking platform using **Spring Boot** and **REST** services. The application should allow users to search for flights, hotels, and rental cars. The system should also integrate with a third-party service, such as **Expedia**, to retrieve real-time availability and pricing information.

ChatGPT conversation log file: <https://chat.openai.com/share/53b5977a-7884-4cae-8122-b72aaab59497>

Tested some of the endpoints and they seem to be working:

The screenshot displays a REST client interface with the following details:

- Request:**
  - Method: POST
  - URL: http://localhost:8080/flights/add
  - Body (JSON):

```
1 {
2   "airline": "Cathay Pacific",
3   "origin": "Doha",
4   "destination": "Amsterdam",
5   "departureTime": "2023-12-08T10:15:30",
6   "arrivalTime": "2023-12-08T10:25:30",
7   "price": 2000.0
8 }
9
```
- Response:**
  - Status: 200 OK
  - Time: 365 ms
  - Size: 330 B
  - Body (JSON):

```
1 {
2   "id": 1,
3   "airline": "Cathay Pacific",
4   "origin": "Doha",
5   "destination": "Amsterdam",
6   "departureTime": "2023-12-08T10:15:30",
7   "arrivalTime": "2023-12-08T10:25:30",
8   "price": 2000.0
9 }
```

travel-bookings / Post / POST Hotels

POST http://localhost:8080/hotels/add

Params Authorization Headers (9) Body Pre-request Script Tests Settings Cookies

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

```
1 {
2   "name": "Belvedere",
3   "location": "Amsterdam",
4   "capacity": "2000",
5   "pricePerNight": 100
6 }
```

Body Cookies Headers (5) Test Results Status: 200 OK Time: 12 ms Size: 252 B Save as example

Pretty Raw Preview Visualize JSON

```
1 {
2   "id": 1,
3   "name": "Belvedere",
4   "location": "Amsterdam",
5   "capacity": 2000,
6   "pricePerNight": 100.0
7 }
```

travel-bookings / Post / POST RentalCars

POST http://localhost:8080/rental-cars/add

Params Authorization Headers (9) Body Pre-request Script Tests Settings Cookies

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

```
1 {
2   "brand": "Volkswagen",
3   "model": "Passat",
4   "capacity": 4,
5   "dailyRate": 20.55
6 }
```

Body Cookies Headers (5) Test Results Status: 200 OK Time: 13 ms Size: 241 B Save as example

Pretty Raw Preview Visualize JSON

```
1 {
2   "id": 1,
3   "brand": "Volkswagen",
4   "model": "Passat",
5   "capacity": 4,
6   "dailyRate": 20.55
7 }
```

POST POST FilGET SEARCHGET SEARCHGET SEARCHPOST POST HoPOST POST ReGET GET All Fil+No Environment

travel-booking / GET / GET All Flights

GEThttp://localhost:8080/flights/allSend

ParamsAuthorizationHeaders (7)BodyPre-request ScriptTestsSettingsCookies</>

Query Params

	Key	Value	Description	...	Bulk Edit
	Key	Value	Description		

BodyCookiesHeaders (5)Test ResultsStatus: 200 OKTime: 140 msSize: 332 BSave as example\*\*\*

PrettyRawPreviewVisualizeJSON

```
1 [
2   {
3     "id": 1,
4     "airline": "Cathay Pacific",
5     "origin": "Doha",
6     "destination": "Amsterdam",
7     "departureTime": "2025-12-08T10:15:30",
8     "arrivalTime": "2025-12-08T10:25:30",
9     "price": 2000.0
10  }
11 ]
```

PostbotRunnerAuto-select agentCookiesTrash

POST POSTGET SEARCHGET SEARCHGET SEARCHPOST POSTPOST POSTGET GET AllGET GET All+No Environment

travel-booking / GET / GET All Hotels

GEThttp://localhost:8080/hotels/allSend

ParamsAuthorizationHeaders (7)BodyPre-request ScriptTestsSettingsCookies</>

noneform-datax-www-form-urlencodedrawbinaryGraphQL

This request does not have a body

BodyCookiesHeaders (5)Test ResultsStatus: 200 OKTime: 7 msSize: 254 BSave as example\*\*\*

PrettyRawPreviewVisualizeJSON

```
1 [
2   {
3     "id": 1,
4     "name": "Belvedere",
5     "location": "Amsterdam",
6     "capacity": 2000,
7     "pricePerNight": 100.0
8   }
9 ]
```

PostbotRunnerAuto-select agentCookiesTrash

travel-booking / GET / Get All RentalCars

GEThttp://localhost:8080/rental-cars/all

Send

ParamsAuthorizationHeaders (7)BodyPre-request ScriptTestsSettingsCookies

Query Params

	Key	Value	Description	...	Bulk Edit
	Key	Value	Description		

BodyCookiesHeaders (5)Test Results

Status: 200 OKTime: 11 msSize: 243 BSave as example

PrettyRawPreviewVisualizeJSON

```
1 [
2   {
3     "id": 1,
4     "brand": "Volkswagen",
5     "model": "Passat",
6     "capacity": 4,
7     "dailyRate": 20.55
8   }
9 ]
```

PostbotRunnerAuto-select agentCookiesTrash

travel-booking / Search / SEARCH Flights

GEThttp://localhost:8080/flights/search?origin=Doha&destination=Amsterdam

Send

ParamsAuthorizationHeaders (7)BodyPre-request ScriptTestsSettingsCookies

Query Params

	Key	Value	Description	...	Bulk Edit
<input checked="" type="checkbox"/>	origin	Doha			
<input checked="" type="checkbox"/>	destination	Amsterdam			
	Key	Value	Description		

BodyCookiesHeaders (5)Test Results

Status: 200 OKTime: 57 msSize: 332 BSave as example

PrettyRawPreviewVisualizeJSON

```
1 [
2   {
3     "id": 1,
4     "airline": "Cathay Pacific",
5     "origin": "Doha",
6     "destination": "Amsterdam",
7     "departureTime": "2025-12-03T10:15:30",
8     "arrivalTime": "2025-12-03T10:25:30",
9     "price": 2000.0
10  }
11 ]
```

travel-bookings / Search / **SEARCH Hotels**

GET http://localhost:8080/hotels/search?location=Amsterdam Send

Params Authorization Headers (7) Body Pre-request Script Tests Settings Cookies

Query Params

	Key	Value	Description	...	Bulk Edit
<input checked="" type="checkbox"/>	location	Amsterdam			
	Key	Value	Description		

Body Cookies Headers (5) Test Results Status: 200 OK Time: 8 ms Size: 254 B Save as example

Pretty Raw Preview Visualize JSON

```
1 {
2   {
3     "id": 1,
4     "name": "Belvedere",
5     "location": "Amsterdam",
6     "capacity": 2000,
7     "pricePerNight": 100.0
8   }
9 }
```

travel-bookings / Search / **SEARCH RentalCars**

GET http://localhost:8080/rental-cars/search?capacity=4 Send

Params Authorization Headers (7) Body Pre-request Script Tests Settings Cookies

Query Params

	Key	Value	Description	...	Bulk Edit
<input checked="" type="checkbox"/>	capacity	4			
	Key	Value	Description		

Body Cookies Headers (5) Test Results Status: 200 OK Time: 13 ms Size: 243 B Save as example

Pretty Raw Preview Visualize JSON

```
1 {
2   {
3     "id": 1,
4     "brand": "Volkswagen",
5     "model": "Passat",
6     "capacity": 4,
7     "dailyRate": 20.55
8   }
9 }
```

Used JaCoCo for test coverage and it's at 98%:

travel-booking

Element	Missed Instructions	Cov.	Missed Branches	Cov.	Missed	Cxty	Missed	Lines	Missed	Methods	Missed	Classes
com.example.travelbooking	<div><div></div></div>	37%		n/a	1	2	2	3	1	2	0	1
com.example.travelbooking.model	<div><div></div></div>	100%		n/a	0	40	0	26	0	40	0	3
com.example.travelbooking.controller	<div><div></div></div>	100%		n/a	0	21	0	24	0	21	0	3
com.example.travelbooking.service	<div><div></div></div>	100%		n/a	0	18	0	21	0	18	0	3
Total	5 of 387	98%	0 of 0	n/a	1	81	2	74	1	81	0	10