A tropical beach at sunset. The sky is a mix of deep blue and orange, with scattered white clouds. The ocean is dark with white foam from the waves. On the right, there are several palm trees and large rocks. The text "A Journey to the Future" is centered in the upper half of the image, with a small orange square before the letter 'A'.

A Journey to the Future

---

# Reisebüro Reis

---

# Agenda for Today

A Journey to the Future



**01** **Introduction**  
Welcome, Meet the  
Team

**02** **Storyline**  
Our Journey to the  
Future

**03** **Our Approach**  
Roadmap of the  
Project

**04** **UI**  
Mockup, UML,  
Demo

**05** **API**  
Idea, Demo

# Welcome to “Völkerswalden an der Südlichen Weinstraße”

## Fibre Optic Cable

for the 2.000 citizens

How can we help digitalize the local jobs?

Where can software be utilized?

How can the locals work together?

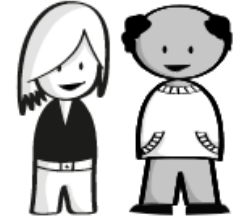
And where can interfaces be used?

Let's start



**Mia Reis**

Travel Agency



**Michelle & Max  
Merlot**

Winery



**Bruno Bärber**

Barber

## Digitalization



**Familie Gelatelli**

Ice-Cream Shop



**Dr. Carla von  
Bettwitz**

Hotel Owner





# Reisebüro Reis

A Journey to the future

# Meet the Team

Contributors to the project



**Anna Gossner**

Frontend Developer, BASF



**Cedrik Baedorf**

Backend Developer, SAP



**Florian Veitz**

Backend Developer, SAP



**Jonas Becker**

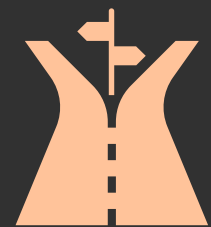
Frontend Developer, BASF





## Storyline

Join us on our journey to the future



TRA

VEL

# Digital Solution

What problems get solved through the software for Mia Reis and her employees?

Before:

**Paper-  
work**

A lot of it.

Now:

**One  
System**

Everything in one place.  
Digitalized.

**Sustainable**



**Efficient**



**Flexible**



**Satisfactory**

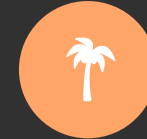


# Improvements for the Travel Agency



## **Sustainability**

No more paperwork



## **Flexibility**

Customer wishes can be  
changed quickly



## **Efficiency**

As a result of optimized  
working processes



## **Satisfaction**

Satisfied employees, as  
well as customers





## Our Approach

How did we turn our ideas into code?



# Our Journey

01

## Idea

- Collecting ideas for the software:
  - Who is it for?
  - What processes should it include?
- Brainstorming about interfaces & possible connections
- Setting up a GitHub repository
- Division of tasks

02

## Modeling

- Use Case Diagram
- Use Case Documents
- Class Diagram
- Entity Relationship Model

## Programming

- JPA Entities
- Junit Tests
- Frontend: JavaFX
- Backend

## Mockup

Designing a mockup for the different use cases,  
as well as alternative flows & errors



## Backend

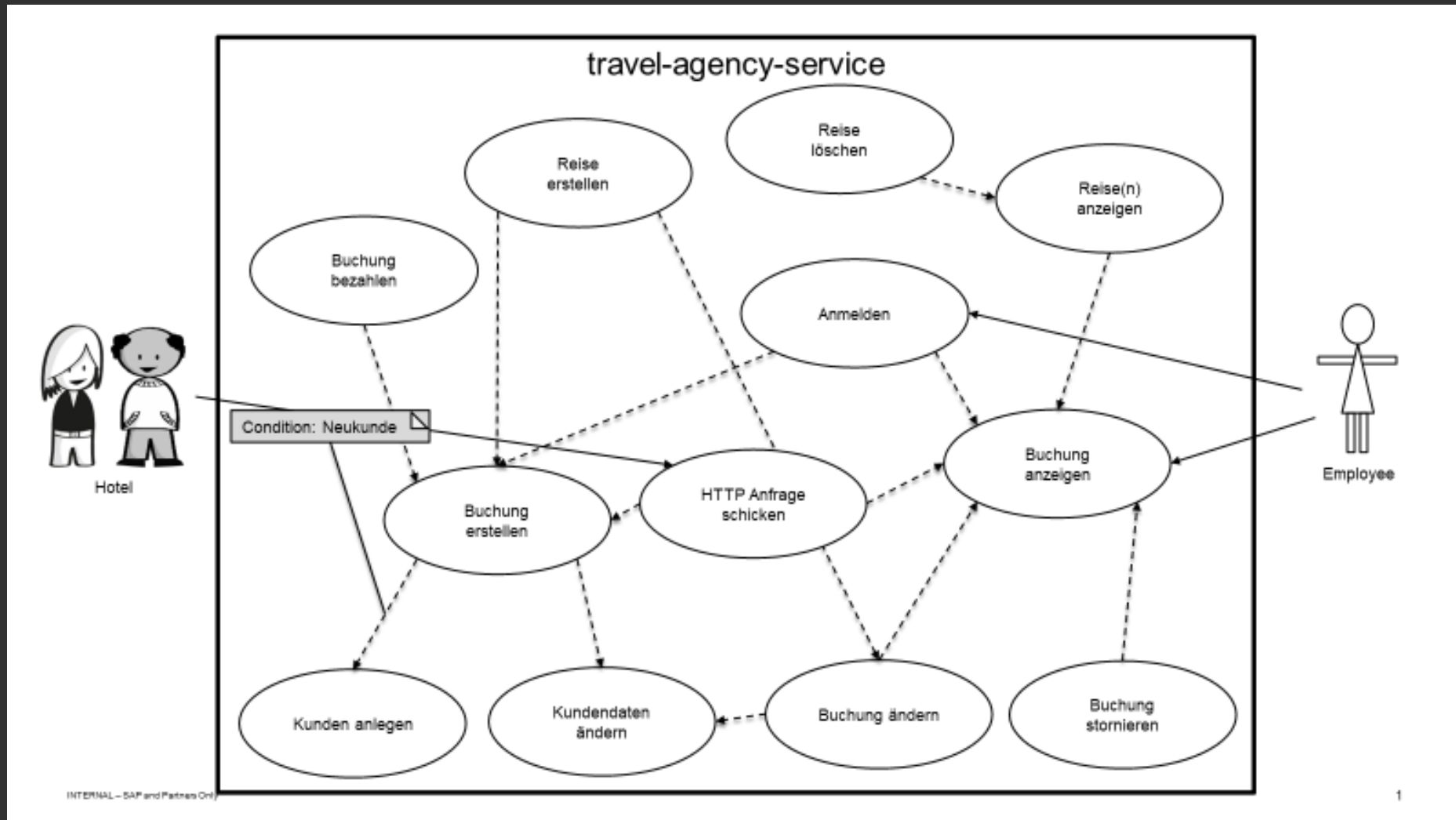
- Database
- Server
- API

03

04



# Use Cases

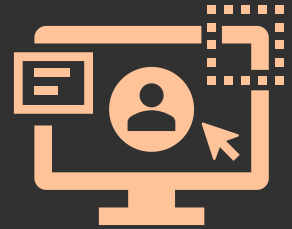




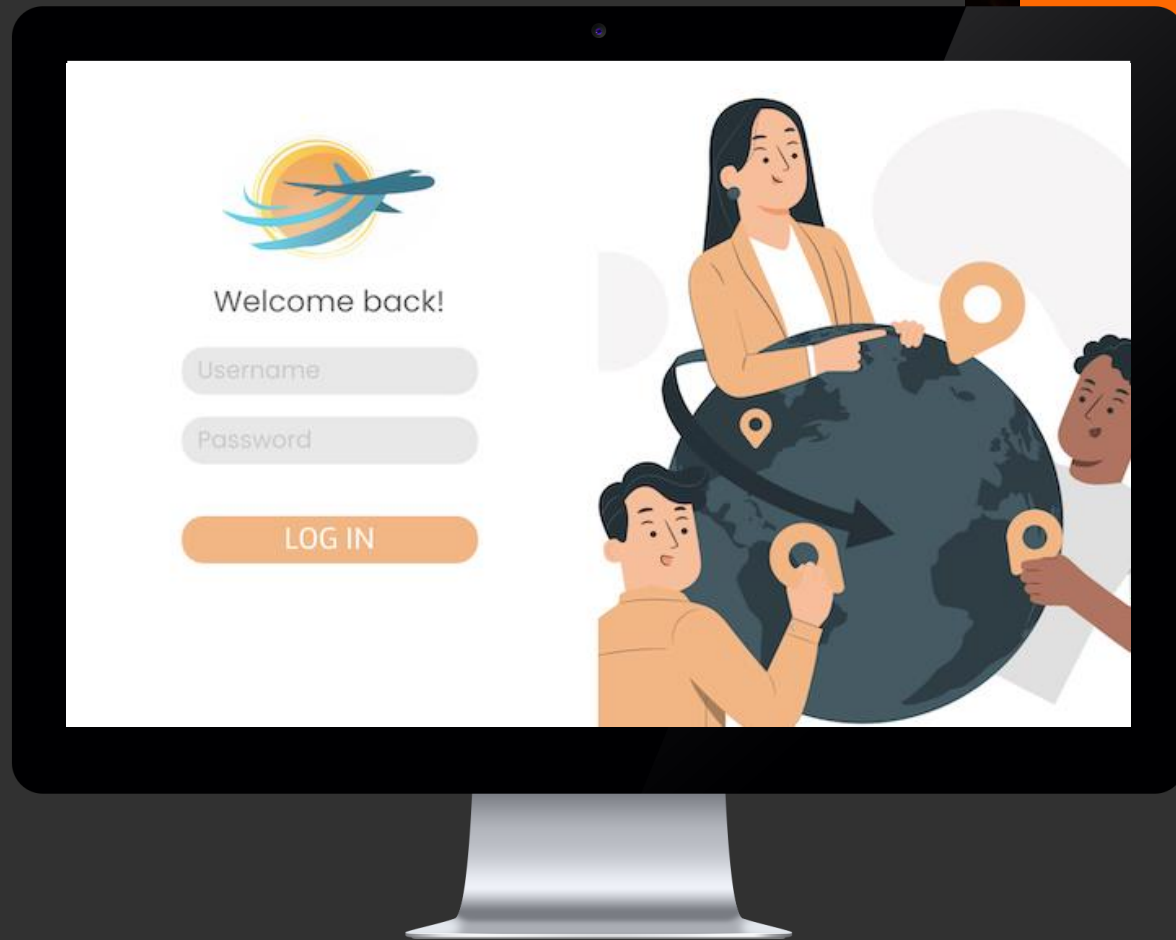
## UI

User Interface

Mockup, Database Model and Demo



# UI Mockup Demo



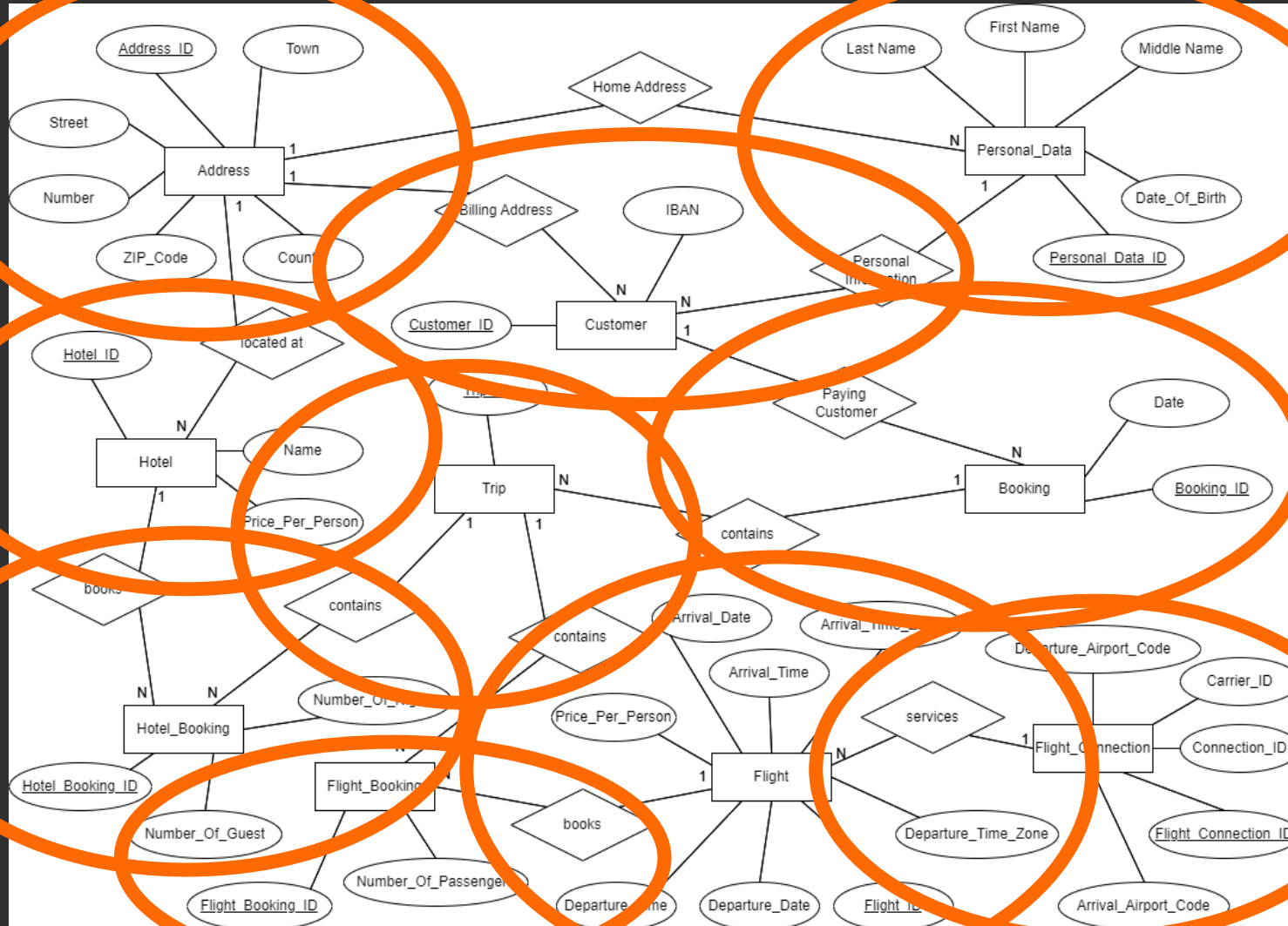
Mockup



# Database Model

## Entities

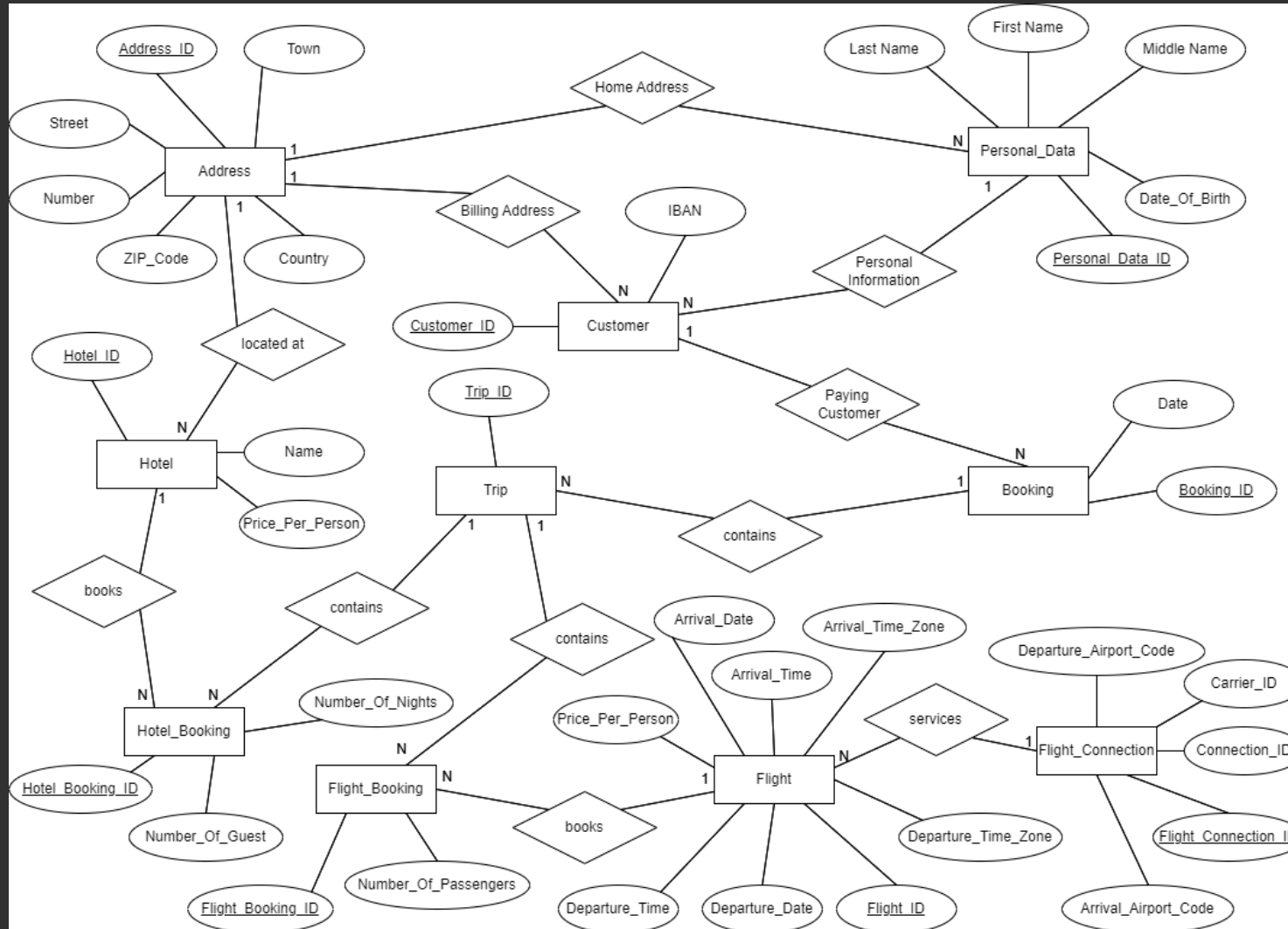
- Address
- Personal data
- Customer
- Hotel
- Hotel booking
- Flight connection
- Flight
- Flight booking
- Trip
- Booking



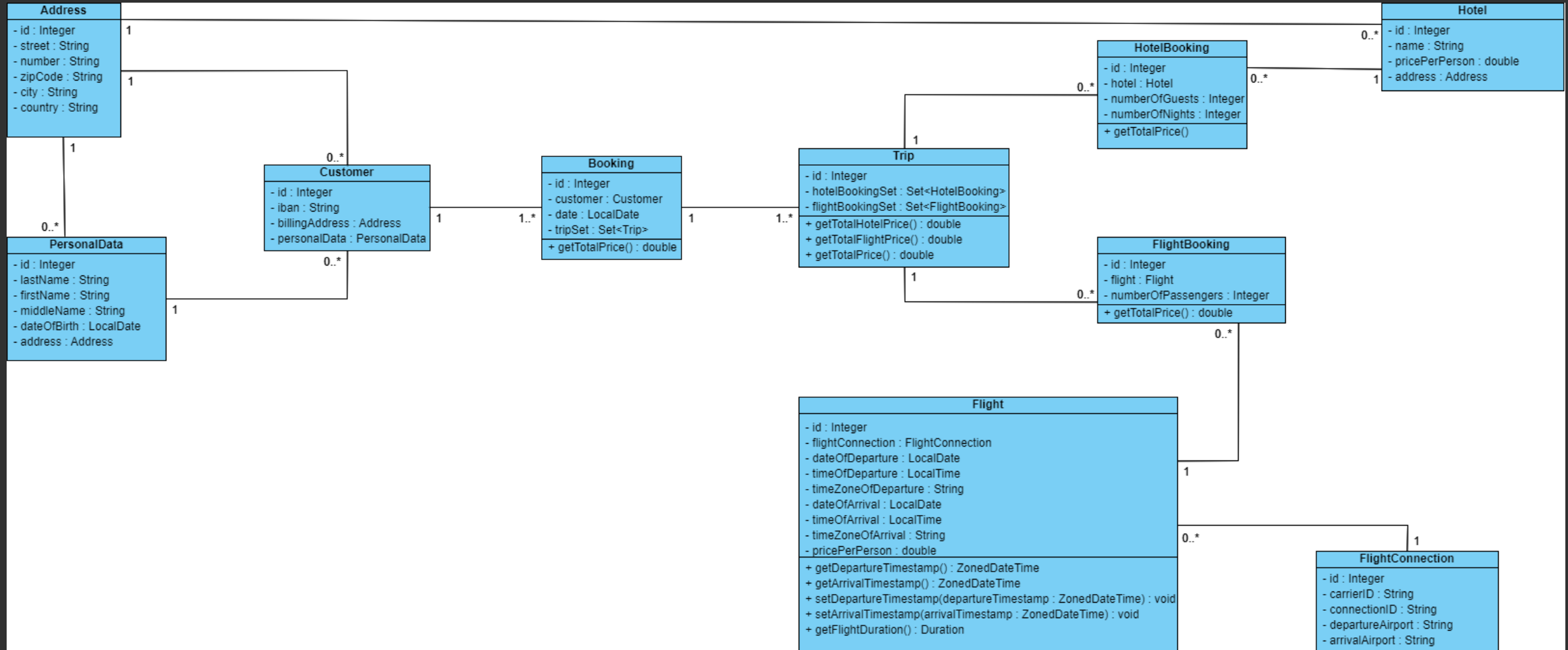
# Database Model

## Entities

- Address
- Personal data
- Customer
- Hotel
- Hotel booking
- Flight connection
- Flight
- Flight booking
- Trip
- Booking

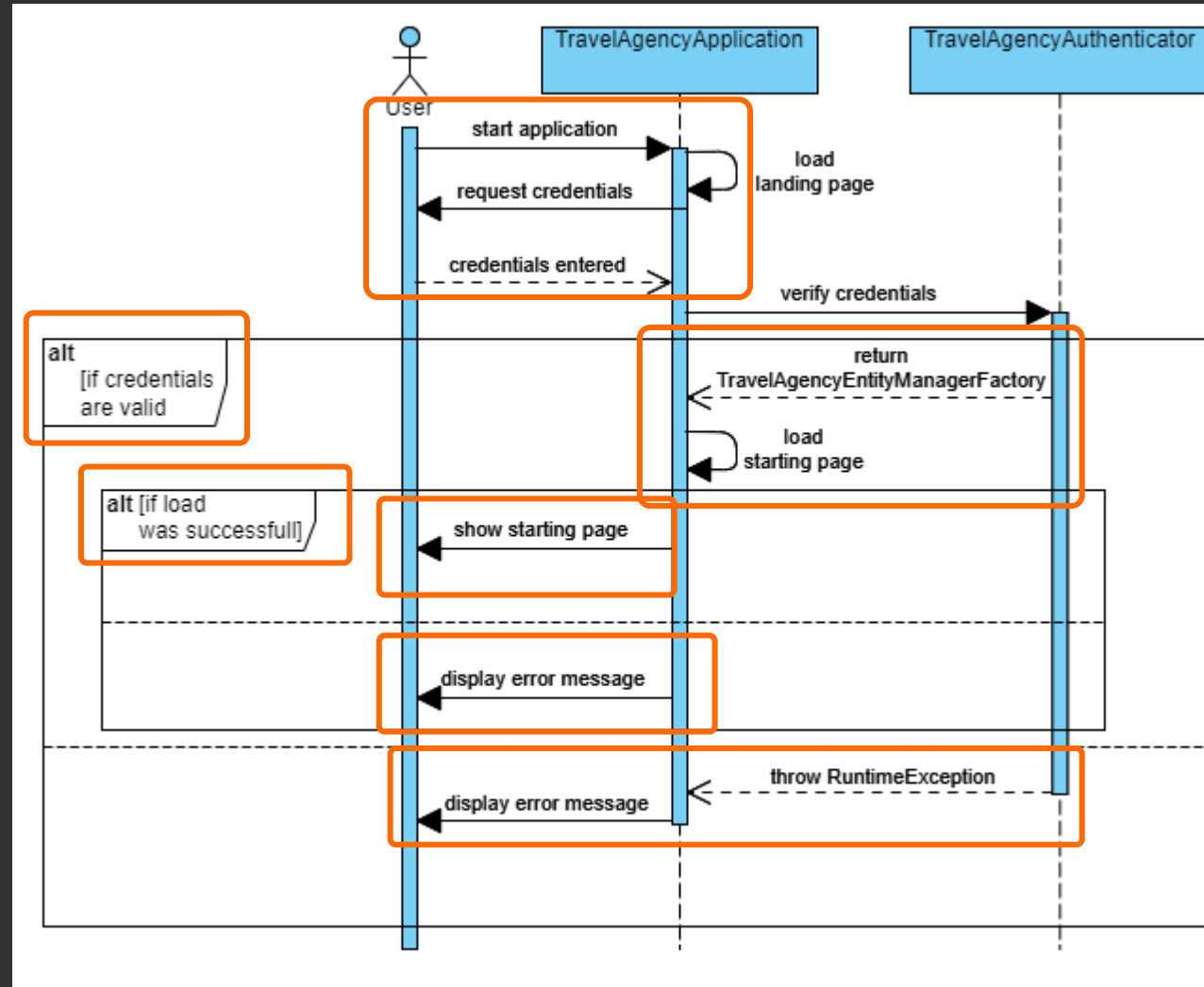


# Database Model

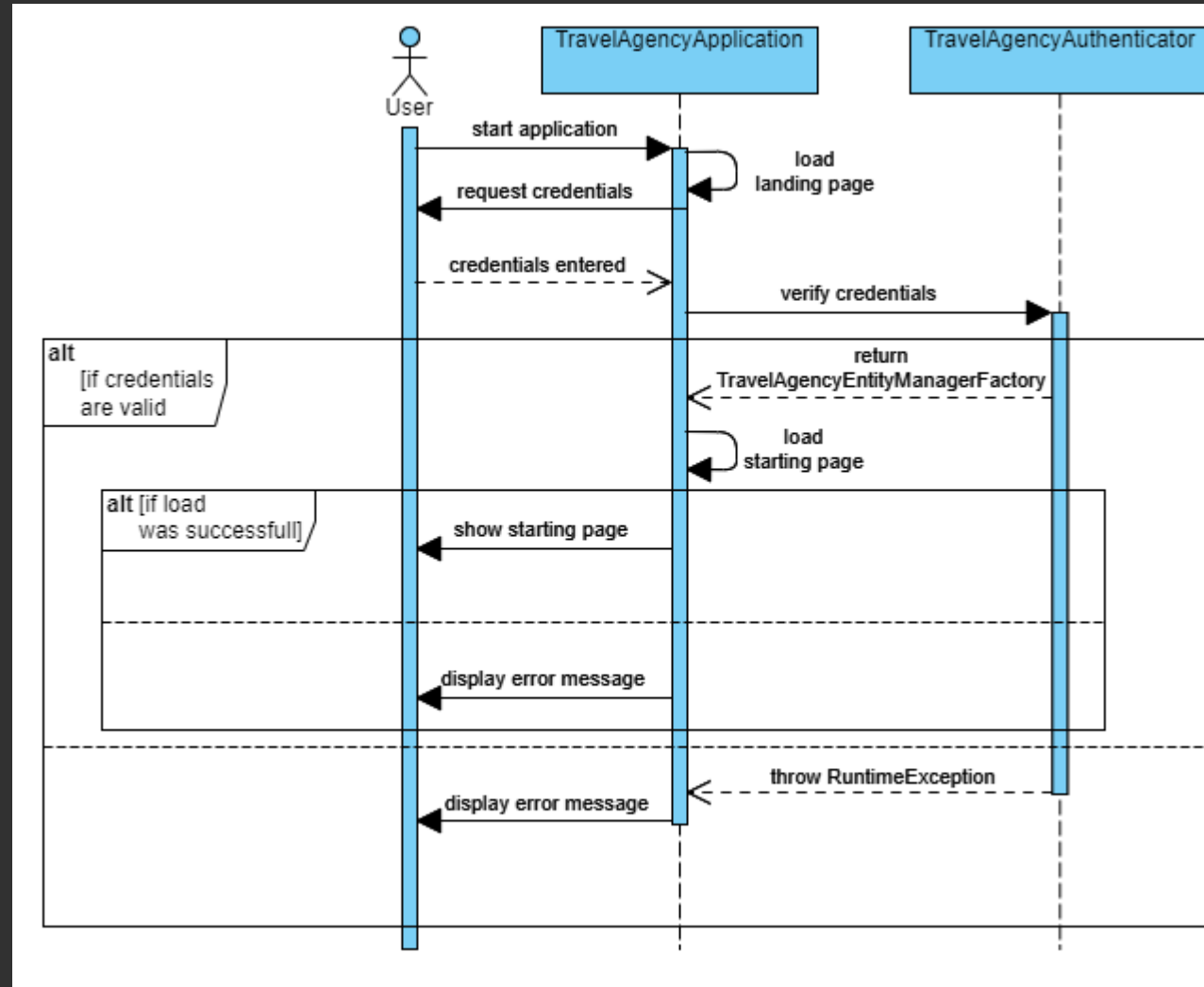




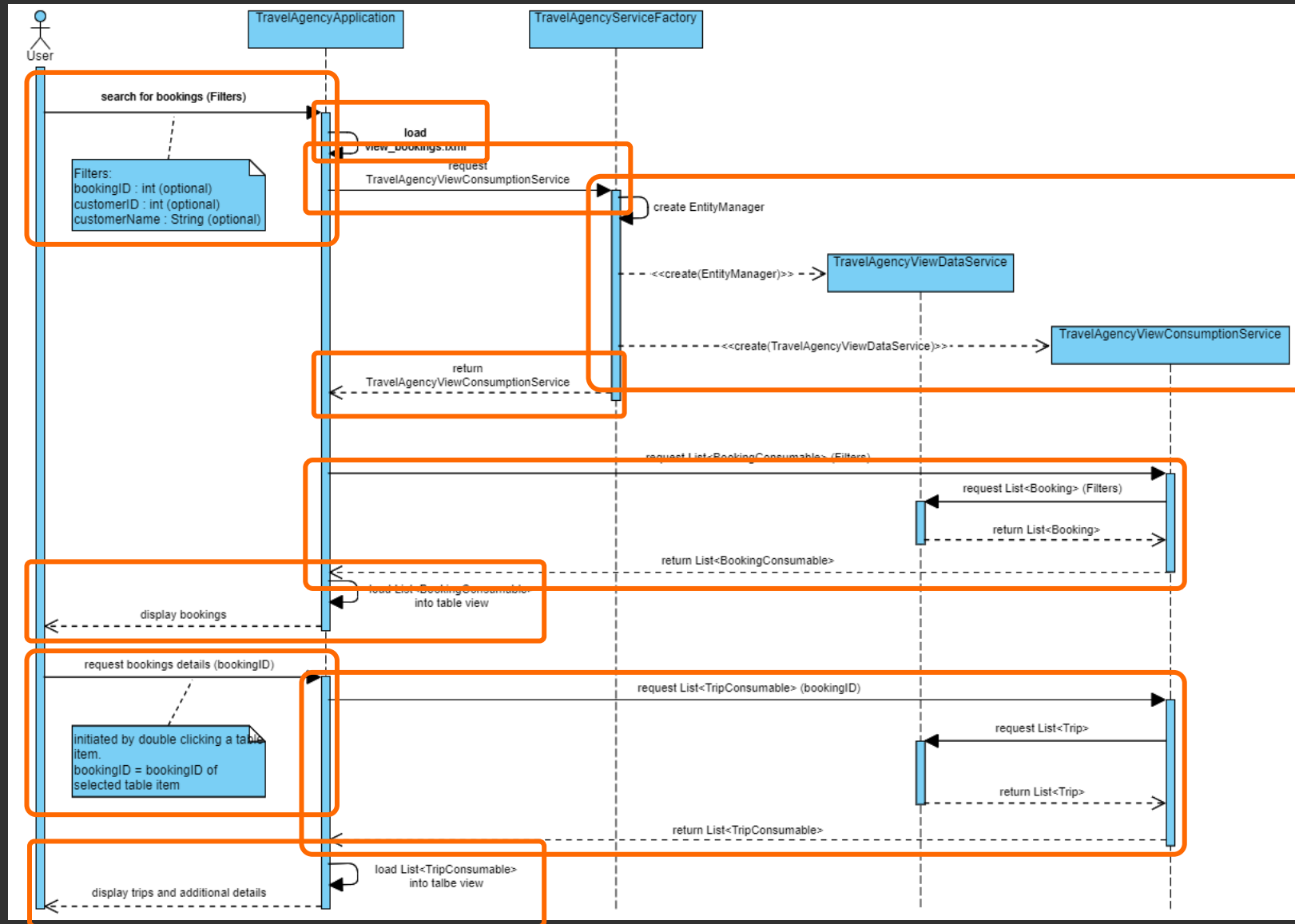
# Login Process



# Login Process

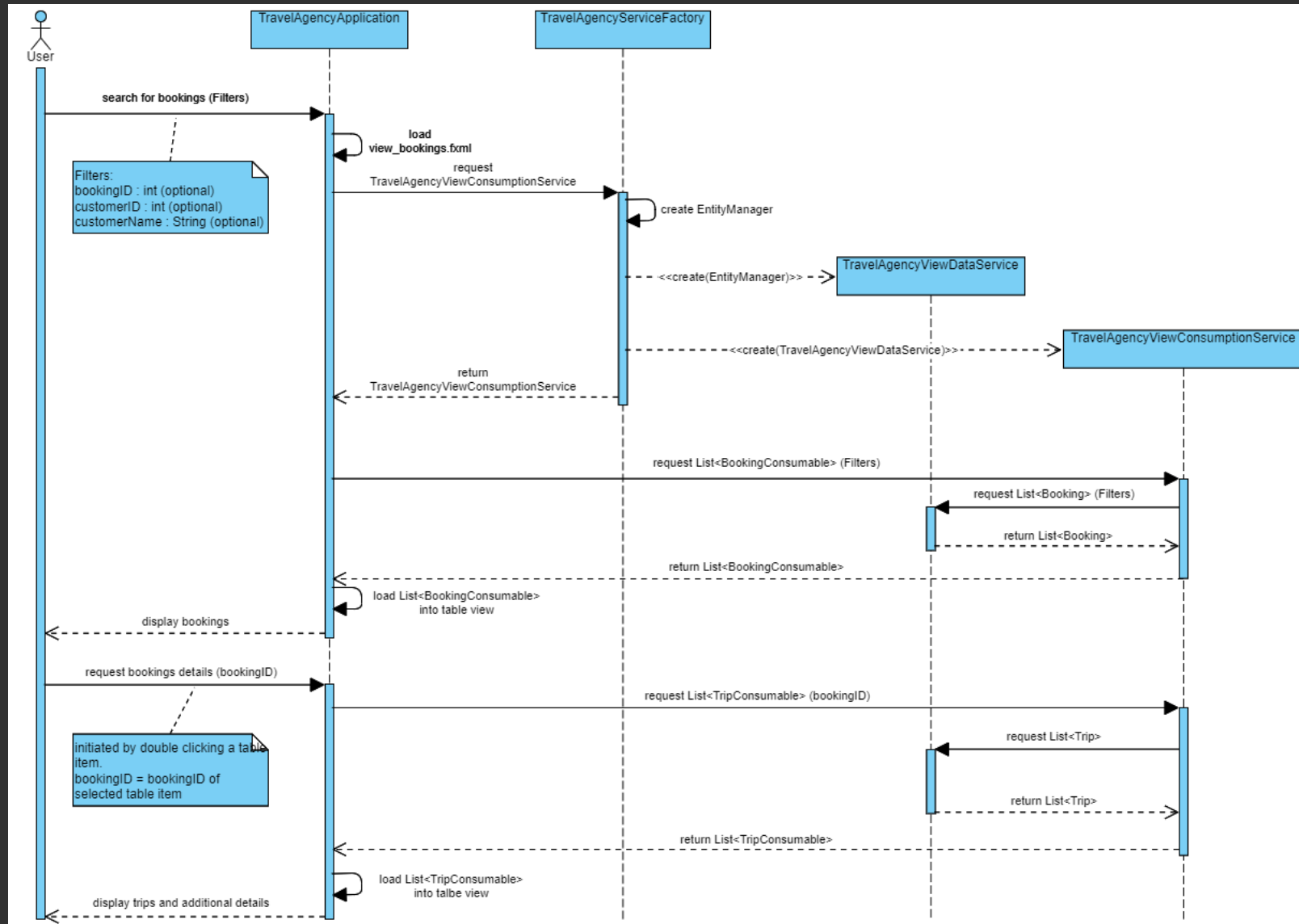


# Service Process

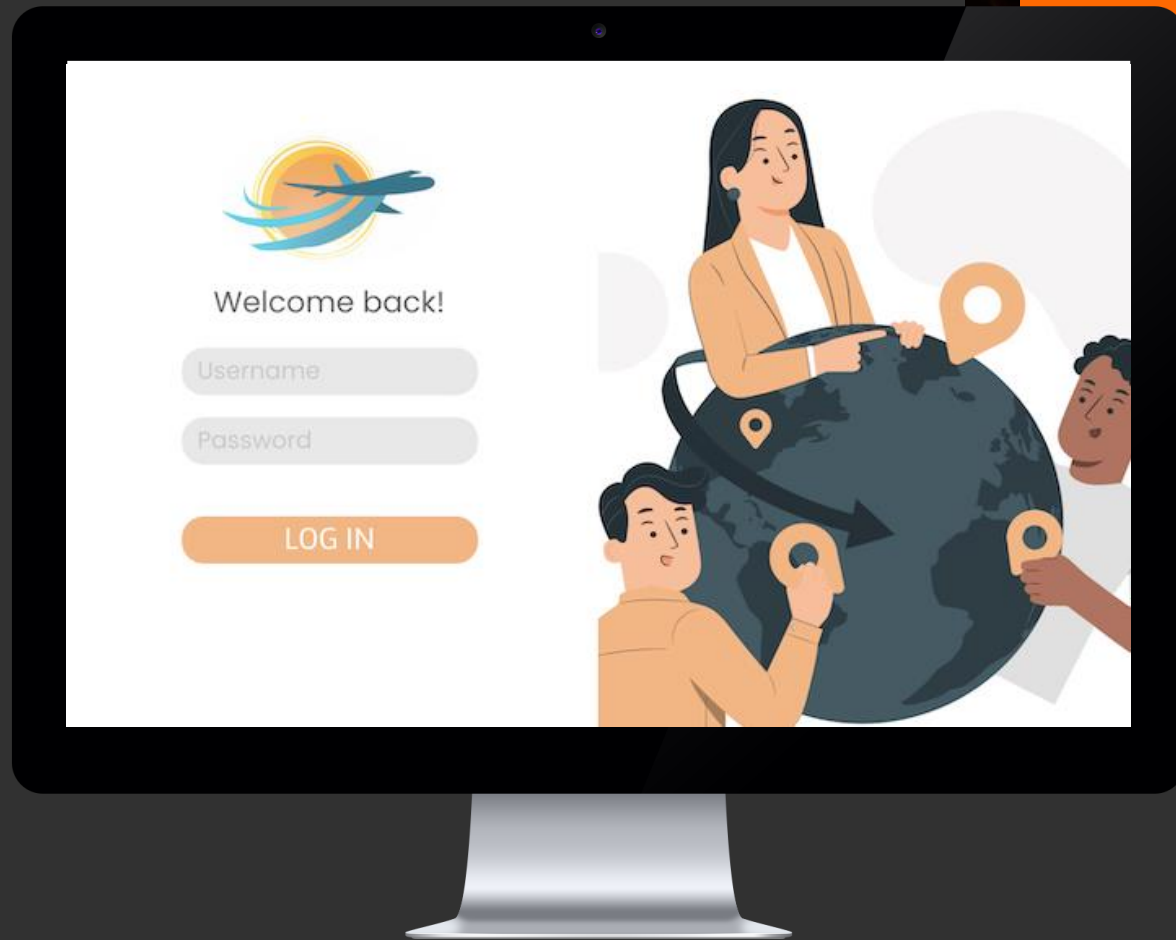




# Service Process



# UI Demo





# API

Application Programming Interface

API Ideas, Demo



# Building Bridges.

How can we adapt to a changing and more sustainable world?

By building bridges and leveraging the benefits of digital transformation.



**Dr. Carla von Bettwitz**  
Hotel Owner

## Data exchange

Employees of the hotel can use the software to book flights & hotels for their customers. Third parties can use our API to benefit from our solution.



### Better service

*For the customers & enterprises*

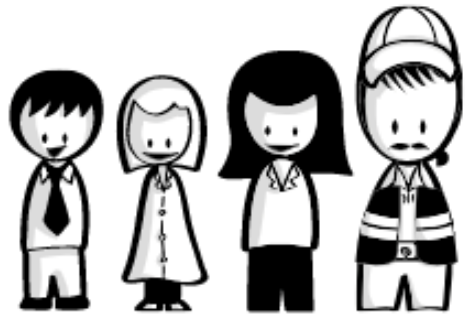


### Shared system

*Shared data and platform*

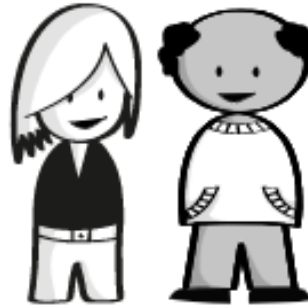


# Other Possible Interfaces



**Famille Gelatelli**

Ice-Cream Shop



**Michelle & Max  
Merlot**

Winery

## Voucher Campaign

Every customer receives a voucher for either the ice-cream shop or the winery.



## Support

*Supporting the other local businesses*



## Customer Value

*Increase of customer value and loyalty*

# API Demo

Start





Thank you  
for  
your  
attention!

Any questions?

http://localhost:8500/getBookings

Send

200 OK

153 ms

15.6 KB

ly ▼

Auth ▼

Query <sup>2</sup>

Headers

Docs

URL PREVIEW

http://localhost:8500/getBookings?username=demo&password=123



Add

Delete All

Toggle Description

username

demo



password

123



Preview ▼


Headers <sup>2</sup>

Cookies

Timeline

```
1 [
2 {
3   "date": "2023-02-01",
4   "price": 17589.75,
5   "trips": [
6     {
7       "flights_price": 3000.0,
8       "flight_bookings": [
9         {
10          "flight": {
11            "flight_connection": {
12              "id": 1,
13              "carrierID": "LH",
14              "connectionID": "1007",
15              "departureAirport": "FRA",
16              "arrivalAirport": "LAX"
17            },
18            "departure_timestamp": "2023-05-01T12:45+02:00[UTC+02:00]",
19            "price": 749.99,
20            "arrival_timestamp": "2023-05-01T15:15-07:00[UTC-07:00]",
21            "id": 1
22          },
23          "passengers": 2,
24          "price": 1499.98,
25          "id": 1
26        }
27      ],
28      "hotels_price": 3000.0,
29      "id": 1,
30      "hotel_bookings": [
31        {
32          "id": 1,
33          "hotel": {
34            "id": 1,
35            "name": "Excelsior Hotel Ernst",
36            "pricePerPerson": 500.0,
37            "address": {
38              "id": 5.
```




GET  http://localhost:8500/getBookings


Send 

401 Unauthorized

2.43 ms

28 B


Body 

Auth 

Query <sup>2</sup>

Headers

Docs

Preview 

Headers <sup>2</sup>

Cookies

URL PREVIEW

http://localhost:8500/getBookings?username=wronguser&password=wrongpassword



Add

Delete All

Toggle Description

username

wronguser




password

wrongpassword



<sup>1</sup> Invalid credentials provided


GET  http://localhost:8500/getBookings


Send 

401 Unauthorized

3.06 ms

28 B


Body 

Auth 

Query <sup>2</sup>

Headers

Docs

Preview 

Headers <sup>2</sup>

Cookies

URL PREVIEW

http://localhost:8500/getBookings



Add

Delete All

Toggle Description

name

value




name

value



1 Invalid credentials provided


GET  http://localhost:8500/getAddresses


Send

404 Not Found

1.49 ms

50 B


Body 

Auth 

Query <sup>2</sup>

Headers

Docs

Preview 

Headers <sup>2</sup>

Cookies

#### URL PREVIEW

http://localhost:8500/getAddresses?username=demo&password=123



Add

Delete All

Toggle Description

username

demo



password

123



# 404 Not Found

No context found for request