

EIST – T02 Team Project

Flight System GAFIS

Scrumbags

Technische Universität München

29 July 2022

Outline

Problem Statement

High-Level Objectives

- Back-End

- Front-End

Functional Requirements

- Flights

- Logged-in Functionality

- General Functionality

System Design

- Analysis Object Model

- Top Level Design

- Communication Model

Demonstration

Current Status and Future Work

Outline

Problem Statement

High-Level Objectives

- Back-End

- Front-End

Functional Requirements

- Flights

- Logged-in Functionality

- General Functionality

System Design

- Analysis Object Model

- Top Level Design

- Communication Model

Demonstration

Current Status and Future Work

Flight System

Design a system to make traveling via airplane more pleasant

- ▶ Get Information about the current flight
- ▶ Get points of interest at destination
- ▶ Create flight journeys
- ▶ Enjoy movies, food and drinks
- ▶ ...

Outline

Problem Statement

High-Level Objectives

- Back-End

- Front-End

Functional Requirements

- Flights

- Logged-in Functionality

- General Functionality

System Design

- Analysis Object Model

- Top Level Design

- Communication Model

Demonstration

Current Status and Future Work

Outline

Problem Statement

High-Level Objectives

- Back-End

- Front-End

Functional Requirements

- Flights

- Logged-in Functionality

- General Functionality

System Design

- Analysis Object Model

- Top Level Design

- Communication Model

Demonstration

Current Status and Future Work

Weather, Movies, Flights, Maps, POIs

Fetch and present data from external services

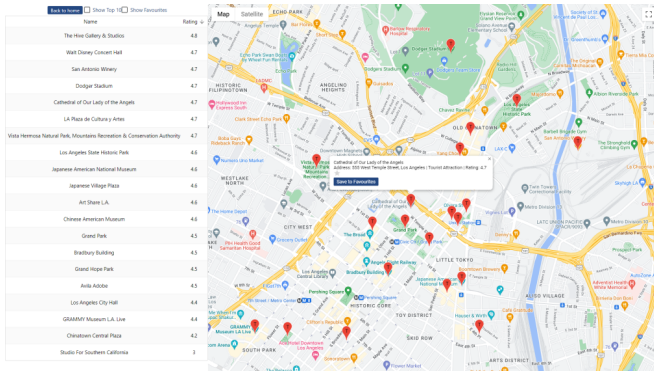


Figure: Points of interest at destination

Flight information and Survey

Create a login system

- ▶ Extend system functionality if logged in
- ▶ Grant persistence of information

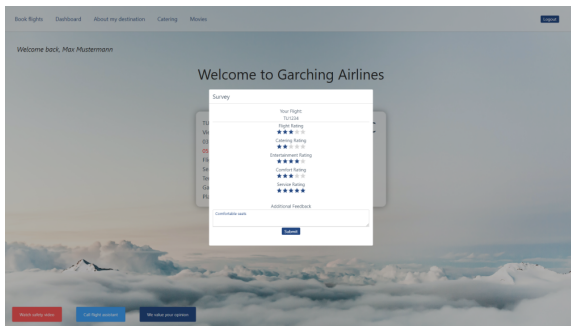


Figure: Logged-in users can take a survey

Outline

Problem Statement

High-Level Objectives

Back-End

Front-End

Functional Requirements

Flights

Logged-in Functionality

General Functionality

System Design

Analysis Object Model

Top Level Design

Communication Model

Demonstration

Current Status and Future Work

Intuitive to use and easy to understand

- ▶ Complete all interactions in < 3 clicks

Outline

Problem Statement

High-Level Objectives

- Back-End

- Front-End

Functional Requirements

- Flights

- Logged-in Functionality

- General Functionality

System Design

- Analysis Object Model

- Top Level Design

- Communication Model

Demonstration

Current Status and Future Work

Outline

Problem Statement

High-Level Objectives

- Back-End

- Front-End

Functional Requirements

- Flights**

- Logged-in Functionality

- General Functionality

System Design

- Analysis Object Model

- Top Level Design

- Communication Model

Demonstration

Current Status and Future Work

Flights

- ▶ Show flight information
- ▶ Build flight trips from hand-picked flights
- ▶ Display destination information

The screenshot displays a flight booking application. On the left, a 'Book flights' form is visible with fields for 'From' (Berlin (BER)), 'To' (Ontario (ONT)), and 'Date' (28-07-2022). Below the form, a list of flights is shown, each with an airline, flight number, and a green 'Add to journey' button. The flights listed are:

- CA7777 | Claudian Air
- OC1849 | OCamIFly
- OF7662 | OnlyFlights
- TU1105 | TUMAir
- XA6741 | Excellence Airways

On the right, a map of Europe shows flight paths connecting various cities. Below the map, a table lists the flight details:

Number	Start	End	Departure
AC3755	Berlin	New York	22/07/2022
HA2309	New York	Los Angeles	22/07/2022
FW5236	Los Angeles	Bogota	22/07/2022
OF3301	Bogota	Conakry	22/07/2022
CA7681	Conakry	Marseille	27/07/2022
CA1209	Marseille	Athens	30/07/2022
699325	Athens	Berlin	30/07/2022

Buttons for 'Continue your flight' and 'Save journey' are located at the bottom of the map section.

Figure: Build flight journeys

Outline

Problem Statement

High-Level Objectives

Back-End

Front-End

Functional Requirements

Flights

Logged-in Functionality

General Functionality

System Design

Analysis Object Model

Top Level Design

Communication Model

Demonstration

Current Status and Future Work

Feedback

- Take survey on flight comfort, catering, ...

The screenshot shows a user interface for 'Garching Airlines'. At the top, there is a navigation bar with links: 'Book flights', 'Dashboard', 'About my destination', 'Catering', 'Movies', and a 'Logout' button. Below the navigation bar, a message says 'Welcome back, Max Mustermann'. The main heading is 'Welcome to Garching Airlines'. A 'Survey' modal is open in the center, containing the following sections:

- Your Flight:** TU1234
- Right Rating:** ★★★★★ (5/5)
- Catering Rating:** ★★★★★ (5/5)
- Entertainment Rating:** ★★★★★ (5/5)
- Comfort Rating:** ★★★★★ (5/5)
- Service Rating:** ★★★★★ (5/5)
- Additional Feedback:** A text input field containing 'comfortable seats'.

At the bottom of the modal is a 'Submit' button. The background of the dashboard features a scenic image of a snowy mountain range under a cloudy sky. At the bottom of the page, there are three buttons: 'Watch safety video', 'Call flight assistant', and 'We value your opinion'.

Figure: Logged-in users can take a survey

Outline

Problem Statement

High-Level Objectives

Back-End

Front-End

Functional Requirements

Flights

Logged-in Functionality

General Functionality

System Design

Analysis Object Model

Top Level Design

Communication Model

Demonstration

Current Status and Future Work

Infotainment

- ▶ Watch movies and order food and drinks
- ▶ Request assistance
- ▶ Watch flight safety instructions

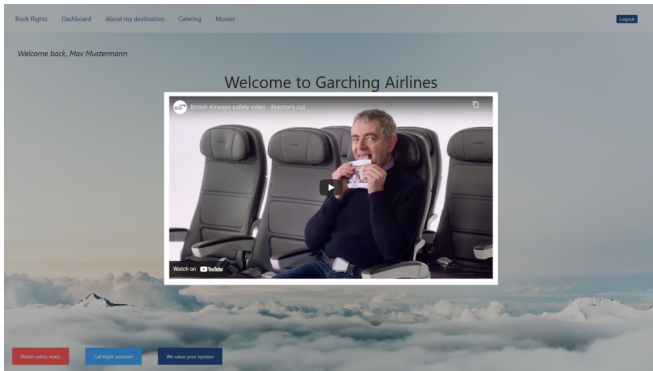


Figure: Safety video

Outline

Problem Statement

High-Level Objectives

- Back-End

- Front-End

Functional Requirements

- Flights

- Logged-in Functionality

- General Functionality

System Design

- Analysis Object Model

- Top Level Design

- Communication Model

Demonstration

Current Status and Future Work

Outline

Problem Statement

High-Level Objectives

- Back-End

- Front-End

Functional Requirements

- Flights

- Logged-in Functionality

- General Functionality

System Design

- Analysis Object Model

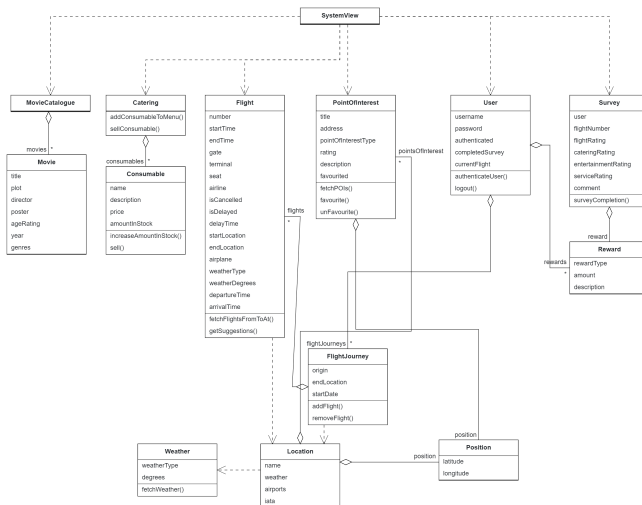
- Top Level Design

- Communication Model

Demonstration

Current Status and Future Work

Analysis Object Model



Outline

Problem Statement

High-Level Objectives

- Back-End

- Front-End

Functional Requirements

- Flights

- Logged-in Functionality

- General Functionality

System Design

- Analysis Object Model

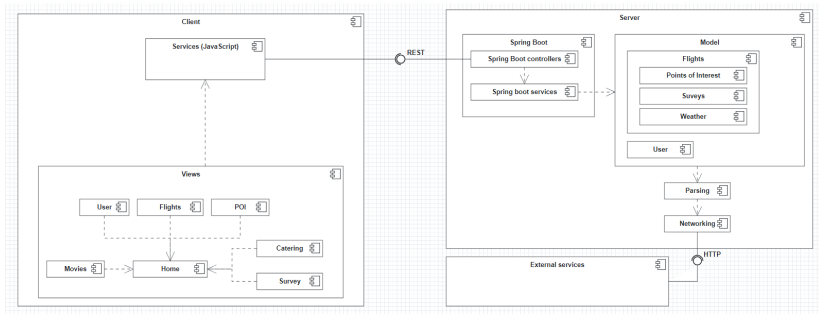
- Top Level Design

- Communication Model

Demonstration

Current Status and Future Work

Subsystem Decomposition



Outline

Problem Statement

High-Level Objectives

- Back-End

- Front-End

Functional Requirements

- Flights

- Logged-in Functionality

- General Functionality

System Design

- Analysis Object Model

- Top Level Design

- Communication Model

Demonstration

Current Status and Future Work

Communication Model

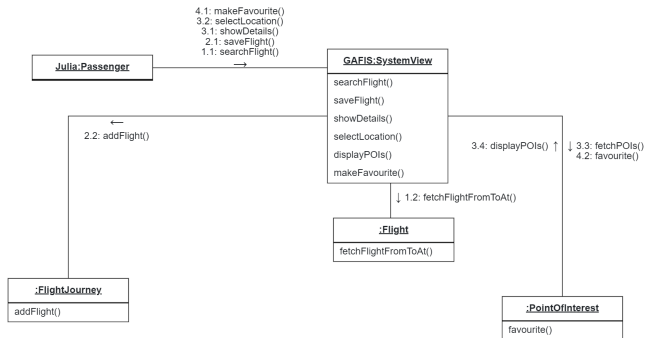


Figure: Julia's flight from Munich to Lisbon

Outline

Problem Statement

High-Level Objectives

- Back-End

- Front-End

Functional Requirements

- Flights

- Logged-in Functionality

- General Functionality

System Design

- Analysis Object Model

- Top Level Design

- Communication Model

Demonstration

Current Status and Future Work

Outline

Problem Statement

High-Level Objectives

- Back-End

- Front-End

Functional Requirements

- Flights

- Logged-in Functionality

- General Functionality

System Design

- Analysis Object Model

- Top Level Design

- Communication Model

Demonstration

Current Status and Future Work

Current Status and Future Work

- ▶ Audio player / music application
- ▶ News portal
- ▶ Database users locations
- ▶ Live weather
- ▶ Real time plane location tracker
- ▶ Flight wallet for catering orders and flight booking