1. Introduction

a. Purpose

This document is the Requirement Analysis and Specification Document of the project “Travlendar+”, a calendar-based application that schedules users’ appointments and support them in arranging travels.

The present is meant to be a guide-line for the implementation of the application, since it contains a deep analysis of the requirements, the goals and the domain of the environment surrounding the system and the users.

The analysis is carried out through the use of natural language, whose drawbacks and inconsistency will be amended by formalisms like UML and Alloy.

b. Scope

The main goal of this service is to support people in arranging their days. It provides a calendar that can be filled by users with all their appointments, specifying time, estimated duration, location, type and possible breaks.

Once the user has inserted all this information, and according to its preferences, the system checks if it is compatible with others commitments and if a correct scheduling is feasible.

In addition to the data inserted by the user, the system will take into account many other variables (such as weather forecast, strikes, availability of private/public transportation) to compute the most efficient and suitable approach to every meeting, proposing a starting time, an estimated arrival time and the alternatives for travelling.

This application goes deep into the organization of the trip, indeed it also permits to buy a ticket for public transportation or to locate the nearest vehicle-sharing service.

c. Definitions, Acronyms, Abbreviations

d. Revision history

e. Reference Documents

f. Document Structure

2. OVERALL DESCRIPTION

1. Product perspective (uml e state charts su cosa? come devo approfondire gli shared phenomena?)

|  |  |  |
| --- | --- | --- |
| World phenomena | Shared phenomena | Machine phenomena |
| The user plans an appointment | The user’s position | Most suitable path computation |
| The user starts its trip | Weather forecast | Meetings compatibility checking |
| The way to reach the meeting is trafficked | The user creates an account | Checking whether a ticket must be purchased |
| The user pays for vehicle sharing | The user edits its settings | Appointment a = new Appointment (loc, start, end, type, breaks) |
| Weather conditions changing during the trip | The user creates a new meeting |  |
| The user reaches its destination | The user edits a meeting |  |
| Unexpected event occurs during the trip | The user cancels a meeting |  |
| Meeting delay | The system proposes an itinerary |  |
|  | The user edits the system’s itinerary |  |
|  | The user accepts the system’s itinerary |  |
|  | The user purchases public transportation ticket |  |
|  | The app displays a warning for a meeting located in an unreachable place in the allotted time |  |

b. Product functions

R1. The user creates its personal account.

This requirement allows the user to use the application according to its preferences and needs. The user can customize its account, filling:

1. Username;
2. Password;
3. Email Address;
4. Home location;
5. Breaks during the day;
6. Personal vehicles;
7. Public transportation passes;
8. Preferences about transportation (maximum distance, period of the day, environment caring); (Da spacchettare?);
9. Vehicle sharing subscriptions;

R2. Creation of a new appointment; (inserimento warning)

R3. Trip planning;

R4. Ticket buying;

R5. Vehicle-sharing localization; (nel trip planning?)

EFFORT SPENT

Alessandro Saverio Paticchio 4 hours

Andrea Tricarico 4 hours

Davide Santambrogio 4 hours