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Software Engineering 2:

Travlendar+

*Matteo Biasielli, Emilio Capo, Mattia Di Fatta*

**RASDv0.3:**

**Requirements Analysis and Specification Document**

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# Introduction

# Purpose and goals

The purpose of this document is to present the results of the requirement engineering for the development of the first version of the calendar-based application Travlendar+. This application has been thought to fulfil the need of schedule work and personal meetings around a city or a region.

# Goals

Travlendar+ will fulfil the following goals:

[G1]: allow the user to add events with details, such as location, time and so on, on a calendar (and on a map) to schedule a day

[G2]: automatically computes time travel (according to user’s current location ??) to help the user to never be late (a push notification system to remember each event will be development at a later time)

[G3]: organize user’s travel, choosing the best means to reach every meeting location to be proposed to the user (several options ranked by time, cost and so on)

[G4]: support the user in his travels allowing him to buy tickets for public transportation, supporting third part bike/car sharing apps and taking in account weather forecast in the choice of travel mean.

[G5]: allow the user to set a wide range of preferences

[G6]: additional features???

# Scope

Travlendar+ mobile app (and desktop application🡪this need a Log In) will help users to schedule their days by enhancing their productivity, allowing them to never be late and never forget appointments. This will be achieved by automatic time travel computing and push notification. The app will make use of a calendar and a map in order to have a wide range of functions. Travlendar+ will be also widely customizable, supporting third part apps (such as bike and car sharing apps, local public transportation ticket purchasing, taxi calling and so on), allowing the user to set its own preferences regarding favorite means, distances and times.

# Actors

Actors involved in the use of Travlendar+ are:

* **USER:** is whoever download the mobile app (or use the desktop version) of Travlendar+ to schedule his appointments
* **THIRD PART APPS:** are apps/functions not strictly included in the Travlendar+ app but which our application supports to enrich functions to be provided to the user

# Definitions, acronyms and abbreviations

# Definitions

**Event:** is whatever the final user wants to schedule, adding it to the calendar and providing the app with its information

**Application:** with this we refer to the mobile app and the desktop application as well

**Info:** is every kind of data the user has provided to the application, for instance date, location.

**Module:** i.e. every additional function not strictly integrated in the Travlendar+ application, such as ticket purchasing support, bike/car sharing support, taxi calling support.

# Acronyms

**RASD:** Requirements Analysis and Specification Documents

# Abbreviations

# Revision History

* Version 0.1: 6-oct-2017, Front Page, Table of contents and Introduction structure
* Version 0.2: 7-oct-2017, Purpose, goals, scope, actors, definitions, acronyms and abbreviations
* Version 0.3: 8-oct-17, complete revision of the Introduction, start Specific Requirements section

# Reference documents

* Previous year project sample available on Beep

# Documents structure

* **Introduction:** in this section, we provide a general overview of the project we are going to development, focusing on project’s goals and scope, definitions and abbreviations we’ll use, document and bibliography we refer to.
* **Overall description:**
* **Specific requirements:** in this section we present the interfaces of Travlendar+ (graphical, software, hardware and communication ones), functional and performance requirements, limitations and completed application attributes.
* **Formal analysis using Alloy:**
* **Effort spent:** this section contains a report about the number of hours spent by each team member working on this document.
* **References:**

# Overall Description

# Specific Requirements

# External Interface Requirements

# User Interfaces

# Hardware Interfaces

# Software Interfaces

1. Google Maps APIs in order to indicate events location on a map, to find shortest paths between location and to search for public transportation services and parking lots nearby
2. Google Calendar APIs to schedule events ???
3. Local public transportation websites/mobile apps to purchase tickets, i.e. ATM mobile w.r.t. Milan Metropolitan Area
4. Local bike/car sharing services apps to find alternative travel means, i.e. Car2Go, EniEnjoi, Mobike, Ofo w.r.t. Milan Metropolitan Area

# Communication Interfaces

Effort spent [in hours]:

Mattia Di Fatta

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| 6-oct-17 Introduction | 2 |
| 7-oct-17 Introduction | 2.5 |
| 8-oct-17 Introduction | 1 |
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