Politecnico di Milano

Corso di Laurea Magistrale in Computer Science and Engineering
Dipartimento di Elettronica e Informazione

Travlendar+

Design Document

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Version 1.0.0
26/11/2017
Academic Year 2017-2018

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Chapter 1

Introduction

Intro.

1.A Description of the given problem

Travlendar+ is a mobile, calendar-based application that helps the user to manage his appointments and to a greater extent set up the trip to his destination, choosing the best means of transport depending on his needs.
Travlendar+ will choose the most suitable way to get the user to his destination between a large pool of options, considering public transportation, personal vehicles, locating cars or bikes of sharing services and walking to the destination. It will take account of weather, traffic, possible passengers if any, the user-set break times and the potential will to minimize the carbon footprint of the trip, always focusing on taking him on time to his scheduled appointments.
Eventually the user will be able to purchase the tickets he will use to reach his destination in-app. The great customizability is one of the main strengths of Travlendar+, being able to fully comply with the user needs.

1.B Definitions and Acronyms

1.B.1 Definitions

1.B.2 Acronyms

1.C Revision History

1.D References

Documents list:

- Mandatory Project Assignments.pdf

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Chapter 4

User Interface Design

This section is a recapitulation of the section 3.B.1 (User Interfaces) of the Requirements Analysis and Specification Document and a deepening of design aspects of the user interface. The application will be developed as a mobile application for the main mobile operating systems (iOS and Android). As the system will appear the same for all the users, it will provide all the functionalities described in the RASD, in a unique user interface.

4.A Mockups

Following some mockups will provide an idea of the user interface while the user interacts with it, making use of the functionalities of the application. It includes most of the main screen that the user will face.

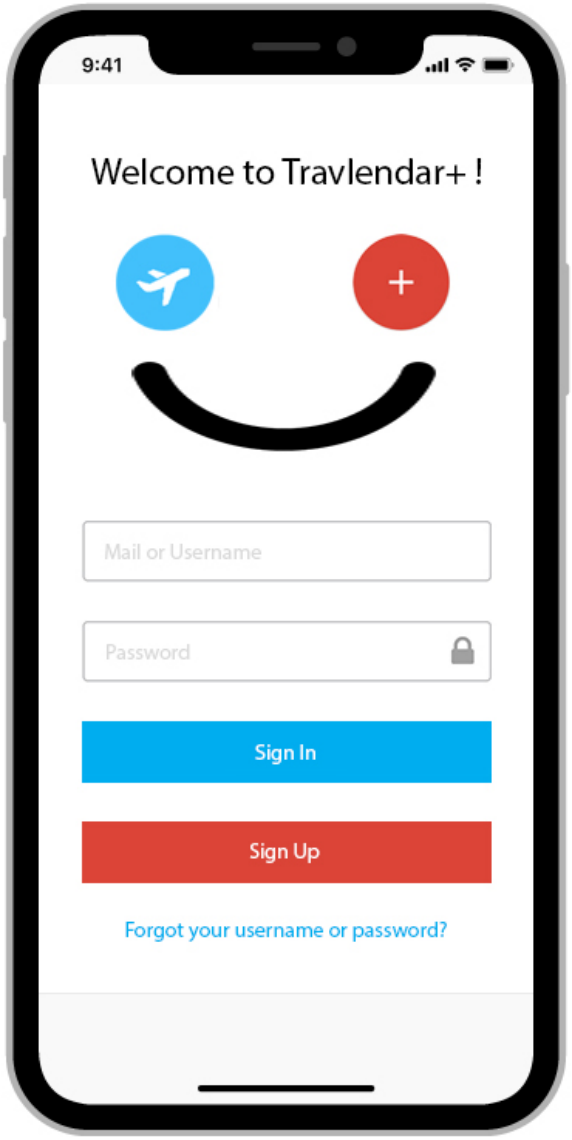

Figure 4.1: Mockup of the login screen

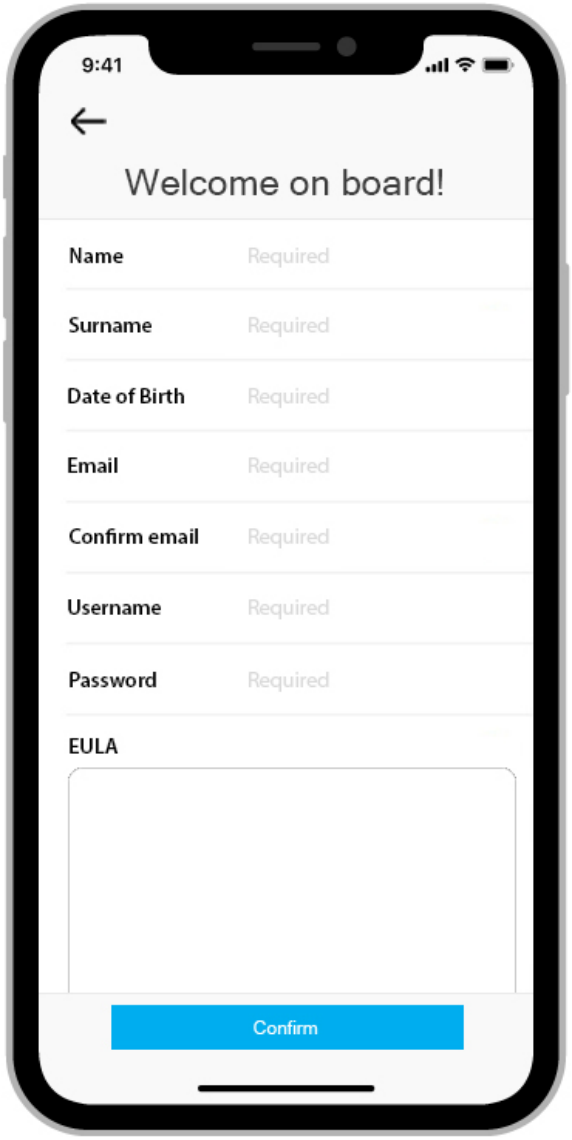

Figure 4.2: Mockup of the registration screen

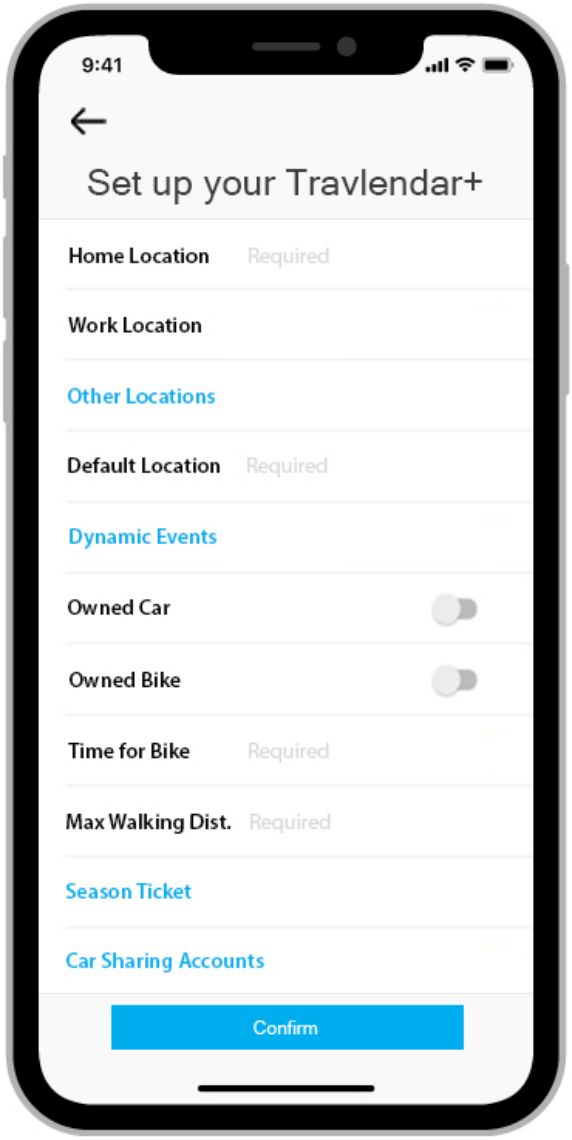

Figure 4.3: Mockup of the screen where the user can set his preferences

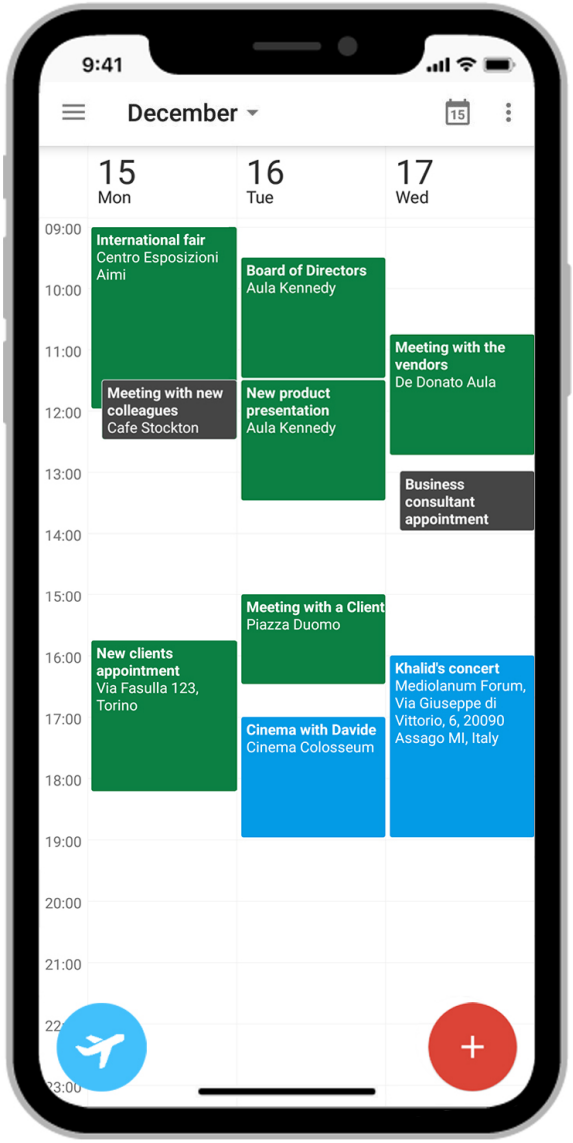

Figure 4.4: Mockup of the calendar screen with primary and secondary events

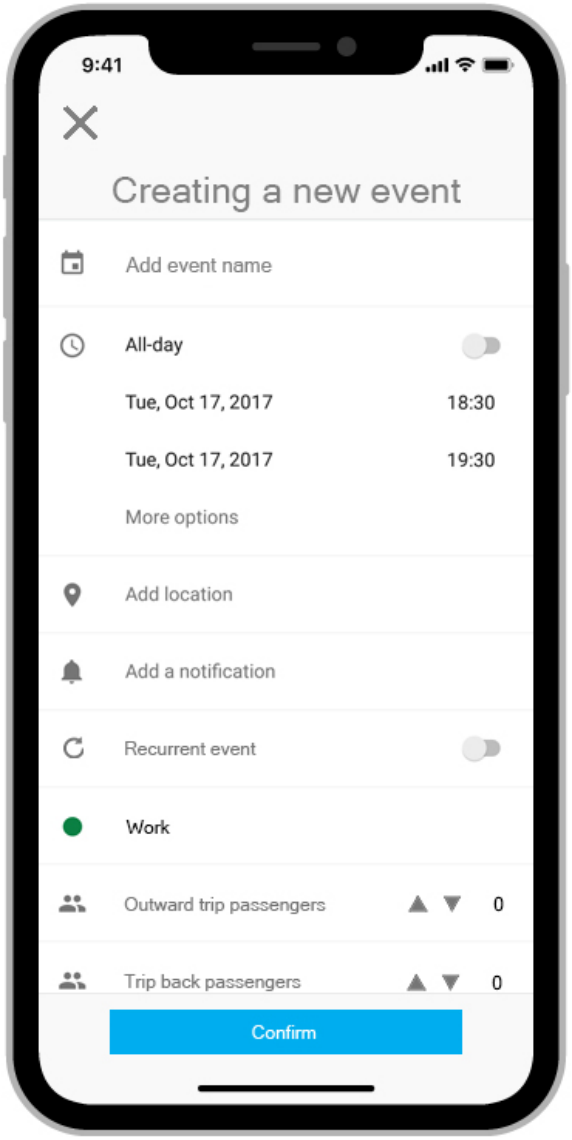

Figure 4.5: Mockup of the screen that allows to add an event

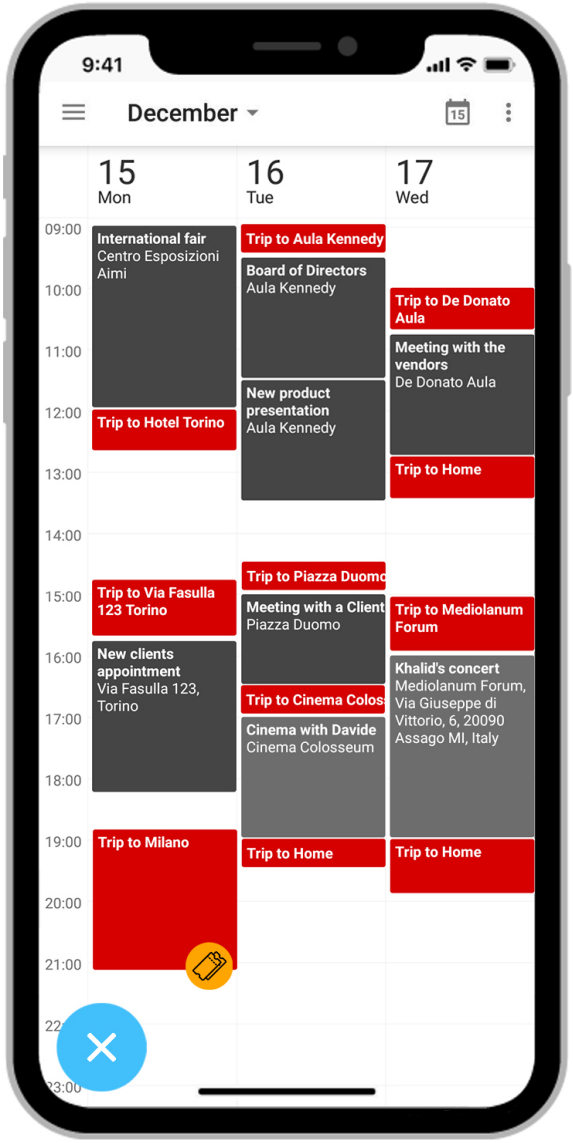

Figure 4.6: Mockup of the screen with the trips shown

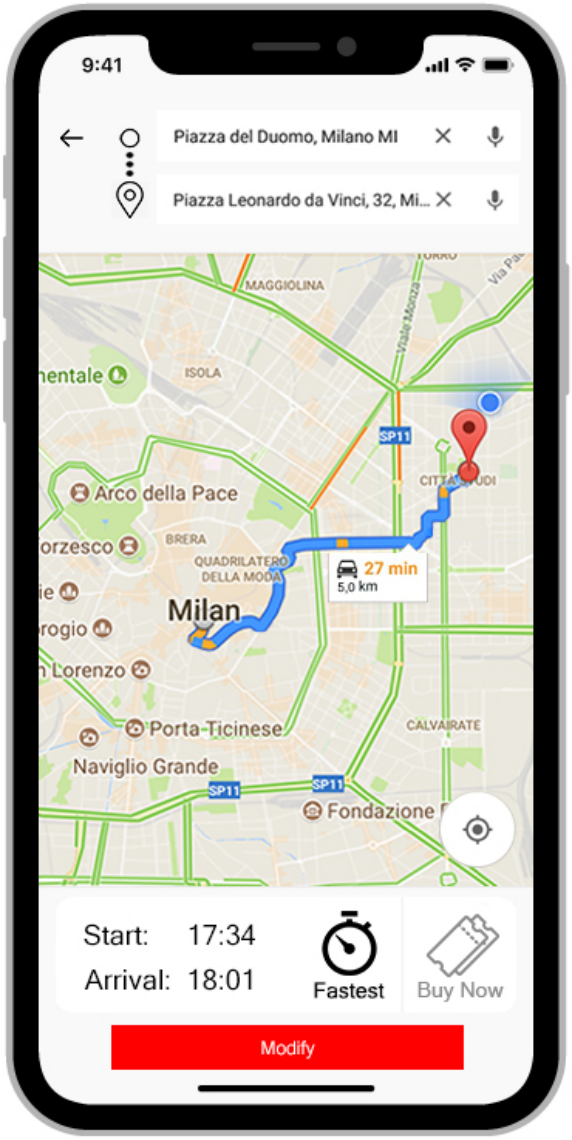

Figure 4.7: Mockup of the trip details screen

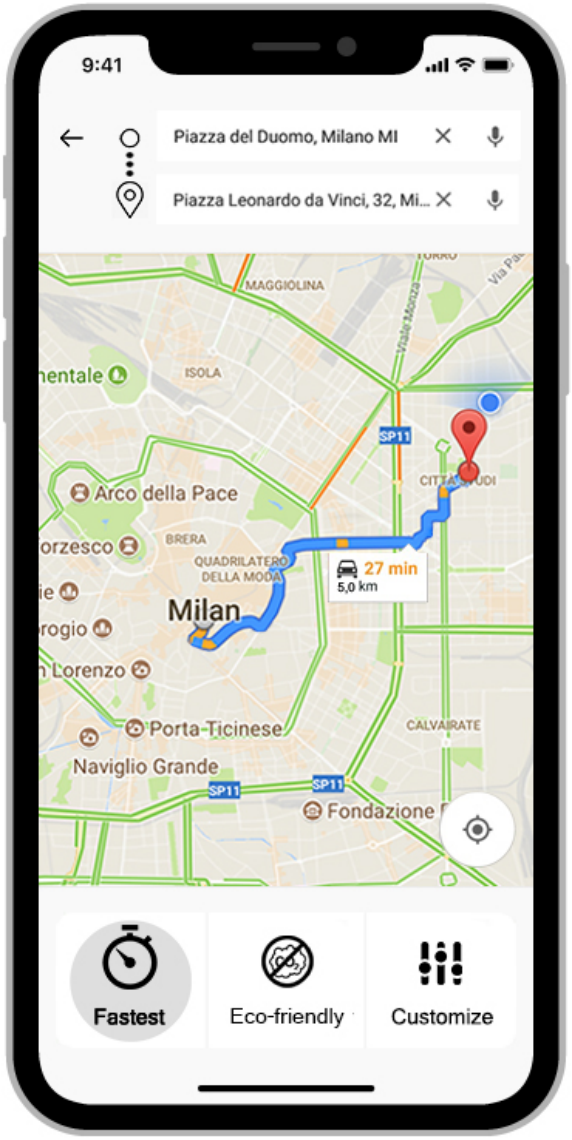

Figure 4.8: Mockup of the screen that allows the user to modify a trip

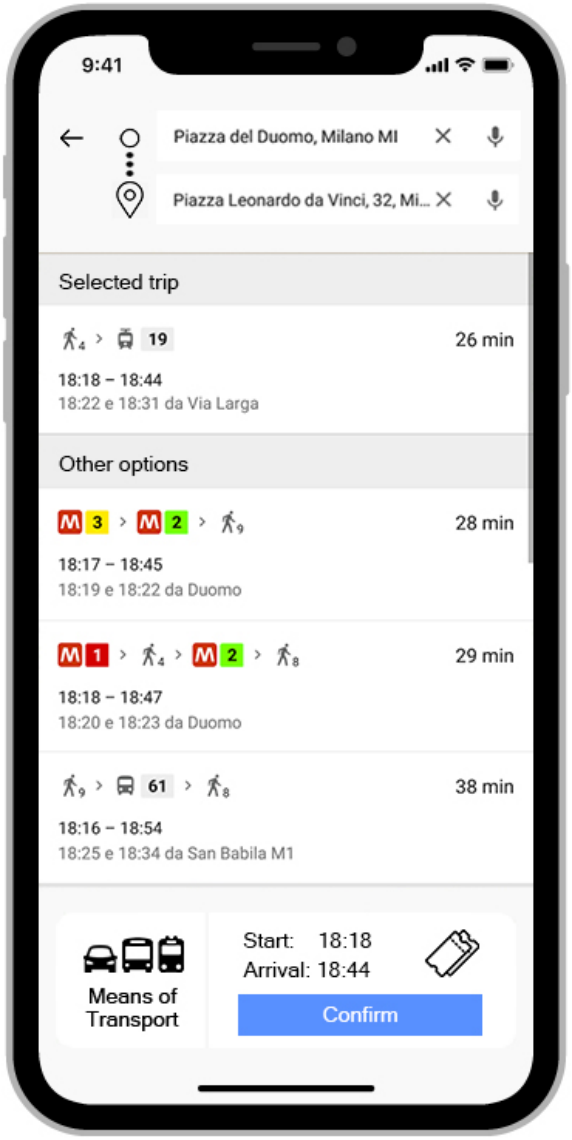

Figure 4.9: Mockup of the screen with the customization of a trip

4.B UX Diagrams

UX diagrams provide information about the user interface of the system and how the user interacts with it. For the diagram comprehension purposes, additional screens used to add specific information (other locations, dynamic

events, season tickets, etc. . .) in the preferences setup are not considered.

4.C BCE Diagrams

For the implementation of the system, a Model-View-Controller design pattern is adopted and BCE diagrams are useful to show how user interactions are managed internally by the system. Boundaries are objects that interface with the users of the application; Entities object model the access to data; Controls object manage the communication between boundaries and entities.

Chapter 5

Requirements Traceability

Chapter 6

Implementation, Integration and Test Plan

Chapter 7

Effort Spent