

Software Engineering 2

Travlendar+

Acceptance Test Document



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1 Introduction

1.1 Purpose and Scope

This Document represents the Acceptance Test Document for the Travlen-dar+ project. The purpose of this document is to evaluate the system's compliance with respect to user needs and the functional requirements specified in the RASD.

1.2 References

For the acceptance tests we have considered these reference documents:

- RASD: Requirements Analysis and Specification Document
- DD: Design Document
- ITD: Implementation and Testing Document

1.3 Overview

The rest of the document is organized in this way:

- **Project:** contains the identification of the project we have analysed.
- **Installation Setup:** explains what we did to install the prototype of the tested project as well as any problem or incoherency we have found following the provided documentation.
- **Acceptance Tests:** lists the acceptance test cases we have applied and the corresponding outcome.

2 Project

2.1 Project info

These are the details about the project we have tested:

Authors

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Links

- **Git Repository:** [link](#)
- **Android App:** [link](#)

3 Installation Setup

In this sections we explain what we did to download and install the prototype of the project in order to build it.

Downloaded files

Following the instructions of the ITD, we downloaded:

- **Java SDK**
- **Android Studio**
- **Travlendar+ Android Project**

Installation

We downloaded and installed Java SDK and Android Studio, then we imported the Travlendar+ Android application as an existing project and we followed the instructions to run it.

We set up a new virtual device to use as a simulator and, as it is stated in the ITD, we chose a Nexus 5X in order to avoid any issue with the UI due to misplaced views.

Conclusion

We didn't encounter any particular issues in this phase: the installation guide is clear and provides all the useful information to run the application in the simulator.

4 Acceptance Tests

Registration

Allow the user to create a new account by providing credentials, means of transport and weather constraints and the decision whether to activate the green-approach function or not. He/she can also choose which payment handler use and create breaks during the day, for example for lunch.

Applied test	Expected outcome	Result
<ul style="list-style-type: none">- Go to the registration page- Fill all the fields correctly- Select the preferred mean of transportation- Select travel preferences- Set the lunch event- Select the carbon footprint preference- Select home location	Registration successful	Passed Warning: the application also accepts lunches of duration 0. May be confusing.
<ul style="list-style-type: none">- Go to the registration page- Fill all the fields incorrectly (either empty fields, short password or invalid email)	The user is warned about the specifics of the error	Passed
<ul style="list-style-type: none">- Go to the registration page- Fill all the fields correctly- Select no mean of transportation	Warn the user that at least one mean is necessary	Passed
<ul style="list-style-type: none">- Go to the registration page- Fill all the fields correctly- Select the preferred mean of transportation- Select travel preferences- Set the lunch event- Select the carbon footprint preference- Select no home location	Warn the user that is mandatory to set the home location	Passed

Create event and choose travel mean

Allow the user to create a new appointment after providing a name, a location, a start date & time, an end date & time, a possible guest and the preferred mean to reach the appointment's location, from the ones suggested by the app. The user can also choose in different ways (GPS, previous appointment location etc...) the location where he/she will leave to reach the appointment.

Allow the user to choose among solutions that will make him/her arrive on time at his/her appointment (if there are some).

Allow the user, when there are not means of transport available for a travel, to choose among other options although them will make him/her arrive late but as soon as possible.

Applied test	Expected outcome	Result
<ul style="list-style-type: none">- Go to the add event page- Fill the name and description fields- Select the start and end date and time- Select "Previous event" start travel location- Select event location- Select the preferred mean of transportation	Event creation successful with travel that start from the previous event (if does not exists a previous event, starts from "Home"). All the constraints are respected.	Passed but see issue 4.1.2
<ul style="list-style-type: none">- Go to the add event page- Fill the name and description fields- Select the start and end date and time- Select "Home" start travel location- Select event location- Select the preferred mean of transportation	Event creation successful with travel that start from "Home". All the constraints are respected.	Passed

Applied test	Expected outcome	Result
<ul style="list-style-type: none"> - Go to the add event page - Leave name field empty 	Warn the user that is mandatory to set the name of the event	Passed
<ul style="list-style-type: none"> - Go to the add event page - Fill the name and description fields - Select invalid start and end time/-dates - Select the starting travel location - Select event location 	Warn the user about the errors in the specified times	Passed
<ul style="list-style-type: none"> - Go to the add event page - Fill the name and description fields - Select the start and end date and time - Select the starting travel location - Leave unselected the event location 	Warn the user that is mandatory to set the event location	Passed
<ul style="list-style-type: none"> - Go to the add event page - Fill the name and description fields - Select the start and end date and time - Select the starting travel location - Select an event location with no travel available 	Warn the user that no travel options are available	Passed
<ul style="list-style-type: none"> - Go to the add event page - Fill the name and description fields - Select the start and end date and time - Select the starting travel location - Select event location - Do not select the preferred mean of transportation 	Warn the user that is mandatory to select one mean of transportation	Passed
<ul style="list-style-type: none"> - Go to main page - Tap on an event - Tap on delete button 	The event is not available anymore in the events page	Passed

Manage tickets

Allow the User to buy tickets for his travels.

Applied test	Expected outcome	Result
<ul style="list-style-type: none">- Go to the main page- Create a new event- Select "Train" or "OFO" travel mean- Tap on book button	The right application/web site is opened	Passed

Show events

Allow the user to have a global look at all his appointments (daily/monthly view of his scheduling).

Applied test	Expected outcome	Result
<ul style="list-style-type: none">- Go to the main page- Tap on a day	The events of the day are showed only if present	Passed

Modify event

Allow the user to have a global look at all his appointments (daily/monthly view of his scheduling).

Applied test	Expected outcome	Result
<ul style="list-style-type: none">- Go to the main page- Tap on a day- Select an event- Tap the "modify" button- Modify the fields with valid values and no overlaps	The event is modified	Passed
<ul style="list-style-type: none">- Go to the main page- Tap on a day- Select an event- Tap the "modify" button- Change the name field with an empty value	Warn the user that is mandatory to set the name of the event	Passed
<ul style="list-style-type: none">- Go to the main page- Tap on a day- Select an event- Tap the "modify" button- Change the dates with invalid values	Warn the user about the errors in the specified times	Passed

Manage flexible break

Allow the user to specify flexible breaks.

Applied test	Expected outcome	Result
<ul style="list-style-type: none">- Tap on the settings page- Tap on manage breaks image- Write the name of the break- Select start/end time- Select duration	The break is added only if does not overlap with one already present	Passed
<ul style="list-style-type: none">- Tap on the settings page- Tap on manage breaks image- Long press on a specific break- Confirm the elimination	The break is removed	Passed but see issue 4.1.1
<ul style="list-style-type: none">- Tap on the settings page- Tap on manage breaks image- Write the name of the break- Select invalid start/end time	Warn the user about the errors in the specified times	Passed

Manage constraints

Allow the user to specify constraints:

Allow the user to specify weather constraints in relation to certain mean of transport.

Allow the user to specify which means of transport he/she does not want to use.

Allow the user to specify time interval constraints on certain mean of transport.

Applied test	Expected outcome	Result
<ul style="list-style-type: none">- Tap on the settings page- Select to activate/deactivate constraints concerning the weather- Select the preferred mean of transportation	The options are saved	Passed Note: All public transportation seems to be gathered under the 'Train' tag

Manage green mode

Allow the user to choose to use mainly “green” means of transport, in order to minimize carbon footprint.

Applied test	Expected outcome	Result
- Tap on the settings page - Select to activate/deactivate green mode	The options are saved and this mean of transportation are showed first during the event creation	Passed

Feasibility

The cases covered by the feasibility check, as detailed in Implementation document, are:

- New event overlaps with previous event.
- New event overlaps with following event travel.
- New event overlaps with break.
- New event location will cause the following event to become unfeasible.
- New event location is unreachable in general.

Each of this cases is covered and works as expected with the exception of events spanning multiple days (see issue 4.1.3).

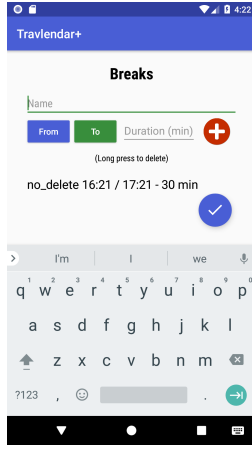
Please note that the considered cases do not fully cover the possible scenarios, therefore the schedule might be unfeasible under certain circumstances.

4.1 Issues

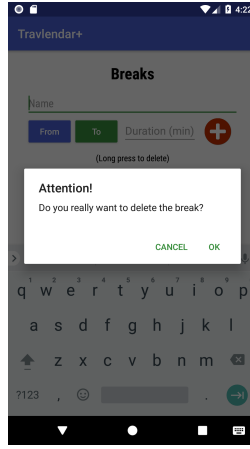
4.1.1 Delete break

Deleting a flexible break does not remove it from the view while still deleting it from the database (1a, 1b, 1c). Therefore it's still possible to interact with the deleted item (2a, 2b).

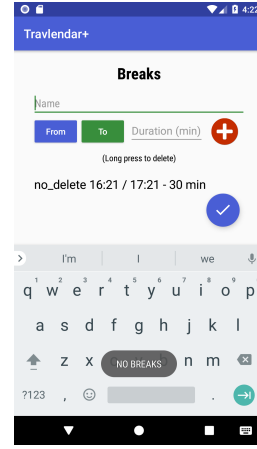
This does not cause particular issues since reloading the view solves the problem (2c), still it's clearly not the intended behavior.



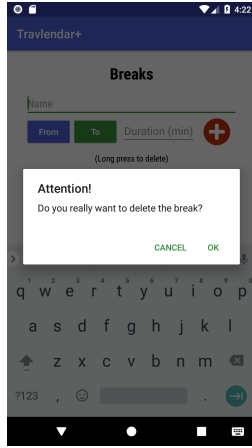
(a) Step 1



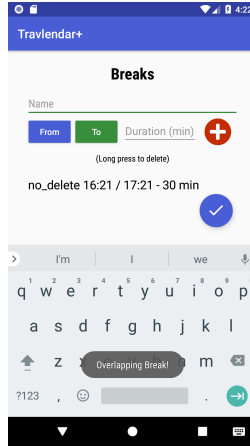
(b) Step 2



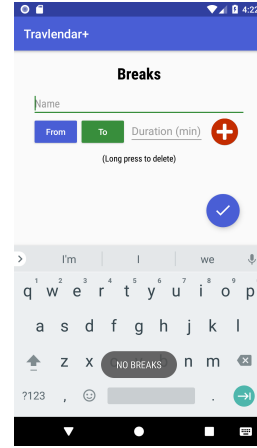
(c) Step 3



(a) Step 4



(b) Step 5



(c) Step 6

4.1.2 Event Creation

During the last phase of the event creation process, after the selection of the travel mean, the confirmation button can be tapped multiple times (i.e.

is not deactivated after the first tap). This allows multiple requests to be made with the same event information, causing the same event to be added multiple times (3).

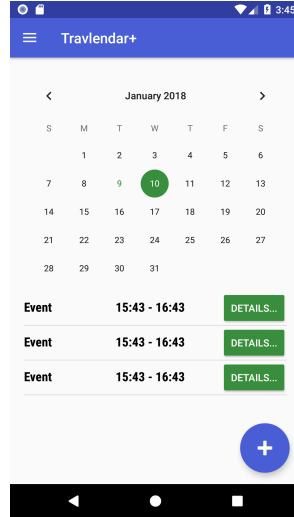
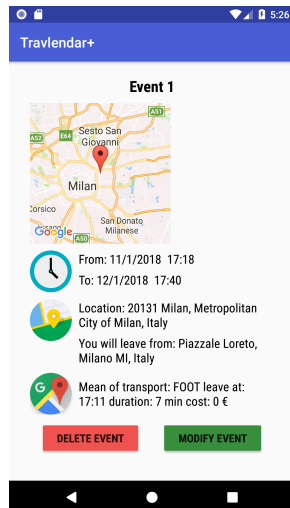


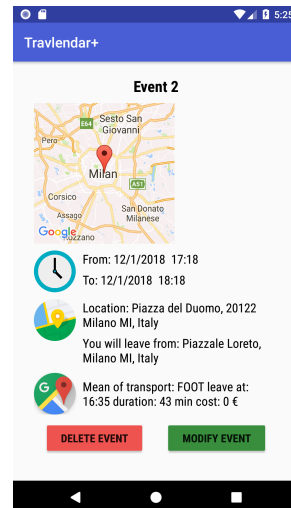
Figure 3: multiple identical events

4.1.3 Feasibility

As we see from the pictures below an event that begins on a certain day and spans multiple days is not taken into account for the feasibility check of events created in the following days.



(a) Event 1



(b) Event 2

5 Conclusion

The application is working as expected and, aside for the few issues highlighted above, all the features described in the ITD are present and usable.

While this problems need to be addressed in future versions, they also represent fringe cases that hinder the user experience in a marginal way, therefore, as of right now the application constitutes a working prototype.

The user interface is clear and essential, and makes a positive impact the first time you open the application. The initial setup is a nice solution to illustrate the app functionalites and to gather and set user preferences.

Future updates should focus on improving the feasibility checks and the management of conflicts since this is one of the core features of the application.