Goals

The aim of the system is to give the user the following functionalities:

* registration to the service and preferences set up;
* anytime management of personal and mobility preferences;
* create and schedule a new event choosing time and location;
* edit previously added event data;
* change travel options on automatically created trips to/from event;
* choose primary event on event overlapping cases;
* mobility companies’ tickets purchase via built-in browser;
* find sharing services’ means on the map;
* provide high customizability of personal preferences regarding user daily routines.

and to provide on its own these other ones:

* manage in a clever way trips to/from user events, relying on the map of the surroundings, time of the day, public and private transports’ timetables and stops, shared means, traffic, weather forecast, possible strikes and user preferences;
* notify the user on time of upcoming trips;
* alert the user of trips’ changes between the first reminder and the departure time;
* warn the user of overlapping events creation;
* warn the user of impossibility to arrange trip that takes him in time to future event.

Domain properties and assumptions

We suppose that the following conditions are true in the analysed world:

* the geographical area of the city is included in the coverage area of most common mobile communication technologies (3g, 4g) offered by main telecommunications companies,
* users can access to the functionalities provided by the system if and only if they register to it,
* there are not users with privileges. Every registered user can access to the same features of the other ones. The system is safe even without supervisors,
* users must be subscripted to a sharing service if they want to use it,
* APIs used by the application will always be updated on traffic status, eventual incidents and weather conditions,
* sharing services’ APIs signals their means if and only if the means are where the APIs say and they are not occupied or booked.
* users always have a working internet connection,
* half an hour is enough warning time for users to start a trip.

Functional requirements

* It’s always possible to delete or reschedule appointments or travel reservation if it doesn’t affect other arrangements and other companies policies.
* Warnings and reminders are sent via popup notifications.
* We assume that we’ve agreements with the companies that provides travel tickets, that permit us to let the user buy his ticket directly on the Travlendar+ app.
* Some apps can be integrated. For instance Travlendar+ supports payments with PayPal

Constrains

* Two meetings cannot be at the same time or overlapped in some ways.
* A user cannot use two means of transport at the same time.