

Bachelor Project Plan

February 25, 2017

Overview

The work in this project will extend the functionality of already existing mobile personalisation framework, called Tacita, in order to support a wider set of web apps and allow for both active and walk-by personalisation. The project aims to develop two web based applications for public displays that will support personalisation through mobile devices. In particular, the work will focus on designing and developing Public Transportation and Upcoming classes applications. The work in this project can be divided into five following tasks.

Tasks

Each task is two weeks long, leaving some time in the end for small adjustments.

Task 1 - Public Transportation App

Design and develop a web application using Django development framework to display transport data such as nearby stations and up coming busses by providing an efficient and good looking design optimized for large screen.

In detail the web server collects a request from a user and fetches the corresponding information from the opendata.ch public API in order to send them back to the display.

Task 2 - Supporting Personalisation through Mobile devices

Implement an Android App composed by a WebView and a background bluetooth scanning process.

The web application should provide an interface optimized for small display in order to use the exposed API and to set personal parameters such as colors, icons and avatar.

Task 3 - Integration of personalisation parameters into display app

The aim of this task is to link the previously developed Android Application to the Django web in order to provide a way to storing user preferences into the database and to display them in the screen as default one.

Task 4 - Upcoming Classes App: Collecting, Processing, and Visualising data from a Google Calendar

Similarly to what we have done with opendata.ch, add a google calendar app to know the schedule for the course.

Task 5 - Testing

Test the developed code, write unit testing for the endpoints and the web applications.

Task 6 - Users Feedback

Present a demo application to a small subset of students in order to collect feedbacks and, if needed, adjust some features.