

# Jolla Code Camp Report

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## Development of the App „Easy Tourist“

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## 1. Introduction

In the Context of the Jolla Code Camp, we were asked to develop a useful application that is based on open data and runs on Jolla phones. The phones work with the operating system Sailfish for which only a limited amount of applications are available on OpenRepos.Net<sup>1</sup> the moment. This allowed us to look at a bigger area of useful applications that may exist in a similar form but not in the Jolla store yet. So we finally decided to develop an app that helps tourists in Helsinki find information, accommodation, and transportation, called “Easy Tourist”.

## 2. Idea

As we like to travel to new places and know how difficult it can be to be in a place where we do not even understand the official language, we decided to make an application that helps people in the same situation find their way through Helsinki. This app should include the local time, weather and hours of sun rise and sun set, accommodations, attractions, events, as well as activities to provide the basic features for tourists. However, we wanted to go one step further and integrate the location of the attractions on a map, and include a transportation help for them in form of bus schedule. On top of that, we included a blog that gives practical information about the places to go to and stay at in the capital of Finland.

All in all, this is a very helpful app for anybody visiting Helsinki for the first time and who needs some guidance.

## 3. Context

The guidelines for the code camp were to develop a Sailfish application for Jolla phones that should include open data and be useful and new. Our idea was new because it does not yet exist in this form (with the included features) and is not available as Jolla application. The development of this app was also desirable because the city of Helsinki

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<sup>1</sup> <https://openrepos.net/at>

has been pushing in the open data movement and data for tourist information and bus schedules is already publicly available. The availability of this open data facilitated the work.

#### 4. Data Sources

We used several web sources to gather all the data we wanted to integrate in our application.

The information about the weather was taken from the Open Weather Map<sup>2</sup> that includes the current weather conditions as well as a five-day forecast our application shows. It also includes the hours when the sun rises and sets on the present day.

We gathered the time source from World Weather Online<sup>3</sup>. This was important as we did not want to retrieve and display the time information from the phone because that may differ from Helsinki's local time.

Visit Helsinki<sup>4</sup> provides a lot of open data for tourist attractions, accommodation, etc. This source we used to retrieve all the information that our application would show for accommodation, attractions, activities, and events.

Visit Helsinki also provides the blog<sup>5</sup> with useful information for tourists in the city.

In order to be able to display the location of those points of interest on a map, we accessed the Google Maps open data<sup>6</sup>. The application will show a static image with the location of the desired object on an image.

Reittiopas<sup>7</sup> provided the open data for the public transportation system in the region of Helsinki.

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<sup>2</sup> <http://openweathermap.org/API>

<sup>3</sup> <http://www.worldweatheronline.com/>

<sup>4</sup> <http://www.visithelsinki.fi/en/professional/why-helsinki/marketing-material/helsinki-tourism-open-data>

<sup>5</sup> <http://feeds.feedburner.com/visithelsinkiblogen>

<sup>6</sup> <https://developers.google.com/maps/>

<sup>7</sup> [api.reittiopas.fi](http://api.reittiopas.fi)

## 5. The App

The navigation inside the app works with a pull down menu to select categories, as well as tapping on and flicking through the pages. Results are shown in lists that give the names in alphabetical order with a few descriptive words below. In order to see the whole entry, the user must click on the name and another page opens with further details.

The first page of our application welcomes the tourist to Helsinki and displays the local date, time, and weather, as well as the hours of sun rise and sun set to inform the users about the hours of light and give a general overview. When clicking on the weather icon, the user is redirected to a page showing the weather forecast for a week. To go back to the main menu, the user either has to flick to the page before (to the left) or navigate with the help of the page indicators (white points) on the upper left corner.

Using the pull down menu, it is possible to navigate and select the category of interest. It can be chosen between Blogs, Transportation, Accommodation, Events, Activities, and Attractions.

When selecting *Blogs*, the user is shown a list of the latest blog entries concerning all the categories of the application. By clicking on the links, the browser will open and direct to the respective entry on the website.

*Transportation* shows all the bus lines in the Helsinki metropolitan area. It is possible to type in the name of one bus stop and see all the busses that serve this stop.

Under *Accommodation*, hotels, hostels, and other sleeping possibilities are listed.

The category of Events is divided in the sub categories *Cultural*, *Exhibitions*, *Fairs*, *Music*, *Sports and Matches*, and *Other*. Selecting any of those will open a page with the results list of which detail pages can be viewed when choosing one.

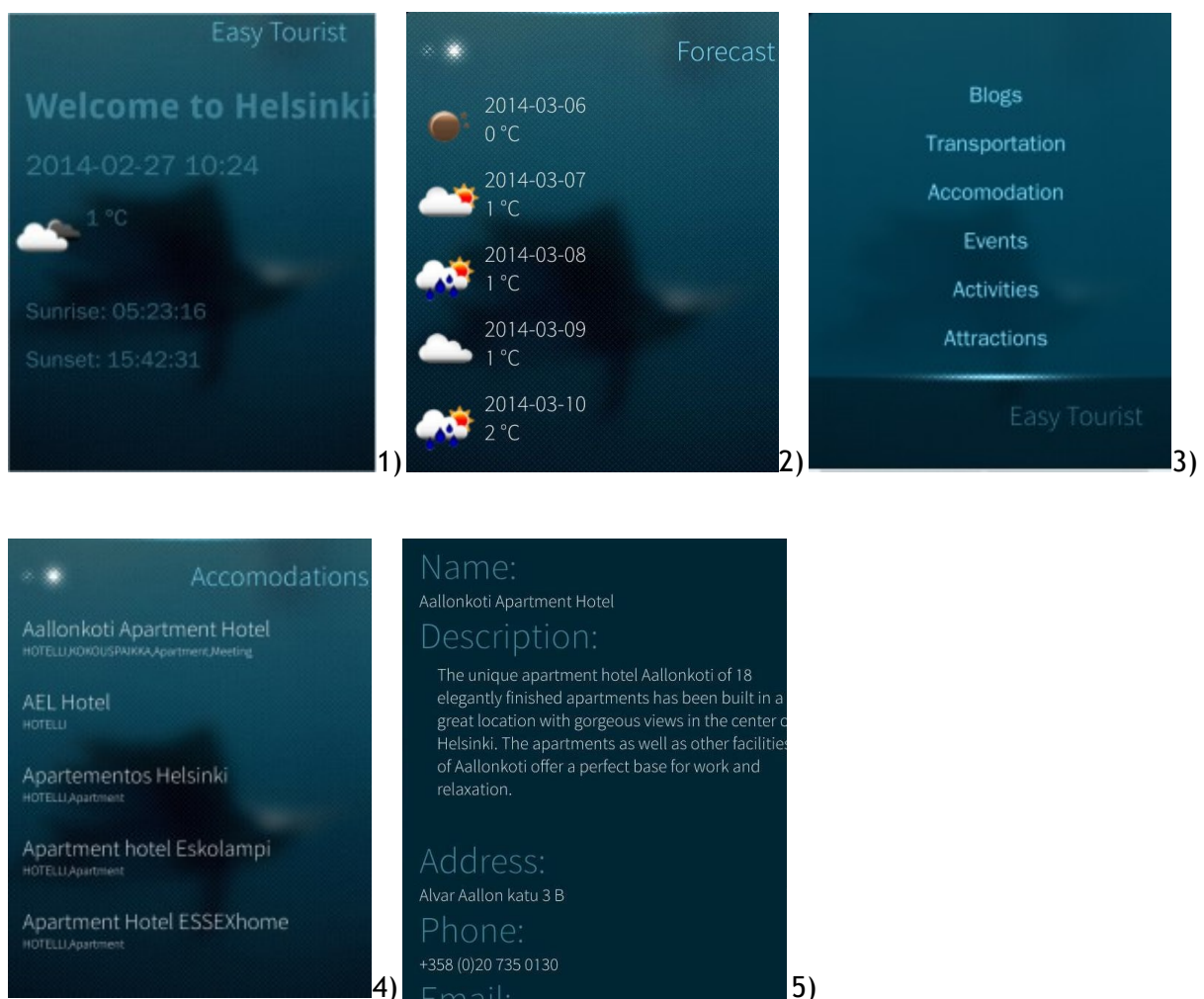
Activities, too, is divided into sub categories to better filter the results. These consist of *Food and Drinks*, *Meeting Points*, *Nightlife*, *Saunas*, *Shopping*, and *Sports*. Each of the categories brings results that show detail pages when selected.

The last menu point is *Attractions* and consists of the two sub categories *Museums* and *Sights*.

For the categories *Accommodation*, *Activities*, and *Attractions*, the detail pages include images with the location of the respective object on the map.

The application can be used intuitively and provides necessary and helpful information for English speaking tourists in Helsinki.

The images below show example pages of the application.





6)

- 1) Main Menu
- 2) Weather Forecast
- 3) Pull Down Menu (Categories)

- 4) Result List (for Accommodation)
- 5) Details Page
- 6) Location on Map

## 6. Technology

All members of our group used their own laptops with Windows OS in order to code for this app. We installed the SailfishOS Alpha SDK<sup>8</sup>, Oracle's Virtual Toolbox<sup>9</sup>, and the Qt Framework 5.2<sup>10</sup> as programming environment. The Library we used was Sailfish Silica<sup>11</sup>. We also used JavaScript to implement functions such as for rounding the temperature or splitting string in order to show only the good results to the user.

<sup>8</sup> <https://sailfishos.org/develop-installation-article.html>

<sup>9</sup> <https://www.virtualbox.org/wiki/Downloads>

<sup>10</sup> <http://qt-project.org/doc/qt-5/index.html>

<sup>11</sup> <https://sailfishos.org/sailfish-silica/index.html>