Explore Jyväskylä

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# Introduction

## About the document

This document is our project plan for the Mobile Project course. Our assignment is to find a nice application idea, plan it then realize it. We summarize here the concept of the application, how we think about it in the beginning. It’s possible it will change during the implementation so the final product may be different.

## About the idea

Our idea is an application which helps to the visitors of Jyväskylä to explore the city in a funny way. We collected some interesting places which worth to see at least once. They are displayed in our application’s map to make it easy to find them and the way to them. If the user visit a place, we detect it and use this information to score points. If the user visit enough place in one category, he/she will earn a funny title refer to the category. There are more titles to each category so visit more place to improve the title! The user can follow how many places left in the categories and see the standings of other users.

If the user think we missed an important place, it’s possible to add it manually. It’s also possible to report a place if it seems invalid. The user can rate every location in the interest of highlight the best ones.

# Objectives

During the implementation, we take care of the usability, simplicity. We tried to bearing in mind these principles while we designed the application. The goal is to realize every imagined feature in this way which are described later in this document.

What else?

# Use cases

There are some cases when the application can be useful.

## Vacation in the city

When someone want to travel somewhere and see new things, he/she may make plans, search for sights before the journey. The application can help with this process. Inside it you can see not even the locations but the ratings. These ratings come from the other users. So if you don’t have too much time to look around, you can pick the most interesting and best places if you choose the top rated ones. It’s also useful if you ran out of the ideas in the middle of the day but you want to see more. So you can use the application not only at the planning phase of the vacation.

## Longer stay

It’s always a good idea to explore the new city where you will live for a longer time not only few days. Everything is new, foreign, you know no one and nothing. The application can show a playful way to this process. You will know the city place by place.

## Outdoor activity

The application can be useful for not only the new visitors. If you live here for a long time you may picked up the love of the movement, nature, outdoor activities. Now you can find new places to visit and entertainment to compete with others to earn better titles.

## Not only with Wi-Fi

If you don’t want or can’t use Wi-Fi at all time, it isn’t problem. You can visit places without it too, you will need only GPS. The application will save the results and upload to us when you connect to the Internet.

# Usage workflow

Show activities and description

# Mockups

We have started the project before this course. We have already created two versions of the application.

## Mobile Application Development

Our theme was the server side so the emphasis was on the Node.js.

We have created a simple server with some example locations in the database. The clients can uses HTTP protocol to send request. The server responses in JSON format.

We have also created an Android application which can connect to the server, get the locations from it and put markers on a map. It can also detect the user’s location and show it on the map with an unique marker. If the user moves and gets too close to a place, it detects this as a visit. So the application notes these visits in a database. It’s necessary, because we want to give points only for the first visits.

You can find our presentation about this here: https://docs.google.com/presentation/d/1dFYQxMo\_qFluHhVjkhkB\_5DZOgE1dJkg39WPBwsBhQ0/edit#slide=id.g17ce424107\_0\_55

And here is a video about the Android application: https://www.youtube.com/watch?v=mwPkYpHQAjU

## Android Application Development

We made the second step during this course. We used the application what we have created during the Mobile Application Development and we improved it. Our theme was the Google Maps and GPS.

The server expanded with a new route definition. It’s able to accept a POST request which contains details about a new place. The server adds it to the database and when a new request comes to download the places, it will send the new place too.

The Android application has a new activity where the user can add the details of the new place. We used the built-in place picker widget where the users can use the Google Maps to choose easily the new location. After the addition, the application refresh the markers on the map.

You can find our presentation about this here: https://docs.google.com/presentation/d/1o7\_TSnFtUKX6fQgPI2yuPX0fYq7WFNZki\_tH4fslDfg/edit#slide=id.g194f921605\_0\_265

And here is a video about the Android application: https://www.youtube.com/watch?v=t9sUJgV6dFY

# OOP, UML

# Database planning

# Backend

# Workload

# Time planning