MARMARA UNIVERSITY

FACULTY of ENGINEERING

DEPARTMENT of COMPUTER ENGINEERING

CSE3044 – Software Requirements Specification

“TravelBuddy”

Group Members

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1. Introduction

Discovering rarely known natural and cultural places is one of the biggest problems while visiting a foreign country or city. Although popular cultural places such as museums are easy to find, finding a natural places or rarely known cultural places is challenging.

Smart phones and its' applications one of the most popular terms in 21th century, so developers and investors pay attention to these topics. With the help of these technologies, individuals' desire for fast and easy solutions increased rapidly.

The present project concerns an application for helping people while they are discovering new countries or even their own country not by just popular cultural places but also with its' natural beauties. Hence this project is expected to manage the issues while visiting a foreign country and not being able to see its natural beauties. Also this project will be able to help people to find places that contain specific objects such as trees and rivers.

1.1. Purpose

This project aims to help people while they are discovering new places but not just with known popular places but also its' natural beauties.

We think this project is worthwhile because we are aware that finding popular cultural places are relatively easy when it comes to find rarely known places and natural beauties. We believe this project will help the users while they are travelling and wanting to visit natural places such as a relaxing place near a river or a place that is convenient for picnic.

1.2. Scope

The TravelBuddy application will provide users the ability to access information about rarely known places from a mobile device using the Android platform. Platform independency is not in our scope, our app will only run in Android platform.

The application will provide lots of options for the user. After user enters his/her account, he/she will be able to use every option that the system provides. However without login, users still will be able to find a place but scoring or messaging the other users will not be available without login.

The auto-tagger system will be available while individuals want to post a photo for a place. However auto-tagger system will only show known objects so it might not show every object in the photo.

Users will be able to log in to the application with their own mail addresses. Users' personal information and their GPS are not shown to other users.

1.3. Definitions, Acronyms and Abbreviations

- TravelBuddy Application – the product that is described in the document
- User - someone who uses a product, machine, or service
- GPS - global positioning system
- Operating System (OS) - a set of programs that control the way a computer system works, especially how its memory is used and how different programs work together
- Google Map - Google Maps is a web mapping service developed by Google [4]

2. General Constraints

2.1. Software Limitation

- The system shall need Android Operating System.
- TravelBuddy will be developed on Windows OS.
- Users will need an email account to sign in to the app.
- TravelBuddy will be based on database which will have the information about the places. This database will be created by ourselves.

2.2. Hardware Limitation

- Each user must have a device which is supporting the Android Operating System
- TravelBuddy will need a GPS signal to find a location so it could be better to have GPS on the device but if the device has not got one, it is not a problem. Even without GPS, the system will be able to show place and its location however the distance between the user and the place will not be shown.
- Users must have an internet connection like Wi-Fi or mobile data to login to the system, share images, places, searching, chatting with another user, etc.

2.3. Assumptions and Dependencies

TravelBuddy will be operated on Android operating system devices so assumes that users have qualified skills with using android devices. The database of TravelBuddy will mostly be based on Google Maps data but we are going to do big research about nature so that TravelBuddy is going to have data which Google Maps does not have. Also, we gave detailed information about this topic in the previous step. Maybe the user can verify his/her account with email verification system but we are still not sure on this case. Finally, we are expecting that users are going to open their GPS so that the information we can represent will be more detailed and we will take permission from users to reach their GPS.

3. Requirements

3.1. Functional Requirements

- The system must have a registration service.
- The system contains 2 types of user:
    i. Regular User
    ii. Admin
- The system will provide a login system. Users will be able to login to the system with:
    i. Email or user name
    ii. Password
- Users shall be able to:
    i. Search places through tags
    ii. Search places that are nearby
    iii. Select and view places on the map
    iv. Message to other users
    v. Post a place with photo or comment
    vi. Select tags that are created via auto-tagger system while posting a photo
    vii. Search other users and users post
    viii. Give a star to other posts or places

- Admin shall be able to:
    i. Delete photo/post from the system if its malicious or abusive
    ii. Delete any user from the system / ban any user
    iii. Modify other users profiles (expect other admins)

3.2. Non Functional Requirements

3.2.1. Security

- The system must provide an authentication system.
- Passwords will be encrypted with an algorithm that is provided by Android.

3.2.2. Performance

- If the system remains inactive for 15 minutes, the user's connection will be terminated and connection timeout error will be displayed.
- If loading time of a photo or a post exceeds 10 minutes, the process will be terminated and user will be warned.

3.2.3. Maintainability

- The system shall be able to log all the errors that are occurred while the execution, for easy fixation.

3.2.4. Usability

- The interface must be responsive.
- After new registration is done, the user must be informed with a help frame so the user will be informed about how the system works.

3.2.5. Ethical

- Every given comment and or posted message will be checked by a pattern match algorithm in order to keep the system clean from abusive language

4. UML Use Case Diagrams

Following diagram shows the main case diagram of the system.

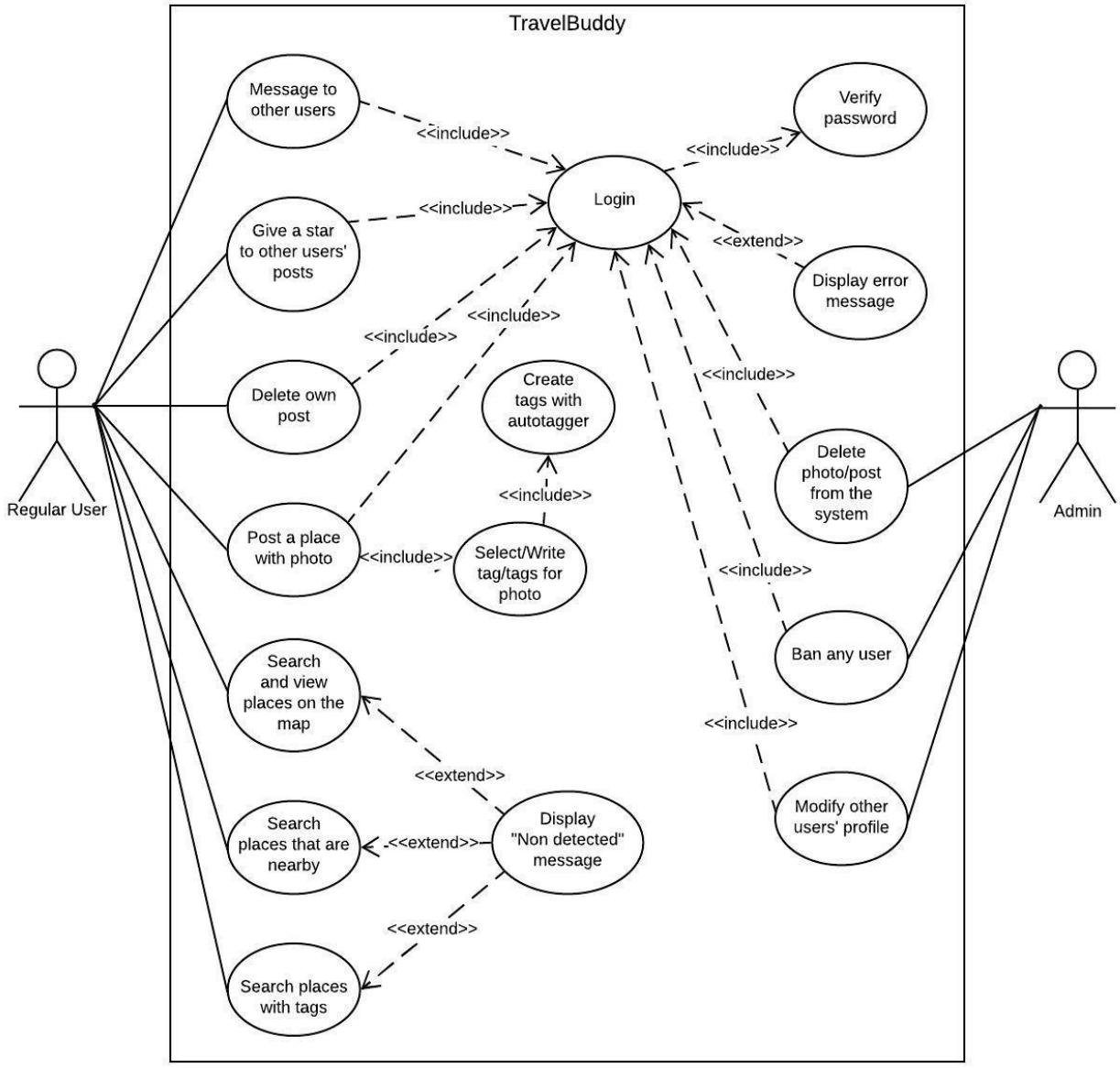

Figure 1 – UML Use Case Diagram for TravelBuddy

5. Division of Responsibilities

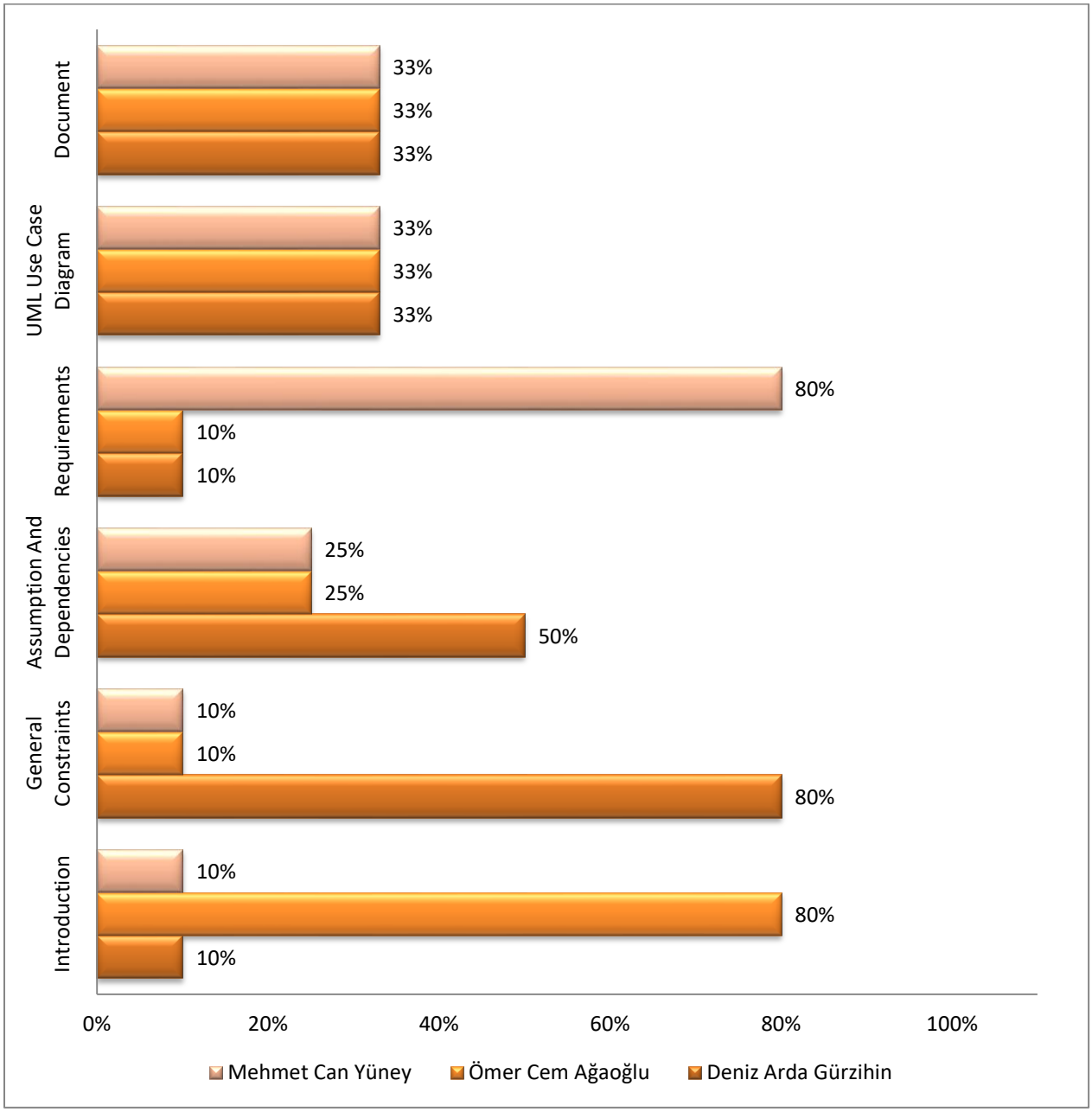

Figure 2 – Work Sharing Chart

References

[1]Medya Merkezi. (n.d.).Retrieved March 07, 2019, from https://tripadvisor.mediaroom.com/trabout-us

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[3] Geo-location APIs | Google Maps Platform | Google Cloud. (n.d.). Retrieved March 14, 2019, from https://cloud.google.com/maps-platform/