REPUBLIC OF TURKEY
YILDIZ TECHNICAL UNIVERSITY
DEPARTMENT OF COMPUTER ENGINEERING

GEZI-YORUM

13011036 — Tarık Nural
13011035 — Murat Baki Yücel

SENIOR PROJECT

Advisor
Assist. Prof. Dr. Ahmet Tevfik İNAN

Kasım, 2017

ACKNOWLEDGEMENTS

Tarık Nural
Murat Baki Yücel

TABLE OF CONTENTS

LIST OF SYMBOLS

kalsin	ornek

LIST OF ABBREVIATIONS

STS	Spring Tool Suit
JSON	Java Script Object Notation
AWS	Amazon Web Services
RDS	Relational Database Service
Js	JavaScript

LIST OF FIGURES

ABSTRACT

Gezi-Yorum

Tarık Nural
Murat Baki Yücel

Department of Computer Engineering
Senior Project

Advisor: Assist. Prof. Dr. Ahmet Tevfik İNAN

The goal of this project is to record travel routes of people's trips using mobile device location and to add and edit media on the route. A system will be developed that can be used to organize trips not only as people but also as a team, as well as what transport vehicles are used if they are to be visited. In the tour organized as a team, the users will be able to share their in-team location via the internet in order for team members to follow each other. It is intended that a route created by a user or a team can be examined by other users. Other users may choose the route they are reviewing as their route, or they may want to take a team tour on this route. The system to be designed will be guiding in this case. The system will need to create a social media environment to increase interaction between users. Friendship and tracking system between users will be designed. In addition personalized news flow will be provided. The person will be provided with a customized news flow that will be compiled around the person, compiled on popular routes and in the circle around friends. As a result of the project, a mobile application will be developed that stores route of a trip and medias like photos, videos, audio files tagged on the route also will provide service to interact people with shared data. Sharing trips is an additional workload for travelers. This application will offer users a practical solution to save the effort spent time on sharing a trip. In addition, the application will generate convenience not only for travelers but also for people who want to share their daily life. It will also provide an open environment for the interaction of people as it is considered to be a social media environment within the application.

Keywords: Trip, Tracker, Advisor, Social Media, Gallery Editor

ÖZET

Tarık Nural
Murat Baki Yücel

Bilgisayar Mühendisliği Bölümü
Bitirme Projesi

Danışman: Yrd. Doç. Dr. Ahmet Tevfik İNAN

Bu projenin hedefi insanların gezilerininin mobil cihaz konum verileri kullanılarak gezi güzergâhının kaydedilmesi ve güzergâh üzerinde medya ekleyip düzenlenmesini sağlamaktır. Gezilerin sadece kişiler olarak değil, takım hâlinde de düzenlenebilmesi, ayrıca yapılacak gezilerde varsa kullanılan ulaşım araçlarının neler olduğunu algılayabilecek bir sistem geliştirilecektir. Takım olarak düzenlenen gezilerde kullanıcılar, takım üyelerinin birbirini takip etmesi amacıyla takım içi konum paylaşımını internet aracılığı ile yapabilecektir. Bir kullanıcının veya takımın oluşturduğu bir güzergâhı, diğer kullanıcıların da inceleyebilmesi hedeflenmektedir. Diğer kullanıcılar inceleme yaptığı güzerâhı kendi güzergâhı olarak belirleyebilir veya bu güzergâh üzerinde takım gezisi yapmak isteyebilir. Tasarlanacak sistem bu durumda yol gösterici olacaktır. Sistemin kullanıcılar arasında etkileşimi artırmak amacıyla bir sosyal medya ortamı oluşturması gerekecektir. Kullanıcılar arası arkadaşlık ve takip sistemi tasarlanacaktır. Ayrıca kişiye özel haber akışı sağlanacaktır. Kişiye özel haber akışı sağlanarak kişinin çevresinden tavsiye edilender, uygulama içinde bulunan popüler güzergâhlar ve arkadaş çevresindeki geziler derlenerek sunulacaktır. Proje sonucunda bir gezinin rotasını, rota üzerine etiketlenen fotoğraflarını, videolarını, ses dosyalarını saklamaya imkan veren ve bunları diğer kullanıcıların etkileşimine açabilen bir mobil uygulama geliştirilecektir. Gezilerin paylaşılması geziciler için ek iş yükü teşkil etmektedir. Bu uygulama, kullanıcılarına gezi sürecinin paylaşımında sarf edilen efordan tasarruf ettirecek pratik bir çözüm sunacaktır. Ayrıca uygulama sadece gezicileri değil günlük hayatını paylaşmak isteyen insanlar içinde kolaylık üretecektir. Ayrıca uygulama içinde bir sosyal medya ortamının da olması düşünüldüğü için kişilerin etkileşimine açık bir ortam sağlayacaktır.

Anahtar Kelimeler: Gezi, Takip, Öneri Sistemi, Sosyal Medya, Galeri Düzenleyici

1
Introduction

On this project our purpose is that navigate the routes of the users on the map. A mobile application will be developed. There will be a mobile application and a website which lets users to share trips, review trips, communicate and socialize each others. When going to places to be taken from the mobile device, various media records such as photos, videos and audio recordings created during the trip will be shown on the route . If the journey is planned according to more than one member, there will be a team trip option for the members. This feature will enable you to use the internet connection effectively. When connected to the Internet, every member can be seen and be followed by others real time. In order to determine what method the system will be able to use for navigation, temporal changes of the positions taken from the satellite will be recorded, from which the speeds will be calculated, and as a result, trip type will be labelled as vehicle trip, walking trip, running trip or cycling trip. If the system is operating in the guiding role, the route that the user or team wants to go will be described by the system to the user. A social media environment will be designed. People will be able to establish their friendship here. In the news flow, there will be a timeline section. Posts which is shared by friends of users will be shown there. The trips can be liked by other users in the news flow, it can be saved for future review, it can be suggested for other friends to visit, or the users can follow trips they like from its content by downloading it on their own mobile device.

1.1 Literature Review

The main purpose of this section to review projects that are already developed by others which is related with ours.

Trip Tracker(Android application) : Trip Tracker, a Microsoft Garage project, is a free app that automatically records your drives, runs, walks, and bike rides. The app works in the background, and will auto detect when your activity has started. Download Trip Tracker and make to easier to remember the trips you've taken.

Route Tracker(Android application) : Route Tracker is a GPS application for tracking/loading routes in your android mobile phone that gives you a real time response on your location. It supports GPX tracks file import, GPX/KML/google map embedded HTML file export,sync workouts with RunKeeper account,auto-Lap for each mile/kilometer, audio reminder for auto lap time reminding, vibration for auto lap, sharing to friends, open street view for record locations, duration, distance, pace and calories indication.

1.2 Objective of the Thesis

1.3 Hypothesis

2
General Information

This project has two main parts. One of it is mobile application the other one is web site. Users are able to interact with those two but the mobile application is our main focus, because the content can be generated using it, web site also will have main significant features except creating trips. As mentioned before, the application will have social media feature. In order to do that we have server and client side platforms. Server side will be stored on AWS(Amazon Web Service) servers. Another server will store the data in database which is also located in AWS servers. A responsive and single page web site will be designed for the users who wants to connect from their devices such as desktops, laptops, tablets and so on. We use Bootstrap for designing patterns, Angular JS and JQuery JavaScript frameworks to handle two-way data binding front-end development, for the back-end we will use Spring Boot STS Framework of Java, lastly for storing the data we will use MySQL relational database management system.

2.1 Mobile Application

2.2 Website

2.2.1 Front-end

2.2.2 Back-end

2.2.2.1 Database

2.3 Web Services

3
Feasibility

3.1 Technic Feasibility

The computer on which the project is to be developed should be at a level that meets the minimum system requirements for application development. Accordingly, the minimum system requirements for a computer to be used for application development are as follows :

- JDK 1.8
- Spring Tool Suit, Spring Boot
- Eclipse, Android Studio etc. Java IDE
- Sublime text, gedit etc. text editor
- A Browser to render HTML and Javascript
- Android Emulator
- 8 GB RAM minimum, 16 GB RAM recommended
- Intel Core i5 4th generation + or more powerful CPU
- Minimum 250GB Free Disk Space
- Linux, Windows or Mac Operating System.

3.2 Labor Force Feasibility

Two people are currently developing the application, this is the minimum number.

Kimlik	Görev Adı	Başlangıç	Bitiş	Süre	Eyl 2017		Eki 2017				
					17.9	24.9	1.10	8.10	15.10	22.10	29.10
1	Determining Project	19.09.2017	20.09.2017	2g							
2	Researching content of project	21.09.2017	28.09.2017	1h 1g							
3	Feasibilty work	27.09.2017	28.09.2017	2g							
4	System Analysis work	28.09.2017	29.09.2017	2g							
5	Researching development enviroments	2.10.2017	4.10.2017	3g							
6	Developing project	4.10.2017	27.10.2017	3h 3g							
7	Determining and fixing bugs	4.10.2017	27.10.2017	3h 3g							
8	Reporting	19.10.2017	27.10.2017	1h 2g							

Figure 3.1 Gantt Diyagramı Zaman Çizelgesi

3.3 Time Feasibility

3.4 Legitimate Feasibility

There are no patent infringements as the software components to be used in the development phase of the project are open source and free of charge. Users are responsible for the legal problems that may arise due to the shares they have made according to Article 8 of Law No. 5651 and Article 125 of the Turkish Penal Code.

3.5 Economic Feasibility

There is no charge for software components to be used during application development. The hourly working fee of the person who will develop the project is 25 TL per person. The total cost determined for the project during the project development period stated in the Gantt Chart is 8000 TL. The price of a computer with minimum system requirements stated in the title of hardware feasibility which costs currently between 1500 and 2500 TL.

4
System Analysis

A
Appendix

B
Appendix - 2

Curriculum Vitae

FIRST MEMBER

Name-Surname: Tarık Nural
Birthdate and Place of Birth: 07.01.1995, İstanbul
E-mail: tariknural00@gmail.com
Phone: 0535 261 1429
Practical Training: SSI SCHAEFER
ARÇELİK A.Ş

SECOND MEMBER

Name-Surname: Murat Baki Yücel
Birthdate and Place of Birth: 04.01.1996, Kayseri
E-mail: bakiyucel38@gmail.com
Phone: 0507 915 8686
Practical Training: Pronic Yazılım
Kartaca Bilişim

Project System Informations

System and Software: Windows, Linux, Java, Android Studio, MySQL, Android, Spring Boot,Javascript, AngularJS, Mocha and Chai, Bootstrap, CSS, Android Emulator, Postman, JUnit, Google Map API, Mail Service, Android Phone,Git
Required RAM: 1GB-512MB
Required Disk: 512MB-2GB