

Transportation Fleet Tracking System

Alp Eren Eskigöçmen – Çavuş Çiçek – Oğulcan Demirdizen Advisor: Sadık Eşmelioğlu

Çankaya University, Department of Software Engineering

Abstract

Transportation Fleet Tracking System (TFTS) is a mobile devices based application to allow users find their shuttle location, report problems, track their shuttle's destination and also they can check shuttle's quota.

Solution

The Transportation Fleet Tracking System (TFTS) addresses the problem of tracking school and workplace shuttle buses, monitoring their occupancy, and estimating arrival times. Our solution encompasses several key functionalities: 1-Real-Time Tracking

- 2- Occupancy Monitoring
- 3- Problem Reporting
- 4- Integration with Private Shuttle Companies

Introduction

Nowadays, it is a big problem to know where the school and workplace shuttle buses are, whether there is room left or not, and how long it will take to reach the stop. We will fix this problem with our project. There is some related works such as "EGO CEPTE" but we can't see the quota in this app. Also it's not integrated to private shuttle companies.

User			Shuttle		
ID			ID		
Username	String		Name	String	
Password	String		Description	String	
Roles	String[]		Destination	String	
UserType	String		Line	String	
RegisteredIn	String		Location	String	
Reports			CreatedAt	String	
ID	String String Struct Strung String String		Point		
Туре			Index		
Plate			Name	String	
Route			Longitude	String	
Location			Latitude	String	
Notifier					
CreatedAt			Road		
Stop			ID		
ID			Name	String	
Name		String	Description	String	
Longitude		String	Destination	String	
Latitude Routes Path		String String []	Departures	String[]	
			Line	String	
		String[]	Path	Point[]	
		Sungl	Enabled	Bool	
			Created At	String	

Company Info

The target users of the Transportation Fleet Tracking System (TFTS) project are students, teachers, company employees and shuttle drivers.

Results & Conclusion

unfamiliar software Since we used technologies in this project, ουΓ adaptation process was long and painful, but it also contributed a lot to us. What we learnt while doing this project: project management and creation of documents, problems that may occur when we use time inefficiently, Expo, GO, JWT, MongoDB. Before starting the project, we did market research. Then we created a project plan by thinking about the work we will do. The first thing we did was to complete the first version of SRS. We completed our first draft by creating the SDD in line with SRS. We created our Test taking Plan document by these documents as a source. After doing code implementation for the first sprint, we completed the tests of the features and finished our sprint. Using this cycle, we did three sprints in total and finalised our project.

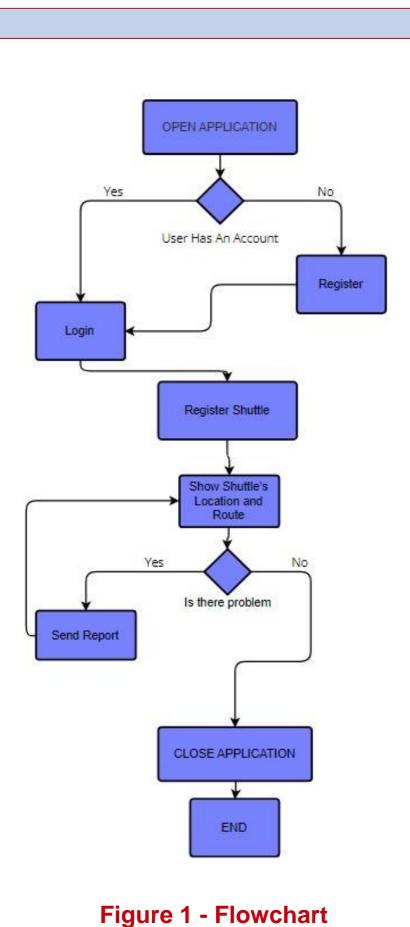
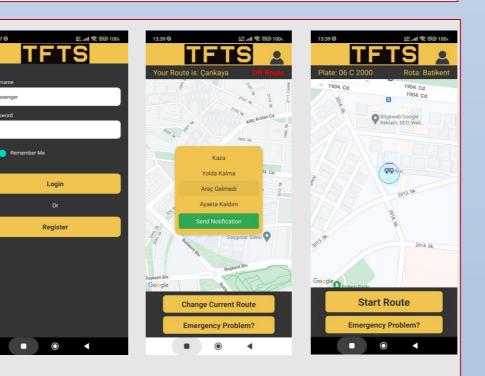


Figure 2 – Database



	844	13:43 🕀	🏭 .al l 중 🚱 100s	13:41 O	
- 1	S .	TFT	S 💄	<	TF
		User Role Management	Save & Close	Route	Туре
	1983. Sk	Search users		Çankaya	Araç Gelmedi
1984. Sk	Çiğdeml	yaln	Admin 👻	Çankaya	Ayakta Kalma
0	1904. Cd.	yal	Passen	Çankaya	Kaza
ta S	itesi 2013Güvenç	deneme	Passen 🔻	Çankaya	Yolda Kalma
2018.Sk	2013.	deneme2	Passen •	Batikent	Kaza
		alp	Passen •	Batikent	Gecikme Var Ayakta Yolcu
2019. SK.	Saygınlar A Sitesi	ogi	Driver 👻	butter	Araç Gelmedi
2019	Sayginlar-A Sitesi	yalin	Passen 🝷		Kaza
2021. Sk.	Sayginlar S	senaciftci	Passen 🔻		Yolda Kalma
		senaciftci	Admin 👻		
	Notifications	admin	Admin 👻		
nent	Open Roles Menu	passenger	Passen 🔻		
0	•		•		•

TF

User Role Man

Figure 3 – Finished Product

Acknowledgement

We do not get any help from third person except our advisor Sadık Eşmelioğlu. He leaded the process and kept us motivated. Thanks to our advisor, we gained a lot of experience.



Alp Eren Eskigöçmen - Çavuş Çiçek - Oğulcan Demirdizen