

RedEye

Smart Phone Based Web Development

Project Report

-Submitted by Raghuram Parthasarathy

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Project Proposal:

To develop an IOS application to enhance and efficiently utilize NEU's Red Eye shuttle service .

Problem Statement:

Students at Northeastern University are facing a hard time while waiting for the University shuttle every evening. They need to stand in a long queue for the shuttle which arrives every 30 minutes. The shuttle can accommodate only 9 students and the remaining student who stands in the long queue should wait for another 30 minutes. This long wait makes things worse during winter as well as rainy seasons. Students will stand in the same spot when it rains/snows in order to get a valuable seat. Some action has to be taken for such problems.

Inefficiencies in the existing system:

- Time delay and resources wastage due to bad route selection.
- Student traffic is not tracked/estimated.
- Fixed frequency on every day/season.
- Difficult for drivers who are new to Boston.
- Long wait makes things worse during winter as well as rainy seasons.

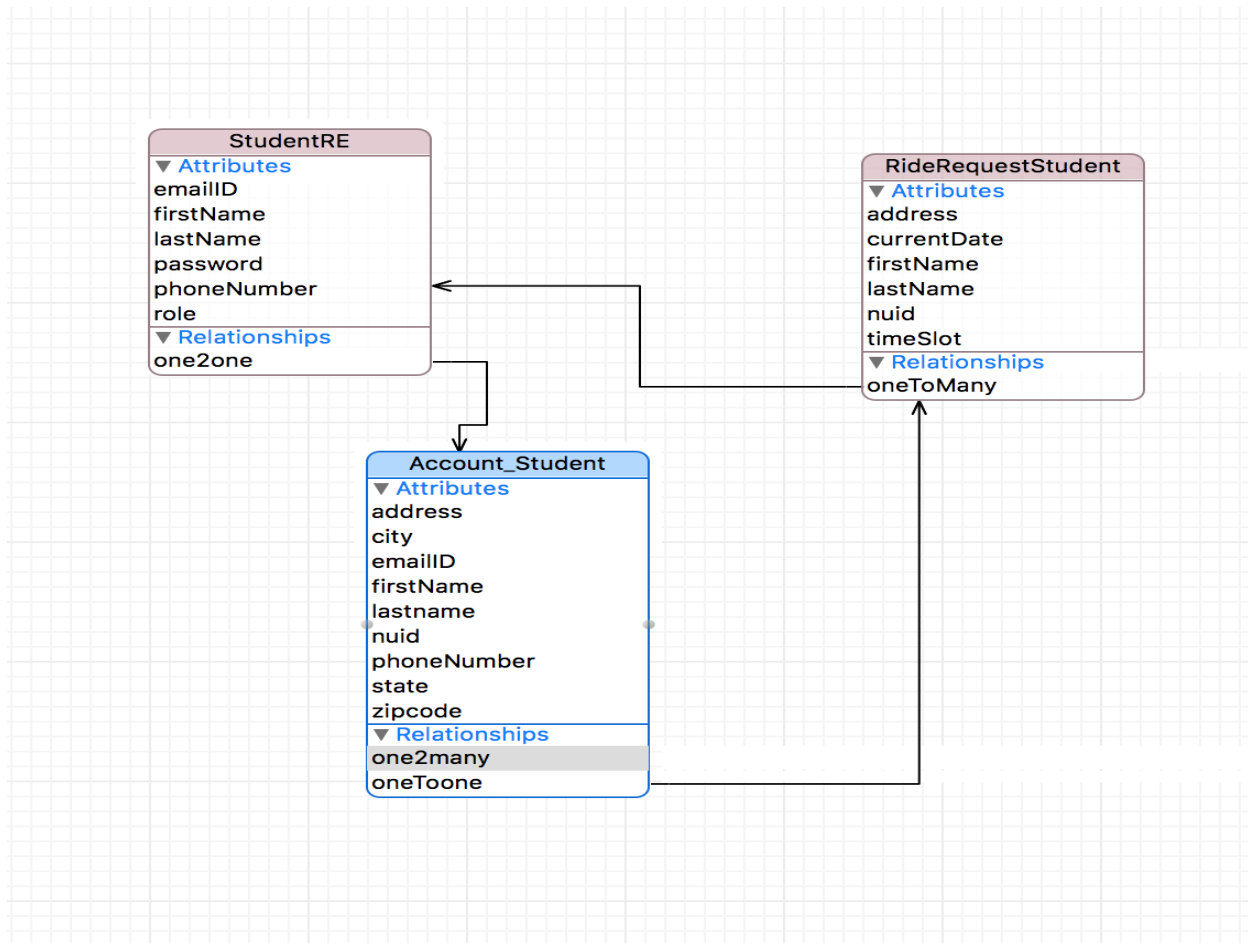
Proposed Solution:

By having a mobile application, student will no longer have to wait in long queues. They can simply register for a shuttle service by logging in to the application as a student and register the time slot they are looking to travel. If a particular time slot is filled for 9 students, the next student who tries to book will not be able to register for the service. Instead they will be provided with the next available time slot to register. This will hinder the need of forming a never ending long queues and it will be very much student friendly.

Benefits of the new application:

- ✓ By having a mobile application, student will no longer have to wait in long queues
- ✓ Efficient route map
- ✓ Digital record conversion of trip data with feedbacks to the drivers
- ✓ Operational efficiency of shuttle – control over the frequency based on traffic and resource
- ✓ Informed and connected travel – facility to track the shuttle
- ✓ All the student address and the history for each trip will be stored in the Northeastern University Police Department (NUPD) database for future references.
- ✓ Students will also have an option to submit a feedback in the mobile app if in case they are not happy with their trip.
- ✓ The address of the student for the respective time slot will be auto populated in the shuttle driver's phone, so that the driver can confirm the student's identity before starting the trip.
- ✓ Business Intelligence/Analytics will help to improve the service

Data Model:



Steps to run the program in XCode:

Step1: Unzip the Application

Step2: Open X-Code and Select Open Another Project

Step3: Double click on Raghuram_Parthasarathy_RedEye_Final_Project

->> RedEye_Final_Project

Step4: Run the application

Screen Appearance:

Register Screen with Validations

iPhone 6s - iPhone 6s / iOS 9.3 (13E230)

Back to StockMarket 5:33 PM

Register Login

Register

First Name

Last Name

Email ID

Password

Phone Number

Role

Submit Details

iPhone 6s - iPhone 6s / iOS 9.3 (13E230)

Back to StockMarket 5:34 PM

Register Login

Register

First Name 123

Last Name Parthasarathy

Email ID

Password

Phone Number 9989898971

Role Student

Submit Details

Alert

Please enter only String for First Name

OK

Login Screen with Validations:

iPhone 6s - iPhone 6s / iOS 9.3 (13E230)

Back to StockMarket 5:35 PM

Register Login

Login

Email ID

stark@gmail.xom

Password

XXXXX

Login

iPhone 6s - iPhone 6s / iOS 9.3 (13E230)

Back to StockMarket 5:35 PM

Register Login

Login

Email ID

Alert

Please enter a valid email

OK

Login

Student Home and Account details Screen

iPhone 6s - iPhone 6s / iOS 9.3 (13E230)

Back to StockMarket 5:37 PM

Back

My Account Details

NUID

Address

City

State

Zipcode

Submit Details

iPhone 6s - iPhone 6s / iOS 9.3 (13E230)

Back to StockMarket 5:36 PM

Welcome

Locate Next Shuttle

Request Ride Ride History

My Account Help

Logout

Student Ride history and Feedback Screen

iPhone 6s - iPhone 6s / iOS 9.3 (13E230)

Back to StockMarket 5:37 PM

[Back](#)

Time Slot	Date	Address
01:00 AM	12/17/2016	sample
Feedback		
<input type="text"/>		

Time Slot	Date	Address
07:00 PM	12/17/2016	Symphony road
Feedback		
<input type="text"/>		

iPhone 6s - iPhone 6s / iOS 9.3 (13E230)

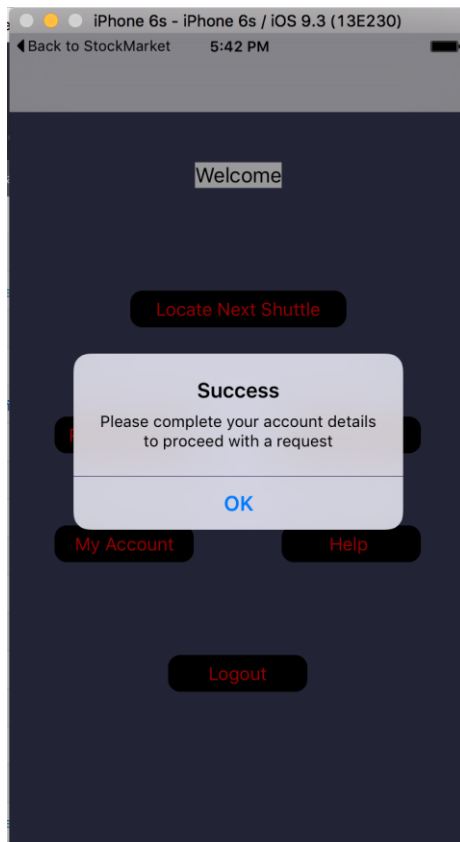
Back to StockMarket 5:38 PM

[Back](#)

Time Slot	Date	Address
01:00 AM	12/17/2016	sample
Feedback		
<input type="text" value="GOOD RIDE"/>		

Time Slot	Date	Address
07:00 PM	12/17/2016	Symphony road
Feedback		
<input type="text"/>		

Account Validation



First time login students will be able to book for a ride only if they fill up the account details section.

Date and Time Picker for ride request:

Request Ride

Current Date

Time Slot

Address

Done

September	14	2013
October	15	2014
November	16	2015
December	17	2016
January	18	2017
February	19	2018
March	20	2019

Request Ride

Current Date

Time Slot

Address

Done

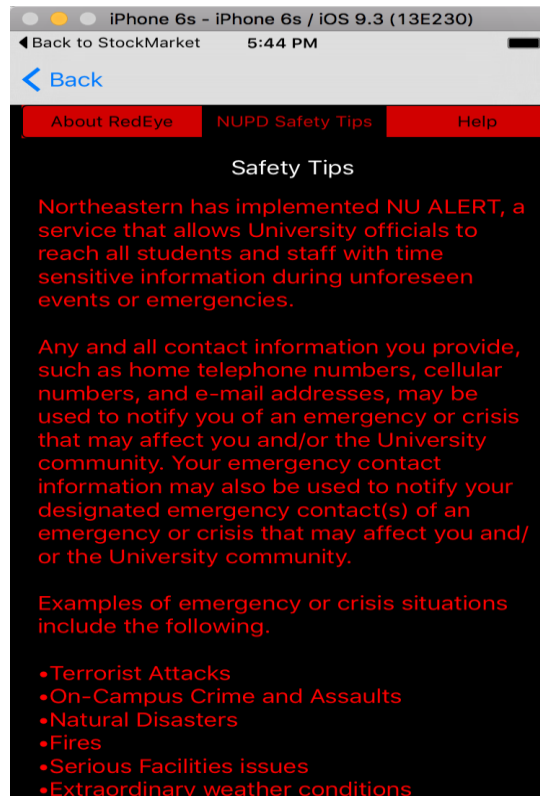
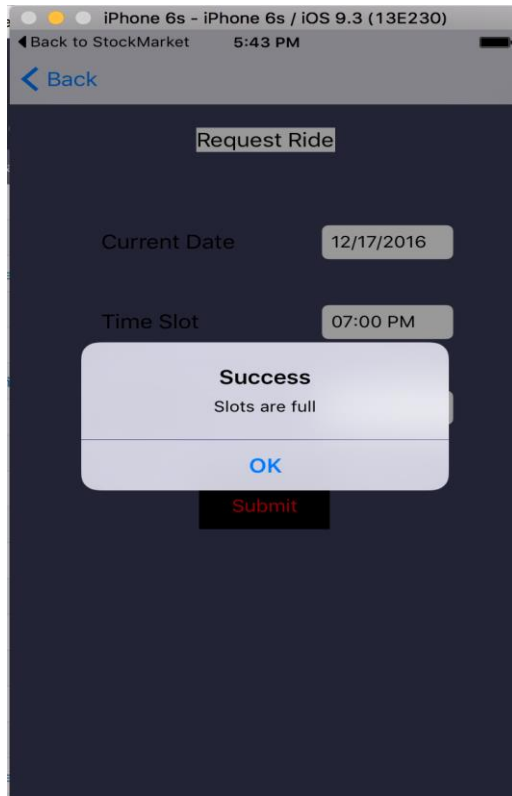
07:00 PM

08:00 PM

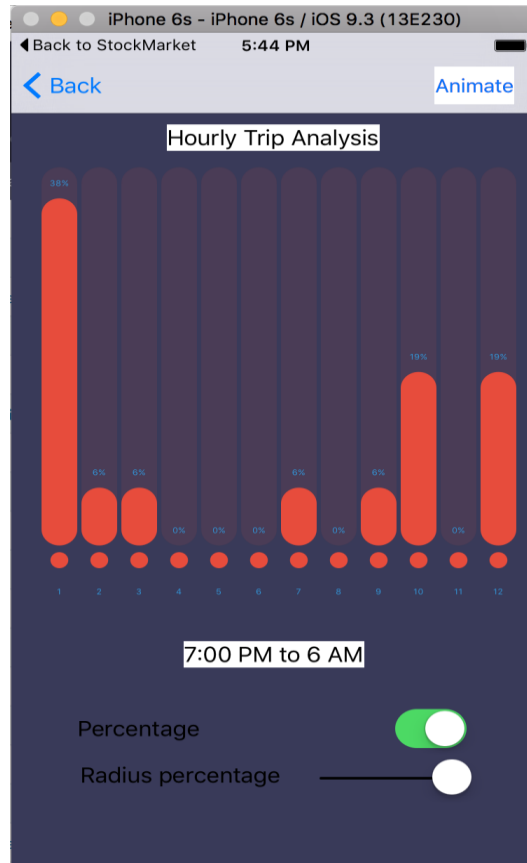
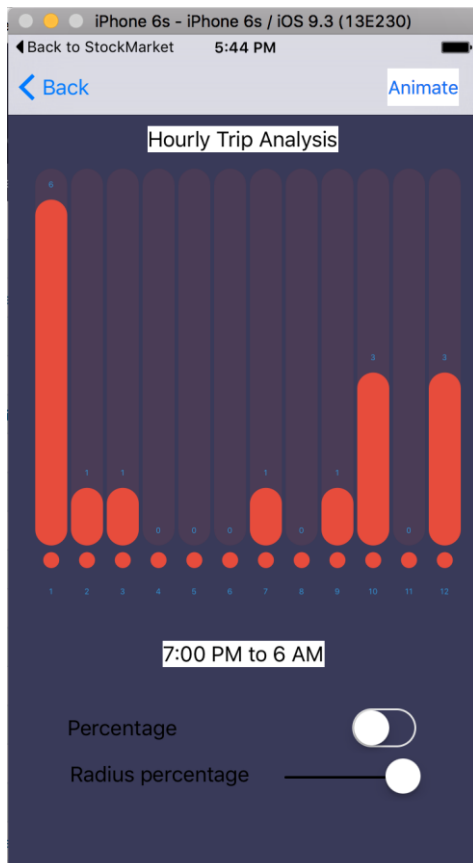
09:00 PM

10:00 PM

Slots filled and NUPD help Screen:



Trend Analysis of rides for each hour in terms of counts as well as percentage:



Shuttle Locator and Student booking histories for Driver:



Carrier 5:54 PM			
< Back			
First Name	VIJAY	Date	12/17/201
Last Name	Balaji	Address	
NUID	001684823		Parker hill 17
Time Slot	07:00 PM		
Feedback	Good job		
First Name	Little	Date	12/17/201
Last Name	John	Address	
NUID	001684823		Symphony Road
Time Slot	07:00 PM		
Feedback	Driver was rude		
First Name	stark	Date	12/17/201
Last Name	stark	Address	
NUID	8798		

Back4app Server integration:

objectId	lastName	nuid	feedback	currentDate	ACL	timeSlot	updatedAt
Pfenewyc63	stark	8798	(undefined)	12/17/2016	Public Read + Write	07:00 PM	17 Dec 2
xNP1c1nGuw	stark	8798	GOOD RIDE	12/17/2016	Public Read + Write	01:00 AM	17 Dec 2
sAIN3qbR3G	sample	67687	(undefined)	12/17/2016	Public Read + Write	09:00 PM	17 Dec 2
2vpR1Jf437	John	001684823	Driver was rude	12/17/2016	Public Read + Write	07:00 PM	17 Dec 2
zp6L43pfn2	snow	001685774	E	12/17/2016	Public Read + Write	06:00 AM	17 Dec 2
EybFZFQFCF	BaLaji	001684823	Good job	12/17/2016	Public Read + Write	07:00 PM	17 Dec 2
kTGSHwz69q	Ragz	3	(undefined)		Public Read + Write		17 Dec 2
uyHADSIIdid	y	33r	Good ride	12/17/2016	Public Read + Write	07:00 PM	17 Dec 2
6fDwDuhM3k	op	op	(undefined)	12/17/2016	Public Read + Write	04:00 AM	17 Dec 2
QWSQCh7e30	t	987897ijn	(undefined)	12/17/2016	Public Read + Write	04:00 AM	17 Dec 2
Lvb1ZK9hG4	t	987897ijn	(undefined)	12/17/2016	Public Read + Write	04:00 AM	17 Dec 2
Ta619mmwY6	s	s	(undefined)	12/17/2016	Public Read + Write	06:00 AM	17 Dec 2
q8pa9QVs4M	s	s	(undefined)	12/17/2016	Public Read + Write	06:00 AM	17 Dec 2
yJLxgQ4ioy	s	s	(undefined)	12/17/2016	Public Read + Write	03:00 AM	17 Dec 2
ynsnAGSFCm	we	e	(undefined)	12/19/2020	Public Read + Write	07:00 PM	17 Dec 2
0iI601doEy	t	987897ijn	(undefined)	12/16/2016	Public Read + Write	08:00 PM	16 Dec 2
Hn7AwxdJpM	snow	22323ew	(undefined)	12/16/2016	Public Read + Write	07:00 PM	16 Dec 2

Future Scope:

The shuttle driver will be able to view the GPS in his tablet based on the shortest optimized time or shortest optimized distance for the addresses registered for a particular time slot which can save the travel time as well as fuel.