

ISSN: 2617-2070 (Print); 2617-2070 (Online)

Journal of Advanced Sciences and Engineering Technologies available online at:

http://www.isnra.com/ojs/index.php/JASET

Advanced Sciences

and Engineering

Advanced Sciences

Journal of Advance Sciences and En Technologies

JASE

Mohammed Saleh Dobijan¹ Hateim Alshmrie² Dr.Mohammadal Rababah³ SERVICE COMPANY IN RAFHA CITY, Northern Border University

Kevwords:

Android Mobile application Web Application GPS

ARTICLE INFO

Article history:

Received 01 jan 2019 Accepted 10-March -2019 Available online 04 -may 2019

DOI:

http://dx.doi.org/10.32441/jaset.02.01.05 Copyright © 2018 by author(s) and This work is licensed under the Creative Commons Attribution International License (CC BY 4.0).

http://creativecommons.org/licenses/by/4.0





Developing a mobile application for taxi Service Company in Rafha city

ABSTRACT

This is a brief demonstration about the project, which consists of three parts web application, mobile application and PDA devises. Mobile applications using to send keyword in SMS that determine user location previously entered in website. In web application we design complete system receives and organise incoming request to closest parking to achieve project goals. On other hand in PDA devise the user benefit from services provided by to request taxi, specially the GPS services. The Text a Taxi system ensures to collect all possible technology together to make the operation of book taxi be more security, fast, cheap and easy than to the original way.

Traffic Transport has a great importance in all the daily activities of the communities and especially in the daily work and shopping processes in the Arab countries is important for the easy use of users and consumers in the business, trade and economy using intelligent devices over the Internet and the services of offices booking by websites and this is the subject of our study in Saudi Arabia The city of Rafha as a city with a population of 60,000 people distributed over 16 areas

© 201x JASET, International Scholars and Researchers Association

Introduction

It is important that in the era of communication technology and the Internet to do the work of taxi offices within large cities and small to ease traffic congestion within the region, using Internet networks and applications



But in our project we insert a lot of services beside such as using a GPS to tracking both of user and cabs to insure optimal way of using time and saving effort, also because the internet enter all the houses and every one become familiar with it we concentrating on it as a base of project. And we don't forget an older people how use a smart don't can phone these one can only send a message to a reserved line and get a taxi [1,2].

GPS is used to determine your current location. And with the help of maps and positioning, it will be easy for users to find their car. If you need to calculate the duration of trips and lay routes, you need a routing server.

Mobile applications are one of the most modern and effective tools for marketing and automating company business processes. They help to attract potential customers and allow you to keep in constant contact with them. Thanks to mobile applications, users of smartphones and tablets can comfortably and quickly make purchases, find necessary information, use bank services,

Future work

Magnetic card (Radio frequency transceiver)

Each driver has one of this contains his information like name, address, taxi number and mobile number (pin code of the devise that included in taxi to receive request from server if he outside the park), when he enter he register his order and wait until the server send coordination for new user to control office in the park, this provide security to the system because the request is register and which one reply it, in case something happen [3].

Parking for taxies

Until now the server delivery the input request into the closest taxi to the user but the main aim of project is to reduce the traffic by ensure that taxi after arrive a user to his end point he goes into closest park in area and register his information when he enter the park using his magnetic card to take his order, so later on when the user request taxi the order will give priority to taxies on the closest park nested of closest taxi, that's will encourage driver to park in parks, as response of this the traffic will be accident reduce.

Project supported by all GPS phones

Until now the project support if we want to request taxi using blackberry only to get longitude and latitude of current position.

Later on we can replace blackberry word in this code by Nokia or any device that support GPS to wider the field of participate of the services.

Credit card

As future work for project we will design credit card to recharge the balance, because every year the services provider will take 1 JD from balance to make user able to request taxi.

In this chapter we will talk about what we achieve as Conclusions, Conclusions are often the most difficult part of an essay to write, and many writers feel that they have nothing left to say after having written the paper. A writer needs to keep in mind that the conclusion is often what a reader remembers best. Conclusion should be the best part of the paper [4,5]

Later on we will list the problem that face the steps of create the idea, design hardware and applying software on it to be more reality.

The Solution

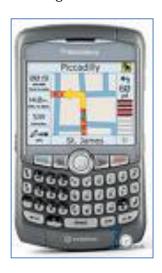
Our project is offering a solution for all issues mentioned above making sure that the Cabs Stations goals and needs will be achieved and realized, through cutting edge technology, and through identifying the special business environment of Cabs Stations.

Here is what we recommend T.A.T do for Cabs Stations:

Mobile Application: We implement an application which is supported by several Smartphone devices. This application will help mobile users to identify their positions on the earth and send these positions to the web server.

Web Application: We will build a web application that will represent the coordination of cabs within a geographic map. This application will be installed on a web server. This server shall receive mobile users' positions and send them a notification messages indicating that there request has been submitted.

• **PDA Devices**: We will employ PDA devices inside cabs to capture their coordination and point them to the web server periodically. The web server shall update the incoming coordination in regular basis.



The project will first undertake the research and gathering information process done by the students, then the implementation part, and then lastly the testing part.

The paper contains three parts:

First part: implementing a website for customer registration and for providing details on the taxis and the drivers working on it. This part is published on the web for registration and can be implemented in any of the web development tools such as ASP.NET [6].

but If we don't register on a website or if we in allocation but don't exactly know where we are then we must use a GPS to determine our allocation from a SMS send from smart phone. Second part: The control center which receives a request from the user and send to a taxi driver parked in a particular area. This part is the main part where the customer request is received and analyzed. The system checks for any keywords that identify the address of the customer and then sends it to the taxi parking that is closest to the customer. This part is needs an application program such visual basic .net.[7].

Also in a central control room we have digital map which show a used taxi as red point, free one as a green point also it show the closest park . There we will use an arithmetic algorithm to find the shortest path.

Paper Importance

The project concentrates on ordering a taxi through a simple text message to the control office that will from there book the closest available taxi to the customer. The project is important to the environment, the customer and to the taxis the importance from this project is below:

Fast: the customer can book a taxi in a matter of seconds, a confirmation is sent to the customer with the estimated time, name of the driver and the car plate. In this way, the customer does not waste any time to go out and look for taxi especially if the customer lives far away from the main streets.

Easy: the system is very simple and is easy to use. The customer only needs to register for the first time in the system and after that is ready to use the system at any time. The customer sends a text message with a keyword that is previously defined by the customer that identifies the address of the customer; the key word can be

something like (HOME) which means the address of the customer's home that is already stored in the system database on registration. Economical: there is no registration fee or additional costs for this service. Only the normal SMS rates from the operator, Accessible: this service is available at any time from a few key presses on the mobile phone.

Convenient: there is no need to go out on the street; also there is no need to call anyone.

Safe: the project enhances the safety of the customers, as each car sent to the customer is registered and the driver is known. This information is sent to the customer after booking a taxi, so that the customer knows that the taxi booked is legally recognized. [8].

Suitable for clients with special need: the system makes it easy for people with impairment of speech or hearing to order a taxi because there is no interaction a phone center. Also is good for disabled people because they can book a taxi through a taxi instead of going outside to look for one which is inconvenient to disabled people. And most important is that customer can identify that he/she requires a special needs car through the SMS and it's good idea for hearing impaired.





Increase Profit: the system provides customers for taxis while they are parked in the designated area. This decreases the consumption of fuel while driving the roads trying to find customers.

Reducing Traffic congestion: when the system insures that the taxis will get customers it will not need to look for customers and will just have to go to one of the designated areas for taxis to get and customer request. This will reduce the number off taxis in the street [9,10].

Paper Objectives

The projects main objective is to reduce the congestion that arises from the taxis that drive around the city to look for customers. The project has also other objectives that can be insured indirectly or as a result to the main objective they are listed below:

Provide a simple method for customers to a book a taxi instead of looking for one.

- Increase taxi profit by providing customers to taxis who are registered in the system without having to cruise in the streets.
- Ensure the safety of the customers by providing registered drivers and taxis.

USE CASE NARRATIVE

Brief Description

This Use Case describes how a user places an order to a Taxi driver and how the user monitors the taxi until its arrival Actor the owner of the mobile phone (the user)

Flow of Events

Basic Flow The use case starts when the actor inserts his details on a registration page which is displayed on installation

- 1. The actor can update the initial registered details
- 2. The actor places an order, tapping the icon on the application menu.
- 3. A page with different text fields is displayed requiring the user to insert his location and its description.
- 4. Details of placed orders are displayed in the order history on the application menu
- 5. The location of the Taxi man can be viewed on a Google map by tapping the 'Where is taxi' button on the application menu
- 6. A call can be made to a taxi man
- 7. A user double taps the exit button to exit

Alternative Flow If in the Basic Flow when registering and Placing an order, the actor clicks the Save or Submit button without having filled out the compulsory fields, an error message will be flagged.

Special Requirements None Pre-Conditions The actors must have filled the Place Order requirements completely. Post-Conditions A message would be received by the user fro

Use case diagrams of mobile application steps

User.....registerupdate profileplace ordercall taxi....locate taxi

Conclusion

We conclude a lot of thing such as We can build system give all possible ways to request taxi. Ensure that when the system applied in market that will decrease the traffic, accident, consumes fuel, and increase profit. Achieve security to a local social because in least few year problems with taxi driver increase to point can be live with, by this system everything is register and be more safe.

There is no need to going outside to looking for taxi. Only you can request it using SMS, Blackberry or through website. And Only team work will reach us to what we want to achieve.

Everything by giving order will be easier and The project completely doesn't depend on human, that's made the operation easier, more security and correct than original method.

References

- [1] Adewumi, A., Odunjo, V., & Misra, S. (2015, December). Developing a mobile application for taxi service company in Nigeria. In 2015 International Conference on Computing, Communication and Security (ICCCS) (pp. 1-5). IEEE.
- [2]Al Smadi, T. (2011). Computing simulation for traffic control over two intersections. Journal of Advanced Computer Science and Technology Research, 1(1), 10-24.
- [3] Felt, M., Gharachorloo, N., & Moshrefi, A. (2011). U.S. Patent Application No. 12/607,782. [4] Al Smadi, T. (2014). Real-time lane detection for driver assistance system. Circuits and Systems, 5(08), 201.
- [5] Cramer, Judd, and Alan B. Krueger. "Disruptive change in the taxi business: The case of Uber." American Economic Review 106, no. 5 (2016): 177-82.

- [6] By Michael Ferguson Introductory and Fundamental Books on Gps , Randy Kalisek, Leah Tucker
- [7] Weng, G. S., Zailani, S., Iranmanesh, M., & Hyun, S. S. (2017). Mobile taxi booking application service's continuance usage intention by users. Transportation Research Part D: Transport and Environment, 57, 207-216.
- [8] Zhou, P., Nadeem, T., Kang, P., Borcea, C., & Iftode, L. (2005, March). EZCab: A cab booking application using short-range wireless communication. In Third IEEE International Conference on Pervasive Computing and Communications (pp. 27-38). IEEE.
- [9] Smirnov, A., Kashevnik, A., Balandin, S. I., & Laizane, S. (2013). Intelligent mobile tourist guide. In Internet of things, smart spaces, and next generation networking (pp. 94-106). Springer, Berlin, Heidelberg.
- [10] Al Smadi, T., & Al-Smadi, O. O. (2017). High-Speed for Data Transmission in GSM Networks Based on Cognitive Radio. American Journal of Engineering and Applied Sciences, 10(1), 69-77.