Customer Relationship Management Using Android Phone in Tourism

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Abstract—Customers are the vital key for each business and company to help them to grow. So, implementing CRM important tools that will help managers and companies to increase the satisfaction and loyalty of customers more than before. Nowadays it is very difficult for a company to convince a customer with only product or price arguments because of the strong competition in almost all market areas. Mobile technology offers a high potential to significantly transform the ways how a company can interact with their customers and even with own employees. Therefore, this paper deals with the possibilities and aspects to support CRM via future mobile services.

Keywords—CRM, Mobile Technology.

I. INTRODUCTION

CRM has been defined in numerous ways and with many descriptions. It can be defined as the art of acquiring customers and having a long-lasting relationship with them. Companies must take the initiative to actualize and implement CRM. Also, CRM is a combination of people, processes, and technology in order to understand and obtain customers for the company. It focuses on customer retention and builds up the relationship.

Using CRM, companies can maximize their interactions with customers and obtain a 360-degree vision of customers. CRM is a systematic management of relationships across all parts of the business, focusing on customers, providing long-term value for them, and increasing customer interaction. It also includes communication channels and offers of different services, thereby producing customer retention and loyalty.

However the focus of this paper will be on mobile CRM applications. By making CRM applications mobile in tourism, customers can find tourist attractions in a particular city. Then finding the optimal path for tourist attraction, once user has selected path, the system will track the path till user reach to the destination. If driver deviates the path from optimal path, then it will alert user reminding about the divergence. Once the destination is reached the exact fare for the journey is calculated using optimal path distance calculation provided by Google Maps API.

And if driver is not agreed with the fare calculated by the system and asking for more Fare, tourist has the facility to lodge the complaint against the driver. Also based on the GPS location the emergency numbers will be fetched to help the tourist in emergency.

II. PROPOSED SYSTEM

The system makes CRM application with Server and Tourist person. Customers can view all the features of system as customer location, facilities around location etc. The main feature of mobile communication are Interactive Broadband Protocols, Individualized Services and Location Based Services which focus on the Multimedia information. These activities are embedded in a three layer communicate model.

Aim of this project deal with finding tourist attractions, optimal path finding for tourist attraction, suggestions for way of transportation, and if the tourist is opting for Rented Vehicle then calculation of the fare using optimal path distance calculation provided by Google Maps API.

This project also helps the tourist to lodge a complaint against the Tourist Guide’s, Rented Vehicle Drivers for diverting the tourist and charging him unfair tariff & finding out emergency numbers for the particular city.
There are two kinds of users as follows:

1. **User**: These are users who use the application and they only have limited access as a user.
2. **Admin**: Admin is responsible for adding the emergency numbers. He has full control over the application.

This project guides and calculates the optimal path from source to destination and the fare for the rented vehicle by considering the different parameters such as Type of vehicle, the route travelled, and total time for the journey.

### III. System Objectives

Our proposing system consists of six states:

- **A. System Initialization**: System gets initialized and finds the current position of the mobile handset of the user.
- **B. Listing Tourist Attraction**: The source is detected using the current GPS location and the user is able to see the tourist places and attractions of that particular place/city.
- **C. Tracking the Path**: Once the user has selected a path, the system will track the path till the user reaches the destination. If the driver deviates the path from the optimal path, then it will alert the user reminding about the divergence.

![Fig.2 : Tracking the Vehicle path](image)

- **D. Fare Calculation**: Once the final destination is reached, the exact fare for the journey is calculated based on different parameters stated above.
- **E. Lodge Complaint**: If the driver is not agreed with the fare calculated by the system and asking for more fare, the tourist has the facility to lodge the complaint against the driver.

The tourist can fill a small form having the details about him, the driver, and his vehicle and the complaint he has against the driver. After filling all these information, the user can upload this information to the central database and can send a SMS to higher authorities.

- **F. Listing the Emergency Numbers**: Based on the GPS location, the emergency numbers will be fetched to help the tourist in emergency.

### IV. Conclusions

This paper supports the view that mobile technologies may enhance CRM core processes only if the offered mobile services show benefits in the perception of customers they will make use of them. The recognition of the basic and extended functionalities of mobile devices in those processes is required to provide added value for business and customers. For business, the devices offer the opportunity for interactive CRM processes between business and customers as well as collaborative link between business partners. They enable a nearly 24h accessibility to services, the availability within most customers and also a direct way for communication between customers and companies.

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### REFERENCES


