Personal Home Assistance Based on Opinion Mining

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Abstract- **The mindset of the middleclass people is tolead a comfortable life. Our project provides that comfort by offering a customized personal assistance for every user. Based on the requirements of the user,nearby man-source with better rating will be suggested and recommended for that specific task along with their personal details. Our app will be convenient and connects the people based on requirements and further increases the employment opportunities for sure. In addition to serviceprovision, our project also enables the user to buy groceries and fuel such as petrol and diesel from user's specified location at any time.**

INTRODUCTION

The evolution of mobile technology opens the windows to the android applications.It's the time to bring up the solution for our day-to-day problems through mobile apps, which has become the part of our daily routine. We are introducing Clic-IT the android application cum website which works as a Manpower Interaction software among people. It provides more comfort and a better user interface to the user. Separate account can be created for every user. Every user can check for the notifications he received and can update their own profile better at any time. It enables both the owners and the labours to come in contact through single point. It also enables user to find their worker's current location. Secured data access as each user is given with a separate passwordfor login/signup. User can get the assistance whenever he needs help through mobile irrespective of place and time.

OBJECTIVE

The main focus of this system is about delivering the home services just by one click. This paper explains about major theme of finding solution for the home services and how the ordering and delivery of manpower services and the grocery services take place. Personal Home Assistance can be used by an authenticated user to seek for household and other personal emergency services such as vehicle assistance through a mobile application. To provide an authentication to user such as service seekers, service providers and the admin, through their phone number by generatingOne Time Password(OTP). To develop anidentical mobile application for opting the services. To design an interactive User Interface for seeking services on the go. To provide a secured online payment gateway for service seekers. To acknowledge the conformation of servicesopted by the users.

SYSTEM REQUIREMENTS

Software Requirements

Table 1: Software Requirements

SERVER SIDE	*Operating System*	*Windowsx86_64*
	Application Software	*Android Studio, TensorFlow*
	Software Tool	*Java, XML*
	Database	*Google Firebase*
	Payment Gateway	*Any Payment Gateway viz., Papal, Instamojo*
CLIENT SIDE	*Operating System*	*Android phone supports Android4.1(Jelly bean)+.*

Hardware Requirements

Table 2: Hardware Requirements

SERVER SIDE	*A hosting service based on cloud*	
CLIENT SIDE	*Android Version*	*Android 7.1 and more.*

SYSTEM DESIGN

System Modules:

Worker Module

User has to login through his Phone number and OTP will be generated to authenticate the user. Once the user logsin for first time, he/she has to fill theirprofile

details. As our app allows evenworker to seek a help from others, theycan search for the assistance in the forum page. If assistance is not needed, the worker can check for any notification in the notification tab of profile page.

If any notification is received, he may/may not accept the proposal. Once accepted, the worker can contact theperson who assigned him a job. The worker can also the user' location throughtracking facility.

User Module

User has to login through his Phone number and OTP will be generated to authenticate the user. Once the user logsin for first time, he/she has to fill theirprofile details. Once the profile details have been filled, the user can search for the assistance. On searching, if he/she finds the suitable person, they can ping them by ping button.

If the worker accepts the user's proposal, the user will be notified. Once proposal is confirmed, he can track the current location of the worker by using tracking facility. Once the job is done, the user can submit the rating and feedback for the workers. User can also place the grocery order which will be sent as notification to the grocery stores of nearby location and track the order. Also, user can book the fuel such as Petrol and diesel and requiredquantity and track the order.

Grocery Store Module

Grocery Store Manager has to login through their registered Phone number and OTP will be generated to authenticate the user. Once the user logs in for first time, he/she has to fill their profile details.

Once the profile details have been filled, they can go through the notifications received from the user, based on availability of stocks, they can either accept or decline the order.

Petroleum Bunk Module

Petroleum bunk Manager has to loginthrough their registered Phone number and OTP will be generated to authenticatethe user. Once the user logs in for firsttime, he/she has to fill their profile details.Once the profile details have been filled,they can go through the notifications received from the user, based onavailability of fuel, they can either acceptor decline the order.

Admin Module

Admin will track all the transaction and payment activities.

Use case Diagram: DIAGRAM 5.1: USE CASE OF PROPOSED MODEL
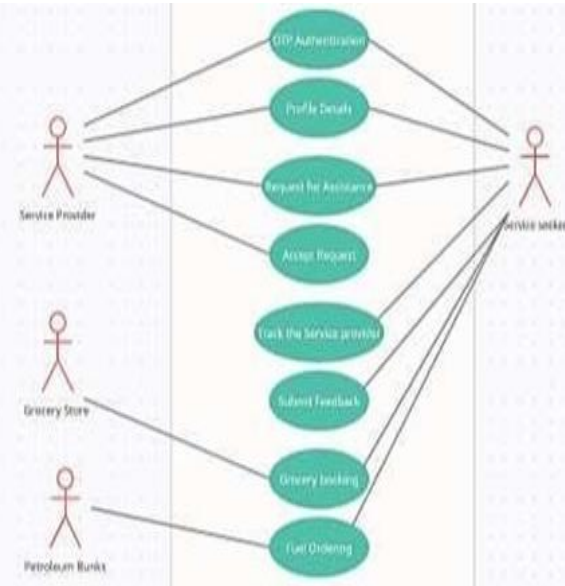
Our application hopes to draw on two main user groups. Currently it is impossible to see people without smart phones. About half of those smartphones are Android, and more than half of those Android phones are fit to run Clic-IT. These users are obsessed with social media, and almost all of them actively uses at least one of the following: Facebook, Twitter, Instagram, and Snapchat. The application will be helpful to workers to post their personal details which will offer them a job. The group that is probably going to be using the app most, and thus the most important group, is the Workers who seeks job.

The various users and corresponding use-cases involved in the project includes,

Service Seeker:

The main use-cases of service seekers are search and request for service from theservice providers and track their location.Once the service is done, ratings and feedback should be provided for service provider. Additionally, service seeker can also place the grocery order.

Service Provider:

The use cases of service providers are accept the request received from the service seeker and also search and request for service from other service-provider. Additionally, placing the grocery order.

Grocery Store:

The use case of grocery store is to check the availability of stocks in the store and respond to the user's request.

Petroleum Bunks:

The use- case of the petroleum bunk is to check the availability of fuels and respond to the user's request in case of vehicle assistance.

PROCESS

DIAGRAM 6.1: PROCESS OF PROPOSED MODEL

The system is proposed with the focus of providing better and easy user interface for the user. So, login credentials include phone number. By providing the phone number, One Time Password(OTP) will be sent to that number. After authentication, if he is a new user, the profile page will be displayed, where the basic details will be collected, and if user wish to be a service provider, he can give his occupation details which will be stored in the database. Now, service seeker can select the module in which he seeks service.

The list of workers will be displayed based upon the ratings. The user can opt any of the worker from the list and book a slot immediately or to specific date and time. If the worker is not available for that time slot unavailable alert message will be shown to the user. Once the worker is booked, the user can chat him through the built-in chat application and can track the worker's location using embedded map feature.

The user can also book the groceries through this application. Once the user creates their own grocery list, the particular list will be sent to nearby grocery shops. The grocery shop can check the availability of the stocks which are mentioned in the user's list. Based on the availability and price from each store, the user can book the order with the required store. In vehicle assistance module, the user can also book the petrol or diesel, from the nearby petroleum bunks.

SYSTEM ARCHITECTURE

DIAGRAM 7.1 : ARCHITECTURE OF PROPOSED MODEL
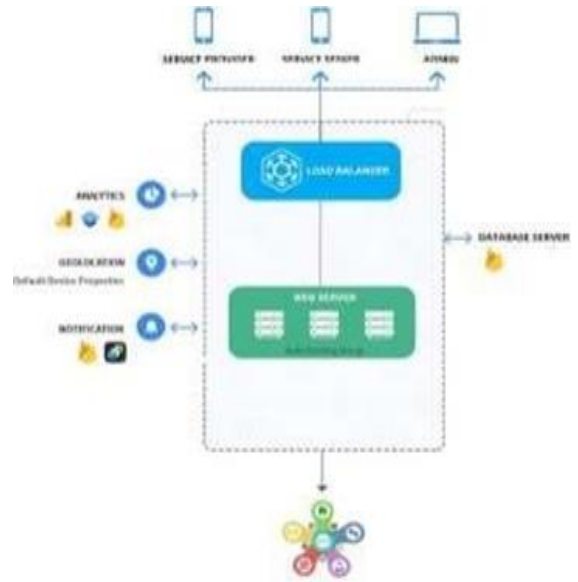
The Architecture of the system includes Firebase, which is a cloud data storage medium. OTP authentication will be sent to the user through Firebase Authentication System. For recommendation of the better worker to the user, Recommendation Algorithm will be used. This machine learning algorithm will be built in TensorFlow application. That developed model will be incorporated with the android application through an API (Application Programming Interface). The application will be hosted in the Apache web server. For tracking the user's location, Google maps API will be incorporated in the application.

IMPLEMENTATION

DIAGRAM 8.1: PHONE AUTHENTICATION PAGE-1

DIAGRAM 8.3: USER MAIN PAGE

As we previously mentioned. In thisapplication, we will have the same login for both users and workers. We are using OTP based authentication to get into tothe application.

DIAGRAM 8.2: PHONE AUTHENTICATION PAGE-2

grocery stores to check availability ofstocks, based on price and availability user can place the order with particular shop.(Diag. 8.4)

DIAGRAM 8.5 : CARPENTERS PROFILE LIST PAGE

OTP will be sent to phone number and this application will automatically read the OTP.

If you are the new user you will be asked to fill profile

which includes basic details like name, address, and date of birth and you will be asked whether you are willing to work or not. If you accept you will become a service provider and need to fill in occupational details and pay scale.If you are an existing user, Home page (Diag. 8.3) will be displayed.

DIAGRAM 8.4 : GROCERY BOOKINGPAGE

The user can create their own customized, If you need assistance for carpenter work in your home you can click carpenter modules then the user can choose workersbased on ratings.

DIAGRAM 8.6 : SPECIFIC WORKER PROFILE
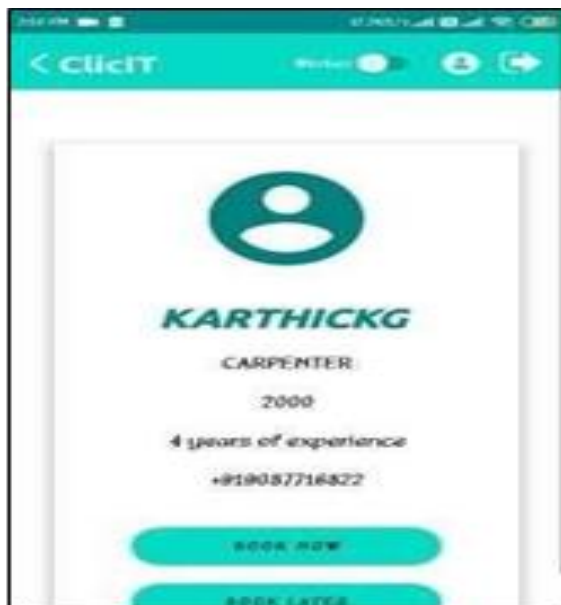
Once the worker is selected, the user will haveoptions to book now or book later based on the user's convenience.

DIAGRAM 8.7: WORKER BOOKINGPAGE
grocery list which will be sent to nearby

After booking, it will show you an alert stating booked successfully. Whereas the same will be notified to worker as an in-appnotification.

CONCLUSION

This paper established the factors that led to the improvement of household and other services which help us in our busy and hectic lifestyle of this generation. To reduce burden and facilitate user in finding in-house solutions for the services, the proposed system provides several services by providing experienced and skilled worker just in one click. A user-friendly mobile environment to users provides ease in accessing our services in a more comfortable way.

REFERENCE

[1] Shahrzad Shahriari, Mohammadreza Shahriari, Saeid gheiji. " ECommerce And It Impactson Global Trend and Market". International Journal of Research– Granthaalayah. Vol.3 (Iss.4): April 2015.

[2] L.RichardYe, Yue Jeff Zhang, Dat-DaoNguyen, James Chiu, "Fee-based online services:

Exploring consumers' willingnessto pay". Journal of International Technology and Information Management.

[3] Bo Zhang, Ruihan Yong, Meizi Li, Jianguo Pan, Jifeng Huanglaa, " A Hybrid Trust Evaluation Framework for E- commerce in Online Social Network:". 2169-3536 (c) 2016 IEEE. Translations and content mining are permitted for academicresearch

[4] Chenggang Zhen,Peng Cheng. "Construction of campus trading platform based on third-party online payment " 2ndInternational Conference on Industrial andInformation Systems,IEEE,2010

[5] Sujit Kumar Basak,Irene Govender. "Examining the Impactof Privacy, Security, and Trust onthe TAM and TTFModels for Ecommerce Consumers: A Pilot Study", IEEE, 2009.

[6] CAl Yrnn-ping, WANG Yu-ying, "Simple Said about Online Payment Risks and Preventive Measure", China located International Conference on Information Systems for Crisis Response and Management,IEEE,2010

[7] Dejan Kovachev and Ralf Klammadriano, " Beyond the ClientServer Architectures: A Survey of Mobile Cloud Techniques ",workshop on mobile computing in 2011.

[8] Teddy Mantoro, Admir Milišić, Media A. Ayu, " Online Payment Procedure Involving Mobile PhoneNetwork Infrastructure and Devices",IEEE 2010