International Research Journal of Engineering and Technology (IRJET) e-ISSN: 2395 -0056
Volume: 03 Issue: 11 | Nov -2016 www.irjet.net p-ISSN: 2395-0072

CLICKnSAVE-AN ANDROID APPLICATION

Ramhari Shinde[1], Udgrand Devlapelli[2], Pratap Katkar[3], Vijay Mergal[4], Prof. Nilesh Gunaware[5]

[1]*Savitribai Phule Pune University,*
Dept. of computer engineering, H.S.B.P.V.T.COE, Kashti, Maharashtra, India
rsshinde04111991@gmail.com

[2]*Savitribai Phule Pune University,*
Dept. of computer engineering, H.S.B.P.V.T.COE, Kashti, Maharashtra, India
uggu3030@gmail.com

[3]*Savitribai Phule Pune University,*
Dept. of computer engineering, H.S.B.P.V.T.COE, Kashti, Maharashtra, India
pratap.vk05@gmail.com

[4]*Savitribai Phule Pune University,*
Dept. of computer engineering, H.S.B.P.V.T.COE, Kashti, Maharashtra, India
vijaymergal09@gmail.com

[5]*Savitribai Phule Pune University,*
Professor, Dept. of computer engineering, H.S.B.P.V.T.COE, Kashti, Maharashtra, India
Nilesh.gunaware@gmail.com

Abstract - We are designing an Android application named CLICKnSAVE - AN ANDROID APPLICATION FOR RESCUE which will be beneficial for peoples to help other peoples who are suffering from incident like accident. The application first takes picture of particular accident scene then it will suggest nearby hospitals or police stations for help by. This Application will display the nearest hospitals list of 5 and police station with distance with the location from accident scene. Then user has to choose the best options based on his convenience from suggested list. After selecting particular hospital, the application will send a text message with help message and location i.e. picture of accident if possible. Application will wait for response from selected hospital for certain time limit. If selected hospital doesnt respond to that message then the selection will be shifted to another nearest hospital and so on. On the other hand the same message will be forwarded to police station also. As no accident case will submitted to hospital until it be register to police station. The application hide users phone number for avoiding issues regarding police cases and for users privacy.

Key Words:- **GPS : Global Positioning System, MAP : Mobility Application Part, HLRs: Home Location Registers, VLR : Visitor Location Registers, REGNOT : Region Notification, MSC : Mobile Switching Center, DFD : Data Flow Diagram, UML : Unified Modeling Language,GUI : Graphical User Interface, CPU : Central Processing Unit**

INTRODUCTION

The application first takes picture of particular accident scene then it will suggest nearby hospitals or police stations for help by. This Application will display the nearest hospitals list of 5 and police station with distance with the location from accident scene. Then user has to choose the best options based on his convenience from suggested list. After selecting particular hospital, the application will send a text message with help message and location i.e. picture of accident if possible. Application will wait for response from selected hospital for certain time limit. If selected hospital doesn't respond to that message then the selection will be shifted to another nearest hospital and so on. On the other hand the same message will be forwarded to police station also. As no accident case will submitted to hospital until it be

register to police station. The application hide user's phone number for avoiding issues regarding police cases and for user's privacy.

_ Capture the Image by Android Device
_ finding out the location using the Algorithms.
_ Google API provides location.
_ find out list of hospital
_ Using min-max algorithm Sort in ascending order
_Send Image and location Information to hospital.

1. MATHEMATICAL MODEL

System S=Andriod Application
System S={S , I , U , O,P , Delta,}
S={GPS}
I={PD,SD}
U= Number of users
U={U1,U2,Un}
Delta= function
O=output
I1=PD-> places directory
I2=SD-> smart distance
[1]=I1={Hospitals,Police Stationsn}
Delta1=I1->O1
O1={Phone no.,Address,Map,Distance, Reviews}
[2]=[I2]={Sources,Distination}
Delta->Cal n;
let F(M)= Cal(i)
where,limit o to n
Cal={Dist}
[Dist=Distination]
I2 = {Source, U1, U2, U3,.,Un}
[U=Users]
U<Un;
Dist = {D1, D2, D3,,Dn}
[D = Distance]
D=[Hospitals,Police Stations]
D1={H1,H2,.,Hn}
D2={SP1,SP2,.,Spn}

$$\text{Source=Distance [source]} + \sum_{i=1}^{n} distance$$

$$\sum_{i=1}^{n} U1 = Source$$

Between[source,U1]

P is the procedure:
 Step 1: At first user will click the picture of accident scene and send the request message to the system.
 Step 2: System will generate the suggestion list of nearby locations based on user location from where the message is received.
 Step 3: User will select the one location from that list and send the help message to that location.
 Step 4: Then respond message is given to user within a some threshold time .If suppose that user don't get response message then system will automatically send that message to next nearest location

2. RELATED WORK

Prior work on location management includes the cellular IS-41 MAP (mobility application part) standard and several improvements proposed in. The cellular IS-41scheme consists of using a two-level hierarchy of location registers called home location registers (HLRs) and visitor location registers (VLRs) to track mobile locations using registration notification (REGNOT) messages. An HLR is assigned to a mobile based on its permanent address, while a VLR, which is typically collocated with a mobile switching center (MSC), is assigned based on the current location of the mobile. Incoming calls to mobiles are delivered after executing a mobile location phase, wherein the call-originating switch generates a mobile location request (LOCREQ) to the HLR of the mobile which, in turn,

3. PROPOSED WORK

We are proposing an application that replaces the current manual processes for finding the location of hospitals in emergency situations. The user will send the help message along with those pictures of incident location then the system will generate the list of some nearby hospitals based on min and max algorithm which gives the minimum or nearby location information based on location of those incident location nearby hospitals and the police station details. Then user will send the help message to hospital and wait for response message for some threshold time in that time if user don't get any suppose from that hospital then the system ill automatically forward that help message to next hospital location and the selection will goes on till user get the response message.after receiving positive response from selected hospital the name of that particular hospital will send to police station by system.

_ Capture Image by Android device
_ finding out the location using the Algorithms.
_ Google API provides location as city,town.
_ Sort it as ascending order using algorithm

A. Pseudo Algorithm

_ User Login
_ Capture Image from Device by using Device Camera
_ System uses the min-max algorithm for obtaining nearest Hospital's Police
Station's.
_ System will Display the List of nearest Hospital's and Police Station.
_ System will Automatically select Hospital of minimum distance from the list.

_ System will send help message along with image to selected Hospital.
_ After the certain time limit, system will select second most nearest Hospital if
it does not receive any response and so on.
_ User can Logout from Application.

B. Min-Max Algorithm

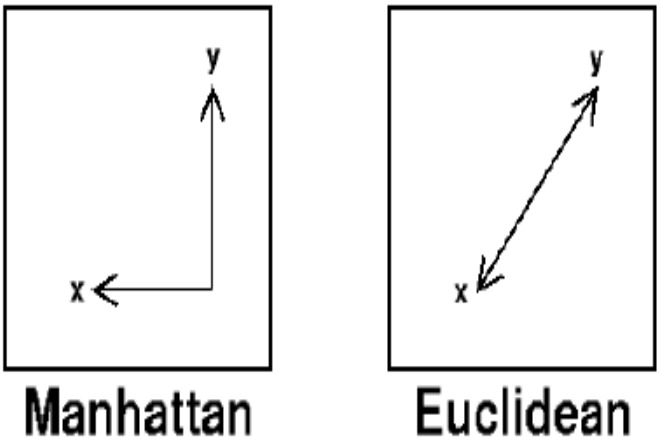
_ Takes array as a input(array is nothing but list of the distance of nearest location)
_ Consider first element of array as minimum value.
_ Compare these element to rest of element.
_ Then algorithm checks for minimum value which must be less than first element.
_ If condition is true, it will consider that value as new minimum value.
_ Again this new minimum value going to compare with rest of element and so on.
_ Finally we will got the minimum value as final output.

C. Manhatten Distance

The Manhattan distance function computes the distance that would be traveled to get from one data point to the other if a grid-like path is followed. The Manhattan
distance between two items is the sum of the differences of their corresponding components. The formula for this distance between a point X=(X1, X2, etc.) and a point Y=(Y1, Y2, etc.) is:

$$d\,(x\,y) = |x_1 - x_2| + |y_1 - y_2|$$

Where n is the number of variables, and Xi and Yi are the values of the ith variable, at points X and Y respectively. The following figure illustrates the difference between Manhattan distance and Euclidean distance:



4. CONCLUSION

We are designing an android application named click and save, which is helpful in emergency situation like accidents. The system will work on GPS (Global positioning system) which finds nearby location based on our current location. It provides automatic emergence response messages to the particular location. We will use Google map to find minimum distance of the two places based on min and max algorithm which also know shows driving direction between two locations.

ACKNOWLEDGEMENT

First and foremost, we would like to thank our guide, Prof.Gunaware N.G. for his guidance and support. We will forever remain grateful for the constant support and guidance extended by guide, in making this report. Through our many discussions, he helped us to form and solidify ideas. The invaluable discussions we had with him, the penetrating questions he has put to us and the constant motivation, has all led to the development of this project.
We would like to convey our sincere and heart rendering thanks to Principal Prof. Mahadik S.N. for his co-operation, valuable guidance.
Also we wish to express our sincere thanks to the Head of department, Prof. Tarte V.G. and the departmental staff members Prof.Taware C.C., Prof.Avahad P.S., Prof.Hirave K.S., and Prof. Hiranawale S.B. for their support.

Ramhari Shinde[1],
Udgrand Devlapelli[2],
Pratap Katkar[3],
Vijay Mergal[4]

9. REFERENCES

1. B. Hofmann-Wellenhof, H. Lichtenegger, and J. Collins, Global Positioning System: Theory and Practice, Springer-Verlag, 4th edition, 1997.
2. P. Bahl and V. Padmanabhan, RADAR: An in-building RF-based user location and tracking system, in Proc. of Infocom2000, Tel Aviv, Israel, Mar. 2000, vol. 2, pp. 775584.
3. N. Priyantha, A. Chakraborthy, and H. Balakrishnan, The cricket locationsupport system, in Proc. of International Conference on Mobile Computing and Networking, Boston,MA, Aug. 2000, pp. 32 43.
4. C. Savarese, J. M. Rabaey, and J. Beutel, Locationing in distributed ad-hoc wireless sensor networks, in Proc. of ICASSP01, 2001, vol. 4, pp. 20372040.
5. A. Nasipuri and K. Li, A directionality based location discovery scheme for wireless sensor networks, in First ACM International Workshop on Wireless Sensor Networks and Applications, Atlanta, GA, Sept. 2002.
6. S. Capkun, Maher Hamdi, and J. P. Hubaux, GPS-free positioning in mobile ad-hoc networks, Cluster Computing, vol. 5, no. 2, April 2002..
7. L. Doherty, K. S. J. Pister, and L. El Ghaoui, Convex position estimation in wireless sensor networks, in Proc. IEEE Infocom 2001, Anchorage AK, Apr. 2001, vol. 3, pp. 16551663.
8. D. Estrin N. Bulusu, J. Heidemann and Tommy Tran, Self-configuring localization systems: Design and experimental evaluation, in ACM Transactions on Embedded Computing Systems (ACM TECS), 2003.
9. N. Bulusu, J. Heidemann, and D. Estrin, GPS-less low cost outdoor localization for very small devices, IEEE Personal Communications Magazine, vol. 7, pp. 2834, Oct. 2000.
10. L. Girod and D. Estrin, Robust range estimation using acoustic and multimodel sensing, in Proceedings of the IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS 2001), Maui, Hawaii, Oct. 2001.,
11. P. E. Hart, N. J. Nilsson, and B. Raphael. A Formal Basis for the Heuristic Determination of Minimum Cost Paths. IEEE Transactions on Systems Science and Cybernetics, Vol. SSC-4, No. 2, pages 100-107, 1968.
12. M. Halvey, T. Keane, and B. Smyth. Predicting Navigation Patterns on the Mobile-Internet Using Time of the Week. In Proceeding of the 14th international conference
on World Wide Web, pages 958-959, Chiba, Japan, May 2005.
13 .H. Gonzalez, J. Han, X. Li, M. Myslinska, and J. P. Sondag. Adaptive Fastest Path Computation on a Road Network: A Traffic Mining Approach. In Proceeding of the 14th international conference on Very Large Data Bases, Vienna, Austria, September 2007
14. http://code.google.com/android/add-ons/googleapis/mapkey.html
15. http://code.google.com/android/maps-api-signup.html
16. Xianhua Shu; Zhenjun Du; Rong Chen," Research on Mobile Location Service Design Based on Android" In Proceeding of the 5th international conference on Wireless Communications, Networking and Mobile Computing, Dalian, China, september 2009
17. Lu, E.H.-C.; Chia-Ching Lin; Tseng, V.S.,"Mining the Shortest Path within a Travel Time Constraint in Road Network Environments",in proceeding of the 11th International IEEE Conference on Intelligent TransportationSystems, Tainan, October 2008
18. Tianhe Zhang, Rose, R. Dahan, J., Multiphase strategies for improving accuracy in a voice search application, in proceeding of the 2010 IEEE International Conference on Acoustics Speech and Signal Processing (ICASSP), March2010

Books:
16. Jerome (J.F.) DiMarizo ,"Android: A programmers guide" .
17.Burnette, E. (2009) Hello, Android: Introducing Google's Mobile Development Platform, 2nd Edition, The Pragmatic Bookshelf.
18. Xianhua Shu; Zhenjun Du; Rong Chen," Research on Mobile Location Service Design Based on Android" In Proceeding of the 5th international conference on Wireless Communications, Networking and Mobile Computing, Dalian, China, september 2009

BIOGRAPHIES

Shinde Ramhari S.
pursuing the Bachlor Degree in Computer Science Engineering from H.S.B.P.V.T.COE,Kashti under SPPU.
rsshinde04111991@gmail.com

Devlapelli Ugrand M.
pursuing the Bachlor Degree in Computer Science Engineering from H.S.B.P.V.T.COE,Kashti under SPPU.
uggu3030@gmail.com

Katkar Pratap V.
pursuing the Bachlor Degree in Computer Science Engineering from H.S.B.P.V.T.COE,Kashti under SPPU.
pratap.vk05@gmail.com

Mergal Vijay M.
pursuing the Bachlor Degree in Computer Science Engineering from H.S.B.P.V.T.COE,Kashti under SPPU.
Vijaymergal09@gmail.com

Prof. Gunaware Nilesh G.
he has done his M. Tech(CSE) from IES Institute of technology and Management, RGPV,MP.
nilesh.gunaware@gmail.com