



IJRASET

International Journal For Research in
Applied Science and Engineering Technology



INTERNATIONAL JOURNAL FOR RESEARCH

IN APPLIED SCIENCE & ENGINEERING TECHNOLOGY

Volume: 7 Issue: V Month of publication: May 2019

DOI: <https://doi.org/10.22214/ijraset.2019.5004>

www.ijraset.com

Call:  08813907089

E-mail ID: ijraset@gmail.com

Implementation about Handy Intelligent Device to Alert and Ordeit Home Budget for People to Maintain Home Needy without Credit

Dr. S. Hemalatha¹, B. Arulselvi², K. Indhumathi³

¹Professor/CSE, Panimalar Institute of Technology

^{2,3}Department of Computer Science, Panimalar Institute of Technology

Abstract: A budget is outlined as patterns of expenditure and revenue over the lifetime of the project. generally it's a prediction of the attainable prices that may be incurred by carrying out the activities planned in a very project. Realistic coming up with of finances is vital to the implementation of a project or programme. Budgeting doesn't got to cramp your vogue and would possibly truly assist you afford a couple of a lot of discretionary purchases. you would possibly be appalled to find out however everyday waste and excess spending on little purchases add up to price you thousands every year. Creating a budget and change it often can assist you save extra money in order that you'll spend wherever you actually wish to. In this application initial user got to register their details and update possibility is employed to vary something in registration and once registration user will login with their user name and positive identification .after login there'll be 3 possibility Add expenses, view overall expense , graph .In add expenses user will choose the classes and allotted the specify quantity as per their expenditure and read/in sight/visible /seeable} overall expenses user will view total expenses of month and In graph the chart of expenses are going to be on the market and if the desired quantity is crossed their limit suggests that the user are going to be get notification

I. INTRODUCTION

Budgeting is making a concept your cash .good budgeting is disbursal but you're earning as you intend for your money goal. Budgeting is that the basic step in achieving money attainment. And by extension reaching money security and freedom .budgeting is that the method of making a concept to pay and invest your hard-earned cash showing wisdom to fulfill your personal and money goals in life. within the existing system, there's no automatic alert system for home budget system. individuals ar disbursal their quantity in numerous method with none budget. within the projected system we have a tendency to implement associate alert and planning for payment system for each month. during this we've associate allow each month like, Grocery, recreation, Transportation, Shopping, medical, EB bill and food & vegetables. User needs to allot a particular quantity as per their expenditure. humanoid application can monitor the behavior of the user as per the expensed created by the user and alert the user consequently to chop down the expenses then on management the expenses as per the schedule. Same method we have a tendency to connect EB meter victimisation Zigbee and IOT. Zigbee Transceiver is connected to each User EB Meter and EB Server. The meter readings ar calculated through the embedded hardware and sent to the EB Server via IOT. Same logic is additionally processed by the humanoid application. Advantage of by victimisation this application is that the expenses is monitored, planning of running payment and it's mobile primarily based payment system. To implement this application 1st user need to register by giving their details and login victimisation their username and positive identification and user needs to allot a particular quantity as per their expenditure. Here the advance technology zigbee is employed .Using Zigbee the files is transmitted through light-weight and Zigbee with EB meter is connected with EB server. when planning a particular quantity for every expenditure then payment are done by Bank server and Notification (or) alert message is send to used once the number is cross (or) exist the limit

II. ARCHITECTURE DIAGRAM

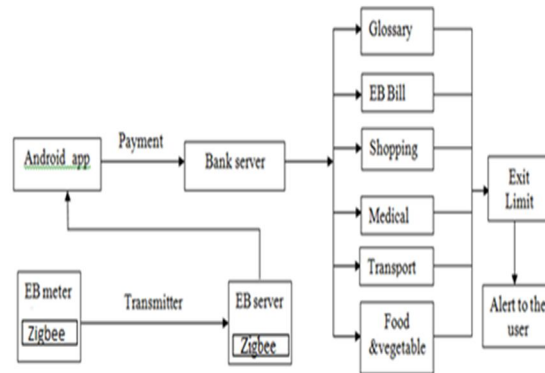


Figure 2.1 Overall Architecture

III. LITERATURE SURVEY

A. Giulio Giaconi, Deniz Gündüz and H. Vincent Poor [1]

A wise meter (SM) periodically measures end-user electricity consumption and reports it to a utility provider (UP). Despite the advantages of SMs, their use finally ends up in serious problems regarding shopper privacy. throughout this paper, SM privacy is studied by considering the presence of AN energy harvest device (EHD) as a technique of masking the user's input load. The user can satisfy 0.5 or all of his/her energy needs from the EHD, and hence, less knowledge area unit oftenleaked to the UP via the SM. The EHD is usually equipped with a rechargeable energy storage device, i.e., a battery, whose quick energy content limits the user's capability in covering his/her energy usage. Privacy is measured by the information leaked regarding the user's real energy consumption once the UP observes the energy requested from the grid, that the SM reads and reports to the UP. The minimum knowledge outpouring rate is defined as a calculable data metaphysical single-letter expression once the EHD battery capability is either infinite or zero. Numerical results ar given for a definite binary input load as an example the potential privacy gains from the existence of a device.

B. Giulio Giaconi, Deniz Gündüz and H. Vincent Poor[2]

A wise meter (SM) periodically measures end-user electricity consumption and reports it to a utility provider (UP). Despite the advantages of SMs, their use lands up in serious problems regarding shopper privacy. throughout this paper, SM privacy is studied by considering the presence of AN energy harvest device (EHD) as a way of masking the user's input load. The user can satisfy [*fr1] or all of his/her energy desires from the EHD, and hence, less knowledgear area unit oftenleaked to the UP via the SM. The EHD is commonly equipped with a rechargeable energy storage device, i.e., a battery, whose quick energy content limits the user's capability in covering his/her energy usage. Privacy is measured by the data leaked regarding the user's real energy consumption once the UP observes the energy requested from the grid, that the SM reads and reports to the UP. The minimum knowledge outpouring rate is characterized as a calculable data metaphysical single-letter expression once the EHD battery capability is either infinite or zero. Numerical results ar bestowed for a definite binary input load for instance the potential privacy gains from the existence of a device.

C. Fengjun Li*, Bo Luo and Peng Liu[3]

In this paper, we've an inclination to gift a distributed progressive info aggregation approach, throughout which information aggregation is performed in any respect sensible metres involved in routing the information from the supplymetre to the collector unit. With a painstakingly created aggregation tree, the aggregation route covers the completeneighbourhood or any arbitrary set of elite nodes with minimum overhead. to safeguard user privacy, homomorphic cryptography is utilized to secure the information enrout. Therefore, all the metres participate among theaggregation, whereas not seeing any intermediate or conclusion. throughout this way, our approach supports economicalinformation aggregation in sensible grids, whereas completely protecting user privacy. This approach is extremely appropriatefor sensible grids with repetitive routine info aggregation tasks.

D. *Ishtiaq Rouf**, *Hossen Mustafa**, *Miao Xu*, *Wenyuan Xu†*, *Rob Miller* and *Marco Gruteser*[4]

During this paper, we have a bent to gift a distributed progressive information aggregation approach, throughout that infoaggregation is performed in any respect smart metres concerned in routing the information from the supply metre to the collector unit. With a fastidiously created aggregation tree, the aggregation route covers the entire native neighbourhood or any discretionary set of selected nodes with minimum overhead. to safeguard user privacy, homomorphic cryptography is employed to secure the information enroute. Therefore, all the metres participate within the aggregation, whereas not seeing any intermediate or ending. throughout this manner, our approach supports economical information aggregation in smart grids, whereas totally protective user privacy. This approach is extremelyapplicable for good grids with repetitive routine information aggregation tasks.

E. *Andres Molina-Markham*, *Prashant Shenoy*, *Kevin Fu*, *Emmanuel Cecchet*, and *David Irwin*[5]

Household wise meters that live power consumption in amount of your time at fine granularities unit the muse of a future wise electricity grid. However, the widespread activity of wise meters has serious privacy implications since they unwittingly leak elaborate data regarding unit activities. throughout this paper, we've got a bent to indicate that even whereas not a previousi data of unit activities or previous employment, it's potential to extract complicatedusage patterns from wise meter data using off-the-shelf maths ways. Our analysis uses a pair of months of data from three homes, that we've got a bent to instrumented to log mixture unitpower consumption every second. With the data from our small-scale activity, we've got a bent to demonstrate the potential for power consumption patterns to reveal a spread of information, like what variety of us space unitwithin the house, sleeping routines, intake routines, etc. we've got a bent to then sketch out style|the look} of a privacy-enhancing wise meter design that permits Associate in Nursing electrical utility to realize its net metering goals whereas notcompromising the privacy of its customers.

IV. SNAP SHOT

A. *Module 1*

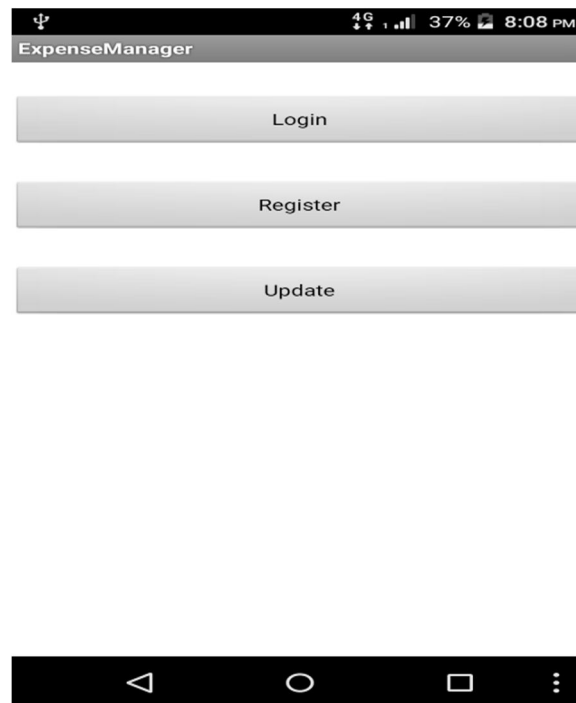


Fig 4.1

Fig 4.1 snap shot of the application and this how the user have to register the app and then user use the update option to change anything in registration and login to application .

B. Module 2

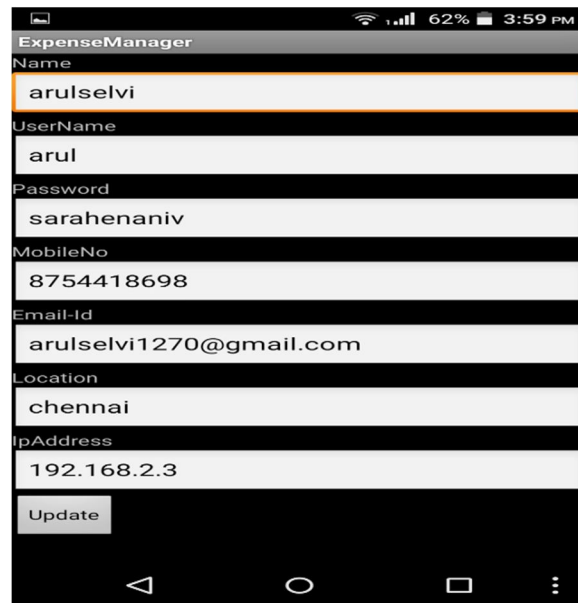


The screenshot shows a mobile application interface titled "ExpenseManager". It features a registration form with the following fields: Name, UserName, Password, MobileNo, Email-id, Location, and IpAddress. A "Register" button is located at the bottom of the form. The status bar at the top indicates 4G connectivity, 77% battery, and the time 12:46 PM.

Fig 4.2

This 4.2 snap shot shows the register part of user. The user has to give their name, user name ,password, mobile number, email id for further procedure.

C. Module 3



The screenshot shows the same mobile application interface, but now the form is populated with data. The fields contain: Name (arulselvi), UserName (arul), Password (sarahenaniv), MobileNo (8754418698), Email-id (arulselvi1270@gmail.com), Location (chennai), and IpAddress (192.168.2.3). An "Update" button is visible at the bottom. The status bar at the top shows 62% battery and the time 3:59 PM.

Fig 4.3

This snap shot shows the registration operation in this operation user have to give their details for eg name,user name,password,mobile number,email id,location,IP addresss.

D. Module 4



Fig 4.4 snap shot there are three option such as add expensive, view expensive, graph in add expensive there will be select categories and in view expensive there will be over all view of expenditure. Graph will show the chart of expenditure.

E. Module 5

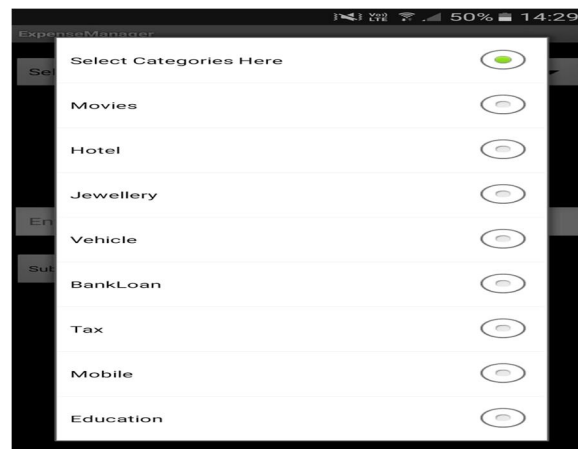


Fig 4.5

Fig 4.5 snap shot show that user have to select the categories and allocate the specific amount for the each expenditure.

F. Module 6



Fig 4.6

Fig 4.6 snap shot show the over all view of the expenditure and the total expense.

G. Module 7

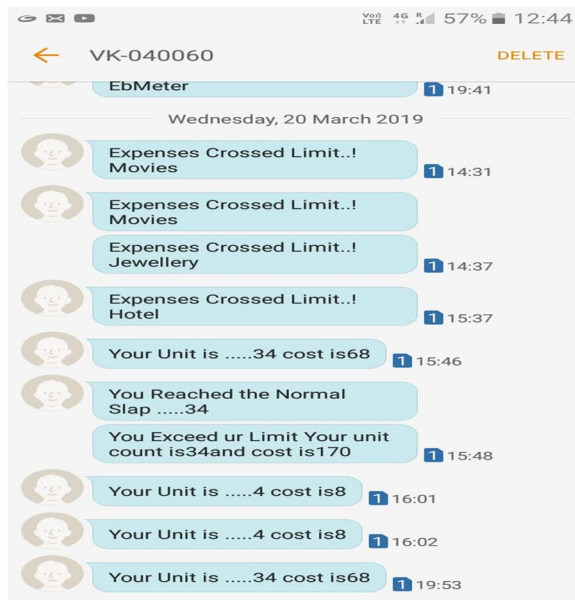


Fig 4.7

Fig 4.7 snap shot shows if the expenses are crossed the given limit then the notification send to the user mobile number.

V. CONCLUSION

This is associate degree alert and programming for payment system for each month. In this associate degree take into account monthly like, Grocery, amusement, Transportation, Shopping, medical, EB bill and food & vegetables. The meter readings square measure calculated through the embedded hardware and sent to the Eb Server via IOT. Same logic is additionally processed by the humanoid application. therefore user will say that at home budget has extremely helped Pine Tree State loads within the financial field because it has created Pine Tree State understand the worth of cash and created Pine Tree State feel the money burden on the jobholder of the family.

REFERENCES

- [1] G. Giaconi, D. Gunduz, and H. V. Poor, "Smart meter privacy with an energy harvesting device and instantaneous power constraints," in Proc. IEEE Int. Conf. on Commun., London, UK, Jun. 2015, pp. 7216–7221.
- [2] Y. Mo, T.-H. Kim, K. Brancik, D. Dickinson, H. Lee, A. Perrig, and B. Sinopoli, "Cyber-physical security of a smart grid infrastructure," Proc. IEEE, vol. 100, no. 1, pp. 195–209, Jan. 2012.
- [3] F. Li, B. Luo, and P. Liu, "Secure and privacy-preserving information aggregation for smart grids," Int. J. of Security and Networks, vol. 6, no. 1, pp. 28–39, Apr. 2011.
- [4] I. Rouf, H. Mustafa, M. Xu, W. Xu, R. Miller, and M. Gruteser, "Neighborhood watch: Security and privacy analysis of automatic meter reading systems," in Proc. ACM Conf. on Comput. and Commun. Security, Raleigh, NC, USA, Oct. 2012, pp. 462–473.
- [5] A. Molina-Markham, P. Shenoy, K. Fu, E. Cecchet, and D. Irwin, "Private memoirs of a smart meter," in Proc. ACM Workshop on Embedded Sensing Systems for Energy-Efficiency in Building, Zurich, Switzerland, Nov. 2010, pp. 61–66.
- [6] G. Kalogridis, Z. Fan, and S. Basutkar, "Affordable privacy for homesmart meters," in Proc. IEEE Int. Symp. on Parallel and Distributed Process. with Applicat. Workshops, Busan, Korea, May 2011, pp. 77–84.
- [7] F. D. Garcia and B. Jacobs, "Privacy-friendly energy-metering via homomorphic encryption," in Proc. Int. Conf. on Security and Trust Manage., Athens, Greece, Sep. 2010, pp. 226–238.
- [8] C. Efthymiou and G. Kalogridis, "Smart grid privacy via anonymization of smart metering data," in Proc. IEEE Int. Conf. on Smart Grid Commun., Gaithersburg, MD, USA, Oct. 2010, pp. 238–243.
- [9] G. Kalogridis, C. Efthymiou, S. Denic, T. Lewis, and R. Cepeda, "Privacy for smart meters: Towards undetectable appliance load signatures," in Proc. IEEE Int. Conf. on Smart Grid Commun., Gaithersburg, MD, USA, Oct. 2010, pp. 232–237.
- [10] D. Varodayan and A. Khisti, "Smart meter privacy using a rechargeable battery: Minimizing the rate of information leakage," in Proc. IEEE Int. Conf. on Acoust., Speech and Signal Process., Prague, Czech Republic, May 2011, pp. 1932–1935.



- [11] D. Gunduz and J. Gomez-Vilardebó, "Smart meter privacy in the presence of an alternative energy source," in Proc. IEEE Int. Conf. on Commun., Budapest, Hungary, Jun. 2013, pp. 2027–2031.
- [12] J. Gomez-Vilardebó and D. Gunduz, "Privacy of smart meter systems with an alternative energy source," in Proc. IEEE Int. Symp. on Inform. Theory, Istanbul, Turkey, Jul. 2013, pp. 2572–2576.
- [13] K. Chatzikokolakis, C. Palamidessi, and P. Panangaden, "Anonymity protocols as noisy channels," *Information and Computation*, vol. 206, no. 2, pp. 378 – 401, 2008.
- [14] R. Blahut, "Computation of channel capacity and rate-distortion functions," *IEEE Trans. Inf. Theory*, vol. 18, no. 4, pp. 460–473, Jul. 1972.
- [15] S. Li, A. Khisti, and A. Mahajan, "Privacy-optimal strategies for smart metering systems with a rechargeable battery," arXiv:1510.07170[cs.IT], Aug. 2016.



10.22214/IJRASET



45.98



IMPACT FACTOR:
7.129



IMPACT FACTOR:
7.429



INTERNATIONAL JOURNAL FOR RESEARCH

IN APPLIED SCIENCE & ENGINEERING TECHNOLOGY

Call : 08813907089  (24*7 Support on Whatsapp)