iJRASET
International Journal For Research in Applied Science and Engineering Technology



INTERNATIONAL JOURNAL FOR RESEARCH

IN APPLIED SCIENCE & ENGINEERING TECHNOLOGY

Volume: 6 **Issue:** XII **Month of publication:** December 2018

DOI:

www.ijraset.com

Call: 08813907089 | E-mail ID: ijraset@gmail.com

International Journal for Research in Applied Science & Engineering Technology (IJRASET)
ISSN: 2321-9653; IC Value: 45.98; SJ Impact Factor: 6.887
Volume 6 Issue XII, Dec 2018- Available at www.ijraset.com

Survey on Self-Deployable Indoor Navigation System

Prof. Deepti Deshmukh[1], Nikhil Khachane[2], Bhagyashree Gonte[3], Ajay Bhondve[4]
[1, 2, 3, 4]*Department of Computer Engineering, SPPU Pune Maharashtra*

Abstract: ***In current scenario, big shopping malls usually provide a directory to their available shops but these directories are most of the time static and do not provide any interactivity features to the visitors. The system present a mobile shopping mall navigator. Reason behind this system is we feel that when visitors often change their plan to go to other shops instead of the ones in their minds, it takes full effort especially the crowded levels and location of the navigation*** *material****. The system developed is practical and feasible. Smart phones was very popular in days, so we have combined the idea. Smart phone API helping you to alienated mall. The idea revolves around our smart phones &amp the "WI-FI" provided by the mall. An application that needs real-time, fast, &amp reliable data processing****.***

Keywords: Light Emitting Diode, Quick Response Code, Liquid Crystal Display, Data Encryption Standard.

I. INTRODUCTION

Manual Shopping is the traditional way of shopping where the customers choose their wished product and carry the products along with them. Currently shopping is a tedious and time consuming job. In current shopping, the customer wait in long queues at the cash counter. This consumes lot of time and energy of shopper and cashier. To overcome this law, the customer himself can scan the barcode using his mobile while making purchase, retrieve essential details of all products from shops database and generate bill himself. This bill sent to the customer's mobile through online banking service and user can make quick payment and leave the shop early. The Barcode of the product is scanned by the customer and move to the wish list if they are interested in choice of item by using the proposed mobile application. In order to develop an Android Application that uses a barcode scanner for the purchasing and navigation of items for store that will be self-checking and automatic payment transaction. Here comes the term indoor navigation and barcode scanning. Indoor positioning is still a challenging problem because satellite-based approach do not work properly inside buildings.

Barcodes are ubiquitously used to identify products, goods or deliveries. Devices to read barcodes are all around, in the form of pen type readers, laser scanners, or LED scanners. Camera-based readers, as a new kind of barcode reader, have recently gained much attention. The interest in camera-based barcode recognition is built on the fact that numerous mobile devices are already in use, which provide the capability to take images of a fair quality. This describes the hardware system architecture for implementing the barcode reading system in mobile phones and its process. The camera device and application processors are necessary hardware components for the system. The application processors is needed to implement the camera interface, LCD controllers , DSP for image processing, and application host in CPU for real-time computations. The application processor works for displaying the menu and preview of the display and computing of code recognition and decoding in real-time. With these systems, the user can control the position of the camera of smartphone and decides the capture timing of barcode.

II. LITERATURE SURVEY

Recent advancements in technology and communication have caused revolution in all fields. In this new era we need to implement smart technology by bringing about automation in system. The objective of our proposed system is to overcome the problem faced in the conventional shopping method Long queues for billing, Large manpower needed, Demonetizations. Using the Dijkstra's algorithm we can easily find path and the shortcuts in the mall we will helps to show the map in the mall to section location and show the path current location to destination location, As we use the AES algorithm for the storing the information about the account details in that encrypted format that is security purpose, also we uses the a priori algorithm to suggest the product to customer and related the product for the purpose of to don't need to find the more product we are suggested to them. The customer himself scan the barcode using his mobile while making purchase, retrieve essential details of all products from shops database and generate bill himself. This bill sent to the customer's mobile through online banking service thus the user can make quick payment and leave the shop early. The Barcode of the product is scanned by the customer and move to the wish list if they are interested in choice of item by using the proposed mobile application.

©IJRASET: All Rights are Reserved

III.ARCHITECTURAL DESIGN

User Login into system. System provide the list of most selling products. User search required product in system with the help of wifi. System send the location of product. User can view information along with rating of product. System provide the product recommendation to user. User scan the QR-Code using his mobile while making purchase, retrieve essential details of all products from shops database and generate bill. This bill sent to customer's mobile through online banking service thus user can make quick payment and leave the shop early. User can provide rating to product. Figure 1 describes the actual designing methods.

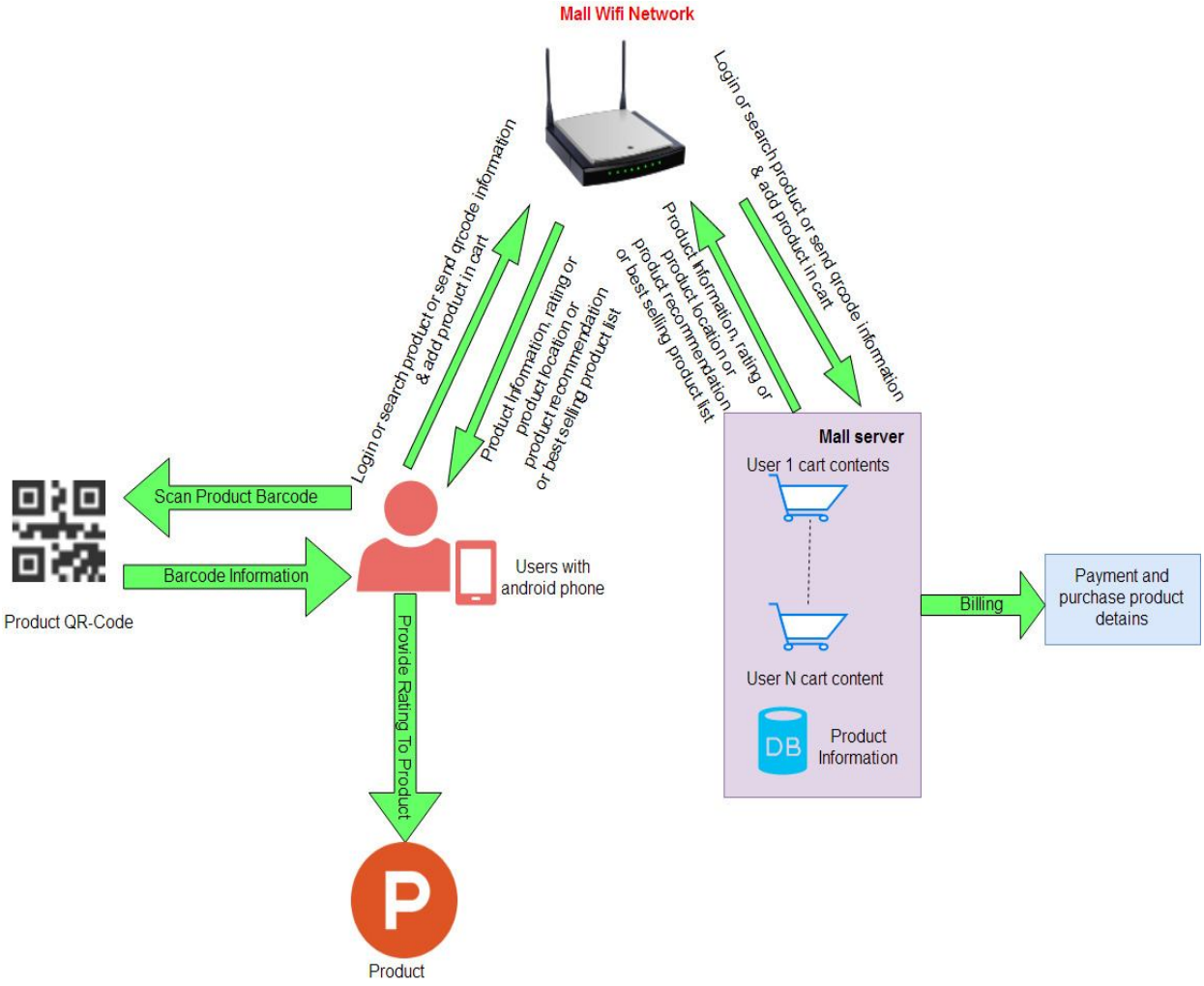


Fig. 1 Scenario of adding the product into cart

A. Dijksrta's algorithm

This work targets at accelerating a commonly used algorithm to solve , the Dijkstra's algorithm. We have exploited the best of the parallel as well as the sequential algorithms to result in an efficient hybrid approach. The proposed algorithm intelligently switches between these two kernels considering the size of nodes to process at run time. A detailed description of this can be found. This plays an important role in navigation systems as it can help to make sensible decision and time saving decisions. To solves the shortest path problem of a graph with nonnegative edge costs, gives shortest path tree, Dijkstra's Algorithm is used. This algorithm is mostly used in routing and other network connected protocols. For a given vertex in the graph, the algorithm get by finding the costs of shortest way from one source vertex to one destination vertex, once the shortest path reach to the destination vertex has been found the algorithm is then stopped. The most commonly used algorithm for path finding is the Dijkstra's algorithm. This is a modification of BFS algorithm. While BFS considers equal weights for traversal between nodes (edges) in the graph, the Dijkstra's algorithm offers the advantage of assigning weights to each edge of the graph hence, making it more versatile for real world applications. Several heuristic methods can be used to reduce the computational complexity of path finding algorithms in known terrains. A well-known algorithm that uses heuristics to find the shortest path between two nodes is the A ∗ algorithm.

©IJRASET: All Rights are Reserved

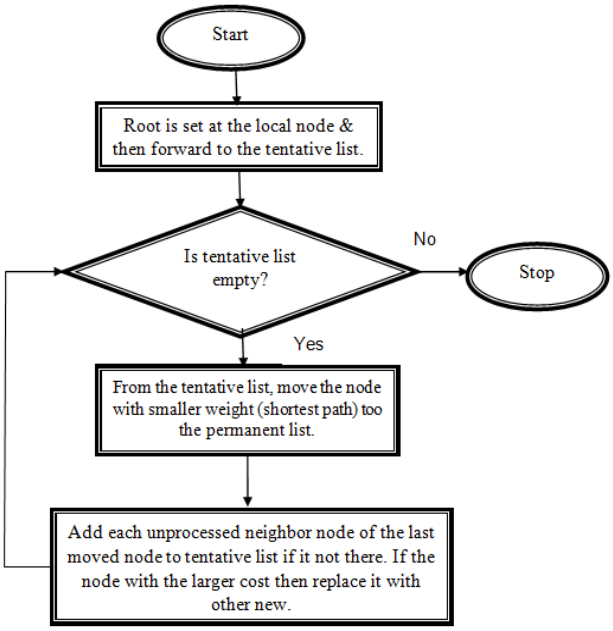


Fig. 2 Flowchart

B. Advanced Encryption Standard(AES)

Cryptography (secret script) is the science and art of transformation of messages to make information secure and resistant to attack. Encryption is to guarantee safety of sensitive information. Encryption algorithm executes bytes substitutions and matrix transformations on the plaintext (original message before encryption) and converts it into cipher text (jumbled message). Information security can be handled using widely available encryption algorithms. The choice of key in cryptography is very vital since the security of encryption algorithm be determined by directly on it. Secrecy and Length of the key are important factors of the encryption key. A key can be numeric or alpha numeric text or may be a special symbol. AES algorithm takes the original main key, and performs a key expansion routine to generate the round keys. In each round, the first four bytes of the input KeyRound constitute the word w0, the next four bytes the word w1, and so on. The bytes of the final word are left rotated by one position, and then each byte passes thought substitution Sbox.

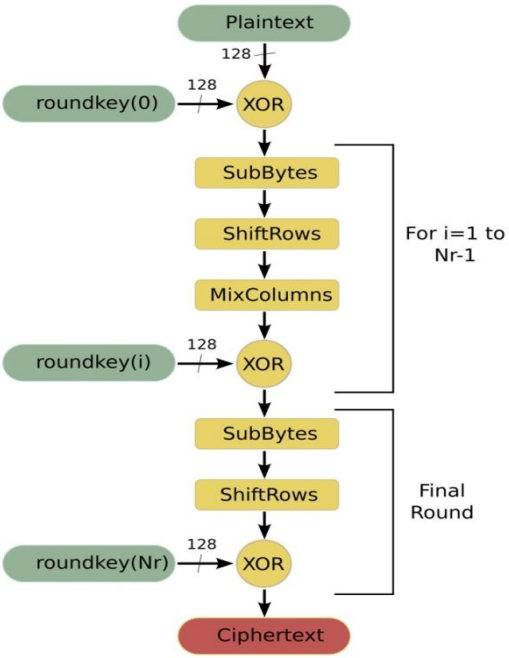


Fig. 3 Flowchart

©IJRASET: All Rights are Reserved

C. Apriory Algorithm

The Apriori algorithm proposed by R.Agrawal et al. in 1993 is an algorithm for mining single dimensional, single layer and Boolean association rules. The core idea is using the recursive method of layer by layer search. Know as we are talking about the data mining task on datasets there will be a different type datasets are present. When we are talking about text type datasets the data present in the data container is neither in completely structured nor unstructured which is known as Semi-structured datasets. For example, a document may contain a few structured fields, such as title, authors, publication date, length, and category, and so on, but also contain some largely unstructured text component as an abstract and contents Apriori algorithms based on matrix need repeatedly retrieval and the process of reconstruction matrix spend a lot of time on inserting items and adjusting matrix structure, therefore is not an ideal choice under certain conditions, while the generation of Orthogonal List which structure is complex also spends a large amount of time on its construction. algorithm uses the logical "And" operation for reference and uses a map structure to store the item sets table, then takes the intersection to obtain the corresponding support, avoiding frequently database scanning. They are text Mining has become a more and popular and indispensable theme in Data Mining. This text mining saves a lot of effort of persons. In this paper we were proposing java parser to perform the withdrawal on the large data sets from that extraction we got the predictable result of datasets that we want a compulsory and then further advance toward APRIORI-Hybrid algorithm which is formed by merging weighted apriori and T Hash apriori. After this result get by algorithm is transferred to FDM association rule mining algorithm for judgment of efficiency, frequency, memory consumption and other parameters.

IV. CONCLUSIONS

In a step aimed at promoting shopping methods and make people life easier; we are going to build this mobile application that could play an important role in Indian society as a whole. Using Pocket PC mall navigator as a shopping mall navigator, in addition to helping the users find shops efficiently and effectively, were able to create awareness in using smart mobile devices for flexibility every task among the shopping.

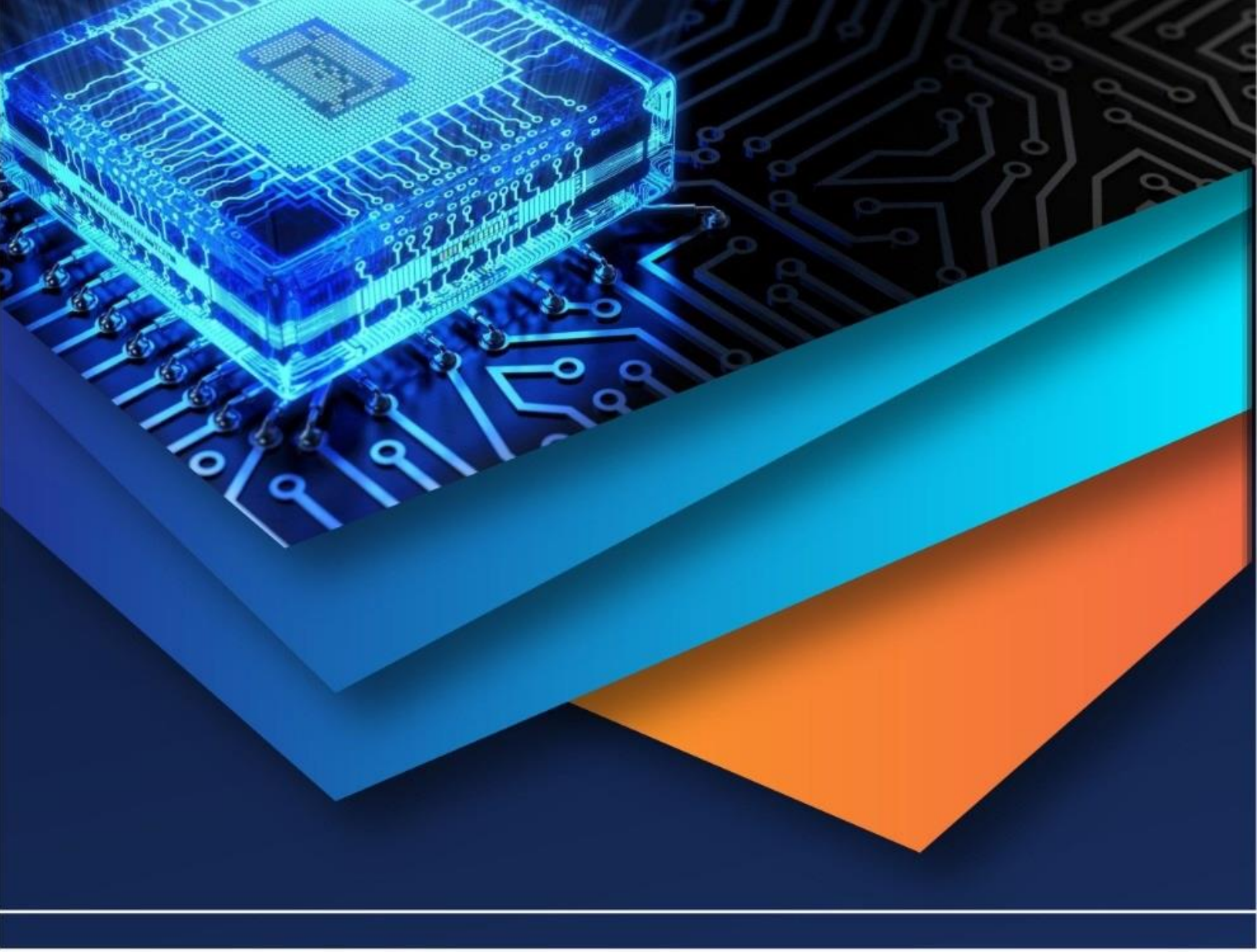
V. ACKNOWLEDGMENT

The authors would like to thank the publishers, researchers for making their resources available and teachers for their guidance. We thank to the college authority for providing the required infrastructure and technical support. Finally, we extend our heartfelt gratitude to friends and family members.

REFERENCES

[1] ultekin ,Oguz Bayat Smart Location-Based Mobile Shopping Android Application Journal of Com- puter and Communications, 2016, 2, 54-63.
[2] Prof. Seema Vanjire, Unmesh Kanchan, Ganesh Shitole, Pradnyesh Patil , Location Based Services on Smart Phone through the Android Application ,International Journal of Advanced Research in Computer and Communication Engineering Vol.3, Issue 1, January 2017.
[3] Mobile Technology, Applications and Systems, 2005 2nd International Conference on Bar code reading from images captured by camera phones
[4] P. E. Rybski, S. A. Stoeter, M. Gini, D. F. Hougen, and N. Papanikolopoulos. ?Performance of a distributed system using shared communications channels.? IEEE Trans. On communication and Automation, 22(5):713727, Oct. 2016.
[5] M. Batalin and G. S. Sukhatme ?Coverage, exploration and deployment by a ibeacons and commu- nication network? Telecommunication Systems Journal, Special Issue on Wireless Sensor Networks, 26(2):181196, 2017
[6] Imperial Journal of Interdisciplinary Research (IJIR)Vol.2, Issue-1 , 2016 ISSN :2454-1362,www.onlinejournal.in

©IJRASET: All Rights are Reserved



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)