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QR CODE BASED SHOPPING SYSTEM

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Abstract - Shopping malls are becoming larger and more diverse, with more goods and a wider range of merchandise.The proposed project could give definite and constant shopping objections, permitting shopping centres to mine client information logically. QR code generator is used in this system to generate QR codes for each product. The aim is to implement a directory where the user can navigate through each floor and each shop and can traverse through different products available in the entire shopping mall. Directory is important as guidance to people because it provides information that is needed and guides them to the correct route. The specified directory will be designed in the form of a mobile so that it becomes a mobile directory. Mobile directory is designed to provide easy, real time access to the directory via a mobile device, so it can provide the right solution, quickly and accurately

***Key Words*:** QR code,QR code scanner,Directory.

1. INTRODUCTION

QR code is the abbreviation of Quick response. QR codes are casual patterns, which can be generally observed on the corner of posters or web pages. The objective of QR codes aims at expediency leaning applications for mobile phone users. People can use the smart phone cameras to scan QR code at the corner of web page the propagation of internet usage has made people linking to the web pages easily by using pc or mobile phone over the wired or wireless networks. Particularly, for users using the mobile phones to look around the web pages, it has brought much more conveniences to their daily lives quick response code has been broadly used in the automatic identification fields.

In order to adapting diverse sizes, a little foul or scratched, and variety of illumination conditions of bar code image, this paper proposes a narrative implementation of real-time quick response code recognition using mobile, which is an efficient technology used for data transferring. By using this application .we can save both time of shopping and man power in different organization and big step towards digitalization in shopping sector.The aim of this website is to implement a directory where the user can navigate through each floor and each shop and can traverse through different products available in the entire shopping mall.

Directory is important as guidance to people because it provides information that is needed and guides them to the correct route. Directory board in a shopping mall contains the information about the mall, list of shops and locations of the shops. The specified directory will be designed in the form

of a mobile so that it becomes a mobile directory. Mobile directory is designed to provide easy, real time access to the directory via a mobile device, so it can provide the right solution, quickly and accurately.

2. LITERATURE REVIEW

[1] Smart shopping using QR code-International Journal of Advanced Research in Computer Science Engineering and Information Technology Volume: 4, Issue: 3,Special Issue: 2 ,Apr,2016 ,ISSN_NO: 2321-3337.The application mentioned here would read the QR code(s) of the product(s) & add it to the shopping cart in the applicationThe user have to scan every single item which he wants to purchase with the scanner provided in this app.

[2]QR code techniques for smart shopping-a review-QR code based Shopping Using Androiddz.Near Field Communication (NFC) technology allows users to make secure transactions, exchange digital content, and connect electronic devices with a touch.Here near field communication (nfc) allows two nfc-enabled devices to interact with each other, but it is probable that a third device could interrupt the data.Major concerns was data corruption, data modification, and data insertion.

[3]QR Code based Shopping System-2022 International Conference on Applied Artificial Intelligence and Computing (ICAAIC)Year: 2022 | Conference Paper | Publisher: IEEE.The issue is that the standardized identification can unfortunately store only a limited amount of information.

[4]Smart Shopping Application using IoT and Recommendation System-7th International Conference on Advanced Computing and Communication Systems (ICACC)Year: 2021 | Conference Paper | Publisher: IEEE.An effective mobile assisted software application for grocery shopping.Payment is enabled only after the total weight displayed in the cart is equal to the total weight scanned in the app.

[5] Design and Implementation of an Android Application for Smart Shopping-"Design and Implementation of an Android Application for Smart Shopping", International Conference on Communication and Signal Processing (ICCSP), 2019.This android application is used in smart shopping carts. This app consists of only two parts which

focuses on navigation to the item's location and automatic billing of the products that the user has purchased

[6]Smart Online Shopping System Based On GPS Technology- In this project,the user can find all the nearby shops in the city with the help of gps, and also make a choice of the best shop based on the rating.By this application we can only choose the best shops ,the items available inside the shops will not be listed here. ie only less information about the shop will be provided.

[7] Smart Shopping-An Android Based Shopping Application-The basic idea of this project is to provide a system which could be designed to locate items and billing them.The application is designed to work in the online mode if and only if the mobile is connected to the particular Wi-Fi and the battery life is greater than 25%.

shows [8]]Design of QR Code- based Mall Shopping GuideSystem-International Conference on Information Science and Technology March 26-28, 2011 Nanjing, Jiangsu, ChinaThis system is a shopping guide system that accurate and real--time shopping destination.Using this system one can get the information of the location and the surroundings of a shopping mall.

3. PROBLEM STATEMENT

Online shopping gives a speedy and simple method for buying an item but there are certain
issues related to that. Some of them are mentioned below :-
1.Late deliveries – it's absolutely impossible to guarantee that you can get your products
when immediately after you have purchased them. Things get lost, rerouted, harmed, or
conveyed to some unacceptable location.
2.Unexpected or Damaged Products- You can't decide surface, texture, fit, cut, quality,
heave, or toughness just by checking out a photograph.
3.Fraud Cases- card subtleties and bank subtleties have been abused which raise security
issues. Customers must be cautious in uncovering their own data.
QR code based shopping system will help the user to search shops, rate shops, can view
product details, can view product availability in each shop

4. PROPOSED SYSTEM

Shopping mall is important for customers because it provides almost everything they need all under one roof. Hence, the bigger the shopping mall, the more things and services that they can provide. Shopping mall should have at least one directory board for each level. This facility is the most important thing that should have in the shopping mall. However, having a static directory board is troublesome for user as user need to walk to the directory board to seek for information. Therefore, a mobile web application which provides the directory of the shopping mall will be useful at this moment. Shopping mall directory mobile application which acts as a guide for user.

The directories are divided according to their category such as fashion, food and beverages, health and fitness and others. When a user tap on one of the category, for example, fashion, a list of all fashion shops and

boutiques that are available in the mall will be displayed on the screen. User can tap on the shop or boutique to view the details and the location of the shop. Apart from that, user can view the floor plan for each level of the mall.We have proposed a methodology for purchasing in shopping marts through an app that scans QR codes and pays online. The customer has to download the app on their mobile and log in before shopping. After login, customers can scan the QR code of the respective shops and can list the availability of the products in the shop. After shopping, the customers can check out their products in their cart and pay online. At last, customer can Show the successful payment page at the bill counterwithout waiting in the queue.The customer can see all the information regarding the product including its price, quantity available, description of the product and so on.

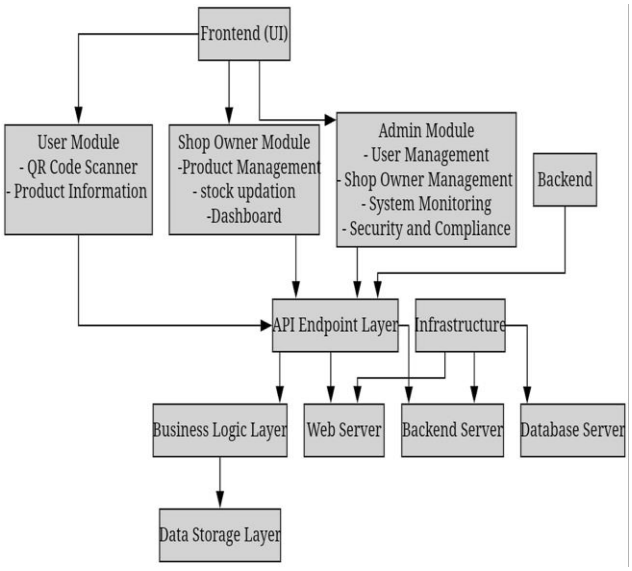

Fig 1: System Architecture

5. RESULTS AND DISCUSSION

The proposed system is planned to implement for a shopping mall so that the customers on visiting the shopping mall can avail the complete details about the shops, their reviews, ratings, items available on the shop, basic maps etc on a single click.Such a system is a first of its type and will be a huge benefit for the customers.The user can search shops by floor name,the user can search shops by shop names,the user can rate shops,the user can view product details in each shop,the user can view product stock availabilityWhen a user tap on one of the category, for example, fashion, a list of all fashion shops and boutiques that are available in the mall will be displayed on the screen.

User can tap on the shop or boutique to view the details and the location of the shop. Apart from that, user can view the floor plan for each level of the mall.

After login, customers can scan the QR code of the respective shops and can list the availability of the products in the shop. After shopping, the customers can check out their products in their cart and pay online.

The index page of QR code based shopping system is given below:

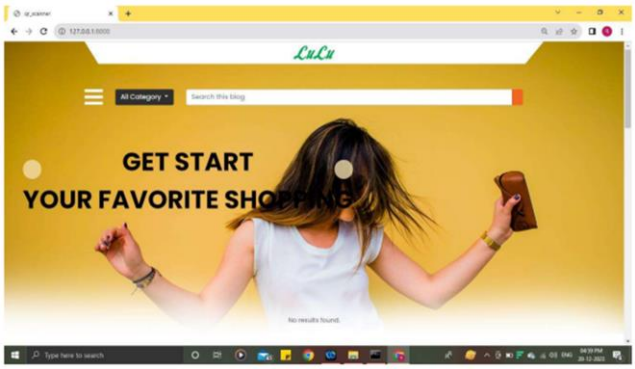

Fig 2: Index Page

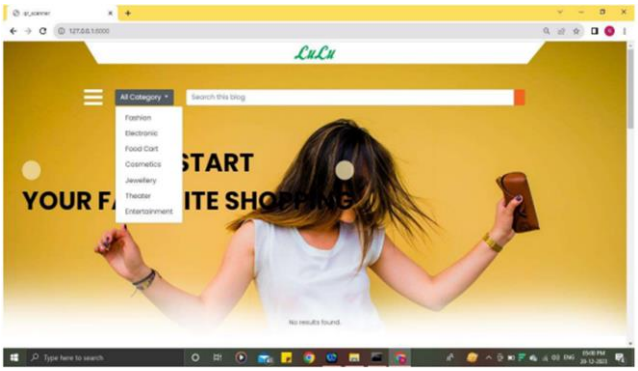

Fig 3: categoryPage

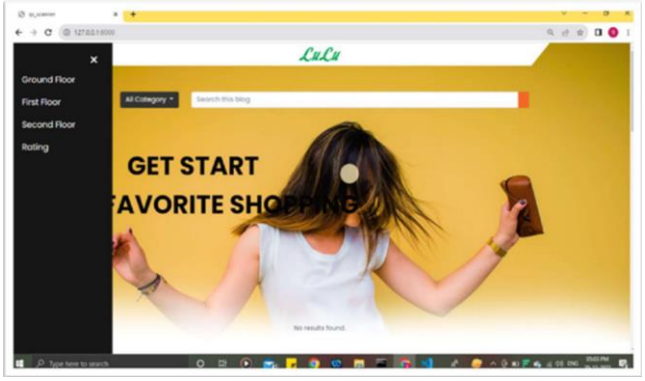

Fig 4: floor Page

The login page for shop owner is given below:

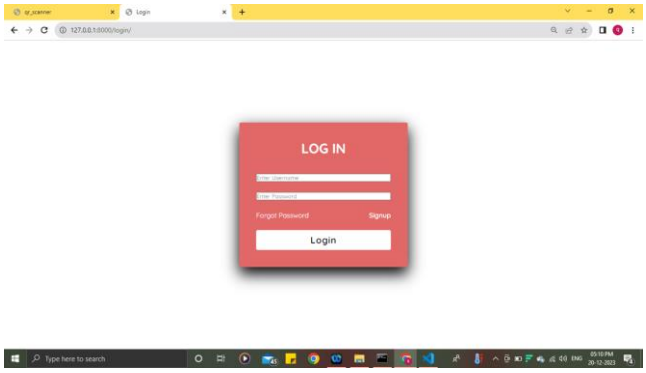

Fig 5:login Page

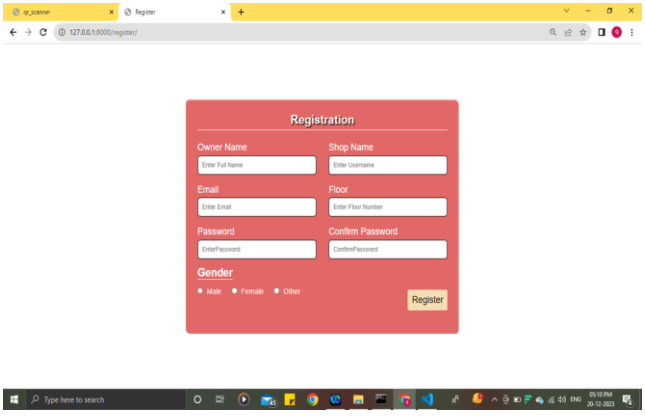

Fig 6: Registration Page

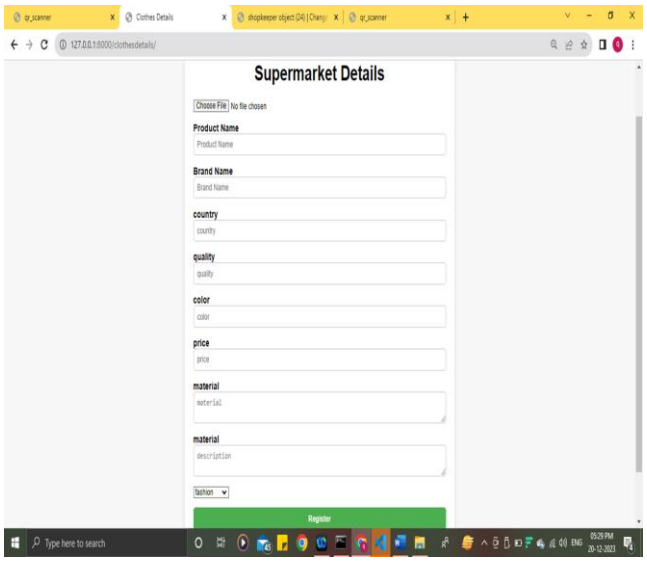

Fig 4: Details Page

6. CONCLUSION

QR code based shopping system is designed for the users to easily shop the items by scanning the QR codes . This system has been developed to enhance user experience and make shopping hassle-free. With its potential to improve customer satisfaction and adapt to changing market trends, this technology is poised to reshape the future of retail. As businesses continue to embrace innovation, integrating QR code technology into their operations can provide a competitive edge and pave the way for a more seamless and enjoyable shopping experience for all parties involved. The QR code scanning feature saves time and eliminates the need to manually search for products. By incorporating these user-centric facilities, QR code-based shopping systems redefine retail, creating an immersive, efficient, and customer-centric environment.

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