

## Virtual Shopping Cart Using Mean Stack

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### ABSTRACT

This paper is based on Ecommerce web application based to change and grow to meet today's technical demands .The system is built on MEAN STACK ,new technologies that improve performance ,reduces server load .This system is web based shopping system for an existing shop .The objective of this work is to deliver the online shopping application. An innovative product with societal acceptance is the one that aids the comfort, convenience and efficiency in everyday life. In this paper, we discuss a novel product "AN SHOPPING CART (ASC)" being developed to assist a person in everyday shopping in terms of reduced time spent while purchasing a product at the best price available. This work is an attempt to provide the advantages of online shopping cart to customers to real shop. This system can be implemented to any shop in the locality or retail marketing. This report will present an overview design and implementation of such application and technologies used.

Keywords: online shopping, mean Stack, ASC

### 1. INTRODUCTION

This system is a web based shopping system for an existing shop. The main objective of our work is to deliver the online shopping application into android platform. Online shopping is the process whereby consumers directly buy goods or services from a seller in real-time, without an intermediary service, over the Internet. It is a form of electronic commerce. This is an attempt to provide the advantage of online shopping to customers of a real shop. It helps buying the products in the shop anywhere through internet by using an android device. Thus the customer will get the service of online shopping and home delivery from his favorite shop. The objective of the system is to make an application in android platform to purchase items in an existing shop. In order to build such an application complete web support need to be provided. A complete and efficient web application which can provide the online shopping experience is the basic objective. The web application can be implemented in the form of an android application with webview. The central concept of the application is to allow the customer to shop virtually using the Internet and allow customers to buy the items and articles of their desire from the store.[1] The server processes the customers and the items are shipped to the address submitted by them. The application was designed into two modules first is for the customers who wish to buy the articles. Second is for the storekeepers who maintain and update the information pertaining to the articles and those of the customers. In the end user of this product is a departmental store where the application is hosted on the web and the administrator maintains the database. The application which is deployed at

the customer database, the details of the items are brought forward from the database for the customer view based on the selection through them enu and the data base of all the products are updated at the end of each transaction. Data entry in to the application can be do net hrough various screens designed for various levels of users. Once the authorized personnel feed the relevant data into the system, several reports could be generated as per thesecurity.

## 2. LITERATURE SURVEY

MEAN [2]is a free and open-source JavaScript software stack for building dynamic web sites and web applications. The MEAN stack is Mongo db, Express.js, Angular JS (or Angular), and Node.js.Because all components of the MEAN stack support programs that are written in JavaScript, MEAN applications can be written in one language for both server-side and client-side execution environments. The components of the MEAN stack are as follows:

1. Mongo db, a No sql database.
2. Express.js, a web application framework that runs onNode.js.
3. Angular.js or Angular, JavaScript MVC frameworks that run in browser JavaScript engines.
4. Node.js, an execution environment for event driven server-side and networking applications.

The tools used in this paper for implementation are mongo db which acts a s a database server, node js which provides a backend framework, express js which is a framework for node js and angular js which is a front end language.

## 3. EXISTING SYSTEM

The current system for shopping is to visit the shop manually and from the available product choose the item customer want and buying the item by payment of the price of the item.

## 4. PROPOSED SYSTEM

In the proposed system customer need no tgo to the shop for buying the products. He can order the product he wishes to buy through the applicationin his Smartphone. [5]The shop owner will be admin of the system. Shop owner can appoint moderators who will help owner in managing the customers and product orders. The system also recommends a home delivery system for the purchasedproducts. [3]This system can be implemented to any shop in the locality or to multinational branded shops having retail outlet chains. The system recommends a facility to accept the orders 24\*7 and a home delivery system which can make customers happy. If shops are providing an online portal where their customers can enjoy easy shopping from anywhere, the shops won't be losing any more customers to the trending online shops such as flip kart or eBay. Since the application is available in the Smartphone it is easily accessible and always available.

## 5.0 SYSTEM DESIGN AND IMPLEMENTATION

The system after careful analysis has been identified to be presented with the following modules and roles. The modules involved are:

- Administrator
- Moderators
- Users

### ADMINISTRATOR

The administrator is the super user of this application. Only admin has access to this admin page. Admin may be the owner of the shop. The administrator has all the information about all the users and about all products. This module is divided into different sub-modules

1. Manage Moderators
2. Manage Products
3. Manage Users
4. Manage Orders

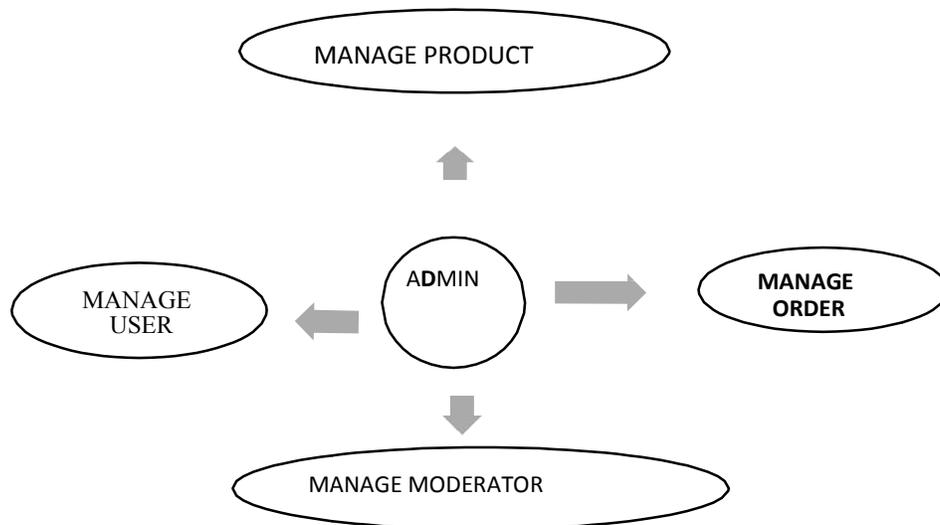


Fig1(a) Admin module

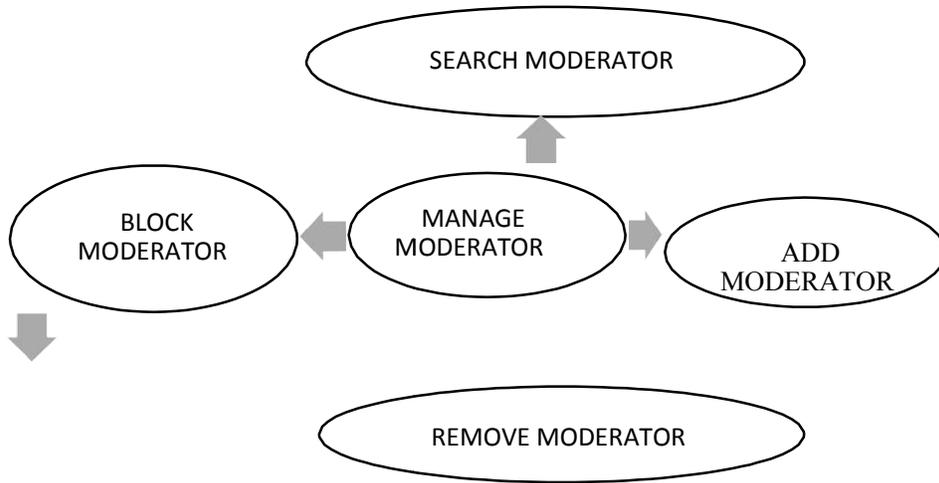


Fig1 (b) Manage Moderator

Add Moderator only admin is having the privilege to add a moderator. A moderator can be considered as staffs who manage the orders or owner of a group of products. Block moderator Admin can restrict a moderator from managing the orders by blocking them. Admin can unblock a blocked user if needed. Remove Moderator Admin has privilege to delete a moderator who was added. Search moderator all existing moderators can be viewed by the administrator as a list. If there is number of moderators and admin need to find one of them, the admin can search for a moderator by name.

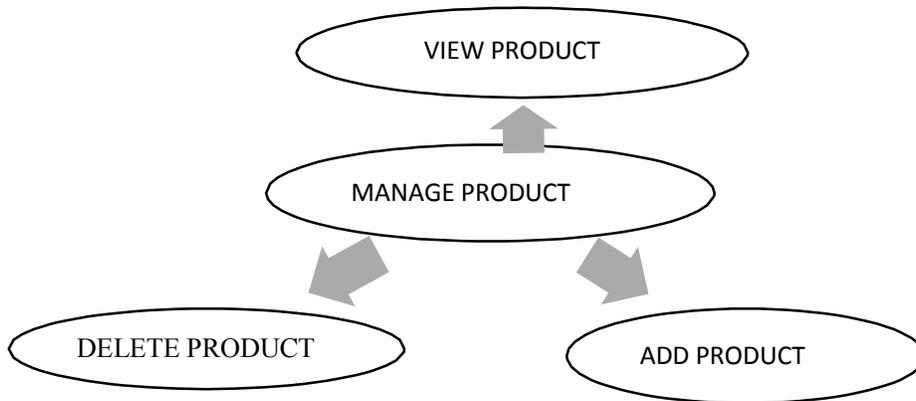


Fig 1(c) Manage products

**Add Products**

The shopping cart project contains different kind of products. The products can be classified into different categories by name. Admin can add new products into the existing system with all its details including an image. Delete Products Administrator can delete the products based on the stock of that particular product. Search products Admin will have a list view of all the existing products. He can

also search for a particular product by name.

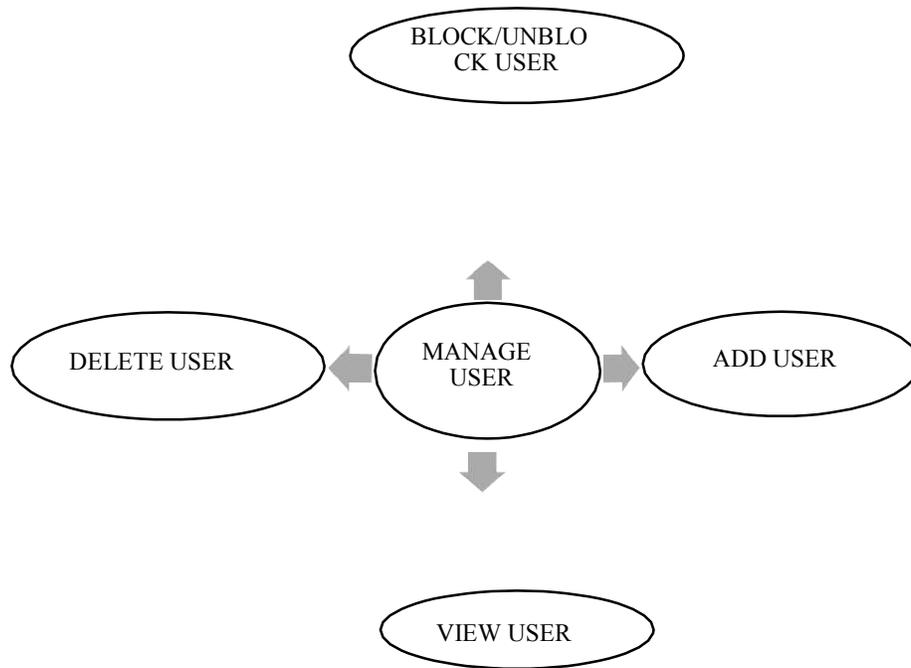


Fig 1(d) Manage User

**View Users**

The admin will have a list view of all the users registered in the system. Admin can view all the details of each user in the list except password. Add UsersAdmin has privileges to add a user directly by providing the details.Delete &Block UsersAdministrator has a right to delete or block a user. The default status of a new user registered is set as blocked. The admin must accept the new user by unblocking him.



Fig 1(e) Manage orders

View Order[6] Administrator can view the Orders which are generated by the users. He can verify the details of the purchase.Delete orderAdmin can delete order from the orders list when the product is taken for delivery.

MODERATORS

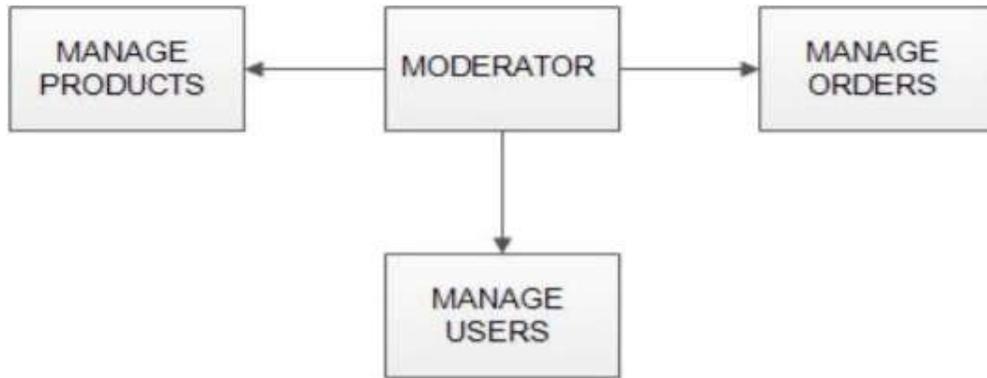


Fig 2(a) Moderator Modules

A moderator is considered as a staff who can manage orders for the time being. As a future update moderator may give facility to add and manage his own products. [4] Moderators can reduce the work load of admin. Now moderator has all the privilege of an admin having except managing other moderators. He can add products and users. He can also check the orders and edit his profile.

- Manage products
- Manage users
- Manage orders

USERS

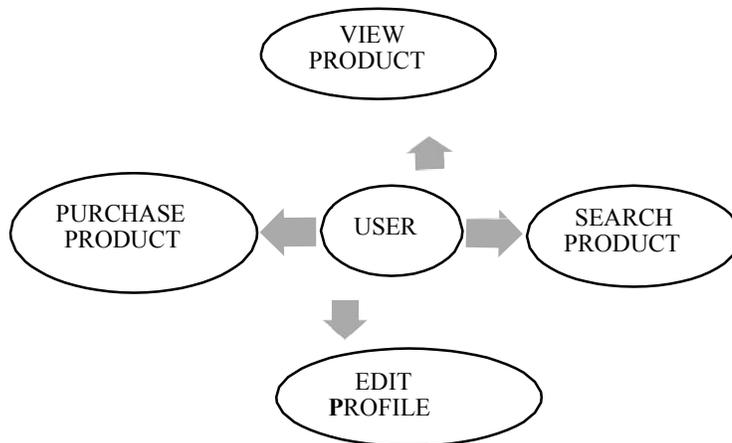


Fig2(b) User Modules

Registration A new user will have to register in the system by providing essential details in order to view the products in the system. The admin must accept a new user by unblocking him. Login [7] A user must login with his user name and password to the system after registration. View Products User can view the list of products based on their names after successful login. A detailed description of a

particular product with product name, products details, product image, and price can be viewed by users. Search Product Users can search for a particular product in the list by name. Add to cart The user can add the desired product into his cart by clicking add to cart option on the product. He can view his cart by clicking on the cart button. All products added by cart can be viewed in the cart. User can remove an item from the cart by clicking remove.

## 6.0 CONCLUSION

The paper entitled Online shopping system was completed successfully. The system has been developed with much care and free of errors and at the same time it is efficient and less time consuming. The purpose of this system was to develop a web application for purchasing items from a shop. This helps in gaining valuable information and practical knowledge on several topics like designing web pages and usage of responsive templates and management of database using mongo db. The entire system is secured. Also the work helped us understand about the development phases of a project and software development lifecycle.

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