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ABSTRACT

Electronic Commerce is process of doing business through computer networks via internet. A person sitting on his chair in front of a computer can access all the facilities of the Internet to buy or sell the products in one go without having to visit physically. The traditional method of shopping is to go out physically and making physical effort to search and get the product. The aim of this project is to create and design an e-commerce platform using new technology called MERN Stack technology such as: MongoDB, Express JS framework, ReactJS library, and NodeJS platform. The basic e-commerce platform consists of several tools and methodology to provide home delivery services of products including online payment, selection and choice of product. Sign In/Login methods are used to differentiate one user from other, creating dashboard for the list of products using MERN Stack. Administrative tools such as user information, Product report, users interest and statistics. Since then this is the matter of research to create online web application assessable across globe and available to even small scale sellers and For customers, they can quickly search for urgent products from their nearby stores. For a developing country advancement in the field of e-commerce is essential. The research evidences shows the importance of the e-commerce in developing countries for business application growth in a country.

KEYWORDS: E commerce using MERN stack, e-commerce, E-commerce for business growth , E-commerce platform.

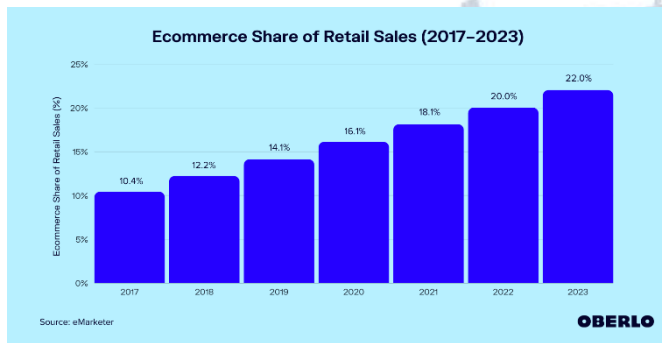
1. INTRODUCTION

E-comm, EC for short (E-commerce) is a concept referring transactions, purchase and sale of goods , products and services through an online medium via Internet. E-commerce was first proposed in 1960. After development of electronic devices such as mobile devices and personal computer and social media drastically ratify the power and the boom of the development of webpage[2]. Launchers promote the rapid an sparkling development of commerce (E-commerce).[3]

It is true that technology now days has become an important aid for marketing as well. There are many forms of e-commerce including the three basic forms B2B(business to business)[8,10] It include commerce business between business organization , B2C(Business to consumer)[4,5] It include distribution of products and services to consumer, C2B(Consumer to Business)[6] It is selling of goods to business organization, C2C(Consumer to consumer)[7] It is selling or exchange of goods between consumers. E-commerce is facilitated by internet and payment gateway interface through payment gateway interface[12,13] such as razorpay.

2. PROPOSED SYSTEM

The work proposed in this paper is a work on e-commerce platform for online commercial business that uses technology stack called MERN stack. M for mongoDB, E for express, R for reactJS, N for nodeJS. The project includes different items arranged sequentially in order to get easily accessible. Online payment facilitator such as Razorpay is included so as to avoid payment insecurities.



3. LITERATURE SURVEY

The research aim is about studying the basic components of MERN Stack [14,16] technology such as: MongoDB, ExpressJS, ReactJS, and NodeJS platform. Using the basic functions of an e-commerce web application such as sign up, sign in, showing dashboards, displaying store categories and products. Using MERN Stack technology to build a web application to shop for product stores and payment gateway. Deploy admin functions for the website such as user management, store management, statistics, and reports. Since then, this topic is declared to research and create an online product search website so that small grocery stores and groceries can post and manage their products right on the website. Website system and branding. At the same time, the store can link to its own website (if any). For customers, they can quickly search for urgent products from their nearby stores. Based on the search results, customers can directly contact the store owner to discuss more about the products they are looking for.

A. NODE JS

A. Node.js is an open source, a system application and an environment for servers. NodeJS is an independent development platform developed on Chrome's JavaScript that we can build network applications quickly and easily. Google JavaScript engine to execute the code. Moreover, a huge part of required modules are written in JavaScript. Node.js accommodates a built-in

library which allows applications to serve as a Webserver like Apache HTTP Server.

B. EXPRESS JS

Express.js Express.js is a framework built above NodeJS. It provides various advanced features for web and mobile development. Express.js supports HTTP, making the API extremely powerful, reliable and easy to use. Express implements extra features for developers which help them get a better programming environment, without scaling down the speed of NodeJS.

C. MONGO DB

MongoDB is an open source database; it is also the leading NoSQL [20] database nowadays adopted by thousands of people. It is written in one of the most popular programming languages today. In addition, MongoDB is cross-platform data that operates on the concepts of Collections and Documents, providing high performance with high availability and ease of expansion. NoSQL is a source database format that does not use Transact-SQL to access information; this database was developed on JavaScript Framework on JSON data type. With its introduction, it has overcome the disadvantages of RDBMS relational database management system model to improve operating speed and functionality. Furthermore, MongoDB is a cross-platform database, performing on Collection and Document approach, it produces sharp production, huge availability, and effortless scalability.

D. JAVASCRIPT

JavaScript is a scripting, object-oriented and cross-platform programming language. Objects of host environment can be connected to JavaScript and arranged in such a way so that it can be operated. Standard libraries such as Array, Date, Math, and the essence component of programming languages for instance managers, control framework and statements objects are contained by JavaScript.

E. COMPONENTS

ComponentReact is built around components. A component can be created by creating Class function of the React object, the starting point of accessing this library. ReactJS creates HTML tags unlike we normally write but uses Component to wrap HTML tags into objects to render. Among React Components, render function is the most important. It is a function that

handles the generation of HTML tags as well as a demonstration of the ability to process via Virtual-DOM.

CRITICAL OBJECTIVES

Expanding client reach, lowering cost-to-serve, and generating differentiated customer experiences are all ways that eCommerce helps businesses grow. For business-to-business (B2B) enterprises, judicious use of this powerful instrument has become critical. eCommerce has shown to be a disruptive force in the present B2B landscape. B2B enterprises are progressively moving a large amount of the purchase process online, and these customers are increasingly anticipating an eCommerce experience similar to that of consumers.

Companies in the B2B sector should define clear objectives for how their digital skills will help them expand. The primary purpose is to reach out to new consumers, particularly those who were previously difficult to contact, too expensive to serve, or not lucrative enough to pursue within a company's present business model.

4. CONCLUSION

E-commerce is almost everywhere from selling/buying products, services and keeping digital cart e-commerce is everywhere. Not only it is popular but also the requirement of today's era when people are digitally connected everywhere and everything is just a click away. This project is build on a technology stack called MERN stack[20] which facilitates the digital payment gateway interface, sorting of products based on lowest or highest price, searching the product by its name. It also has an functionality of storing user information like profile and history of searched items and all this happening over MongoDB[17,19] a database server that store, retrieve and facilitates data.

In Current computing based e commerce, B2B commerce B2C commerce is very popular and growing at pace. As compared to the previous models, the proposed model exhibits far better results as far as the consumer and retailer are concerned..

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Conflict of interest statement

Authors declare that they do not have any conflict of interest.

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