

E-COMMERCE

A PROJECT REPORT

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**Submitted in partial fulfillment of the
Requirements for the Degree of**

MASTER OF COMPUTER APPLICATIONS

**Under the Supervision of
Dr. Amit Kumar Gupta**

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Submitted to

**DEPARTMENT OF COMPUTER APPLICATIONS
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Uttar Pradesh-201206**

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DECLARATION

I hereby declare that the work presented in this report entitled “E-COMMERCE”, was carried out by me. I have not submitted the matter embodied in this report for the award of any other degree or diploma from any other University or Institute.

I have given due credit to the original authors/sources for all the words, ideas, diagrams, graphics, computer programs, experiments, and results, that are not my original contribution. I have used quotation marks to identify verbatim sentences and given credit to the original authors/sources.

I affirm that no portion of my work is plagiarized, and the experiments and results reported in the report are not manipulated. In the event of a complaint of plagiarism and the manipulation of the experiments and results, I shall be fully responsible and answerable.

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CERTIFICATE

Certified that **Abhishek Tiwari (2000290140007)**, **Mayank Singh(2000290140069)**, have carried out the project work having “E-COMMERCE” for Master of Computer Applications from Dr. A.P.J. Abdul Kalam Technical University (AKTU) (formerly UPTU), Technical University, Lucknow under my supervision. The project report embodies original work, and studies are carried out by the student himself and the contents of the project report do not form the basis for the award of any other degree to the candidate or to anybody else from this or any other University/Institution.

Date:28-05-2022

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This is to certify that the above statement made by the candidate is correct to the best of my knowledge.

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ABSTRACT

Our Project “E-COMMERCE” is an Online Shopping Website. The objective of this online shopping website is to improve the services of customers. The main features of this project are high accuracy, design flexibility, and easy availability. This website allows customers to shop and buy items online. This project is an attempt to provide the advantages of online shopping to customers.

This online shopping website allows users to shop from anywhere and anytime and it provides users to find more variety of products with fewer expenses. Users can compare multiple items at a time in this application. This application saves a lot of time and users can avoid crowds for shopping. This project is designed from a user point of view. The user-friendly design helps the users in accomplishing their tasks with ease. Attempts have been made to keep the design simple and understandable. Technologies like HTML, CSS, JavaScript, React-JS, and firebase have been used in this project.

The user module: The user should fill out the registration by submitting all the details like email and address. Users can make search for the product and add the item to the cart. Nowadays the lifestyle of the people is different. People feel uncomfortable and time-consuming going to crowded markets. So, E-Shopping is a boon as it saves a lot of time.

Online shopping is a process whereby consumers directly buy goods, services, etc. from a seller without an intermediary service over the Internet. Shoppers can visit web stores from the comfort of their house and shop by sitting in front of the computer. Online stores are usually available 24 hours a day and many consumers have internet access both at work and at home. So it is very convenient for them to shop online. One of the most enticing factors about online shopping, particularly during the holiday season is, that it alleviates the need to wait in long lines or search from a store for a particular item. A variety of goods are available online. So there researcher wants to know the preference of the consumers. So fifty respondents were met and data were collected regarding their preference for shopping online.

ACKNOWLEDGEMENTS

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Finally, my sincere thanks go to my family members and all those who have directly and indirectly provided me with moral support and other kinds of help. Without their support, completion of this work would not have been possible in time. They keep my life filled with enjoyment and happiness.

Abhishek Tiwari

Mayank Singh

CHAPTER 1

1. INTRODUCTION

The over-project “E-COMMERCE” provides users to login into the project by entering their name, email, and other details and password link. The account verification link gets in the email, after clicking the link the account will get activated and the account and user can log in to their account and sees the products and order the items. The selected items are stored in the card where he /she sees all the products that he/ she ordered In the project. For ordering the project the user registered their Address and select the payment method to pay the price of that product. IF the user selects by Debit card/credit card then the customer must enter their card details for doing the online payment functionality we are using the stripe payment gateway **Stripe was founded in 2011 and is a payment gateway that lets you accept credit card payments (in person or online) by transferring money between your merchant account and a payment processor.**

With the advancement in technology and science, people can now do various things in the comfort of their homes and one such thing is online shopping. It has gained a lot of spotlight due to its ever- increasing demand and craze among people. Online shopping refers to the way of purchasing things online without actually going to the physical stores. People nowadays are busy earning their livelihood and they hardly get any time to go shopping, however, with the advent of online shopping, they can now order anything be it clothes, footwear, gadgets, appliances, and much more. There are numerous advantages of online shopping, let’s take an insight into it. Online shopping is the best option for people who do not have much time and are busy in their office and business work. It is a convenient way for the people who cannot withstand crowded places and malls for shopping so they can sit at their home or office and can order anything anytime. Online shopping offers a vast variety of options which is not possible with physical shopping. You can browse through different websites and can choose the product according to your requirements.

Online shopping does not require physical cash and you can make payments through your debit or credit cards although you have an option of cash on delivery. Well, everything comes with some disadvantages as well. Although online shopping is easy and convenient, however sometimes it disappoints you as things ordered online may not seem the same when they arrive at your door, the color, the size, or something else can be different from the actual item. Also, there are some websites that are fake and provide you with great offers to tempt you and befool you in the end. So it is important that we should do online shopping wisely and with much care in order to avoid

1.1 PROJECT DESCRIPTION

The over-project “E-COMMERCE” provides users to login into the project by enter there name, email, and other details and password links. The account verification link gets in the email, after clicking the link the account will get activated and the account and user can log in to their account and sees the products and order the items. The selected items are stored in the card where he /she sees all the products that he/ she ordered In the project. For ordering the project the user registered their Address and select the payment method to pay the price of that product. IF the user selects by Debit card/credit card then the customer must enter their card details for doing the online paymentfunctionality we are using the stripe payment gateway

In this project, we give many modules that’s make the website user friendly and easy to use theproject

1. Create Account: In this module, the user enters his /her name email id, and password and clicks the Continue button then the customer gets an account verification link in his emailaccount and confirms his account
2. Login Module: In this module after the creation of the account the user login with the help ofEmailid and password, if a customer forgot the password then he/she reset the password
3. Home Page: On the home, page user see the products, search the products and if he wants tobuy aproduct he/she adds the product to the card
4. AddToCart: On the AddToCart, page Customer see all products which he/she wants to buyIn Thispage, users can also remove the products
5. Address Module: In this module, customers fill the basic information about his address, contactnumber and pin code
6. Buy Module: On the Buy Page user can buy the product and select the payment method cashand by card, if he chooses by card method then the customer needs to enter his and her card details
7. Logout Module: On this module when the user clicks this he logs out from his account and hislogin session is got over

Language Used:

In this project we are used Html,CSS, JavaScript and ,ReactJs and for data base we user firebase

The Firebase Realtime Database lets you build rich, collaborative applications by allowing secure access to the database directly from client-side code. Data is persisted locally, and even while offline, realtime events continue to fire, giving the end-user a responsive experience

The main features of this project are high accuracy, design flexibility, and easy availability. This website allows customers to shop and buy items online. This project is an attempt to provide the advantages of online shopping to customers. This online shopping website allows users to shop from anywhere and anytime and it provides users to find more variety of products with fewer expenses. Users can compare multiple items at a time in this application. This application saves a lot of time and users can avoid crowds for shopping. This project is designed from a user point of view. The user-friendly design helps the users in accomplishing their tasks with ease. Attempts have been made to keep the design s

1.2 PROJECT SCOPE

Purchasing and selling products and services over the internet without the need of going physically to the market was a time taking process. Online shopping is just like retail store shopping that we do by going to the market, but it is done through the internet. Online shopping has made shopping painless and added more fun. Online stores offer product descriptions, pictures, comparisons, prices, and much more. A few examples of these are Amazon.com, ebay.com, and framt.com and the benefits of online shopping is that by having direct access to consumer, the online stores can offer products that cater to the needs of the consumer, and cookies can be used for tracking the customer selection over the internet or what is of their interest when they visit the site again. Online shopping makes use of digital technology for managing the flow of information, products, and payment between consumers, site owners, and suppliers. Online shopping can be either B2B (business to business) or B2C (business to consumer).

A shopping cart is one of the important facilities provided in online shopping, this lets customers browse different goods and services, and once they select an item to purchase they can place the item in the shopping cart, and continue browsing till the final selection. Customers can even remove the items from the shopping cart that were selected earlier before they place the final order. It reminds us of the shopping basket that we carry in a departmental store.

- Sellers can increase and widen their reach to way beyond their cities – they can get customers from literally anywhere in the world, provided they are willing to ship.
- Even small businesses can increase their sales and grow by selling online
- They can enjoy massive savings in infrastructure, as they need not rent or purchasespace in pricey locations or spend on interiors, displays.
- As online stores can be operated with minimal staff, there are huge savings in salaries; sellers can also save on overheads like electricity and other utility bills.
- Online storefronts are open 24/7 to serve customers – no more worrying aboutmissing out because of holidays, strikes, or even lockdowns.
- They can respond quickly to market demands
- Sellers can deal in a wide range of products

They can analyze customer buying patterns and preferences and offer tailor-made offers, discounts, and services



1.3 HARDWARE & SOFTWARE REQUIREMENTS

1. Windows XP, Windows 7 (32/64 bit) or higher
2. Minimum 4 GB RAM and higher
3. 10 GB available space on the hard disk
4. At least one Internet Browser e.g. Chrome, Firefox, Microsoft Edge etc.
5. Node.js
6. Active internet connection minimum speed 512kbps and above.
7. At least one installed code Editor to test and debug your code e.g.
8. [Visual studio code](#)

CHAPTER 2

2. FEASIBILITY STUDY

A feasibility study assesses the operational, technical, and economic merits of the proposed project. The feasibility study is intended to be a preliminary review of the facts to see if it is worthy of proceeding to the analysis phase. From the systems analyst perspective, the feasibility analysis is the primary tool for recommending whether to proceed to the next phase or to discontinue the project.

The feasibility study is a management-oriented activity. The objective of a feasibility study is to find out if an information system project can be done and to suggest possible alternative solutions.

Projects are initiated for two broad reasons:

Problems that lend themselves to systems solutions

1. Opportunities for improving through (a) upgrading systems (b) altering systems (c) installing new systems A feasibility study should provide management with enough information to decide: Whether the project can be done Whether the final product will benefit its intended users and organization What are the alternatives among which a solution will be chosen Is there a preferred alternative

2.1 TECHNICAL FEASIBILITY

A large part of determining resources has to do with assessing technical feasibility. It considers the technical requirements of the proposed project. The technical requirements are then compared to the technical capability of the organization. The systems project is considered technically feasible if the internal technical capability is sufficient to support the project requirements. The analyst must find out whether current technical resources can be upgraded or added to in a manner that fulfills the request under consideration. This is where the expertise of system analysts is beneficial, since using their own experience and their contact with vendors they will be able to answer the question of technical feasibility. The essential questions that help in testing the operational feasibility of a system include the following:

Is the project feasible within the limits of current technology? Does the technology exist at all? Is it available within given resource constraints? Is it a practical proposition?

Manpower- programmers, testers & debuggers Software and hardware

Are the current technical resources sufficient for the new system?

Can they be upgraded to provide the level of technology necessary for the new system? Do we possess the necessary technical expertise, and is the schedule reasonable?

Can the technology be easily applied to current problems? Does the technology have the capacity to handle the solution?

React website slow

Often, web app performance issues are not related to React. **Analytics tracking libraries, excessive CSS animations, non-optimized images, frames, and many more factors can contribute to poor performance.** You can use the Chrome DevTools Performance tab to debug these issues

2.2 OPERATIONAL FEASIBILITY:

Reactjs is an open-source JavaScript library widely known for creating dynamic and highly responsive user interfaces. With a component-based architecture, Reactjs emerges as a very efficient solution for developing fast & scalable front-end for web and mobile applications. It primarily focuses on building natural, interactive and appealing applications. Reactjs demands a minimal coding effort on the part of developers and offers best rendering performance.

Operational feasibility is dependent on human resources available for the project and involves projecting whether the system will be used if it is developed and implemented.

Operational feasibility is a measure of how well a proposed system solves the problems, and takes advantage of the opportunities identified during scope definition and how it satisfies the requirements identified in the requirements analysis phase of system development.

Operational feasibility reviews the willingness of the organization to support the proposed system. This is probably the most difficult of the feasibilities to gauge. In order to determine this feasibility, it is important to understand the management commitment to the proposed project. If the request was initiated by management, it is likely that there is management support and the system will be accepted and used. However, it is also important that the employee base will be accepting of the change. The essential questions that help in testing the operational feasibility of a system include the following:

- Does current mode of operation provide adequate throughput and response time?
- Does current mode provide end users and managers with timely, pertinent, accurate and useful formatted information?
- Does current mode of operation provide cost-effective information services to the business?
- Could there be a reduction in cost and or an increase in benefits?
- Does current mode of operation offer effective controls to protect against fraud and to guarantee accuracy and security of data and information?
- Does current mode of operation make maximum use of available resources, including people, time, and flow of forms?
- Does the current mode of operation provide reliable services
- Are the services flexible and expandable?
- Are the current work practices and procedures adequate to support the new system?
- If the system is developed, will it be used

2.3 ECONOMICAL FEASIBILITY

Economic analysis could also be referred to as cost/benefit analysis. It is the most frequently used method for evaluating the effectiveness of a new system. In economic analysis the procedure is to determine the benefits and savings that are expected from a candidate system and compare them with costs. If benefits outweigh costs, then the decision is made to design and implement the system. An entrepreneur must accurately weigh the cost versus benefits before taking an action. Possible questions raised in economic analysis are:

- Is the system cost-effective?
- Do benefits outweigh costs?
- The cost of doing a full system study
- The cost of business employee time
- Estimated cost of hardware
- Estimated cost of software/software development
- Is the project possible, given the resource constraints?
- What are the savings that will result from the system?
- Cost of employees' time for study
- Cost of packaged software/software development
- Selection among alternative financing arrangements (rent/lease/purchase)

The concerned business must be able to see the value of the investment it is pondering before committing to an entire system study. If short-term costs are not overshadowed by long-term gains or produce no immediate reduction in operating costs, then the system is not economically feasible, and the project should not proceed any further. If the expected benefits equal or exceed costs, the system can be judged to be economically feasible. Economic analysis is used for evaluating the effectiveness of the proposed system. The economical feasibility will review the expected costs to see if they are in line with the projected budget or if the project has an acceptable return on investment. At this point, the projected costs will only be a rough estimate. The exact costs are not required to determine economic feasibility. It is only required to determine if it is feasible that the project costs will fall within the target budget or return on investment. A rough estimate of the project schedule is required to determine if it would be feasible to complete the systems project within the required timeframe. The required timeframe would need to be set by the organization.

CHAPTER 3

DATABASE DESIGN

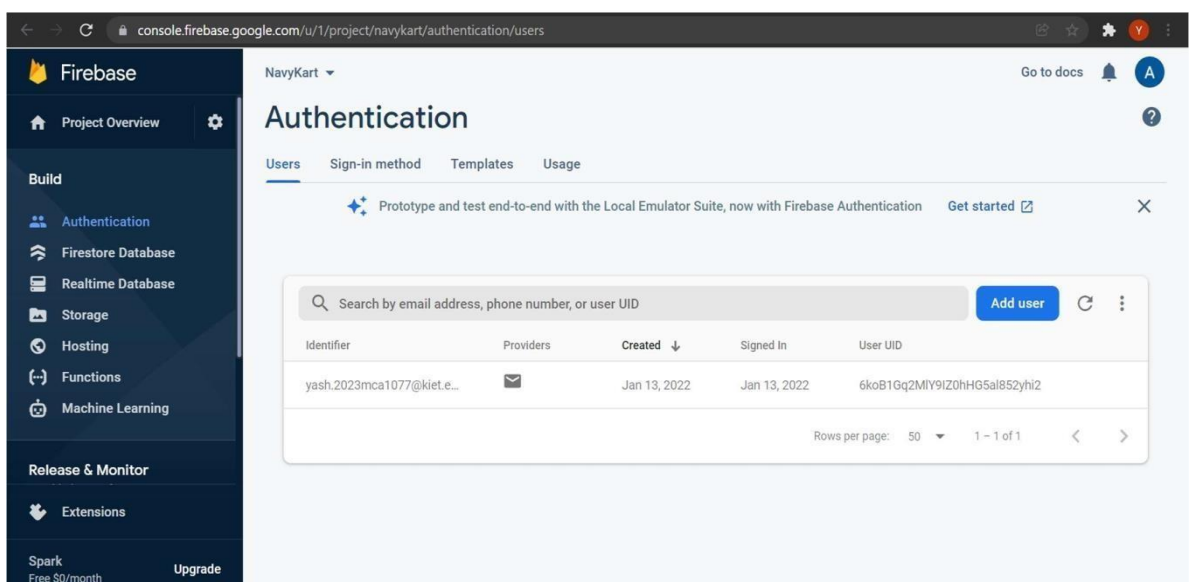
3.1 DATA BASE TABLE

Firestore Database Store and sync data with our NoSQL cloud database. Data is synced across all clients in realtime, and remains available when your app goes offline. The Firestore Database is a cloud-hosted database. Data is stored as JSON and synchronized in realtime to every connected client. When you build cross-platform apps with our Apple platforms, Android, and JavaScript SDKs, all of your clients share one Firestore Database instance and automatically receive updates with the newest data.

The Firestore Database lets you build rich, collaborative applications by allowing secure access to the database directly from client-side code. Data is persisted locally, and even while offline, real-time events continue to fire, giving the end-user a responsive experience. When the device regains connection, the Firestore Database synchronizes the local data changes with the remote updates that occurred while the client was offline, merging any conflicts automatically.

The Firestore Database provides a flexible, expression-based rules language, called Firestore Database Security Rules, to define how your data should be structured and when data can be read from or written to. When integrated with Firestore Authentication, developers can define who has access to what data, and how they can access it.

The Firestore Database is a NoSQL database and as such has different optimizations and functionality compared to a relational database. The Firestore Database API is designed to only allow operations that can be executed quickly. This enables you to build a great real-time experience that can serve millions of users without compromising on responsiveness. Because of this, it is important to think about how users need to access your data and then [structure it accordingly](#).



3.2 FLOW CHART

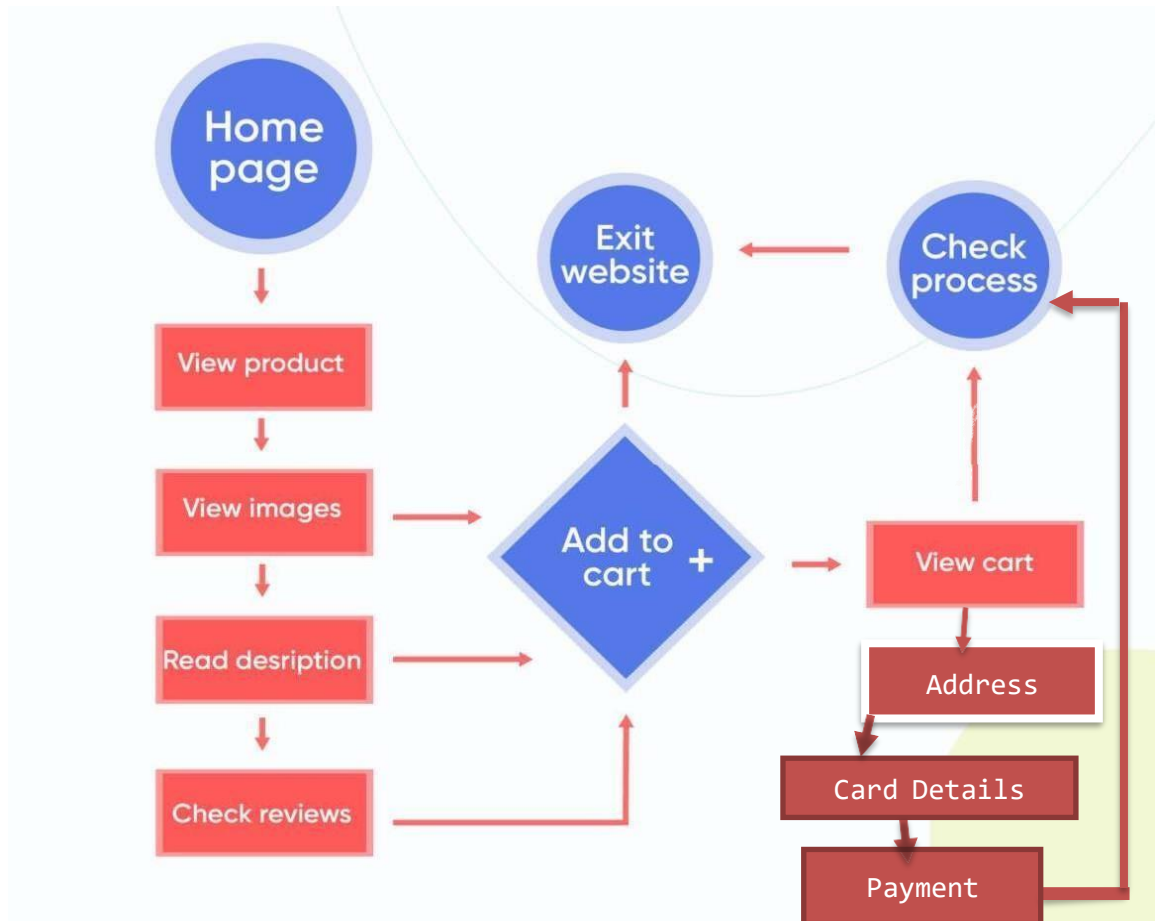
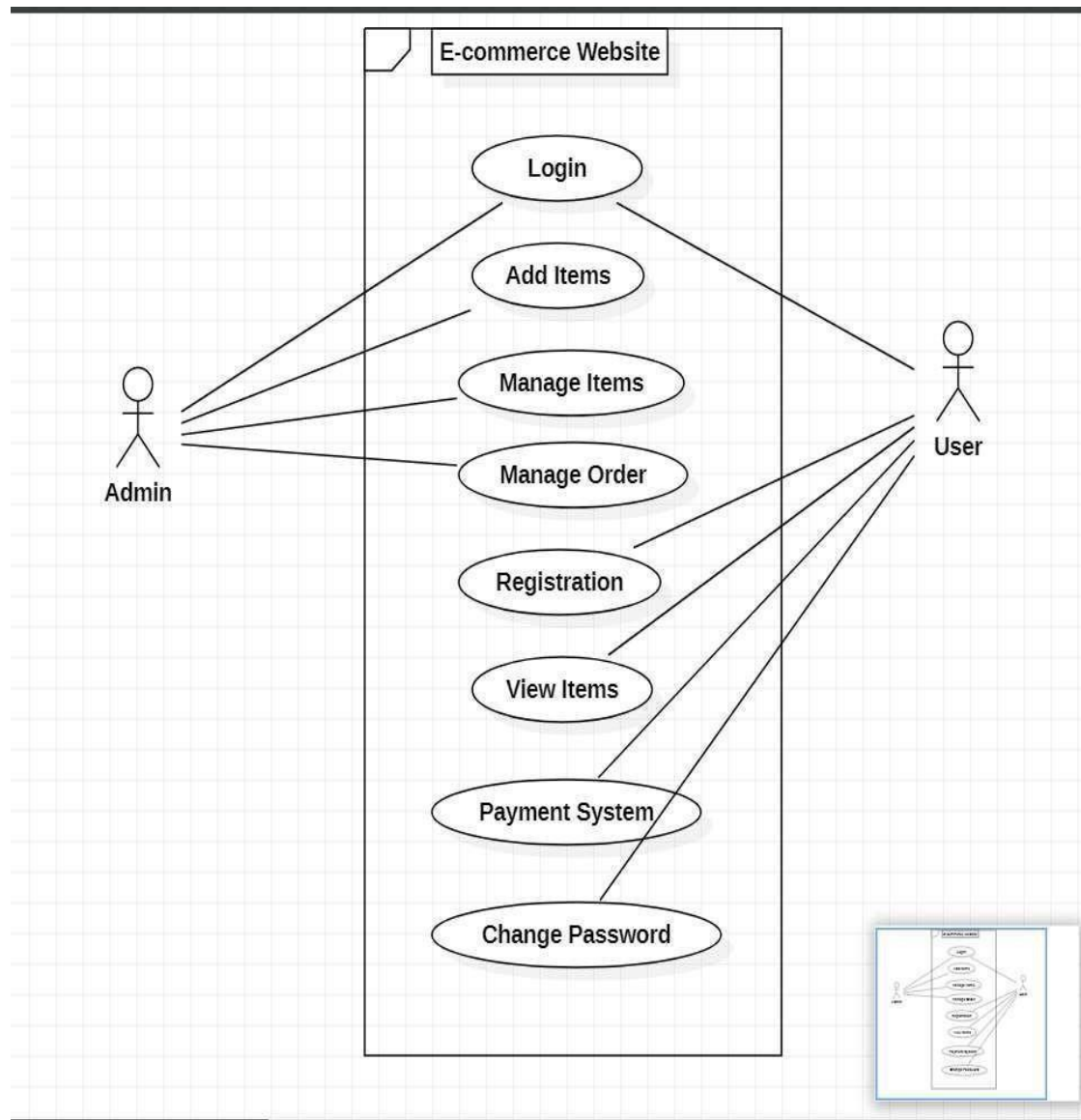
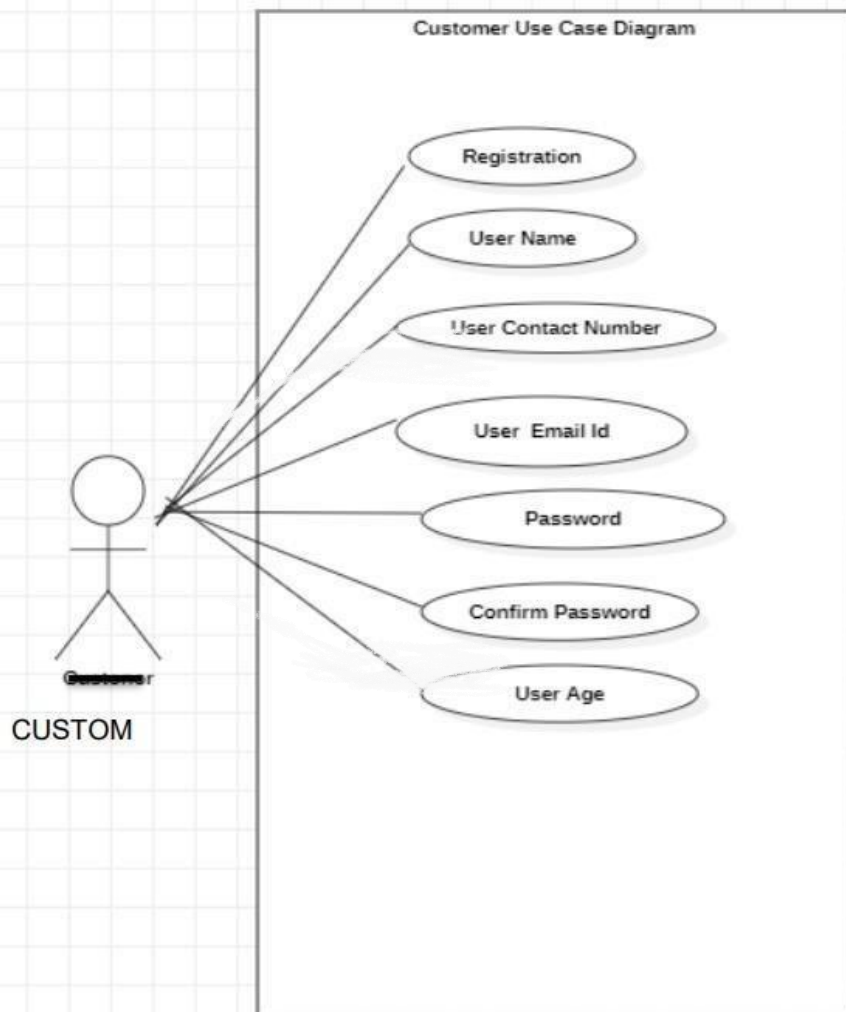


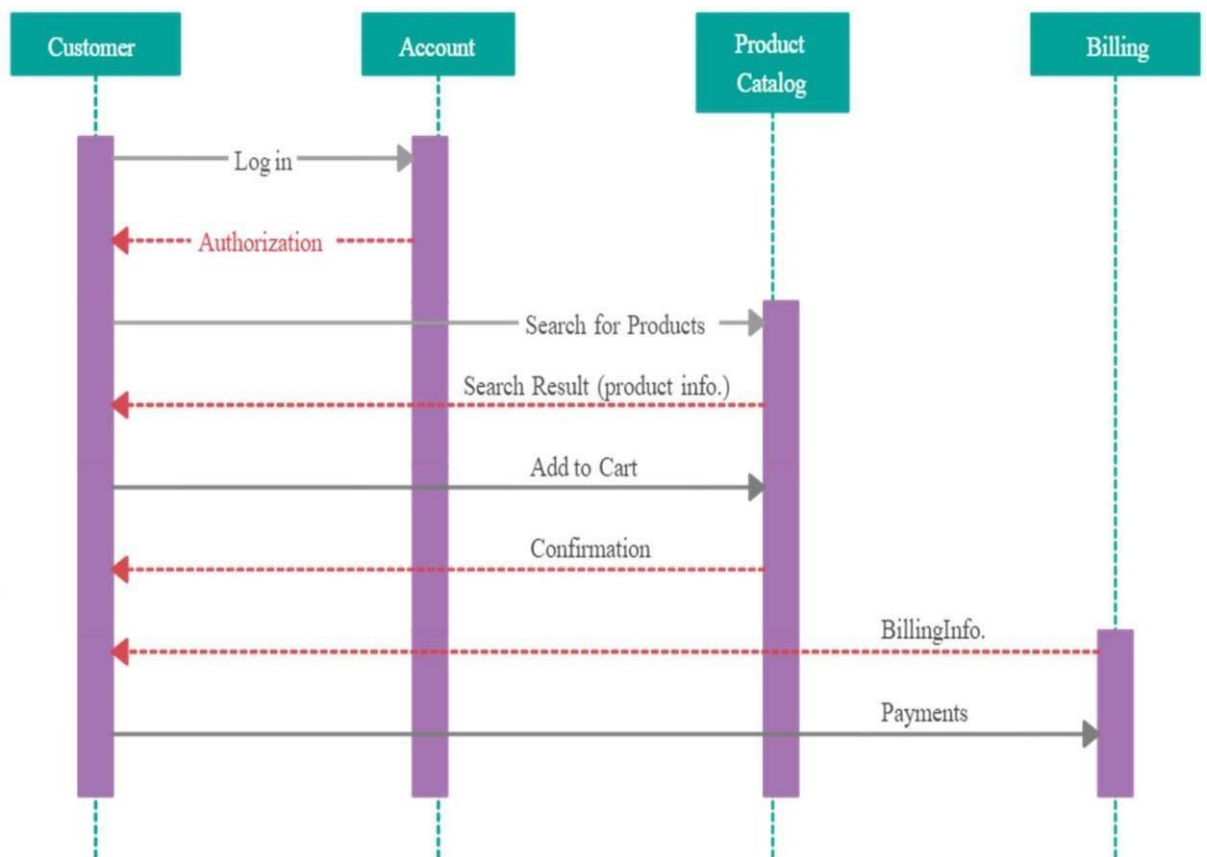
Figure 1: *Flow Chart*

3.3 USE CASE DIAGRAM

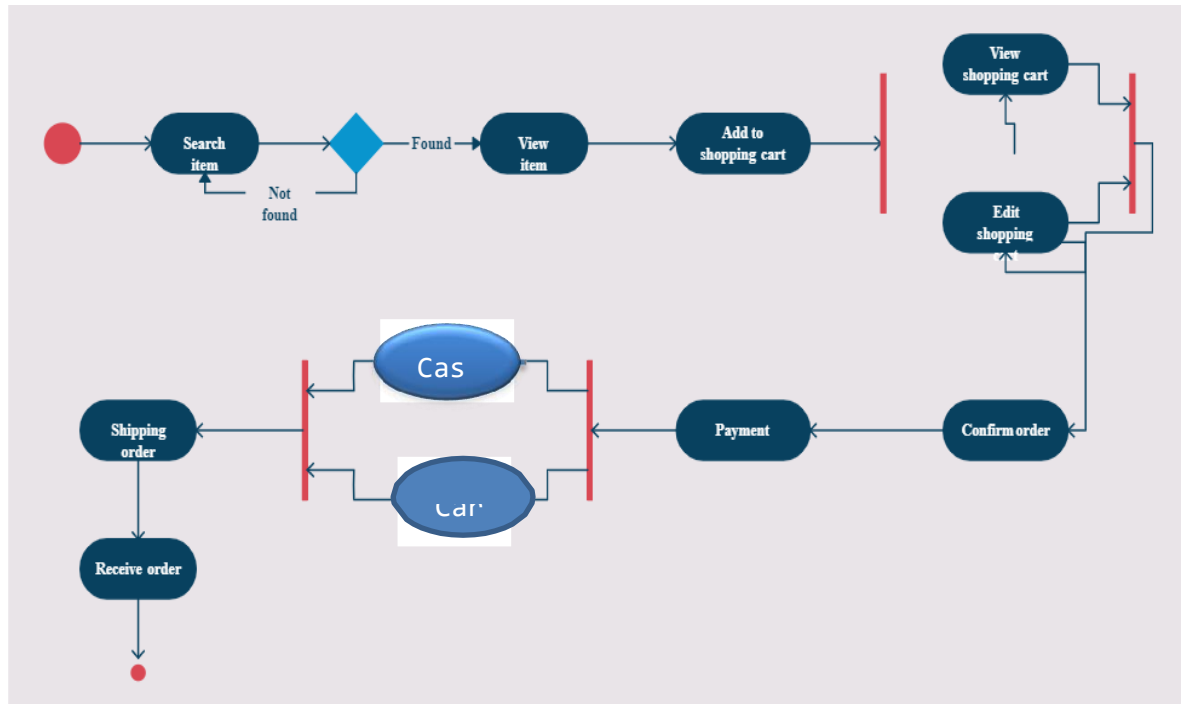




3.4 Sequence Diagram



3.5 ACTIVITY DIAGRAM:



3.6 COLLABORATIVE DIAGRAM

