# *"E - Distributor"*

A Major Project Report

Submitted in Partial Fulfillment of

Requirement for the VIII Semester Submission of

**ENGINEERING**

In

**COMPUTER SCIENCE**

**By**


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DEPARTMENT OF COMPUTER ENGINEERING

**SHRI. GULABRAO DEOKAR COLLEGE OF ENGINEERING, JALGAON**


**2022 - 2023**

# SHRI. GULABRAO DEOKAR COLLEGE OF ENGINEERING, JALGAON


## DEPARTMENT OF COMPUTER ENGINEERING

## *CERTIFICATE*

This is to certify that the Report entitled, "E - Distributor" is submitted by "**Patil Bhagyashri R., Khatik Sarfraj S., Chavan Khushboo R., Shimpi Raj M.**" is a bonafide record of report work submitted towards the partial fulfillment for the VIII Semester as per the requirement of **Kavayitri Bahinabai Chaudhari North Maharashtra University, Jalgaon**.

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**Date : 18/04/2023**

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# ACKNOWLEDGEMENT

It is great sense of satisfaction that we prepare project report on “E - Distributor” for completing in the form of Semister Work. This report was undertaken in the practical fulfillment of the requirement for “Engineering Degree in the Computer Engineering as prescribed by the Kavayitri Bahinabai Chaudhari North Maharashtra University, Jalgaon.” we wish to express our heart full thanks to all those who helped us in completing the Report.

First of all we would like to thank **Mr. Hariom C. Agnihothri** for providing us an opportunity to undertake this report under and his valuable advices!

We wish to express our gratitude to our teachers We are thankful for his time-to-time tips and help in every stages of report work!

We wish to express our gratitude to all teachers of their technical and moral support which was desperately needed during the starting of report. All the teachers have great source of inspiration for us!

We would like to thank all our friends for helping us when we needed help! And thanks to all those who knowingly or unknowingly helped us!

Thank You!

**Patil Bhagyashri R.**
**Khatik Sarfraj S.**
**Chavan Khushboo R.**
**Shimpi Raj M.**

# ABSTRACT

Mobile devices are becoming very popular nowadays. Language textbooks with learning aids on mobile devices can greatly help students with their studies. The authors have been developing learning aids on mobile devices that can be used in language courses. This paper introduces an Android application that can help students to memorize vocabulary. The vocabulary is based on a published textbook. Students who are using the textbook in their courses can review the vocabulary of the textbook using the virtual flashcards and multiple choice quizzes provided by the application which runs on an Android device.

The aim of this research is to create learning media for senior high school students through an android application in the form of a simulation lab. The method employed in the study is research and development. A simulation lab which has been made subsequently validated by concept and media experts, further empirical testing by teachers and students. Averages for feasibility of the media on all indicators are 83.13% from media experts, 87.5% from concept experts, 83.13% from empirical test of teachers, and 78.51% from student test. It is concluded that the android application in the form of a simulation lab can be used as a learning media for senior high school students

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# CHAPTER 1

# INTRODUCTION

## 1.1 Introduction to E-Distributor

E-distribution is a type of distribution that uses purely electronic media. It is often interpreted as the buying or selling of services or goods over a public network without the physical media; this is usually done by downloading from the Internet to the consumer's electronic device. This type of distribution is accessible to a large number of customers and is more cost effective for businesses since there is no need to provide a physical media.

Two thousand year ago, Roman roads brought trade and commerce to europe in an Eunpresedent manner. A thousand year ago,the spice routes linked the culture of east and west. At the dawn of the second millennium, the internet, the world largest computer network, the network of network, is making fundamental changes to the lives of everyone on the planet-changing forever the way business is conducted.

internet has become an important medium for doing global business based on the state of the art technology. Global business was conducted in a new way: electronically, using networks and the internet. The availability of internet has led to the devlopment of E-Distributer.in which business transaction take place via telecommunication network E-commerce. New standard and new facilities are constantly emerging and their proper understanding is essential for the success of an operation and especially for those who are assigned a duty to select, establish, and maintain the nessary infrastructure

E-distribution is an important component of e-commerce. There are many benefits for businesses in adopting e-distribution, the biggest benefit of which is the direct nature of the transaction (business to consumer or B2C). Consumers are assured that they are dealing with real and genuine producers or manufacturers. Another advantage is the market reach capability, which is extensive. There is less need for manpower as the seller has direct communication with the buyer.

All orders can be immediately acted upon, and considerable overhead can be greatly reduced. The seller has more control in e-distribution, allowing a customer order to be delivered on time. Moreover, e-distribution can reduce or eliminate lead times and

possible shortages. With the reduction in overhead, businesses can realize big profits; the payment system in e-distribution is also largely efficient and secure.

However, there are some disadvantages with e-distribution. For consumers, the distribution cost is often directly passed on to them. Targeted promotions could get more sales, which may at times not help with the real needs of the consumer. Also, with the decreased interpersonal and social contacts, there is much decision making involved on the consumer side. Furthermore, not all consumers can be reached by e-distribution.

As classic distributor businesses enhance their ecommerce Web sites and morph them into emarketplaces, they have the potential to become significant players in the business-to-business (B2B) space. In so doing, these companies, called edistributors, will be able to reap the rewards of a rapidly growing ecommerce market.

Worldwide B2B ecommerce will top $2.6 trillion by 2004, up from around $280 billion in 2000

Richard Villars, Vice President of Internet and eCommerce Strategies at IDC, says, "eMarketplaces are becoming evolutionary, not revolutionary: The people who are going to drive this are the ones that already have relationships with buyers and suppliers -- we call them distributors."

The challenge for edistributors is what Villars calls "supplier enablement," or how to best link with customers' procurement systems and create an effective edistribution system, all while still maintaining low costs and as much customer intimacy as possible.

**B2B Benefits**

At least ebusiness itself will not pose any problems, for not only is ecommerce volume expanding, but companies are still seeing significant benefits as they sell to businesses over the Internet.

According to IDC's Internet Executive Advisory Council Survey 5, which surveyed 312 U.S. B2B Web sites, well over 50% of respondents indicated expanding sales channels, lowering operational costs, and improving customer service as the top three benefits of using B2B

**The eMarketplace**

eMarketplaces play an important role in B2B ecommerce.

IDC defines an emarketplace as a neutral entity that connects buyers and suppliers -- "neutral" meaning that emarketplaces do not set the interests of buyers over the interests of suppliers, or vice versa.

They extend the reach of ebusiness to new companies and new markets, connecting companies' distribution and procurement systems and enabling aggregate buying and selling.

Villars predicts that by 2004, about $1.2 trillion of B2B ecommerce will be through emarketplaces.

The very use of marketplaces (and dynamic pricing) can help distributors surmount the "supplier enablement" challenge that Villars points out.

**Collaborate!**

Villars also says that in B2B, "The key to moving beyond just basic delivery ... is to recognize that collaboration -- using the power of sharing information, whether it's yours or your business partner's -- is the way to entice buyers and suppliers to participate more effectively."

Collaboration tools, such as online exchanges, are going to help distinguish the future of distributors' ecommerce sites by helping them reduce sales costs and improve customer loyalty.

## 1.2 Background

Today, almost 90% of India's consumer packaged goods (CPG) manufacturers operate in fragmented channels. These channels consist of approximately a million individual distributors and wholesalers whose goods reach the online shopping stores, serving millions of Indian consumers (Bhise, 2019). A online shopping is a small, family-owned retail store. It is usually referred to as a nanostore, mom-and-pop store, or the traditional channel (Fransoo et al., 2017). This substantial retail market is facilitated through a long business-to-business (B2B) retail supply chain between the CPG manufacturers and the end consumers through multiple intermediaries (Kumar, 2019).

In India, at least 14 million online shoppings exist and operate every day, and their characteristics and issues are very distinctive. Their small size makes distribution a logistics challenge. Other challenges include small distribution drop sizes, limited available cash, and minimal shelf space - especially in urban areas. Furthermore, Kin (2018) argued that online shopping supply chain networks are highly fragmented due to different goals between manufacturers and online shopping owners, which increases the cost to serve of this channel. An independent, online, and multi-brand distributor would fill the gap to address this issue and help to gain further efficiency in the fiercely competitive retail landscape and last-mile delivery environment.

India is a high-tech market with several companies leading business-to-consumer (B2C) e-commerce platforms. However, only a few have entered the CPG wholesale business to disrupt the decades-old exclusive distributor-led traditional fulfillment channels and improve the B2B retail value chain for brands and consumers. These e-commerce companies would directly serve the online shoppings better, provided that it has a robust distribution strategy and comprehensive supply chain network model.

This research aims to formulate a non-exclusive e-commerce B2B (e-B2B) distribution strategy at the lowest cost-to-serve, at the highest service levels, and identify essential urban network design factors. Using geolocations of each online shopping and the projected 5-year demand, delivery frequencies, projected market penetration1, and wallet share2, this study provides a comprehensive urban network supply chain strategy that entails the value proposition and the network model for ecommerce B2B distribution.

Android applications are organized as a collection of components. There are four types of components, and applications can be composed of one or moreof each type. A dynamic instance of a componen t corresponds to an application subset that can be executed independently of the others. So, in many ways, an Android application can be thought of as a collection of interacting components. Android application components come in four flavors:

- Activitie:. User-facing components that implement display and inputcapture.
- Services: Background components that operate independent of any user-visible activity.
- Broadcast receivers: A component that listens for and responds to system- wide broadcast announcements.
- Content providers: Components that make application data accessible to external applications and system components.

## 1.3 Motivation

Products can be effectively tailored to the various segments of consumers by classifying the customers according to how they are motivated

Research has shown that to shop online (Rohan and Swaminathan,2004).in addition,classifying consumers based on their motivation informs bussinesses of what client look out for and their attitude during the shopping decision-making process.

There are various taxonomies of online shoppers such as the typology of keng kau et al.They categories E-Distributer shoppers into six group based on the information seeking patterns of consumers in addition to their online motivation and concern during the shopping process.another popular typology is that of rohm and swaminathan,who categorize online shoppers,convenience shoppers,store-oriented shoppers, and balanced buyers according to the shopping motivation of the consumers.According to the authors, the online convenience shoppers to shop online. This category of e-consumers,however,is not motivated to immediately acquire the products they buy.The possibility of searching for different brands and product from several stores motivates the variety seekers. being able to explore product details online as the variety seekers motivates the balanced buyers.however,the balanced buyers differ from the varity seekers because the balanced buyers typically plan their purchases ahead,unlike thevarity seekers,who do not.social interaction motivates the store orinted shoppers,in addition to the desire to acquire the purchased goods immediately.

Globally, billions of consumers buy their staples from up to 50 million nanostores worldwide. In developed countries, modern channel retailers are very dominant due to the larger purchasing power of the customers and the ability to provide cheaper products due to logistics efficiencies reach via door-to-door distribution strategies. However, the opposite is true in most developing countries. The traditional channels retailers can serve lower-income consumers through closer proximity, credit line offers, and the format of the online shopping.

Online shoppings are not only the backbone of India's everyday CPGs but also dairy products, fruits, and vegetables, including rice and pulses. The Indian Retail Industry Analysis by IBEF (Kamath, 2020) calculated that they comprise 80% of India's $ 1.1 trillion retail market. Typically, a online shopping serves the needs of approximately 500 families in the neighborhood. With an average space of 300 ft2 and US$3,000 in

inventory at any given time, a online shopping offers roughly 2,500 SKUs, which vary in response to the socioeconomic composition of the neighborhood's and customers' preferences.

The most challenging problem of online shoppings has been the considerably high cost to serve, which adversely affects their survival (Castañon-Choque, 2018). Limited capital, space, and technology prevent them from adequately stocking to fulfill demands, which leads to overstocking without a clear business strategy and less product availability. Moreover, most of the CPG manufacturers do not offer frequent visits to deliver their goods directly. As a result, store owners have no choice but to close their stores every few days to visit the closest wholesale market to buy their consumer's demands (Kamath, 2020). This condition results in loss of business, time, and money.

Moreover, online shoppings' high fragmentation causes substantial distribution inefficiencies, especially in congested megacities. A solution is required to serve them efficiently, given the unique features of their commercial channels and logistics strategies, technological challenges, and others (Sponsor Company, 2020). However, tackling the logistics complexities of serving millions of online shopping stores is a challenge that many face, yet few master.

These two challenges emerged in designing a non-exclusive e-B2B distribution solution for these online shoppings. Therefore, this capstone project addresses the challenges by cutting the fragments of distributors, reducing the cost to serve, and serving rapid replenishment to the online shoppings. Online shopping owners can benefit from the faster service to provide a better experience to their consumers. They can also benefit from a cheaper cost-to-serve to increase their wallet share. Brands can also increase their gross merchandise volume (GMV), and consequently, their margins. Finally, entering the B2B business will boost growth and foster forward-looking logistics approaches to serve online shoppings.

## 1.4 Problem Definition

**Problem Statement:**

Mobile application development is the process to making software for smartphones and digital assistants, most commonly for Android and iOS. The software can be preinstalled on the device, downloaded from a mobile app store or accessed through a mobile web browser.

Mobile application development is necessary for most enterprises. When you build your application with both operating systems in mind, try to makejudicious use of APIs and understand the specifics of the required develop erprograms.

**Our research questions are the following:**

• What should be the e-B2B distribution strategy (see Figure 1.1) to serve Online Store at optimal cost subject to service levels?

• What factors of urban network design should be considered to implement the distribution strategy at different stages?

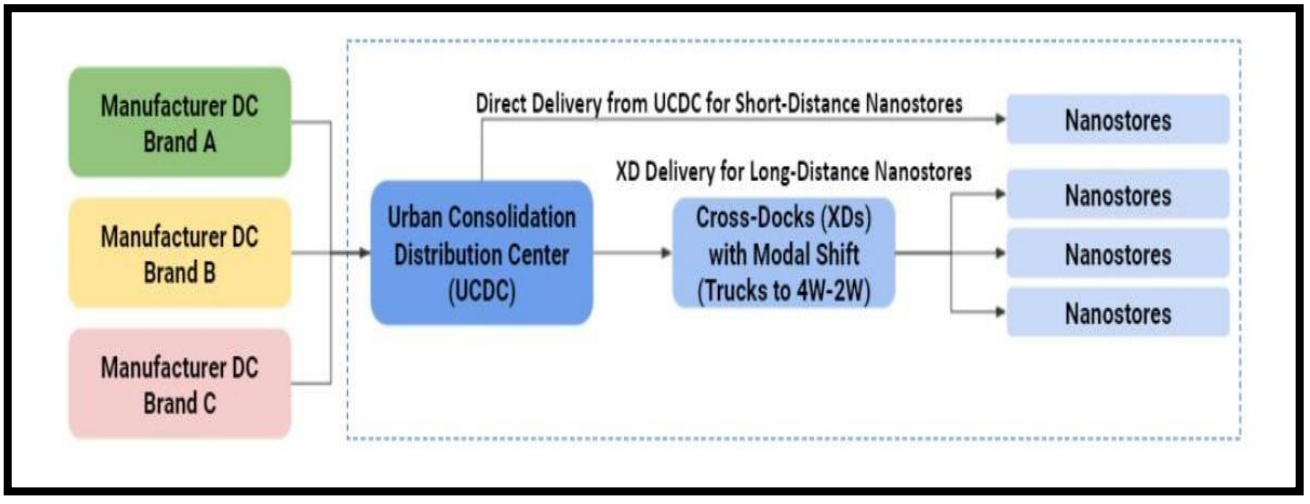


**Fig: Scope of e-B2B Distribution Strategy and Network Design.**

To answer the first question, we develop a recommendation framework for e-commerce platforms. This framework becomes a guiding principle for companies to design their distribution from brand manufacturers to the Online Store. On distribution strategy, Spoor (2016) and Kin (2018) offer a variety 9 of options: direct delivery to Online Store, delivery through cross-dock points or and urban consolidation centers

(UCC), or a combination of both.

To answer the second question, a large-scale network design solution is developed to highlight the tradeoffs between penetration, wallet share, frequency, and urban circuity characteristics in achieving the objective for the platform. Sensitivity analysis of the network model is provided. Finally, we describe the key factors to be considered at different stages.

## 1.5 Scope

The Scope of android app developers has increased and will increase in the coming years in India. Big companies like Samsung, Vivo, One Plus are launching mobile phones with a new update every year, that has increased the demand for android. There will be no loss in Android App Developmentin the coming years. Indian app developers are cost effective.

### Open Source

Android is an open source operating system. It helps the developer to register once and then they can develop and test different apps. On android SDK one- time registration fee is $25 to get a developer account on Google play which helps you to publish multiple android apps. For paid apps, Google charges 30%commission and for free apps, they are distributed free among all users.

### Huge Market

The mobile app market is the fastest growing app market in India. Androiddevelopers can publish their apps on other platforms like SlideME, Opera

Mobile Store, Mobango, etc. Most of these platforms or markets are free. Such platforms are creating a huge market for android mobile app development in India.

High Return on Investment with Low Cost

Developers can use Android Software Development Kit. They have to pay only once for registration rest they can build multiple apps. They can purchase any computer device to build and test their application, by this they invest less and increase user engagement. Thus end users are benefited using interactive appsand the company gains high return on investment.

### User Base is Larger

As discussed before android has a large number of users and it continues to grow. Thus companies are getting benefited with this number. Android allows you to develop apps and games for millions of users. Thus reaching to a largernumber of users gives

you the perception of market.

### Job Opportunities for Android Developer

As the market is larger for Android, jobs for android mobile app development is increasing in India. Developers who are knowledgeable and experienced will have good salary package in this industry. Approx. 25000 openings are there forandroid mobile app development in India, the number itself shows the huge amount of growth in this industry. For experienced developer's salary lies between Rs

1.2 to 4.6 lakh per annum.

## 1.6 Objective

- To make mobile app for learning computer languages
- App should be very easy for all to use
- Multiple languages can be used for by one app
- App is developed by easy way for farther modification

## 1.7 Selection of Life cycle Model for Development

We created life cycle of our project with the help of life cycle model in software development in which we have done first planning after that analysis of the project and then the design of the project and implementation is started of project then we create our schedule and after that we are working on our project and we done the we are almost completing our project and testing it time to time for the best Software of E - Distributor.

Selection Process parameters plays an important role in software development as it helps to choose the best suitable software life cycle model.

The life cycle model is one of the key concepts of systems engineering (SE). A life cycle for a system generally consists of a series of stages regulated by a set of management decisions which confirm that the system is mature enough to leave one stage and enter another

Lifecycle models provide practitioners with fact-based views about their projects (e.g., code review as described in this chapter). Supporting practitioners with better insights into their processes and systems, these models help them make better data-driven development decisions.

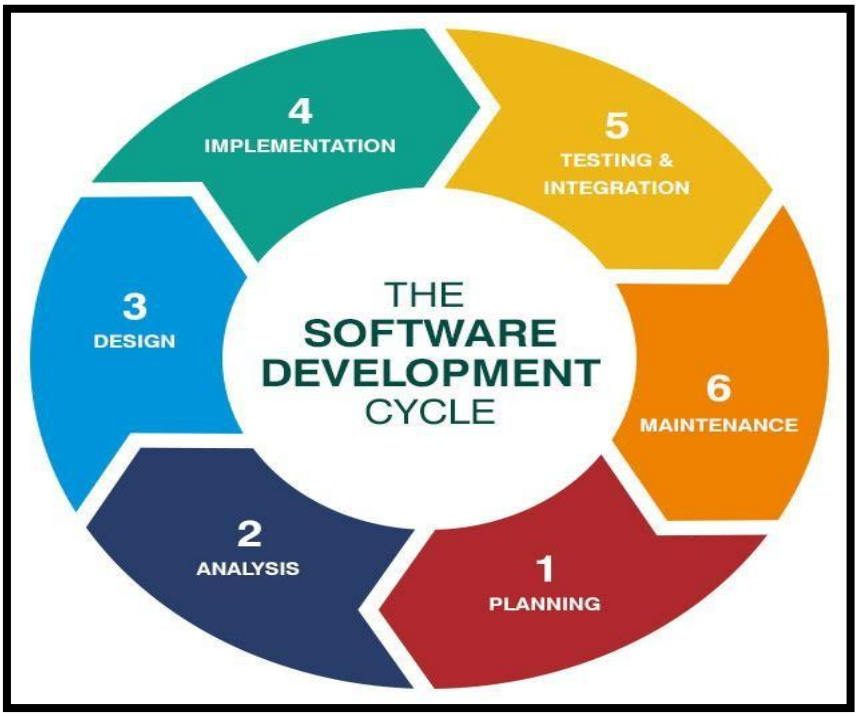


**Fig: Life cycle Model for Development of Project.**

## 1.8 Organization of Report

E - Distributor gives us the specific knowledge, skills, or expertise in Online Store. It introduces students to languages, applications and programming used for the design and maintenance of Purchasers. One of the basic skills covered in E - Distributor is the use of Android, the most common database manipulation language. we learn to write programs with packages, debugging procedures, triggers and database structures using SQL E - Distributor may also cover Visual Basic programming language skills for program design.

**The main Prerequisites of learning are:**

- Programming Skills.
- Familiarity with Databases and Purchasers.
- Basics of Security and Privacy.
- Knowledge of Agile Development.
- Familiarity with Operating Systems.
- Understanding of Virtualization.
- Advance of Networking.

Other database management skills include the use of data and object modeling, relational algebra, relational data models and applications programming. The physical characteristics of databases, reliability and system performance are additional topics in database management.

Without data, businesses would not have the ability to manage finances, conduct transactions, or contact their customers. Databases are created to store and organize this data. The better the design and utility of the database, the better the organization will be positioned to compete for business

In database concepts classes, the emphasis is on normalization, data dictionaries and data integrity. Students' skill set upon Online Storedesign completion should include designing and implementing normalized databases using database reports and creating forms and tables. Students completing database applications classes will have the skills necessary to create multiple table systems with screens, updates and reports.

## 1.9 Summary

This project is submitted by our group it is a bonafide record of report work submitted towards the partial fulfillment for the IV year as per the requirement of "Engineering Degree in the Computer Engineering as prescribed by the Kavayitri Bahinabai Chaudhari North Maharashtra University, Jalgaon."

I would like to express our gratitude to **Mr. Hariom C. Agnihothri**. Who have given us proper motivation We are thankful for his time-to-time tips and help in every stage of report work!

The Summary of Chapter one is the introduction of the project has been discussed and the importance of the E - Distributor is understood and the background of the E - Distributor and Latest Online Storeand learn that which is better.

First of all, we take the problem statement which problems are there that peoples are suffering now a days after that will look at the scope for this project in the future of the market and us after that describes the objective of the project on the basis or on which basis, we need to create our project Successfully.

After that we looked about life cycle model in software development in which we have done first planning after that analysis of the project and then the design of the project and implementation is started of project then we create our schedule and after that we have completed successfully our project and we done the we are completing our project and testing it time to time for the future after that we started the organization of report in which programming skills basics of networking and the organization of report in a best manner by which we can complete our report faster.

# CHAPTER 2

# PROJECT PLANNING AND MANAGEMENT

## 2.1 Feasibility Study

In this project I have done the feasibility study of the project on the basis of on the technical capability and total cost of the project which is needed to implement the project we check the Legality of your project and check the risk analysis for completing your project within time and time management is also done.

Once scope has been identified, it is reasonable to ask: Can the software be build to meetthe scope? Is the Project feasible? all too often, software engineers rush past the questions(or are pushed past them by impatient managers or customers),only to become mired in a project that is doomed from the onset[6].

Feasibility is the analysis of risks, costs and benefits relating to economics, technology and user operation. There are several types of feasibility depending on the aspects they cover. Some important feasibilityis as follows:

- Economical Feasibility
- Operational Feasibility
- Technical Feasibility

### Economic Feasibility

More commonly known as cost/benefit analysis the procedure is to determine

the benefits and savings that are expected from system and compare them with costs, decisions is made to design and implement the system. The part of feasibility study gives the top managementthe economic justification for the new system. The is an important input to the management the management, because very often the top management does not like to get confounded by the various technicalities that bound to be associated with a project of the kind. A simple economic analysis that gives the actual comparison of costs and benefits is much more meaningful in such cases. In the system, the organization is

most satisfied by economic feasibility.Because, if the organization implements the

system, it need not require any additional hardware resources as well as it will be saving lot of time

The proposed system i.e location based augmented reality uses Android platform for development as well as a separate point of interest and approaches that requires less amount of money and produces efficient results at a low price. When the project will be a complete software functionality, people will have to pay lesser money, though it will be a proprietary one, still the money paid in comparison to the yields will be negligible. Therefore, the project will prove to be economically feasible.

## Operational Feasibility

People are inherently resistant to change and computer has beenknown to facilitate changes. An estimate should be made of how strong the user is likely to move towardsthe development of computerized system. These are various levels of users in order to ensure properauthentication and authorization and security of sensitive data of the organization.

Here, the proposed system for mobile augmented reality can be justifiedas operationally feasible based on the following:

The methods of processing and presentation are completely acceptable by the users asthey meet all the user requirements.

- The users have been involved during the preparation of requirement analysis and designprocess.
- The system will precisely identify the points of interest and display the relevant anduseful information according to the specified format.
- The system will prove to be useful to the people who are totallyunknown of the givenlocation and its landmarks.

## Technical Feasibility

Technical feasibility centers on the existing manual system of the test management process and to what extend it can support the system. According to feasibility analysis

procedure the technical feasibility of the system is analyzed and the technical requirement such as software facilities, procedure, inputs is identified. It is also one of the important phases of the system development activities. System covers greater level of a user friendliness combined with greater processing speed. Therefore the cost of maintenance can be reduced. Since processing speed is very high and the work is reduced in maintenance point of view management convince that the Today's traffic control system is able to handle such a situation but not that much effectively because they are static in nature. We need a system which is dynamic in nature so that it can handle traffic smoothly, The management of traffic in Indiais also a tough job and only manual efforts can't stop this kind of problem so we need machines. We need a system that can handle such a situation effectively.

such a system called Intelligent Traffic control System. In this project we are creating the same dynamic traffic control system which has the ability to control the traffic as well as avoid the congestion of roads . Several traffic control approaches address the problem of reducing traffic jams. A class of them deals with coordination of traffic lights to allow vehicles traveling in a given direction. junction. Here each junction and its traffic lights behave like a social insect. Today's traffic control systems are based on microcontroller and . Transportation research has the goal to optimize transportation flow of people and goods.

A feasibility study analyzes the practicality of a proposed project and assesses how likely the project is to succeed. As part of the feasibility study, project managers must determine whether they have enough people, financial resources, and the appropriate technology. The study must also determine the return on investment, whether it's measured as a financial gain or a benefit to society, as in the case of a non-profit. Typically, feasibility studies are prepared for executives who will decide whether to greenlight the project based on the feasibility analysis. Feasibility studies identify key project goals and relevant factors, examine the market research, and detail the resources and budget needed to successfully execute the project.

A feasibility study is a report that aims to determine the practicality, strengths and weaknesses of a proposed project, existing system or corporation as a whole. Further, feasibility studies also help professionals do the following:

- Plan a Online Storedesign of events to complete the project

- Identify the challenges that could arise
- List potential solutions that would come about as a result of the project

A feasibility study is an assessment of the practicality of a proposed plan or project. A feasibility study analyzes the viability of a project to determine whether the project or venture is likely to succeed. The study is also designed to identify potential issues and problems that could arise from pursuing the project.

As part of the feasibility study, project managers must determine whether they have enough people, financial resources, and the appropriate technology. The study must also determine the return on investment, whether it's measured as a financial gain or a benefit to society, as in the case of a nonprofit.

conducting a feasibility study will take several steps to put together the report. These research actions typically include:

1. **Preliminary analysis:** Before moving forward with the time-intensive process of a feasibility study, many organizations will conduct a preliminary analysis, which is like a pre-screening of the project. The preliminary analysis aims to uncover insurmountable obstacles that would render a feasibility study useless. If no major roadblocks are uncovered during this pre-screen, a more intensive feasibility study will be conducted.
2. **Define the scope:** It’s important to outline the scope of the project so that you can determine the scope of the feasibility study. The project’s scope will include the number and composition of both internal stakeholders and external clients or customers. Don’t forget to examine the potential impact of the project on all areas of the organization.
3. **Market research:** No project is undertaken in a vacuum. Those conducting the feasibility study will delve into the existing competitive landscape and determine whether there is a viable place for the project within that market.
4. **Financial assessment:** The feasibility study will examine the economic costs related to the project, including equipment or other resources, man-hours, the proposed benefits of the project, the break-even schedule, the financial risks, and most importantly the potential financial impact of the project’s failure.

5. **Roadblocks and alternative solutions:** Should any potential problems surface during the study, it will look at solutions for the project to go ahead successfully.

6. **Reassessment of results:** A holistic look at the feasibility study with fresh eyes, particularly if any significant amount of time has passed since it was first undertaken, is essential.

7. **Final decision:** The final aspect of a feasibility study is the recommended Online Storedesign of action in other words, whether the project should proceed or not.

## 2.2 Risk Analysis

The risk analysis step in the risk management process can be qualitative or quantitative. In qualitative assessment, the risk's likelihood and consequence are scored using ordinal scales from one to five. Risk likelihood is typically scored along evenly spaced probabilities of occurrence from 0% to 100%.

Risk consequence scales, however, require more attention. The critical success factors are the impact areas measured by the consequence scales. There are three primary concerns when establishing the consequence scales. First, the high end of the scale must accurately represent a dire circumstance, such as absolute mission failure. Second, the five levels must be clearly defined to easily score the risk. Third, the corresponding levels among the critical success factors must be equivalent.

For example, a cost consequence score of 3 must be equivalent to a safety consequence score of 3. Figure 2 shows an example of a qualitative risk scoring system. The risk management database should be flexible to allow tailoring f these criteria.

Should the project need to examine the impact of all risks in combination, an integrated quantitative risk analysis (QRA), properly guided and executed, may be beneficial. The starting point for the integrated analysis is the list of risks, using the individual risk assessments, and knowledge of system dependencies.

Some examples of successfully executed integrated analysis methods are:

- Monte Carlo analysis of the Integrated Master Schedule
- Probabilistic risk assessment of the product
- Monte Carlo analysis of the operations process
- Combinations of two or more of the analyses listed above

The risk management database can be set up to capture the information used in the QRA. For example, an assessment of a cost risk impact should contain both the cost to mitigate the risk and the cost should the risk go unmitigated. The cost estimates are not point estimates, but probabilistic distributions, typically triangular. The triangular distributions are used in Monte Carlo simulations to determine a probabilistic estimate of risk impact on project costs.

| | Consequence | | | | |
|---|---|---|---|---|---|
| Likelihood | Insignificant | Minor | Moderate | Major | Critical |
| Rare | LOW Accept the risk Routine management | LOW Accept the risk Routine management | LOW Accept the risk Routine management | MEDIUM Specific responsibility and treatment | HIGH Quarterly senior management review |
| Unlikely | LOW Accept the risk Routine management | LOW Accept the risk Routine management | MEDIUM Specific responsibility and treatment | MEDIUM Specific responsibility and treatment | HIGH Quarterly senior management review |
| Possible | LOW Accept the risk Routine management | MEDIUM Specific responsibility and treatment | MEDIUM Specific responsibility and treatment | HIGH Quartely senior management review | HIGH Quarterly senior management review |
| Likely | MEDIUM Specific responsibility and treatment | MEDIUM Specific responsibility and treatment | HIGH Quarterly senior management review | HIGH Quarterly senior management review | EXTREME Monthly senior management review |
| Almost certain | MEDIUM Specific responsibility and treatment | MEDIUM Specific responsibility and treatment | HIGH Quarterly senior management review | EXTREME Monthly senior management review | EXTREME Monthly senior management review |

**Fig: Risk Analysis**

Risk analysis involves examining how project outcomes and objectives might change due to the impact of the risk event.

Once the risks are identified, they are analysed to identify the qualitative and quantitative impact of the risk on the project so that appropriate steps can be taken to mitigate them. The following guidelines are used to analyse risks.

we check **Risk Probability** and **Risk Analysis** on the project if there is any risk in project but in our project risk analysis is given below:

## Risk Probability:

Medium-Low probability – (30 % ≤ x < 60%)

Low probability (0 % < x < 30%)

## Risk Analysis:

Medium – Critical (Rating B – 50)

Low – Marginal (Rating C – 10)

## 2.3 Project Scheduling

Scheduling in project management is the listing of activities, deliverables, and milestones within a project. A schedule also usually includes a planned start and finish date, duration, and resources assigned to each activity. Effective project scheduling is a critical component of successful time management.

The estimation of resource allocation, budget and duration are directly linked with dependencies and scheduled events. In project management, project scheduling is used in project planning and project portfolio management. Project scheduling is just part of the project planning. Scheduling is determined by the timing and sequence of operations to give completion time, Work breakdown structure terminal elements, the statement of work or a contract data requirements list and on needed for completion of the project.

All the Techniques comes with some limitations and can be used based on the requirements for project scheduling:

### 1. Gantt Chart

The schedule of the Micro Project is represented with respect to the time periods by Gantt charts which are developed by Henry Gantt (1917). It is usually represented by using horizontal bar charts. The bars represent the activities and the scheduled time for the activities of the Micro Project.

This is represented by the graph or bar chart with a specific bar for activities in the project that shows the passage of time. Gantt chart limits a clear indication of interrelation between the activities.

A Gantt chart is a type of schedule or bar chart that allows you to lay out the schedule for your project. It does this by outlining tasks on the vertical axis and time intervals on the horizontal axis. Bars are created for each task that represent the start and end of the task across the time interval. These tasks can then be customized to different lengths, different start and end times and even interdependencies as needed.

There are a number of different ways that these charts can be used and plenty of different ways that they can be customized as well. What’s even more important is that they can be used in different field of work and by individuals to track their own needs or by large companies and corporations to track their largest projects.

There's very little that this type of chart can't do, and maybe that's why you (and so many others) are interested in what to do with them and where they started. So, let's take a little closer look at everything you might want to know about the origin of these charts, which have been around for over 100 years.

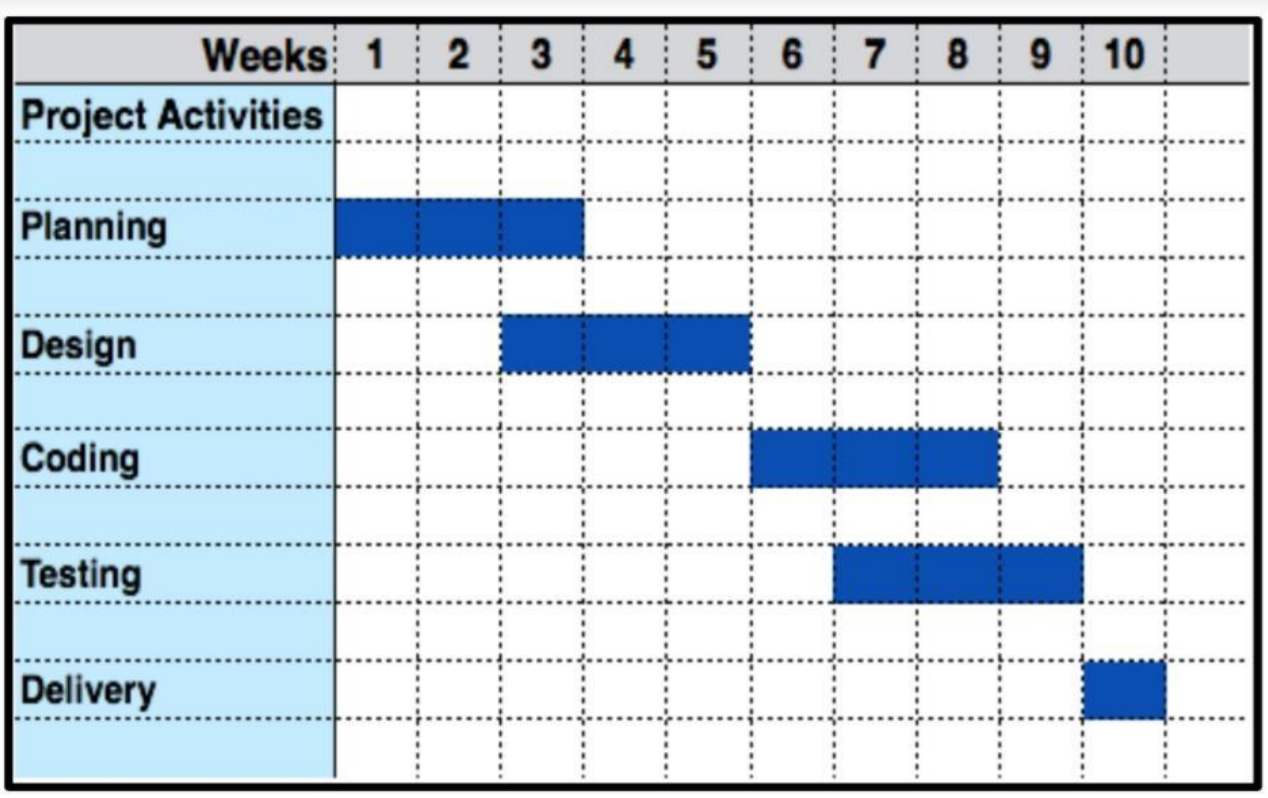


**Fig: Gantt Chart.**

## 2. CPM

Critical Path Method (CPM) is the most widely used scheduling technique and is often referred to as critical path scheduling. This scheduling technique used to plan and control a project and calculates the minimum completion time for a project along with the possible start and finish times for the project activities.

The critical path itself represents the set or sequence of predecessor and successor activities which will take the longest time to complete. The duration of the critical path represents the minimum length of time required to complete a project. Therefore, any delays along the critical path requires additional time to complete the project.

More than one critical path can exist, so completion of the entire project timeline could be lengthened by delaying activities along any one of the critical paths. For example, a project consisting of two parallel activities that each require three days would have each activity critical for a completion in three days.

The Critical Path Method combines all relevant information into a single plan. The plan defines the sequence and duration of operations, and depicts the interrelationship of the work elements required to complete the project.

Using critical path-specific software is key to effectively using the critical path method. Without software, unwieldy equations and complications drag down the entire planning process. The critical path method is incredibly common and a powerful tool used across the construction industry.

The Critical Path Method is only as powerful as the data used. If estimations are off or resources aren't calculated correctly, the entire project may fail. It is imperative to use an experienced scheduler who has a breadth of knowledge relevant to the project time. taking ample time to plan and schedule out a project can save time and money down the road.

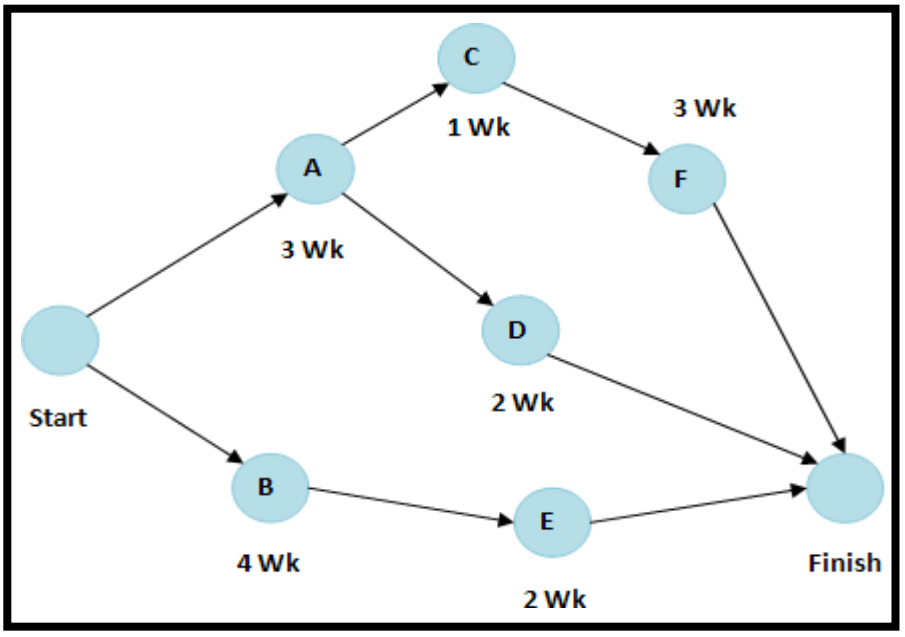


**Fig: CPM**

### 3. PERT

Program evaluation and review technique were developed for R&D projects where activity times are generally uncertain. Its prime objective is taking the shortest possible time.

### 4. Microsoft projects

All the work is performed on the computer memory and changes can be saved only when the program is asked to operate.

## 2.4 Effort Allocation

The proper allocation of financial and human resources to the various software development activities is a very important and critical task. Effort Allocation shows the details of the effort distribution for each type of activity and the approximate pay rate relative to the project manager pay rate, to provide a realistic allocation, the project manager of a software development project should account for the various activities needed to ensure the completion of the project with the required quality and on-time and within-budget. In this paper, we provide guideline for cost and effort allocation based on typical software development activities and using existing requirements-based estimation techniques.

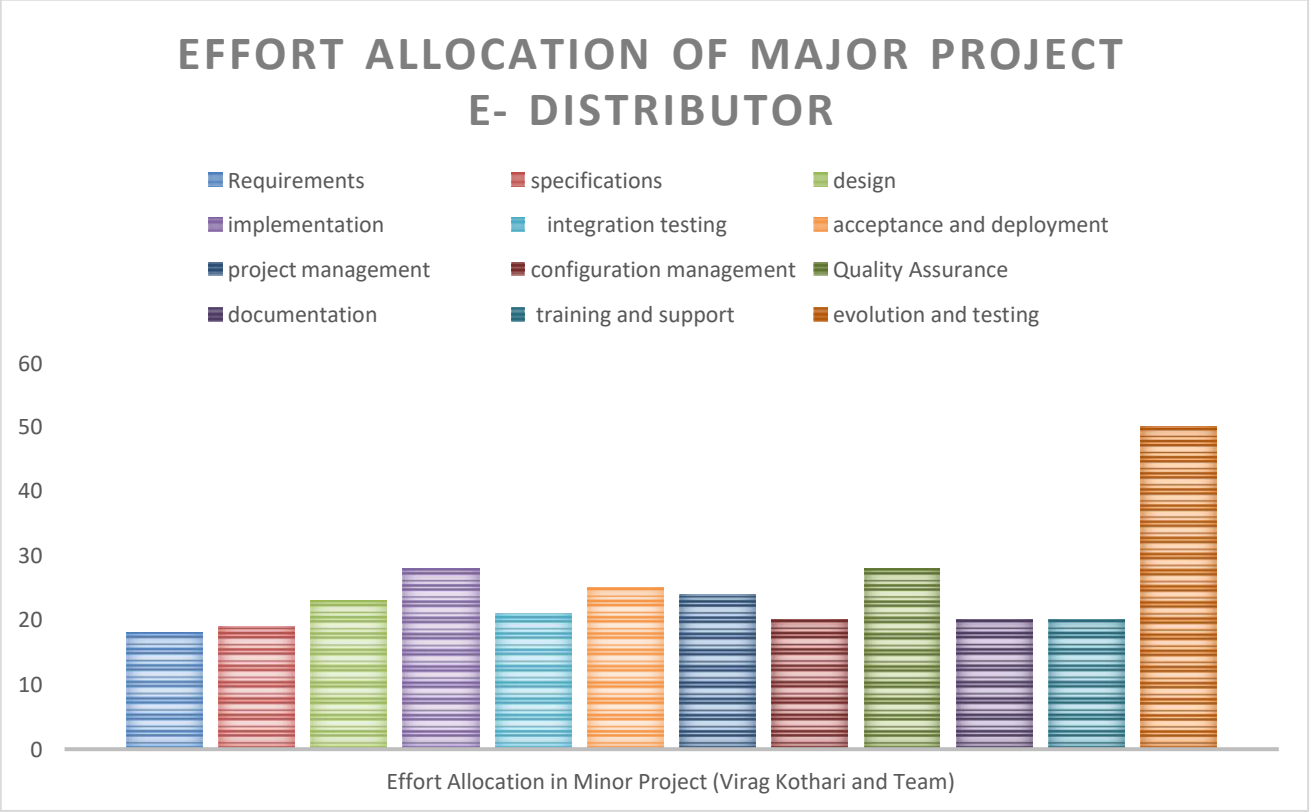


**Table: Effort Allocation**

Reported experiences on the time and budget spent on the different software development activities show the following facts:

A. Quality and testing related activities, including integration testing, quality assurance, and evaluation and testing, account for about 37% of the overall effort.

B. Ongoing activities, covering project management, configuration management,

documentation, and support and training, account for about 21% of the overall effort.

C. Phased software development activities, including requirements, specifications, design, implementation and deployment and not including evaluation and testing) account for about 42% of the overall effort.

Table Effort Allocation shows the details of the effort distribution for each type of activity and the approximate pay rate relative to the project manager pay rate. According to the above facts and to the pay rate shown in Table Effort Allocation, the costs of performing the activities in the above facts a, b and c, are 36%, 20% and 44%, respectively, of the overall development cost.

Function point are used to estimate the effort needed to develop a software system. Function points are implementation independent. Computing the number of function points, for the project is independent of the design choices taken, the tools used, or the programming language utilized to implement the system.

According to FP metrics, the complexity of software and the effort needed to develop it are a function of the number and type of five kinds of functional components that can be obtained and assessed at the requirements specifications phase.

These five functional components include:

1. Internal files corresponding to the database files that are created and maintained within the application.
2. External files corresponding to the files that are owned and maintained by other applications but used by the application.
3. External inputs corresponding to the inputs that affect the control flow and internal logic of the application leading to the creation and maintenance of data.
4. External outputs corresponding to the data leaving the application to different output devices, files, or external systems.
5. External inquiries corresponding to simple user queries resulting in responses to them.

## 2.5 Cost Estimation

A project can only come together with all the necessary materials and labor, and those materials and labors cost money. Putting together a budget that keeps costs to a minimum, while maximizing the project's quality and scope can be challenging. This is why proper cost estimation is important.

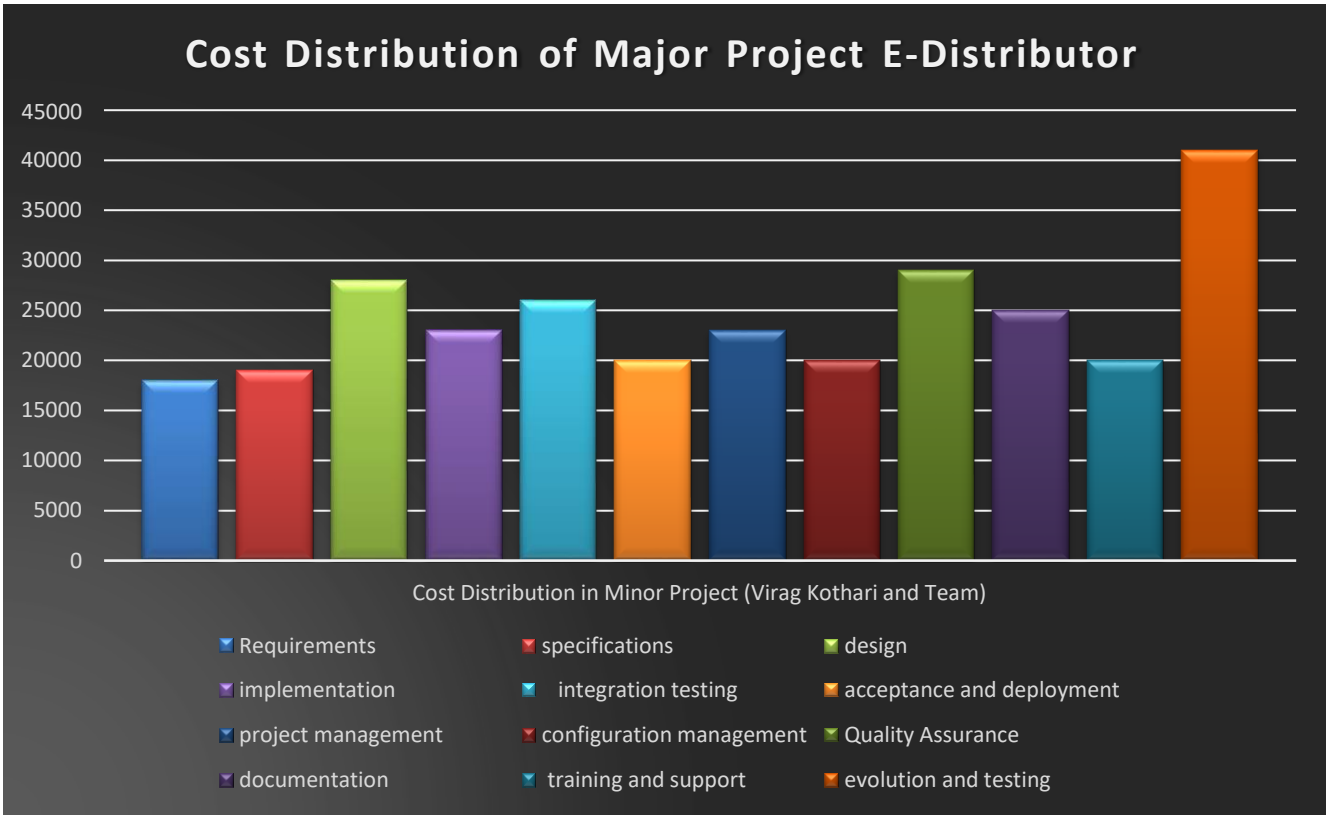


**Table: Cost Estimation**

Cost estimation in project management is the process of forecasting the financial and other resources needed to complete a project within a defined scope. Cost estimation accounts for each element required for the project from materials to labor and calculates a total amount that determines a project's budget.

An initial cost estimate can determine whether an organization greenlights a project, and if the project moves forward, the estimate can be a factor in defining the project's scope. If the cost estimation comes in too high, an organization may decide to pare down the project to fit what they can afford.

When starting a new project, the best way to keep the importance of cost estimation in mind is to never lose sight of the project's original budget. While the numbers may change due to constraints, changes in the project structure or the simple

reality of changing climate demands, keep the initial figure in your head and try to stick to it.

When money-based problems come up, figure them in separately without instantly tacking them onto the primary figure. This will help when you come to the end of the project and have to tally up final costs with your original cost estimation.

**4 Methods for Cost Estimation:**

1. For a project that comes with very few details, try analogous estimating.
2. If you're working on a project that's similar to one you've done in the past, you can use that data in parametric estimation.
3. Three-point estimation is a helpful deduction technique if you've got some crucial data but not all the information you need
4. Bottom-up estimation is considered the gold standard for projects that require a meticulous cataloging of costs, progress and time tracking.

An initial cost estimate can determine whether an organization greenlights a project, and if the project moves forward, the estimate can be a factor in defining the project's scope. If the cost estimation comes in too high, an organization may decide to pare down the project to fit what they can afford (it is also required to begin securing funding for the project). Once the project is in motion, the cost estimate is used to manage all of its affiliated costs in order to keep the project on budget.

There are two key types of costs addressed by the cost estimation process:

1. Direct costs: Costs associated with a single area, such as a department or the project itself. Examples of direct costs include fixed labor, materials, and equipment.
2. Indirect costs: Costs incurred by the organization at large, such as utilities and quality control.

## 2.6 Summary

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The Summary of Chapter two is that I have done the feasibility study of the project on the basis of on the technical capability and total cost of the project which is needed to implement the project we check the Legality of your project and check the risk analysis for completing your project within time and time management is also done.

After that I have to check the risk analysis and after that I have done the project scheduling in which the Gantt chart has been created by us and the schedule of the project is done in the proper way after that the project scheduling is done the project schedule is created in the diagram we start working after that cost estimation is done in with the cost of the total product is taken out and compared the given price by the buyer and checking the margin of Profit.

After that the effort allocation also done and how much effort has done by the all-group members is taken out after that checking the project activities time to time regularly planning design coding testing and delivery If that all things are completed successfully the project is completed successfully within that time if this all things are not checked time to time, then the project is not completed within time.

# CHAPTER 3

# ANALYSIS

## 3.1 Requirement Collection and Identification

Collecting requirements for a project is a very vital part. In fact, collect requirements process helps to define project scope during scope management. There are some set of tools and techniques to gather project requirements. It seems practical to collect all requirements at the start using a requirement-gathering tool. This should ensure the project deliverable as sought.

Let's first define Requirements in a Project. The requirement is the expectation of project stakeholders on project outcomes. As per the definition is given by PMI, "Collect Requirements is the process of determining, documenting, and managing stakeholder needs & requirements to meet project objectives."

Hence, in Collection requirement process, the first step is to identify stakeholders' needs. Second, Document these needs & requirements. And then, manage them throughout the project to meet project goals. This process forms the basis for project scope definition. This process contributes to the success or failure of a project.

As per PMI, about 70% project's failure is attributed to requirement collection. Also, this failure ranges from 50% to 70% depending on industry and type of project. A shocking fact, most of these projects were meeting schedule & budget criterion well. Product conflict was observed during final project delivery or project closure phase. Where project product couldn't meet stakeholder's requirements. So, now you can imagine, how much impact this process has, on project success!

**Tools and Techniques for requirement gathering:**

For any project success, project result must meet stakeholder's needs and expectations. Capturing all project management requirements keeps you one step closer to project success. To collect requirements project PMBOK 6th Edition suggests project management tools and techniques.

Prerequisites for project management process tools and techniques on requirement collection;

- What are technical requirements for project management

- How to collect requirements for a project
- Go through the below tools and techniques of project management notes

PMBOK 6th Edition defines following techniques under section 5.2 Collect Requirements:

- ❖ Expert Judgment
- ❖ Data Gathering
- ❖ Data Analysis
- ❖ Decision Making
- ❖ Data Representation
- ❖ Interpersonal & Team Skills
- ❖ Context Diagram
- ❖ Prototypes

Requirement analysis for a project is a very vital part. In fact, collect requirements process helps to define project scope during scope management. There are some set of tools and techniques to gather project requirements. It seems practical to collect all requirements at the start using a requirement-gathering tool. This should ensure the project deliverable on Time.

## Identification:

The identification phase analyzes the relevance of the project ideas. This includes the stakeholders and target group of the project. It analyzes potential problems these parties might have and what options there are to address and resolve them.

During this phase many studies are carried out to help identify these ideas and define what actions should take place. All of this will be then collected in a project identification report, which explains the reasons behind the decisions made. This phase is directly relevant to the project, as the project's structure will be determined at this point.

## 3.2 Hardware and Software Requirements

**Recommended Operating Systems:**

- Windows**:** 7 or newer
- MAC: OS X v10.7 or higher
- Linux: Ubuntu

**Hardware Requirements:**

- Processor: Minimum 1 GHz; Recommended 1GHz or more
- Ethernet connection (LAN) OR a wireless adapter (Wi-Fi)
- Hard Drive Minimum 128 GB; Recommended 128 GB or more
- Memory (RAM) Minimum 3 GB Recommended 4 GB or above
- System Minimum 32 Bit Recommended 32 Bit or above
- Display (800x600) (optional)

**Software Requirements:**

- PHP
- My SQL
- Xampp Server
- CSS
- Java Script
- Chrome (For Downloading)

## 3.3 Functional and Non-Functional Requirements

### Functional Requirements:

A functional requirement defines a system or its component. These are the requirements that the end user specifically demands as basic facilities that the system should offer. All these functionalities need to be necessarily incorporated into the system as a part of the contract. These are represented or stated in the form of input to be given to the system, the operation performed and the output expected. They are basically the requirements stated by the user which one can see directly in the final product, unlike the non-functional requirements.

**Example:**

- Authentication of user whenever he/she logs into the system.
- System shutdown in case of a cyber-attack.
- A Verification email is sent to user whenever he/she registers for the first time on some software system

### Non-functional requirements:

A non-functional requirement defines the quality attribute of a software system. These are basically the quality constraints that the system must satisfy according to the project contract. The priority or extent to which these factors are implemented varies from one project to other. They are also called non-behavioral requirements.

**Example:**

- Emails should be sent with a latency of no greater than 12 hours from such an activity.
- The processing of each request should be done within 10 seconds
- The site should load in 3 seconds when the number of simultaneous users is > 10000

Some of the most typical **non-functional requirements include** performance, capacity, scalability, availability, reliability, maintainability, recoverability, serviceability, security, data integrity, manageability, and usability.

**Functional Requirements:**

1. Accept the source code as an input.
2. Translate the input file into lexemes.
3. Provides Visualization for the translated lexemes.
4. Construct Parse trees for the lexemes.
5. Provide Visualization for the Parse trees.
6. Create a stream of simple instructions from the parse trees.
7. Provides Visualization for the instructions formed.
8. Optimal code generation from the intermediate code generated.
9. Provide Visualization for the optimal code.
10. Object code generation for the Optimized code.
11. Provide Visualization for the object code.
12. Keeps track of names used by the program in symbol table.
13. Error flaw detection is done in the error-handler.

**Non-functional requirements:**

1. Secure access of confidential data (user's details). SSL can be used.
2. 24x7 availability.
3. Better component design to get better performance at peak time.
4. Flexible service-based architecture will be highly desirable for future for extension.

## 3.4 Software Requirement Specification (SRS)

A Software Requirements Specification (SRS) is a document that describes the nature of a project, software or application. In simple words, SRS document is a manual of a project provided it is prepared before you kick-start a project/application. This document is also known by the names SRS report, software document. A software document is primarily prepared for a project, software or any kind of application.

An Online Store is an online system to test programs in programming contests. They are also used to practice for such contests. The system can purchase and execute code, and test them with pre- constructed dan Submitted code may be run with restrictions, including time limit, memory limit, security restriction and so on. The output of the code will be captured by the system, and display it on Output Screen.

There are a set of guidelines to be followed while preparing the software requirement specification document. This includes the purpose, scope, functional and nonfunctional requirements, software and hardware requirements of the project. In addition to this, it also contains the information about environmental conditions required, safety and security requirements, software quality attributes of the project etc.

The **quality characteristics of SRS** must be according to the given guidelines

- ✓ Correctness
- ✓ Completeness
- ✓ Consistency
- ✓ Unambiguousness
- ✓ Ranking for importance and stability
- ✓ Modifiability
- ✓ Verifiability
- ✓ Traceability

While organizations with a data culture typically know this, the costs of storing more data and failure to leverage all that data in a meaningful way, along with the ROI challenge in data analytics initiatives, are essential hurdles to store more data and retain it longer.

A software requirements specification is the basis for your entire project. It lays the framework that every team involved in development will follow. It's used to provide critical information to multiple team's development, quality assurance, operations, and maintenance. This keeps everyone on the same page.

Using the SRS helps to ensure requirements are fulfilled. And it can also help you make decisions about your product's lifecycle for instance, when to retire a feature. Writing an SRS can also minimize overall development time and costs. Embedded development teams especially benefit from using an SRS.

The working of the software is on the Programming Language HTML, CSS, Java Script and the basic cost of the software is **approx. 15,000.**

## 3.5 Summary

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The Summary of Chapter three is Collecting requirements for a project is a very vital part. In fact, collect requirements process helps to define project scope during scope management. There are some set of tools and techniques to gather project requirements. It seems practical to collect all requirements at the start using a requirement-gathering tool.

The identification phase analyzes the relevance of the project ideas. This includes the stakeholders and target group of the project. It analyzes potential problems these parties might have and what options there are to address and resolve them.

Check the hardware and software requirements for the project such as the Windows operating system 7 or newer, Processor, Hard Disk Drive, 4GB RAM, 32-bit System and also function and non-functional requirements for the projects and SRS in which document describes the intended purpose, requirements and nature of a software to be developed and also it includes the yield and cost of the software.

# CHAPTER 4

## DESIGN

## 4.1 System Architecture

The System Architecture in the E - Distributor project is design in such a way that the request to the database with the help of API and again take the response from the database which is sent to the user with the help of API This project is totally based on the technology of “Online Purchaser” and covered by the various technologies like HTML, CSS, Java Script and Networking etc.

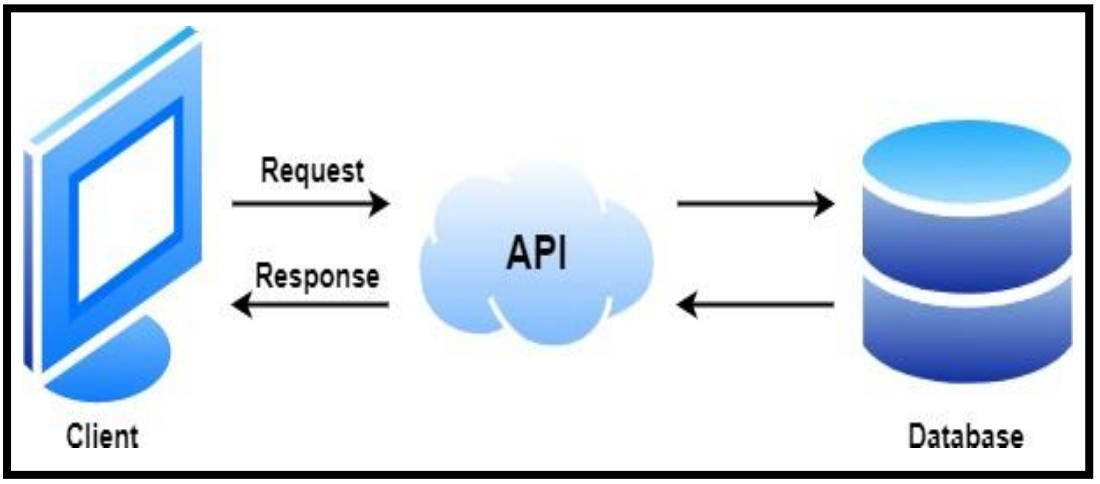



**Fig: Request and Response from client to server (Front End).**

Nowadays, there are many platforms and operating systems like smartphones, laptops, personal computers, etc. They provide purchase order and access from any place at any time.

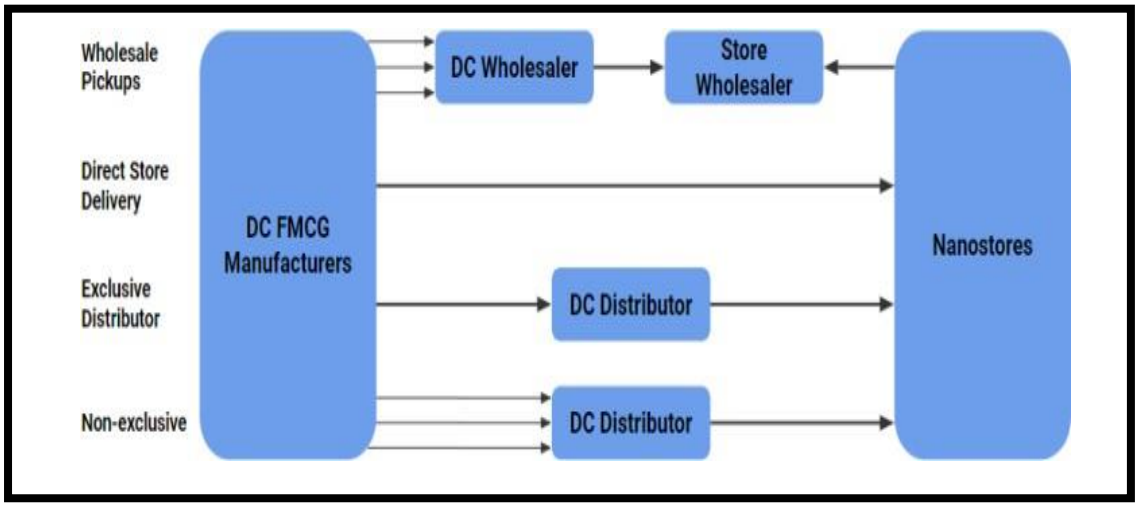



**Fig: Strategies to Supply Products.**

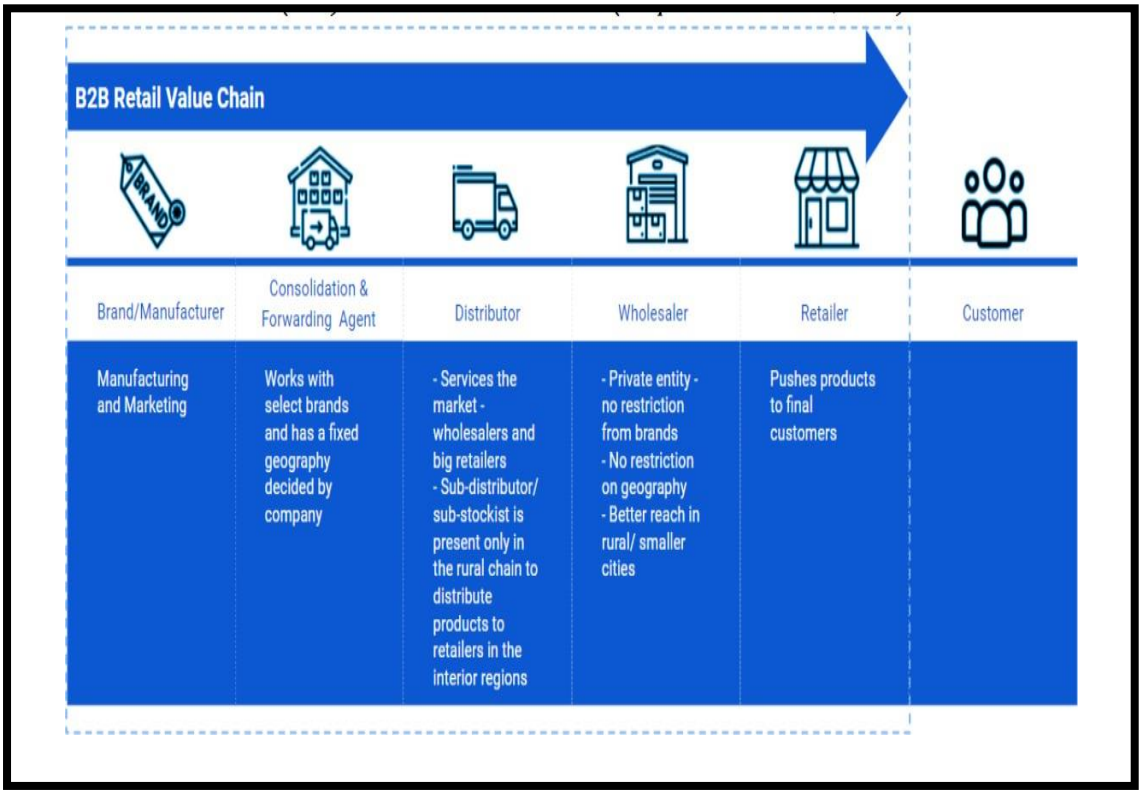



**Fig: Business to Business (B2B) retail value chain in India.**

The Indian B2B retail value chain has four to five layers of intermediaries starting from a forwarding agent, a distributor, a sub-distributor, a wholesaler, and a retailer. Thus, a brand/manufacturer needs to go through to get to the end consumer (see Figure 2.4). This traditional supply chain system causes multiple bottlenecks that lead to longer timeliness, losses in CPG manufacturer's efficiency, issues with quality, and most importantly, reduction in retailer's margin. Traditional distribution's modus operandi has been to overstock retailers with weekly/fortnightly replenishments (Bhise, 2019).

An e-B2B distributor can fill various nanostore distribution processes (see Figure 2.5): Starting from handling delivery logistics, warehousing needs, getting the proper inventory from the right set of manufacturers to taking orders online, and get them fulfilled to the kirana. The other advantages of e-B2B would be easy demand generation (i.e., kiranas may order through a website or app), credit options to kirana stores, and doorstep delivery, which will substantially improve the business prospects for the retailer. Ge (2017) predicts that kiranas have great potential to adapt to new retail environments in the coming decades, and they may even prosper in future omnichannel operations.

## 4.2 Data Flow Diagram

In the data flow diagram of the E - Distributor project in which the clients request to the database with the help of API and again take the response from the database which is sent to the user with the help of API This project is totally based on the technology of “E - Distributor in which Online purchase and Sharing is done” and covered by the various technologies like HTML, CSS, Java Scriptand Networking etc. In this project, I developed a centralized application on which we can write a code by a computing machine using internet and then we can purchase it online and it is shared by a accessible link and saved on firebase which can be access on any other computing machine using Internet. For accessing the data, we developed an Application, Website and Desktop Application for users.

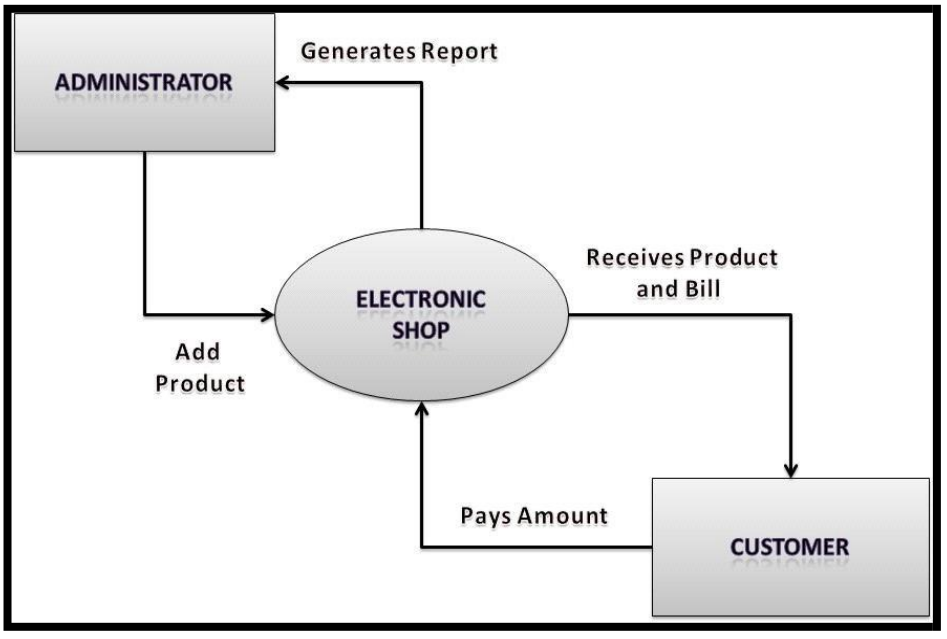



**Fig: Data Flow Diagram.**

## 4.3 UML Diagram

Unified Modeling Language is a standard language for writing software blueprints. The UML may be used to visualize, specify, construct and document the artifacts of a soft- ware intensive system. UML is process independent, although optimally it should be used in process that is use case driven, architecture-centric, iterative, and incremental. The Number of UML Diagram is available.

### Use Case Diagram:

A use case diagram at its simplest is a representation of a user's interaction with the system that shows the relationship between the user and the different use cases in which the user is involved. A use case diagram can identify the different types of users of a system and the different use cases and will often be accompanied by other types of diagrams as well. The use cases are represented by either circles or ellipses.

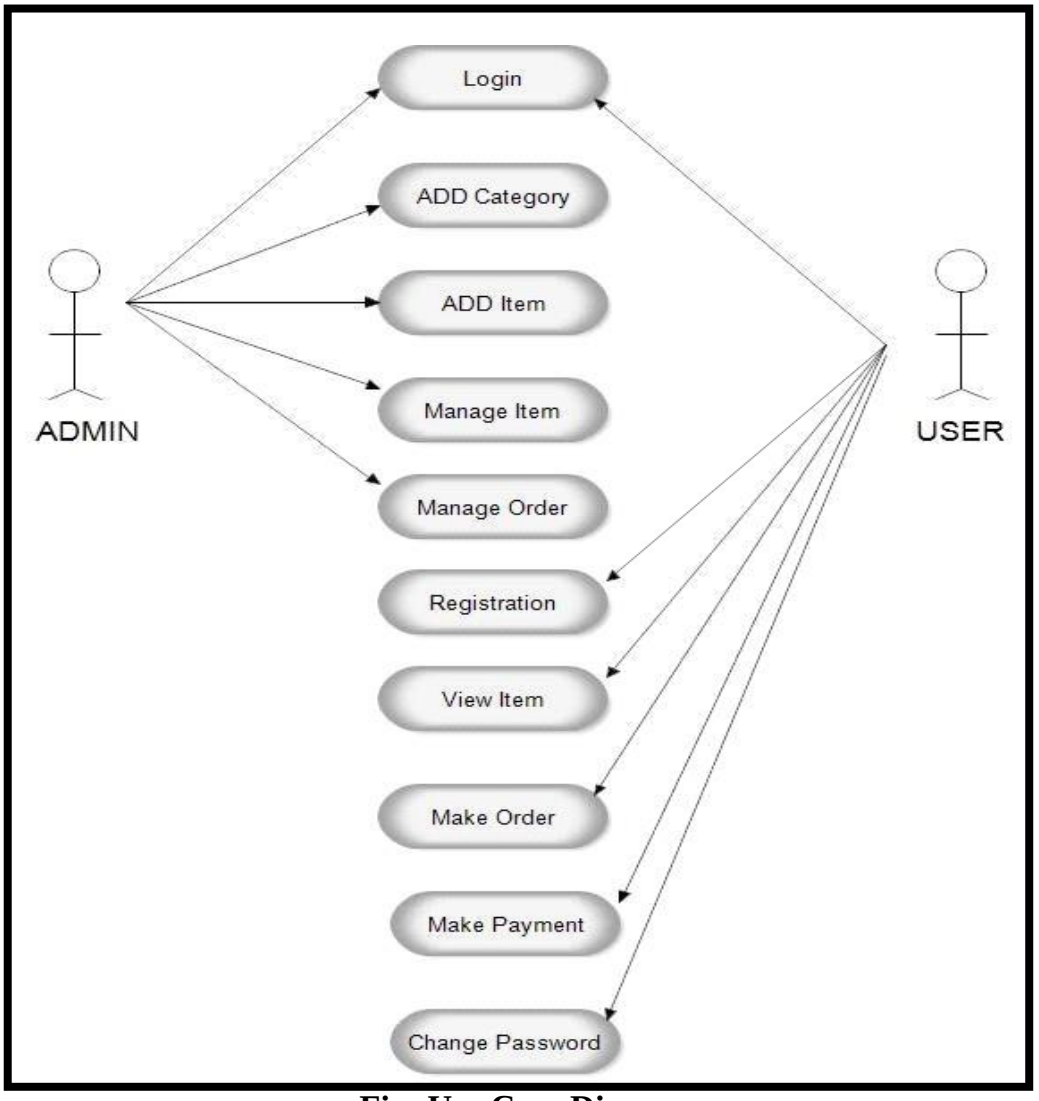



**Fig: Use Case Diagram.**

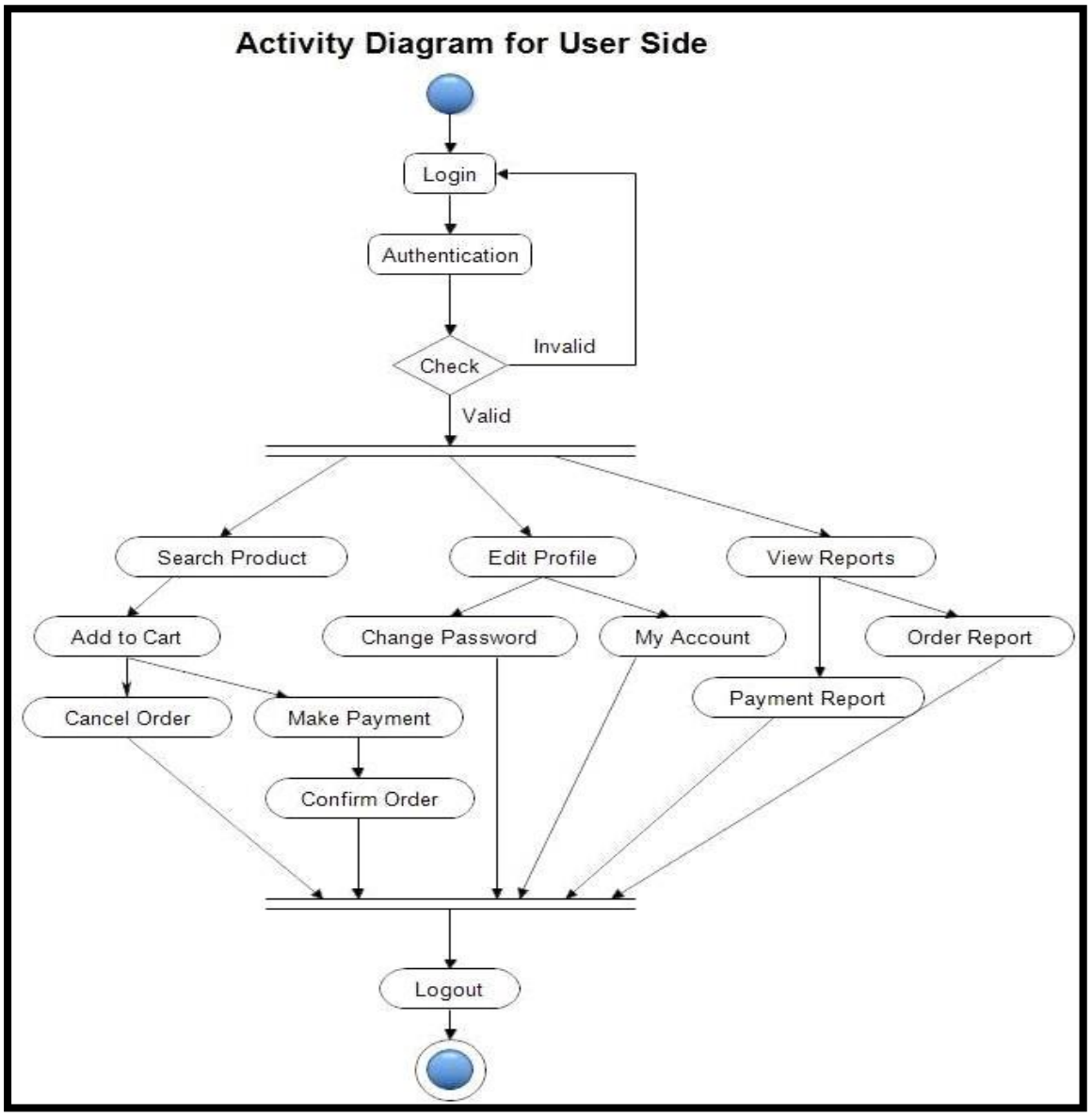
## Classes Diagrams:

Class diagram is a static diagram. It represents the static view of an application. Class diagram is not only used for visualizing, describing, and documenting different aspects of a system but also for constructing executable code of the software application.

Class diagram describes the attributes and operations of a class and also the constraints imposed on the system. The class diagrams are widely used in the modeling of objectoriented systems because they are the only UML diagrams, which can be mapped directly with object-oriented languages.

Class diagram shows a collection of classes, interfaces, associations, collaborations, and constraints. It is also known as a structural diagram.

**For Users:**



## 4.4 Summary

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The Summary of Chapter four is the system architecture has been created first in which the Client or user sends self-request to the database with API and the database response to the user with on the basis of Codes Output. It covered the various Technologies like HTML, CSS, Java Script, firebase database and networking in this project

Before implementing the actual design of the project, a few user interface designs were constructed to visualize the user interaction with the system as they browse for healthcare services, create a healthcare cart and take services. The user interface design will closely follow

our Functional Decomposition Diagram showing the initial designs of the web pages. In this chapter, the design of the entire system needed to develop the proposed module is described.In the next chapter, implementation details of the proposed system are described..

# CHAPTER 5

# IMPLEMENTATION

## 5.1 Algorithm / Steps for E - Distributor Project

**STEPS:**

**Step 1 ( Analysis Phase):**

First step you need to do is read the document carefully and download the dataset.With the dataset is a file which explains each andevery column.It is very important for any data science poject to have a proper understanding of the dataset. Read the Codebook.pdf Deliverable of this phase would be a CSV file with reduced columns required to meet the client expectation. You should be able to read a single record and understand it. Make a list of columns which are actually required

**Step 2 ( Design Phase):**

Now after understanding the client's expectation, try to create a Wireframe or rough sketch of the UI. How will the client actually use your software? Will there be Drop down, text-boxes, buttons etc, Also what actions would happen on the Web Page Which Graphs/Chart should be used ? How many pages should I design ? This step will better consolidate the client's understanding. Deliverable of this phase would be a Wireframe document.

**Step 3 ( Research and Learning Phase):**

Now after understanding the client's expectation, create a list of how to. This list will be a technical How to do List. For Example How to Run the Script of Java from Command Line or Terminal ? How to open the Browser from Java with a specified URL ? How to kill the process when someone clicks the CLOSE button on the browser ? How to fill the drop down with List of Countries/State/City etc from Dash How to show a Chart/Graph in a webpage using Java ? Dash Google all these questions and read articles so that you now know how to technically solve that part of the problem.

**Step 4 ( Development Phase):**

Segregate the list of clients expectation into separate parts a) User Experience of Running the Project b) UI Expectation for taking input from the user c)UI Expectation

for the output.

**Step 5 ( Backend Development):**

Create a Java with the UI element seperate to solve the core expectation from the client for Tool, Take inputs from the user and create a custom Java function which filters the required data from the dataset.

**Step 6 ( Frontend Development):**

Now Create the UI for the clients Expectation. Then link to the UI with the backend functions created. Both the Frontend and Backend Development can go side by side also.

**Step 7 ( Integrated Testing):**

Manual Testing in Development Environment Manual Testing in Production Environment Here you will feel the need for having the Logging and Exception handling.

**Step 8 ( Internal/Client Demo):**

Teamwill be shortlisted which has the potential to go for the next phase. The Below Steps would be for that Team which is shortlisted by the Client/Forsk and are ready to give extra efforts and time ( 4 - 5 hours daily ). This might require 4 weeks

**Step 9 ( UAT Phase - User Acceptance Test):**

In this phase the full project is given to the client and installed on the client's machine for verification of clients expectations.The client’s raised points need to be fixed and resubmitted to the client again for the confirmation. This is an iterative process and might take 2-3 iterations depending on the number of points raised.

**Step 10 ( Packaging for Final Production Delivery):**

In this phase the source code and other deliverables are submitted to the client . Office. A project Document needs to be submitted User Manual Document needs to be submitted with Source Code Documentation

**Step 11 Go Live**

**Step 12 Support and Maintenance**

**Step 13 Future Enhancements**

## 5.2 Software and Hardware for Development in Detail

Software and Hardware for development are for the frontend or for the User Interface we use the application HTML, CSS, Java Script and for the backend of the project connectivity.

**Hardware Requirements:**

- Processor: Minimum 1 GHz; Recommended 1GHz or more
- Ethernet connection (LAN) OR a wireless adapter (Wi-Fi)
- Hard Drive Minimum 128 GB; Recommended 128 GB or more
- Memory (RAM) Minimum 3 GB Recommended 4 GB or above
- System Minimum 32 Bit Recommended 32 Bit or above
- Display (800x600) (optional)

**Software Requirements:**

- PHP
- My SQL
- Xampp Server
- CSS
- Java Script
- Chrome (For Downloading)

# CODING:

```
#####################################################################
########################  DATABASE  CODE  ###########################
#####################################################################

-- phpMyAdmin SQL Dump
-- version 4.8.0
-- https://www.phpmyadmin.net/
--
-- Host: 127.0.0.1
-- Generation Time: Mar 15, 2019 at 06:46 PM
-- Server version: 10.1.31-MariaDB
-- PHP Version: 7.2.4

SET SQL_MODE = "NO_AUTO_VALUE_ON_ZERO";
SET AUTOCOMMIT = 0;
START TRANSACTION;
SET time_zone = "+00:00";


/*!40101 SET @OLD_CHARACTER_SET_CLIENT=@@CHARACTER_SET_CLIENT */;
/*!40101 SET @OLD_CHARACTER_SET_RESULTS=@@CHARACTER_SET_RESULTS */;
/*!40101 SET @OLD_COLLATION_CONNECTION=@@COLLATION_CONNECTION */;
/*!40101 SET NAMES utf8mb4 */;

--
-- Database: `khanstore`
--

-- --------------------------------------------------------------------------
```

```
--
-- Table structure for table `admin`
--

CREATE TABLE `admin` (
  `id` int(11) NOT NULL,
  `name` varchar(50) NOT NULL,
  `email` varchar(100) NOT NULL,
  `password` varchar(255) NOT NULL,
  `is_active` enum('0','1') NOT NULL DEFAULT '0'
) ENGINE=InnoDB DEFAULT CHARSET=latin1;

--
-- Dumping data for table `admin`
--

INSERT INTO `admin` (`id`, `name`, `email`, `password`, `is_active`)
VALUES
(3, 'Rizwan', 'rizwan@gmail.com',
'$2y$10$Z1DnKbJRDFUTHMI7y1vSqeU3.Y9cgDyC4AeWx4.ucH34z/mkzL2E.',
'0'),
(4, 'ajay', 'ajay@gmail.com',
'$2y$10$UGzx/ODNB4ZSFruRF8BN2eC/NNE.6MBhfTTYKtUo.k4ZVHZFD85DO',
'0'),
(5, 'Rizwan', 'rizwankhan@gmail.com',
'$2y$10$qZ0OoyX8bhAVxDFM/fx8leZSZwlyq15c1C/KTnaqDLSx6eCDJ0VpC',
'0'),
(6, 'Faizan', 'faizan@gmail.com',
'$2y$10$Ll2.sETLuB8sdhh1LRK4e.cQqn4CtTEudFg.exhf76D6rGzSOwWNm',
'0'),
```

```
(7, 'Ajay Kumar', 'ajaykumar@gmail.com',
'$2y$10$8GlkawEDsNrOQr8Vgv0GceD/MhVpHAXM4xqtMo0.SUaHFXe03MRdi',
'0');



--
-- Table structure for table `brands`
--

CREATE TABLE `brands` (
  `brand id` int(100) NOT NULL,
  `brand title` text NOT NULL
) ENGINE=InnoDB DEFAULT CHARSET=latin1;

--
-- Dumping data for table `brands`
--

INSERT INTO `brands` (`brand_id`, `brand_title`) VALUES
(1, 'HP'),
(2, 'Samsung'),
(3, 'Apple'),
(4, 'Sony'),
(5, 'LG');



--
-- Table structure for table `cart`
--

CREATE TABLE `cart` (
  `id` int(10) NOT NULL,
  `p id` int(10) NOT NULL,
  `ip add` varchar(250) NOT NULL,
  `user id` int(10) DEFAULT NULL,
  `qty` int(10) NOT NULL
) ENGINE=InnoDB DEFAULT CHARSET=latin1;



--
-- Table structure for table `categories`
--

CREATE TABLE `categories` (
  `cat id` int(100) NOT NULL,
  `cat title` text NOT NULL
) ENGINE=InnoDB DEFAULT CHARSET=latin1;

--
-- Dumping data for table `categories`
--

INSERT INTO `categories` (`cat_id`, `cat_title`) VALUES
(2, 'Ladies Wearss'),
(3, 'Mens Wear'),
(4, 'Kids Wear'),
(5, 'Furnitures'),
(6, 'Home Appliances'),
(12, 'Mobiles');
```

```
__


--
-- Table structure for table `orders`
--

CREATE TABLE `orders` (
  `order id` int(11) NOT NULL,
  `user id` int(11) NOT NULL,
  `product id` int(11) NOT NULL,
  `qty` int(11) NOT NULL,
  `trx id` varchar(255) NOT NULL,
  `p status` varchar(20) NOT NULL
) ENGINE=InnoDB DEFAULT CHARSET=latin1;

--
-- Dumping data for table `orders`
--

INSERT INTO `orders` (`order_id`, `user_id`, `product_id`, `qty`,
`trx id`, `p status`) VALUES
(1, 1, 1, 1, '9L434522M7706801A', 'Completed'),
(2, 1, 2, 1, '9L434522M7706801A', 'Completed'),
(3, 1, 3, 1, '9L434522M7706801A', 'Completed'),
(4, 1, 1, 1, '8AT7125245323433N', 'Completed');

--------------------------------------------------------------------------------


--
-- Table structure for table `products`
--

CREATE TABLE `products` (
  `product id` int(100) NOT NULL,
  `product cat` int(11) NOT NULL,
  `product brand` int(100) NOT NULL,
  `product title` varchar(255) NOT NULL,
  `product price` int(100) NOT NULL,
  `product qty` int(11) NOT NULL,
  `product desc` text NOT NULL,
  `product image` text NOT NULL,
  `product keywords` text NOT NULL
) ENGINE=InnoDB DEFAULT CHARSET=latin1;

--
-- Dumping data for table `products`
--

INSERT INTO `products` (`product id`, `product cat`,
`product brand`, `product title`, `product price`, `product qty`,
`product desc`, `product image`, `product keywords`) VALUES
(1, 12, 2, 'Samsung Galaxy S10', 10000, 50, 'Its a good phone',
'1552670517_sumsung galaxy s8.png', 'samsung, mobile, galaxy'),
(2, 12, 3, 'Iphone 7 plus', 40000, 5000, 'Iphone is a good phone',
'1552670718_iphone-7-plus.jpg', 'apple, iphone, mobile'),
(4, 12, 2, 'Samsung Galaxy S6', 5000, 100, 'Samsung is a good
phone', '1552670857_samsung galaxy s6.jpg', 'samsung, mobile, s6'),
(5, 12, 2, 'Samsung Galaxy S10', 5000, 5000, 'Samsung Galaxy S10',
'1552671096_7-2-samsung-mobile-phone-png-clipart-thumb.png',
'samsung, mobile, s10');
```

```
-- --------------------------------------------------------

--
-- Table structure for table `user_info`
--

CREATE TABLE `user_info` (
  `user_id` int(10) NOT NULL,
  `first_name` varchar(100) NOT NULL,
  `last_name` varchar(100) NOT NULL,
  `email` varchar(300) NOT NULL,
  `password` varchar(300) NOT NULL,
  `mobile` varchar(10) NOT NULL,
  `address1` varchar(300) NOT NULL,
  `address2` varchar(11) NOT NULL
) ENGINE=InnoDB DEFAULT CHARSET=latin1;

--
-- Dumping data for table `user_info`
--

INSERT INTO `user_info` (`user_id`, `first_name`, `last_name`,
`email`, `password`, `mobile`, `address1`, `address2`) VALUES
(1, 'Rizwan', 'Khan', 'rizwankhan.august16@gmail.com',
'25f9e794323b453885f5181f1b624d0b', '8389080183', 'Rahmat Nagar
Burnpur Asansol', 'Asansol'),
(2, 'Rizwan', 'Khan', 'rizwankhan.august16@yahoo.com',
'25f9e794323b453885f5181f1b624d0b', '8389080183', 'Rahmat Nagar
Burnpur Asansol', 'Asa');

--
-- Indexes for dumped tables
--

--
-- Indexes for table `admin`
--
ALTER TABLE `admin`
  ADD PRIMARY KEY (`id`),
  ADD UNIQUE KEY `email` (`email`);

--
-- Indexes for table `brands`
--
ALTER TABLE `brands`
  ADD PRIMARY KEY (`brand_id`);

--
-- Indexes for table `cart`
--
ALTER TABLE `cart`
  ADD PRIMARY KEY (`id`);

--
-- Indexes for table `categories`
--
ALTER TABLE `categories`
  ADD PRIMARY KEY (`cat_id`);

--
-- Indexes for table `orders`
--
```

```
ALTER TABLE `orders`
  ADD PRIMARY KEY (`order_id`);

--
-- Indexes for table `products`
--
ALTER TABLE `products`
  ADD PRIMARY KEY (`product_id`),
  ADD KEY `fk_product_cat` (`product_cat`),
  ADD KEY `fk_product_brand` (`product_brand`);

--
-- Indexes for table `user_info`
--
ALTER TABLE `user_info`
  ADD PRIMARY KEY (`user_id`);

--
-- AUTO_INCREMENT for dumped tables
--

--
-- AUTO_INCREMENT for table `admin`
--
ALTER TABLE `admin`
  MODIFY `id` int(11) NOT NULL AUTO_INCREMENT, AUTO_INCREMENT=8;

--
-- AUTO_INCREMENT for table `brands`
--
ALTER TABLE `brands`
  MODIFY `brand_id` int(100) NOT NULL AUTO_INCREMENT,
AUTO_INCREMENT=6;

--
-- AUTO_INCREMENT for table `cart`
--
ALTER TABLE `cart`
  MODIFY `id` int(10) NOT NULL AUTO_INCREMENT;

--
-- AUTO_INCREMENT for table `categories`
--
ALTER TABLE `categories`
  MODIFY `cat_id` int(100) NOT NULL AUTO_INCREMENT,
AUTO_INCREMENT=13;

--
-- AUTO_INCREMENT for table `orders`
--
ALTER TABLE `orders`
  MODIFY `order_id` int(11) NOT NULL AUTO_INCREMENT,
AUTO_INCREMENT=5;

--
-- AUTO_INCREMENT for table `products`
--
ALTER TABLE `products`
  MODIFY `product_id` int(100) NOT NULL AUTO_INCREMENT,
AUTO_INCREMENT=6;

--
```

```
-- AUTO_INCREMENT for table `user_info`
--
ALTER TABLE `user_info`
  MODIFY `user_id` int(10) NOT NULL AUTO_INCREMENT,
AUTO_INCREMENT=3;

--
-- Constraints for dumped tables
--

--
-- Constraints for table `products`
--
ALTER TABLE `products`
  ADD CONSTRAINT `fk_product_brand` FOREIGN KEY (`product_brand`)
REFERENCES `brands` (`brand_id`),
  ADD CONSTRAINT `fk_product_cat` FOREIGN KEY (`product_cat`)
REFERENCES `categories` (`cat_id`);
COMMIT;

/*!40101 SET CHARACTER_SET_CLIENT=@OLD_CHARACTER_SET_CLIENT */;
/*!40101 SET CHARACTER_SET_RESULTS=@OLD_CHARACTER_SET_RESULTS */;
/*!40101 SET COLLATION_CONNECTION=@OLD_COLLATION_CONNECTION */;



######################################################################
#########################   CSS   CODE   ##############################
######################################################################


body {
  font-size: .875rem;
}

.feather {
  width: 16px;
  height: 16px;
  vertical-align: text-bottom;
}

/*
 * Sidebar
 */

.sidebar {
  position: fixed;
  top: 0;
  bottom: 0;
  left: 0;
  z-index: 100; /* Behind the navbar */
  padding: 48px 0 0; /* Height of navbar */
  box-shadow: inset -1px 0 0 rgba(0, 0, 0, .1);
}

.sidebar-sticky {
  position: relative;
  top: 0;
  height: calc(100vh - 48px);
  padding-top: .5rem;
  overflow-x: hidden;
```

```
  overflow-y: auto; /* Scrollable contents if viewport is shorter
than content. */
}

@supports ((position: -webkit-sticky) or (position: sticky)) {
  .sidebar-sticky {
    position: -webkit-sticky;
    position: sticky;
  }
}

.sidebar .nav-link {
  font-weight: 500;
  color: #333;
}

.sidebar .nav-link .feather {
  margin-right: 4px;
  color: #999;
}

.sidebar .nav-link.active {
  color: #007bff;
}

.sidebar .nav-link:hover .feather,
.sidebar .nav-link.active .feather {
  color: inherit;
}

.sidebar-heading {
  font-size: .75rem;
  text-transform: uppercase;
}

/*
 * Content
 */

[role="main"] {
  padding-top: 133px; /* Space for fixed navbar */
}

@media (min-width: 768px) {
  [role="main"] {
    padding-top: 48px; /* Space for fixed navbar */
  }
}

/*
 * Navbar
 */

.navbar-brand {
  padding-top: .75rem;
  padding-bottom: .75rem;
  font-size: 1rem;
  background-color: rgba(0, 0, 0, .25);
  box-shadow: inset -1px 0 0 rgba(0, 0, 0, .25);
}

.navbar .form-control {
```

```
  padding: .75rem 1rem;
  border-width: 0;
  border-radius: 0;
}

.form-control-dark {
  color: #fff;
  background-color: rgba(255, 255, 255, .1);
  border-color: rgba(255, 255, 255, .1);
}

.form-control-dark:focus {
  border-color: transparent;
  box-shadow: 0 0 0 3px rgba(255, 255, 255, .25);
}



##########################################################################
#########################    CODING    ##################################
##########################################################################
```

## 5.3 Modules in Project

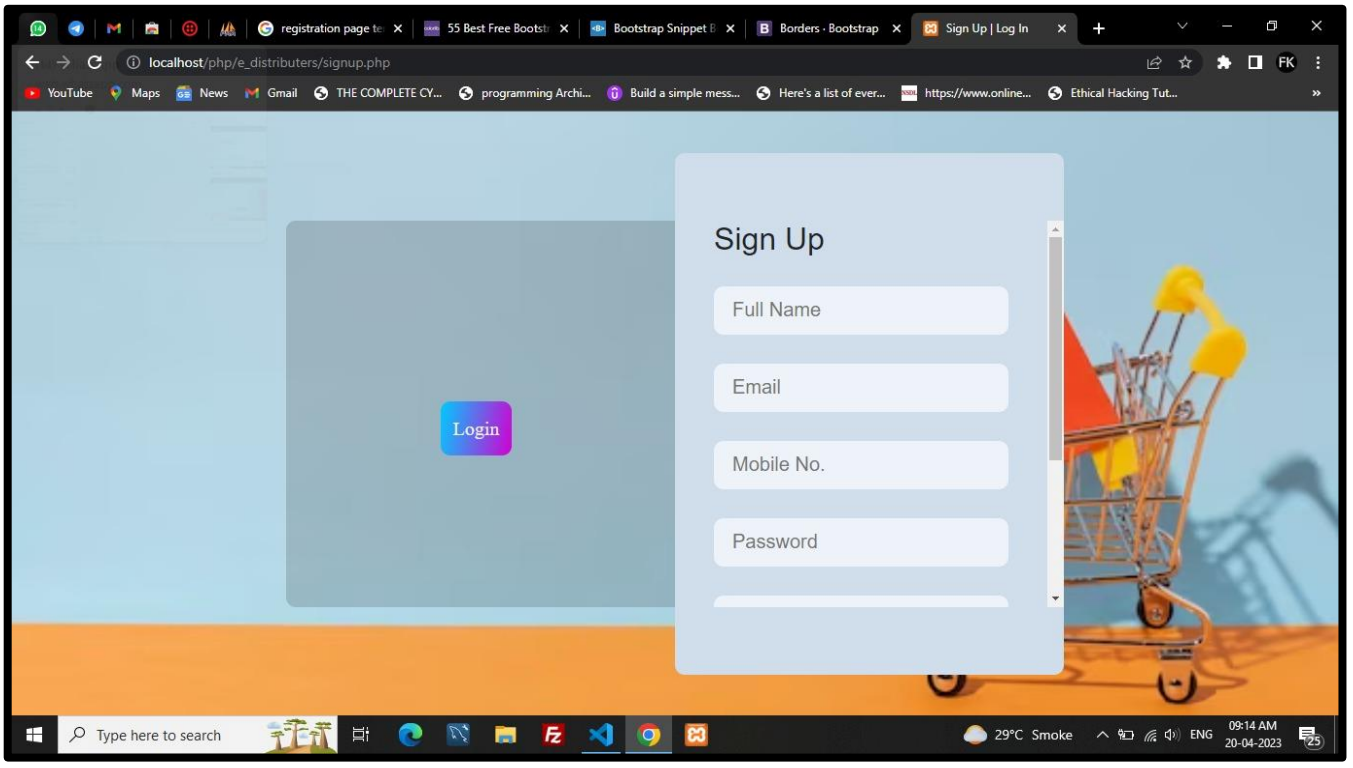


**Fig: Sign Up Module in the Project.**

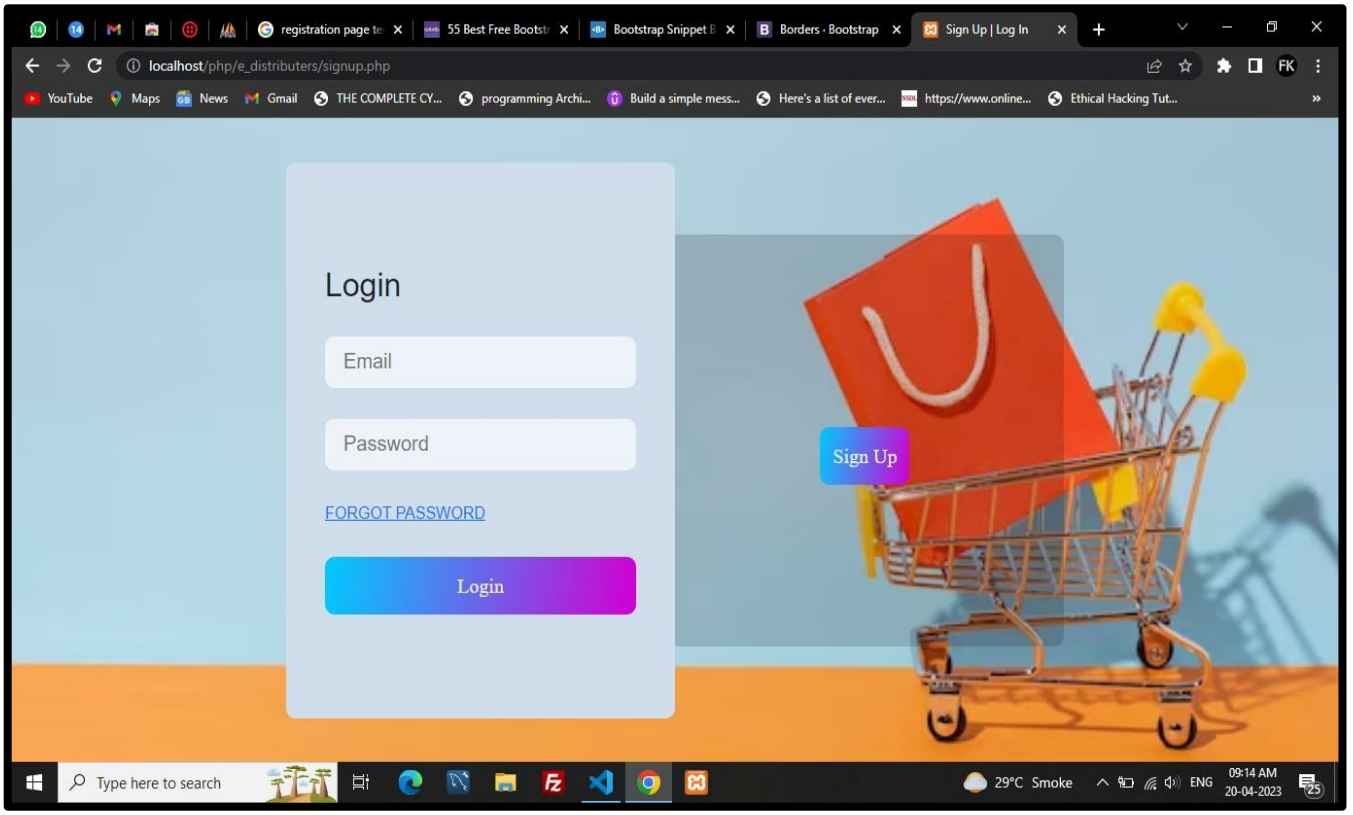


**Fig: Login Module in the Project.**

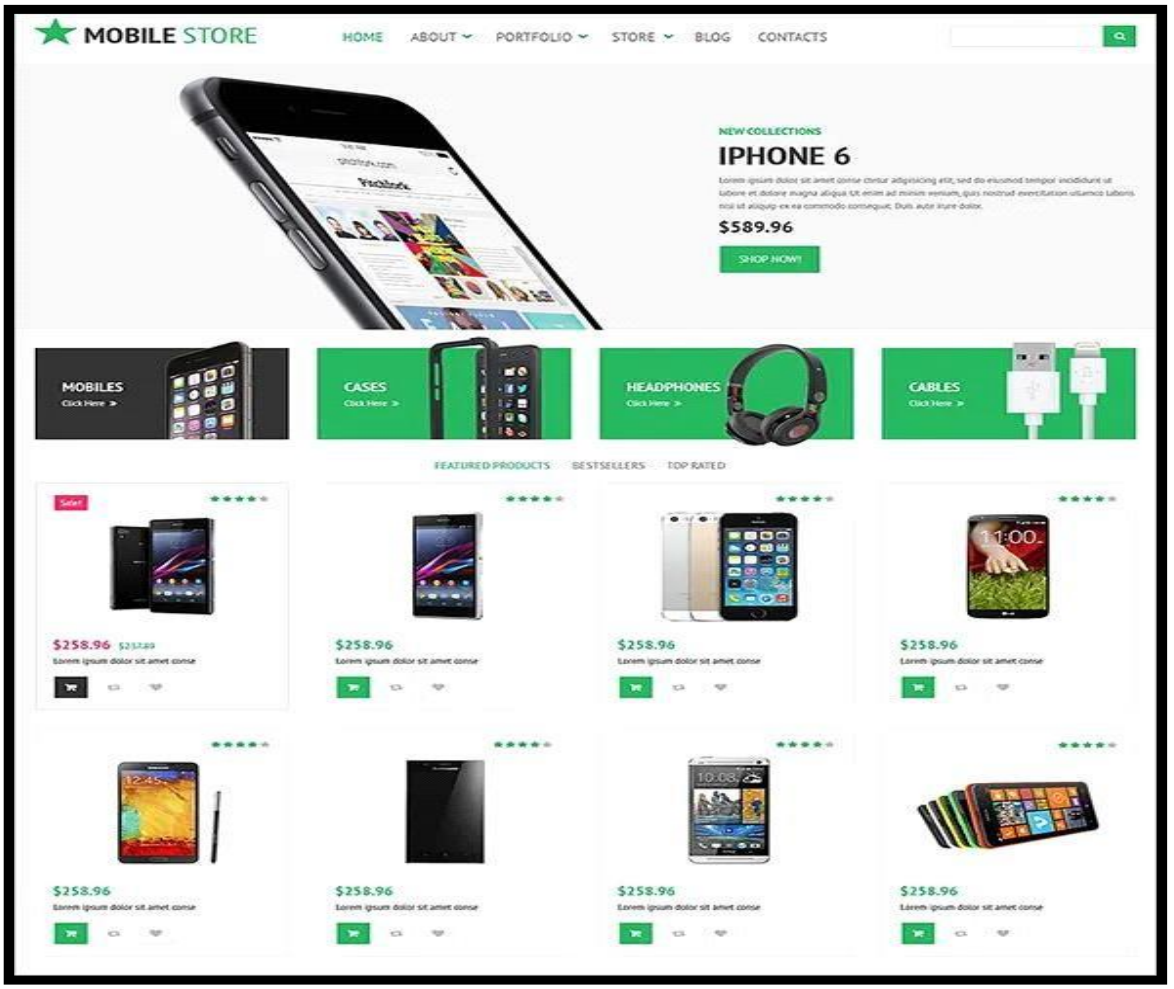


**Fig: Home Screen of the Project.**

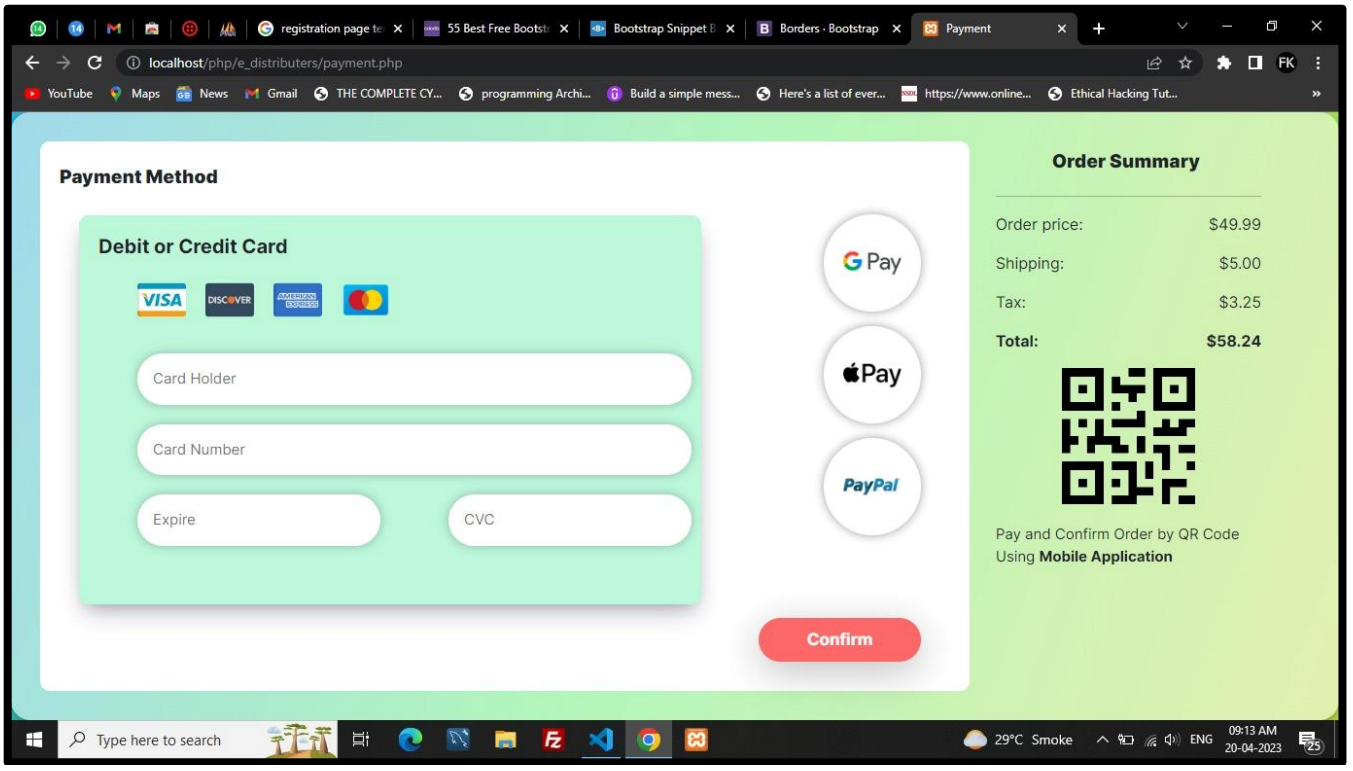


**Fig: Payment Module in the Project.**

# CHAPTER 6

## TESTING

## 6.1 Black Box / White Box Testing

**Black Box Testing** is a type of software testing in which the functionality of the software is not known. The testing is done without the internal knowledge of the products

- **Syntax Driven Testing** – This type of testing is applied to systems that can be syntactically represented by some language. For example- purchasers, language that can be represented by context free grammar. In this, the test cases are generated so that each grammar rule is used
- at least once.**Equivalence partitioning** – It is often seen that many types of inputs work similarly so instead of giving all of them separately we can group them together and test only one input of each group. The idea is to partition the input domain of the system into a number of equivalence classes such that each member of class works in a similar way, i.e., if a test case in one class results in some error, other members of class would also result into same error.
- **value analysis** – Boundaries are very good places for errors to occur. Hence if test cases are designed for boundary values of input domain then the efficiency of testing improves and probability of finding errors also increase. For example – If valid range is 10 to 100 then test for 10,100 also apart from valid and invalid inputs.
- **Cause effect Graphing** – This technique establishes relationship between logical input called causes with corresponding actions called effect. The causes and effects are represented using Boolean graphs. The following steps are followed:

  Identify inputs (causes) and outputs (effect).
  Develop cause effect graph.
  Transform the graph into decision table.
  Convert decision table rules to test cases.

- **Requirement based testing** – It includes validating the requirements given in SRS of software system.

- **Compatibility testing** – The test case result not only depend on product but also infrastructure for delivering functionality. When the infrastructure parameters are changed, it is still expected to work properly. Some parameters that generally affect compatibility of software are:

  Processor (Pentium 3, Pentium 4) and number of processors.

  Architecture and characteristic of machine (32 bit or 64 bit).

  Back-end components such as database servers.

  Operating System (Windows, Linux, etc.).

**White Box Testing** techniques analyze the internal structures the used data structures, internal design, code structure and the working of the software rather than just the functionality as in black box testing. It is also called glass box testing or clear box testing or structural testing.

**Working process of white box testing:**

- Input: Requirements, Functional specifications, design documents, source code.
- Processing: Performing risk analysis for guiding through the entire process.
- Proper test planning: Designing test cases so as to cover entire code. Execute rinse-repeat until error-free software is reached. Also, the results are communicated.
- Output: Preparing final report of the entire testing process.

**Advantages:**

- White box testing is very thorough as the entire code and structures are tested.
- It results in the optimization of code removing error and helps in removing extra lines of code.
- It can start at an earlier stage as it doesn't require any interface as in case of black box testing.
- Easy to automate.

## 6.2 Manual / Automated Testing

### Manual Testing:

Manual Testing is a type of software testing in which test cases are executed manually by a tester without using any automated tools. The purpose of Manual Testing is to identify the bugs, issues, and defects in the software application. Manual software testing is the most primitive technique of all testing types and it helps to find critical bugs in the software application.

Manual testing is testing, where the tester can test the application without any knowledge of any programming language. In manual testing, the test engineer tests the application like a user to make it bug-free or stable.

Manual test engineers always search for the fault or bugs in the product before the product released in the market, yet delivered software still has defects and there is a chance that the final software product still has a defect or does not meet the customer requirement, even the manual test engineer do their best.

### Automated Testing:

Automated testing is the application of software tools to automate a human-driven manual process of reviewing and validating a software product. Most modern agile and DevOps software projects now include automated testing from inception.

Automated testing is a process of changing any manual test case into the test scripts by using Automated testing tools, and scripting or programming language is called Automated.

Test automation is the process of leveraging automation tools to maintain test data, execute tests, and analyze test results to improve software quality. Automated testing is also called test automation or automated QA testing. When executed well, it relieves much of the manual requirements of the testing lifecycle

Automated testing is used to increase the efficiency, effectiveness, and coverage of Software testing. Automated test engineer uses Automated testing tools to automate the manual design test cases without any human interference. And these testing tools can control the execution of tests, access the test data, and compares the actual result against the expected result.

## 6.3 Test Cases Identification and Execution

A test case is a document, which has a set of test data, preconditions, expected results and postconditions, developed for a particular test scenario in order to verify compliance against a specific requirement.

A test case has components that describe input, action, and an expected response, in order to determine if a feature of an application works correctly.

A test case is a set of instructions on “HOW” to validate a particular test objective/target, which, when followed will tell us if the expected behaviour of the system is satisfied or not.

Test Case acts as the starting point for the test execution, and after applying a set of input values, the application has a definitive outcome and leaves the system at some end point or also known as execution postcondition.

**Typical Test Case Parameters:**

- Test Case ID
- Test Scenario
- Test Case Description
- Test Steps
- Prerequisite
- Test Data
- Expected Result
- Test Parameters
- Actual Result
- Environment Information
- Comments

**Example:**

Let us say that we need to check an input field that can accept maximum of 10 characters.

While developing the test cases for the above scenario, the test cases are documented the following way. In the below example, the first case is a pass scenario while the second case is a FAIL.

| Scenario | Test Step | Expected Result | Actual Outcome |
|---|---|---|---|
| Verify that the input field that can accept maximum of 10 characters | Login to application and key in 10 characters | Application should be able to accept all 10 characters. | Application accepts all 10 characters. |
| Verify that the input field that can accept maximum of 11 characters | Login to application and key in 11 characters | Application should NOT accept all 11 characters. | Application accepts all 10 characters. |

If the expected result doesn't match with the actual result, then we log a defect. The defect goes through the defect life cycle and the testers address the same after fix.

**Test case Design Technique:**

Following are the typical design techniques in software engineering:

1 Deriving test cases directly from a requirement specification or black box test design technique. The Techniques include:

- Boundary Value Analysis (BVA)
- Equivalence Partitioning (EP)
- Decision Table Testing
- State Transition Diagrams
- Use Case Testing

2 Deriving test cases directly from the structure of a component or system:

- Statement Coverage
- Branch Coverage
- Path Coverage
- LCSAJ Testing

3 Deriving test cases based on tester's experience on similar systems or testers intuition:

- Error Guessing
- Exploratory Testing

# CHAPTER 7

## RESULTS

The result for our E - Distributor project is that the project completed successfully within the given deadline all the modules all the functions and all the pages are working properly in an efficient manner there are no errors in the program is an efficient to use and ready to use the learning and the thinking strategies which we have thought before the project that are that all are completed successfully the project runs very well or project on very efficiently in a flexible manner.

E - Distributor is a simple application which is used to purchase product on the global platform by which it can be access anytime anywhere on any location without any barrier it provides data redundancy, data consistency, data encapsulation and provides data security.

Now the outcomes from our projects are the User can tell very openly to a service provider like What exactly he/she wants to use. User needs not to pay for the services which he/she uses, not more than that or note less than that. Students and Teachers can easily purchase any product securely and can access it from anywhere. We can see a new world of technology for purchasing. Compiling the heavy codes become so easy and quick. Managing the heavy data become so easy and quick.

At last, I say only one thing that E - Distributor project has been **Completed Successfully.**

# CHAPTER 8

## Conclusion

Indian CPG firms are staring at a major disruption in their distribution models. Traditional distributors have seen their margins shrink over the years due to intense competition. It is challenging for CPG firms to replace distributors who churn. This could be the vacuum that emerging distribution models such as e-B2B distribution can fulfill. With traditional retail still accounting for 90% of the business, e-B2B players could drastically change how companies reach their customers, the retailers. With widespread mobile penetration and digital connectivity at very affordable prices, the emergence of e-B2B distribution is happening at the right moment.

From the brands perspective, regional and challenger brands are eager to partner with e-B2B players compared to marquee brands as marquee brands have well-established exclusive offline distribution channels. An e-B2B distribution makes the day-to-day lives of the kirana owners much simpler, as they can focus their time on selling rather than having to deal with hundreds of salespeople for orders, payments, new product listings, and inventory management. Even though this may seem disruptive, it is likely to emerge as the most efficient model in the coming years, where offline fragmentation will lead to disowning a large part of the traditional distribution network, and lead to partnering with regional and national e-B2B distribution players to enable the most effective and lowest cost-to-serve distribution model for CPG brands across all channels.

From this project, we presented a novel e-B2B distribution approach and a network model that reduces fragmentation and cost-to-serve in supplying kiranas. We found that companies should focus on wallet share and market penetration to generate significant cost savings. Increases in frequency and circuity do increase the costs. Nevertheless, the magnitude is less significant provided that no other investments or complexity are added to the distribution model. This means companies should not be afraid of these factors. We recommend the sponsoring company reach the threshold of 10% of wallet share and penetration to reduce costs swiftly. These findings are also applicable to other developing countries. Finally, the cost savings can be used by companies to invest in other regions, increasing the level of service, or sharing margins back to kiranas to improve their livelihood as their customers. As aforementioned in discussion, different

companies can have different thresholds.

In this study, there exist a few limitations. First, in terms of granularity, the RCF values are limited by high-level zip code data. Second, this study assumes no complexities and cost implications of rapid growth in terms of wallet share and market penetration of nanostores. Moreover, the data provided by the sponsoring company are representative samples and averages which have yet to capture the heterogeneity of nanostores. For the sake of scope, we also assumed there exist no challenges in assortment, marketing, pricing, warehousing, and inventory. This requires further investigation to analyze other trade-offs at tactical and operational levels.

Finally, after tackling last-mile distribution strategy and network design, essential cost-to-serve elements such as inventory, marketing, promotion, and pricing strategies on e-B2B, non-exclusive distribution solutions to nanostores are exciting challenges that one can take on. Future research can be done by formulating pricing and inventory strategies together. Other challenges include developing dynamic or stochastic network design models over different periods. An empirical or analytical study to calculate the risks and complexities of the rapid growth of e-B2B distribution is also meaningful in this exciting field. In summary, the e-B2B distribution model posits promising benefits towards large developing economies (e.g., India) and the urban retail atmosphere that keeps growing and will prevail in those economies.

# Future Work:

The future work of a E - Distributor project is that to add many and more Advance functions and features in the Application Some of our Future work is as Follow:

- Provide more purchasers: The application can be extended to provide purchasers for all products.
- Implement a security mechanism: This is an issue that may question the survivability of the application. The user premises are usually secure by firewall protection and data is secure in the cloud as Azure provides various data confidentiality and integrity mechanisms.

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# Log book of a Major Project

**Academic Year:** 2022-2023
**Course:** Major Project
**Semester:** Seven and Eight

**Program:** CO
**Course Code:**
**Name of Faculty:** Mr. Hariom C. Agnihothri

| Week No. | Discussion & Details | Date |
|---|---|---|
| 1 | Discussion on concept of Micro project | 11/10/2022 |
| 2 | Finalization of group and Project topic with Project proposal submission | 25/10/2022 |
| 3 | Preliminary discussion with guide | 08/11/2022 |
| 4 | Information collected | 15/11/2022 |
| 5 | Discussion on Progress in Micro project | 29/11/2022 |
| 6 | Solving student queries | 16/12/2023 |
| 7 | Rough report writing | 27/01/2023 |
| 8 | Final report writing | 09/04/2023 |
| 9 | Presentation and oral | 22/04/2023 |
| 10 | Final submission with Project report. | 28/04/2023 |

Sign of Faculty

**Mr. Hariom C. Agnihothri**