CHAPTER 1

1. INTRODUCTION:

The technology all over the world is rapidly increasing to a greater extent to become day to day life fully easier. As it includes the development of a new technology and making update to the existing technology so that new developed technology and existing technology so should give the powerful performance and so that it may not create a tensely situation to the user who is using is that technology.

As the e-commerce website is the live example of advancement of technology as all you can see the previous e-commerce website which was initially developed when the World Wide Web (WWW) came into existence.

The new E-commerce website which is fully developed by latest technology has many features in which the content loading of the website is easier, more user-friendly attractive design of the GUI (Graphical User Interface) and many more also the products list in now a days E-commerce website is more as compared to the initial versions of the shopping application website which was developed when the Internet was available to the people and the web based application was intended to sell two or more Electrical item such as transformers and many more.

Now a day's web-based shopping application has everything including the household items to everything which is needed in the day to day life and it offers the product return policy which is related to the customer satisfaction.

1.1 Background:

As the earlier e-commerce website was only meant to be selling for 2-3 products and it was really developed from technology such as Electronic Data Interchange (EDI), Electronic Fund Transfer (EFT). After advancement of Internet it had taken almost four years to develop security protocols such as (HTTP) and DSL which allowed persistent connection to the Internet.

According to the available data e-commerce sales continued to grow in the initial years of the web advancement and by the end of the year 2007 e-commerce sales accounted for 3.4 percent of total sales.

In the previous and initial version of e-commerce website during the Internet advancement was intended to sell and buy electricity cables, computer modem

through the Internet and it was opened in the year 1991 when the Internet was available for commercial use.

But now a day e-commerce website is designed in such a way that you can shop anything anytime anywhere and do not stepping out of the home or wherever you are only the necessary for online shopping is Internet connection we don't even need the PC or laptop the thing can be searched or ordered through smartphone as in earlier days to shop from e-commerce the people needs to go to Internet café nearby but now we don't t need this all things to be done we can easily shop from any part of the world while sitting at particular location or doing any work we can do the payment of shopping from our home, tracking the order is also possible now a days and many more features.

Nowadays the e-commerce website can be easily developed through HTML, CSS, JAVASCRIPT and BOOTSTRAP for small icons in the frontend such as shopping cart icon search icon etc. This all things can be used for developing the Front-End and for connectivity to the and back-end and storing the data we can use the software such as MYSQL, PHP and many more.

Making the procedure of searching the things you want in website Lesser curating and making the open market for all. To protect and guarantee well-being the e-commerce website gives the dependable administration.

1.2Objectives:

- To find the best solution for user needs.
- Make a purchase by the user.
- The E-mart website should be the user friendly.
- To reduce the management risk.
- Develop a good business relation.
- Providing a unique customer experience.
- To increase the number of loyal customers.
- Availability of the services 24/7.
- Developing a relevant target.
- Increase the sale of per product.
- To make availability of all the daily resources and other resources on the E-mart.
- The e-mart can be used by any citizen from any part of the world as it has an inbuilt currency converter.

As the main objective of the project is to make an application in android platform to purchase an item in an existing shop. In order to build such an application complete web support, need to be provided. A complete and efficient web application which can provide the online shopping experience is the basic objective of the project. The web application can be implemented in the form of an android application with the web view.

1.3Purpose, Scope, Applicability:

1.3.1Purpose:

Online shopping tries to enhance access to care and improve the continuity and efficiency of services. Depending on the specific setting and locally case managers are responsible for a variety of task, ranging from linking clients to services are actually providing intensive shopping and delivery services themselves.

It is essential to understand that e-mart is not limited to strictly buying and selling of the goods to website. It is basically a method by which e-mart aids the business process of the company a way that expedites the process and make the entire exchange buyer and the seller easy and profitable.

The e-mart provides a secure payment portal for the clients to pay for the purchased product through online only.

1.3.2Scope:

This system can be implemented to any shops in the locality or to multifunctional branded general shops having retail outlet chains. The system recommends a facility to accept the orders 24*7 and a home delivery system which can make customers happy.

If shops are providing the online portal where the customers can enjoy easy shopping of all the product of that particular shop despite of that which product of particular brand as this system can be implemented for a single branded shop and also for a multiple brands general shop. Due to this system the shop won't be losing any more customers to the trending online shops. As now a days Covid-19 lockdown this system can be easily for general shops owner because the customer orders their particular product online due to safety precautions the customer won't visit the due to the owner of general shop might bear a loss. Since the application is easily accessible and always available.

1.3.3Applicability:

The applicability of the E-commerce are as follows:

- **Retail and Wholesale:**

As the application of the E-mart has a number of the application in retail and the wholesale. E-retailing or the online retailing is the selling of the goods from Business to consumer of through the electronic stores that are designed using electronic catalog and shopping cart model.

- **Marketing:**

The main applicability of the E-mart is marketing. As the e-commerce does a data collection about customer behavior preferences need and buying is possible through web and E-mart. This makes a better bonding with the customer.

- **Finance:**

Finance company are using the E-commerce to a large extent. Customer can possibly check the balance of the E-mart account which will be available by the product buying bonus code and if it is not sufficient to buy the other product the user can check the bank account transfer the money to the e-mart account or directly pay from the bank for the purchased product.

1.4 Achievements:

The guideline results which was undertaken and achieve all the objectives. Our way to the greatness needs to be begin at evaluating current accomplishments.

It is important that the greater and the good part of accomplishment occurred inside some years and have for the most part been inside the significant association and exceptional endeavors.

Here are some points to look out:

- Experience a very good polite preparing and planning staff.
- Good relational feedback ready to interface with customer, ventures, administration, colleagues.
- Fully affirmed in electrical designing by a trust worthy organization.

1.5 Organization of Report:

The central concept of the application is to allow the customer to shop virtually using Internet and allow customer to buy the items and articles of their desire from the store irrespective of their location only they need is a good internet connection. The information pertaining to the products are stored on the RDBMS at the server side (store).

The server processes the customers and the items are shipped to the address submitted by them. The application was designed in two address submitted by them. The application was designed into two for the storekeepers who maintains and updates the information pertaining to the articles and those of the customers. The end user of this product is a departmental store where the application is hosted on the web and the administrator maintains the database.

The application which is deployed at the customer database, the details of the items are brought forward from the database for the customer view based on the selection through the menu and the database of all the products are updated at the end of the each transaction, Data entry into the application can be done through various screens designed for various level of users. Once the authorized personnel feed the relevant data into the system, several reports could be generated as per the security.

CHAPTER 2

SURVEY OF THE TECHNOLOGY

2.1 Hardware Requirements:

- Computer Processor: i5 or i7 processor.
- Hard disk: 20GB (minimum)
- Ram: 4GB (minimum).

2.2 Software Requirements:

- Operating System: Windows XP or above.
- Language used: C#, .net.
- Database: Microsoft SQL Server.

2.3 Technology Used:

Database	**MySQL**
Framework	**.Net**
Front-end	**HTML, CSS, JAVASCRIPT**
Programming Language	**C#**

2.4 Justification of the selection of the technology:

2.4.1 JAVA:

What is Java?

Java is a programming language and a platform. Java is high level, robust, object and secure programming language. Java was developed by the Sun Microsystems (Which is now a subsidiary of oracle) in the year 1995. James Gosling is known as the father of Java. Before Java, its name was Oak. Since the oak was already registered company, so James Gosling and his team changed the Oak name to Java.

Platform: Any hardware or software environment in which a program runs, is known as a platform. Since Java has a runtime environment (JRE) and API, it is called a platform.

Java Application:

According to the Sun,3 billion devices run java. There are many devices where java is currently used. Some of them are as follows.

Desktop application such as acrobat reader, media player, antivirus, etc. Web application such as Irctc.co.in, etc.

Enterprise applications such as banking applications.

- Mobile.
- Embedded System.
- Robotics.
- Games etc.

2.4.2 .NET FRAMEWORK:

In June 2000, NetBeans was made open source by Sun Microsystem, which remained the project sponsor until the January 2010 when Sun Microsystems became the subsidiary of Oracle.

The two base products, the NetBeans IDE and the NetBeans Platform, are free for commercial and the non-commercial use. The source code to both is available to anyone to reuse as they see fit, within the terms of use. The legal section contains the information regarding licensing, copyright issues, privacy policy and

terms of use.

The NetBeans project is also a vibrant community in which people from across the globe can ask questions, give advice, contribute and ultimately share in the success of our products. On the NetBeans mailing lists and forums, you will find posts from students, developers from top companies, and individuals looking to expand their skills. With over 18 million downloads of the NetBeans IDE to date, and over 800,000 participating developers, the NetBeans project is thriving and continues to grow, thanks to the individuals and partner companies. To be a part of the community, simply register for free.

2.4.3 My SQL:

What is my SQL?

A database is a separate application that stores a collection of data. Each database has one or more distinct APIs for creating, accessing, managing, searching and replicating the data it holds. Other kinds of data stores can also be used, such as files on the file system or large hash tables in memory but data fetching and writing would not be so fast and easy with those type of systems. Nowadays, we use relational database management systems (RDBMS) to store and manage huge volume of data. This is called relational database because all the data is stored into different tables and relations are established using primary keys or other keys known as Foreign Keys.

A Relational Data Base Management System (RDBMS) is a software that −

- Enables you to implement a database with tables, columns and indexes.
- Guarantees the Referential Integrity between rows of various
- tables. Updates the indexes automatically.
- Interprets an SQL query and combines information from various tables.

My SQL Benefits:

MySQL is a fast, easy-to-use RDBMS being used for many small and big businesses. MySQL is developed, marketed and supported by MySQL AB, which is a Swedish company.

MySQL is becoming so popular because of many good reasons are as follows:

- MySQL is released under an open-source license. So, you have nothing to pay to
- use it.
- MySQL is a very powerful program in its own right. It handles a large subset of
- the functionality of the most expensive and powerful database packages.
- MySQL uses a standard form of the well-known SQL data language.
- MySQL works very quickly and works well even with large data sets.
- MySQL is very friendly to PHP, the most appreciated language for web
- development.
- MySQL works on many operating systems and with many languages including
- PHP, PERL, C, C++, JAVA, etc.
- MySQL supports large databases, up to 50 million rows or more in a table. The
- default file size limit for a table is 4GB, but you can increase this (if your
- operating system can handle it) to a theoretical limit of 8 million terabytes (TB).
- MySQL is customizable. The open-source GPL license allows programmers to modify the MySQL software to fit their own specific environments.

2.4.4 CSS

Cascading Style Sheets (CSS) is a style sheet language used for describing the presentation of a document written in a mark-up language like HTML. CSS is designed to enable the separation of presentation and content, including layout, colors, and fonts.

This separation can improve content accessibility, provide more flexibility and control in the specification of presentation characteristics, enable multiple web pages to share formatting by specifying the relevant CSS in a separate .CSS file, and reduce complexity and repetition in the structural content.

Separation of formatting and content also makes it feasible to present the Same mark-up page in different styles for different rendering methods, such as on- screen, in print, by voice (via speech- based browser or screen reader), and on Braille-based tactile devices

CSS also has rules for alternate formatting if the content is accessed on a

mobile device**.**

2.4.5 JSP and Servlet:

Servlet technology is used to create a web application (resides at server side and generates a dynamic web page). Servlets technology is robust and scalable because of java language. Before Servlet, CGI (Common Gateway Interface) scripting language was common as a server-side programming language. However, there were many disadvantages to this technology. We have discussed these disadvantages below. There are many interfaces and classes in the Servlet API such as Servlet, Generic Servlet, Http Servlet, Servlet Request, Servlet Response, etc. Servlet can be described in many ways, depending on the context.

Servlet is a technology which is used to create a web application. Servlet is an API that provides many interfaces and classes including documentation. Servlet is an interface that must be implemented for creating any Servlet. Servlet is a class that extends the capabilities of the servers and responds to the incoming requests. It can respond to any requests. Servlet is a web component that is deployed on the server to create dynamic web page.

2.4.6 What is JSP?

JSP technology is used to create web application just like Servlet technology. It can be thought of as an extension to Servlet because it provides more functionality than servlet such as expression language, JSTL, etc. A JSP page consists of HTML tags and JSP tags. The JSP pages are easier to maintain than Servlet because we can separate designing and development.

The Following are the advantages of the JSP:

- **Extension to Servlet:**

JSP technology is the extension to Servlet technology. We can use all the features of the Servlet in JSP. In addition to, we can use implicit objects, predefined tags, expression language and Custom tags in JSP, that makes JSP development easy.

- **Easy to Maintain:**

JSP can be easily managed because we can easily separate our business logic with presentation logic. In Servlet technology, we mix our business logic with the presentation logic.

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- **Fast Development: No need to recompile and redeploy:**

If JSP page is modified, we don't need to recompile and redeploy the project. The Servlet code needs to be updated and recompiled if we have to change the look and feel of the application. In JSP, we can use many tags such as action tags, JSTL, custom tags, etc. that reduces the code. Moreover, we can use EL, implicit objects, etc.

- **The Lifecycle of a JSP Page:**

The JSP pages follow these phases:

- Translation of JSP Page
- Compilation of JSP Page
- Class loading (the class loader loads class file)
- Instantiation (Object of the Generated Servlet is created).
- Initialization (the container invokes Jsp Init () method)