

Report on

**“THE DESIGN AND IMPLEMENTATION
OF AN E-COMMERCE WEBSITE FOR
ONLINE SHOPPHING”**

By:

NAVNEET KUMAR

ABSTRACT

The business-to-consumer aspect of electronic commerce (e-commerce) is the most visible business use of the World Wide Web. The primary goal of an e-commerce site is to sell goods and services online.

This project deals with developing an e-commerce website for Online Shopping Sale. In order to facilitate online purchase a shopping cart is provided to the user. The system is implemented using a 2-tier approach, with a backend database, and ASP.NET, and a web browser as the front end client.

In order to develop an e-commerce website, a number of Technologies must be studied and understood. These include multi-tiered architecture, server and client side scripting techniques, we implement technologies such as ASP.NET, C# programming language, relational databases SQL Server.

This is a project with the objective to develop a basic website where a consumer is provided with a shopping cart application and also to know about the technologies used to develop such an application.

This document will discuss each of the underlying technologies to create and implement an e-commerce website.

LIST OF CONTENTS

SNO	TITLE	PAGE NO
1	Introduction	1
2	Introduction to Web development	2
3	Introduction to C#	3
4	Introduction to ASP .NET	6
5	Introduction to SQL SERVER	8
6	Project Design	17
7	ER Diagram	18
8	Database Design	19
9	User Interface Design	22
10	Admin Interface Design	28
12	Limitations and Future Development	36
13	Conclusion	37
14	References	38

LIST OF FIGURES

SNO	CONTENT	PAGE NO
1	Fig 1: Flow Diagram	17
2	Fig 2: ER Diagram	18
3	Fig 3: Master Page for User(Menu)	22
4	Fig 4: Login Page	22
5	Fig 5: Incorrect Login	23
6	Fig 6: Registration of the new user	24
7	Fig 7: Active User	25
8	Fig 8: Add to Cart to Page	25
9	Fig 9: Profile Detail	26
10	Fig 10: Active User Transaction Detail	27
11	Fig 11: Master Page for Admin	28
12	Fig 12: Login for Admin	28
13	Fig 13: Incorrect Login	29
14	Fig 14: Landing Page	29
15	Fig 15: User Detail Page Figure 15.1: User Insertion Figure 15.2: User Deleted Figure 15.3: User Edit Figure 15.4: User Updated	30 31 31 32 32
16	Figure 16: Add Item Page	33
17	Figure 17: Order History Figure 17.1: Detail of All Order Figure 17.2: Order History Search By Date	33 34 35

LIST OF TABLE

SNO	CONTENT	PAGE NO
1	Td 1: User	19
2	Td 2: Product	20
3	Td 3: Order	20
4	Td4: Add to cart	21

1. INTRODUCTION

E-commerce is fast gaining ground as an accepted and used business paradigm. More and more business houses are implementing web sites providing functionality for performing commercial transactions over the web. It is reasonable to say that the process of shopping on the web is becoming commonplace.

The objective of this project is to develop a general purpose e-commerce website where any product (such as books, CDs, computers, mobile phones, electronic items, and Clothes) can be bought from the comfort of home through the Internet.

An online website is a virtual place on the Internet where customers can browse the categories and select products of interest. The selected items may be collected in a shopping cart. At checkout time, the items in the shopping cart will be presented as an order. At that time, more information will be needed to complete the transaction. Usually, the customer will be asked to fill or select a billing address, a shipping address, a shipping option, and payment information such as credit card number. An e-mail notification is sent to the customer as soon as the order is placed.

2. INTRODUCTION TO WEB DEVELOPMENT

The process of building and managing websites or web applications that are available via the internet is known as web development. It includes a broad range of activities, tools, and disciplines geared towards creating an effective and aesthetically pleasing online presence. The technical aspects of coding and programming, as well as the artistic components of design and user experience, are all part of web development.

Key elements of web development include:

- **Front-end development :** also referred to as "client-side development," is the process of constructing a website's visual and interactive components, which users engage with directly in web browsers. To create responsive layouts, apply styles, and incorporate dynamic behaviour, front-end developers employ tools like HTML (Hypertext Markup Language), CSS (Cascading Style Sheets), and JavaScript.
- **Back-End Development:** also referred to as "server-side development," is concerned with creating the server and database elements that support the functioning of the website. To design server logic, manage data, and handle user interactions, back-end developers employ frameworks like Node.js and programming languages like Python, PHP, Ruby, and Java.
- **Full-Stack Development:** Full-stack engineers may work on all facets of a web project because they are skilled in both front-end and back-end programming. They are capable of handling databases and server architecture in addition to designing user interfaces.
- **Website Design:** The aesthetic appeal of a website is the work of web designers. They build layouts that are aesthetically pleasant and consistent with the brand's identity by utilising design concepts, typography, colour theory, and graphic design tools.
- **Web Development Tools:** Visual Studio Code, Colour Palatte

3. INTRODUCTION TO C#

C# is pronounced "C-Sharp".

It is an object-oriented programming language created by Microsoft that runs on the .NET Framework.

C# has roots from the C family, and the language is close to other popular languages like C++ and Java.

The first version was released in year 2002. The latest version, **C# 12**, was released in November 2023.

C# is used for:

- Mobile applications
- Desktop applications
- Web applications
- Web services
- Web sites
- Games
- VR
- Database applications
- And much, much more!

Why Use C#?

- It is one of the most popular programming languages in the world
- It is easy to learn and simple to use
- C# is an object-oriented language which gives a clear structure to programs and allows code to be reused, lowering development costs [1]

C# concepts [2]

1. **Variables and data types:** C# offers a variety of data types, including integers, floating-point numbers, characters, and strings. Variables in C# are strongly typed, which means their type must be declared.

2. **Operators:** These are symbols that perform operations on variables and values. C# includes arithmetic, comparison, logical, and assignment operators.
3. **Control structures:** Conditional statements like if, else-if, and switch, and looping constructs like for, while, and foreach, control the flow of execution based on conditions.
4. **Classes and objects:** At the core of C# is object-oriented programming (OOP). Classes define the blueprint of objects, encapsulating data and behaviours as properties and static methods, respectively.
5. **Inheritance:** C# supports OOP's inheritance concept, allowing a class to inherit from another class, promoting code reusability and the hierarchical organization of related classes.
6. **Interfaces and abstract classes:** These are used to define, standardize, and enforce certain functionalities across classes. Abstract classes can provide some implementation, whereas interfaces cannot contain any implementation.
7. **Exception handling:** C# provides a structured approach to handling runtime errors with try-catch-finally blocks, allowing programs to gracefully deal with exceptions and recover from errors.
8. **Attributes:** Attributes provide a powerful method of associating metadata, or declarative information, with code. This information can then be retrieved at runtime using reflection.
9. **Properties:** Properties offer a flexible mechanism to read, write, or compute the values of private fields via get and set accessors. They provide a controlled way of accessing the data of an object.
10. **Namespaces:** Namespaces are containers that allow you to organize large code projects into manageable segments. They prevent naming conflicts by delineating explicit scope.

Example of Basic C#

```
using System;

namespace HelloWorld
{
    class Program
    {
        static void Main(string[] args)
        {
            Console.WriteLine("Hello World!");
        }
    }
}
```



Hello World!

4. INTRODUCTION To ASP .Net

ASP stands for Active Server Pages

ASP is a development framework for building web pages.

ASP and ASP.NET are server side technologies.

Both technologies enable computer code to be executed by an Internet server.

When a browser requests an ASP or ASP.NET file, the ASP engine reads the file, executes any code in the file, and returns the result to the browser.

ASP.NET was released in 2002 as a successor to Classic ASP.

ASP.NET pages have the extension **.aspx** and are normally written in C# (C sharp).

ASP.NET 4.6 is the latest official version of ASP.NET.

ASP.NET 5 was expected to be an important redesign of ASP.NET.

However, the development of ASP.NET 5 was stopped in favor of ASP.NET Core.

ASP.NET Web API

ASP.NET API is an API application model (Application Programming Interface).

ASP.NET API is being merged into the new ASP.NET Core.

ASP.NET API is not covered in this tutorial.

ASP.NET Web Forms

ASP.NET Web Forms is an event driven application model.

ASP.NET Web Forms is **not** a part of the new ASP.NET Core.

ASP.NET Web Forms is **not** covered in this tutorial.

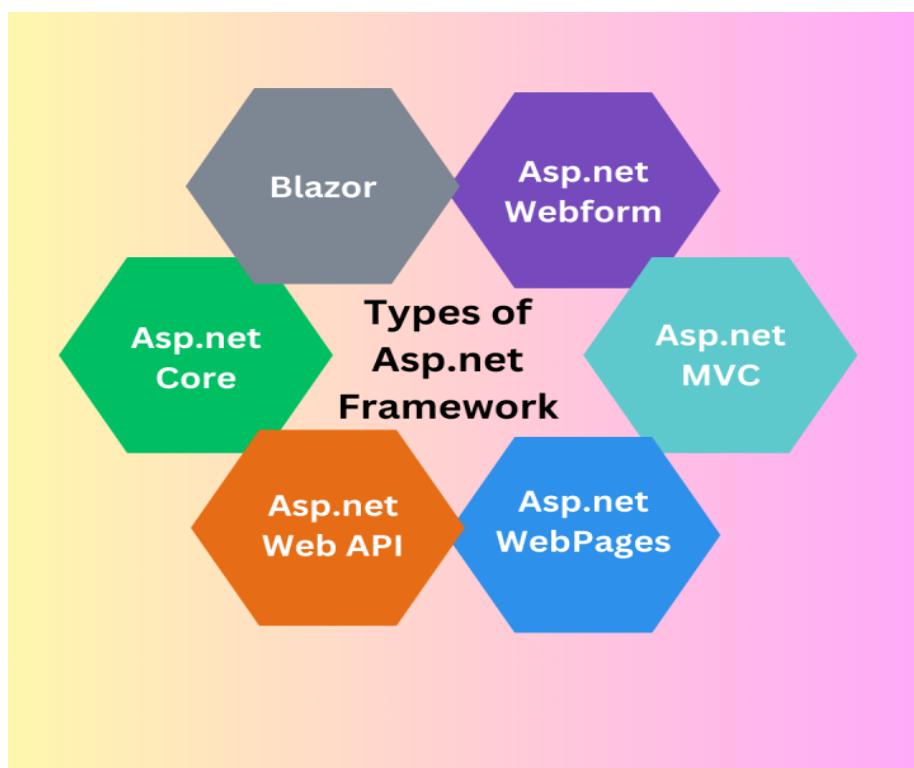
ASP.NET Core

ASP.NET Core was released in 2016.

ASP.NET Core merges ASP.NET MVC, ASP.NET Web API, and ASP.NET Web Pages into one application framework.

ASP .Net Version History [3]

- .NET Framework 1.0. – 15 Jan 2002
- .NET Framework 1.1. – 3 April 2003
- .NET Framework 2.0. – 27 October 2005
- .NET Framework 3.0. – 6 November 2006
- .NET Framework 3.5. – 19 November 2007
- .NET Framework 4.0. – 29 September 2008.
- .NET Framework 4.5. – 15 August 2012
- .NET Framework 4.6. – 12 November 2014
- .NET Framework 4.7. – 5 April 2017
- .NET Framework 4.8. – 18 April 2019
- .NET Framework 4.8.1 – October 2023 (latest)



5. INTRODUCTION TO SQL SERVER

Microsoft SQL Server is a relational database management system (RDBMS). Applications and tools connect to a SQL Server *instance* or *database*, and communicate using Transact-SQL (T-SQL).

What is Data?

Data is statically raw and unprocessed information. For example – name, class, marks, etc. In computer language, a piece of information that can be translated into a form for efficient movement and processing is called data. Data is interchangeable information.

What is Database?

A database is an organized collection of data stored in a computer system and usually controlled by a database management system (DBMS). The data in common databases is modelled in tables, making querying and processing efficient. Structured query language (SQL) is commonly used for data querying and writing.

It can be accessed or stored in a computer system. It can be managed through a Database Management System (DBMS), a software used to manage data

There are different kinds of databases-

- **Relational Database:** A relational database is made up of a set of tables with data that fits into a predefined category.
- **Distributed Database:** A distributed database is a database in which portions of the database are stored in multiple physical locations, and in which processing is dispersed or replicated among different points in a network
- **Cloud Database:** A cloud database is a database that typically runs on a cloud computing platform. Database service provides access to the database. Database services make the underlying software stack transparent to the user.

Evolution of Databases

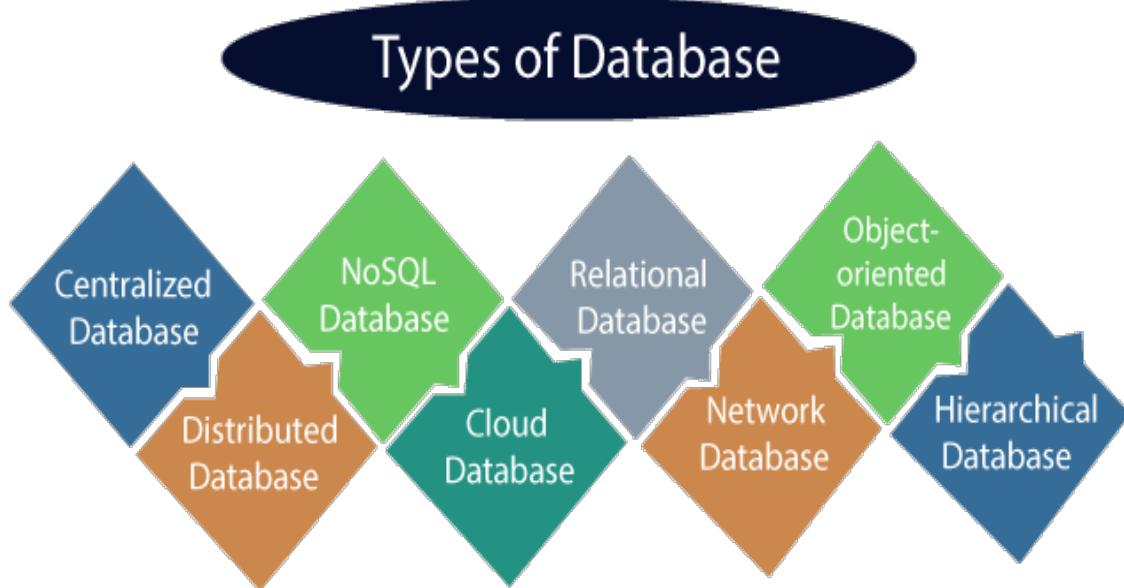
- **File-Based** - The first systems used to store and edit data were navigational databases, such as the hierarchical database (which depended on a tree-like architecture and perFile-Based databases were first developed in 1968)
- **Hierarchical Data Model** - The period of the Hierarchical Database was 1968–1980. IBM's first DBMS was a prominent hierarchical database paradigm. The information management system, or IMS, was the name of it.
- **Network Data Model** - Charles Bachman created the Integrated Data Store (IDS), Honeywell's first database management system
- **Relational Database**- Relational databases gained popularity in the 1980s

Types of Databases

There are many types of databases.

- **Relational Databases:** A relational database's contents are arranged as a collection of tables with rows and columns. Accessing structured data is made most flexible and efficient by relational database technology.
- **Object-Oriented Databases:** Similar to object-oriented programming, data in an object-oriented database is represented as objects.
- **Distributed Databases:** A distributed database is made up of two or more files that are spread across multiple locations. The database could be dispersed across many networks, housed in one physical place, or kept on several computers.
- **Data Warehouses:** A data warehouse is a sort of database created especially for quick query and analysis. It is a central repository for data.
- **NoSQL Databases:** Unlike relational databases, which specify how all data input must be formatted, NoSQL, or nonrelational databases, permit the storing and manipulation of unstructured and semi structured data. The prevalence and complexity of online applications led to the rise in popularity of NoSQL databases.
- **Graph Databases:** Data is stored in a graph database using entities and their relationships.
- **OLTP Database:** An OLTP database is a quick, analytical database made to handle lots of transactions from several users at once.

- **Open source databases:** A database system that is open source can have either a SQL or NoSQL database as its source code.
- **Cloud databases:** A collection of organized or unorganized data that is housed on a private, public, or hybrid cloud computing platform is known as a cloud database. Cloud database models come in two flavors : traditional and database as a service (DBaaS). With DBaaS, a service provider handles maintenance and administrative duties.



What is DBMS?

- An interface for operations like creation, deletion, modification, etc is provided by DBMS.
- DBMS allows the user to create their databases as per their requirement.
- DBMS accepts the request from the application and provides specific data through the operating system.
- DBMS contains a group of programs that acts according to the user's instruction.
- It provides security to the database.

DBMS manage the data, the database engine, and the database schema, allowing for data to be manipulated or extracted by users and other programs. This helps provide data security, data integrity, concurrency, and uniform data administration procedures.

DBMS optimizes the organization of data by following a database schema design technique called normalization, which splits a large table into smaller tables when any of its attributes have redundancy in values. DBMS offer many benefits over traditional file systems, including flexibility and a more complex backup system.

Database management systems can be classified based on a variety of criteria such as the data model, the database distribution, or user numbers.

The most widely used types of DBMS software are relational, distributed, hierarchical, object-oriented, and network.

Distributed database management system

A distributed DBMS is a set of logically interrelated databases distributed over a network that is managed by a centralized database application. This type of DBMS synchronizes data periodically and ensures that any change to data is universally updated in the database.

Hierarchical database management system

Hierarchical databases organize model data in a tree-like structure. Data storage is either a top-down or bottom-up format and is represented using a parent-child relationship.

Network database management system

The network database model addresses the need for more complex relationships by allowing each child to have multiple parents. Entities are organized in a graph that can be accessed through several paths.

Relational database management system

Relational database management systems (RDBMS) are the most popular data model because of its user-friendly interface. It is based on normalizing data in the rows and columns of the tables. This is a viable option when you need a data storage system that is scalable, flexible, and able to manage lots of information.

Object-oriented database management system

Object-oriented models store data in objects instead of rows and columns. It is based on object-oriented programming (OOP) that allows objects to have members such as fields, properties, and methods.

Examples of DBMS

There is a wide range of database software solutions, including both enterprise and open source solutions, available for database management.

Here are some of the most popular database management systems:

Oracle

Oracle Database is a commercial relational database management system. It utilizes enterprise-scale database technology with a robust set of features right out of the box. It can be stored in the cloud or on-premises.

Learn how AppDynamics helps with [Oracle monitoring](#)

MySQL

MySQL is a relational database management system that is commonly used with open-source content management systems and large platforms like Facebook, Twitter, and YouTube.

Learn how AppDynamics helps with [MySQL monitoring](#)

SQL Server

Developed by Microsoft, SQL Server is a relational database management system built on top of structured query language (SQL), a standardized programming language that allows database administrators to manage databases and query data.

Benefits Of Database Management Systems (DBMS)

Let us take a look at some of the benefits which Data Base Management Systems have to offer to us:

- **Data Integrity:** Data Integrity is maintained in a Database Management System. This means that the structure of the database can change, but the application that uses the data does not have to change.
- **Data Consistency:** Data Consistency is also maintained in a Database Management System. The data is identical regardless of who is inspecting it.
- **Data Backups:** Backing up data from a single location is simple.
- **Data Security:** In DBMSs, Data is housed in a secure central location, and many access privileges can be assigned to multiple people.
- **Customization of Applications:** Applications can be tailored to meet the specific needs of the user without having to change the database.
- **Data Accessibility:** One of the main benefits of a Database Management System is that the same business data can be made available to various personnel at any time and from any location. A database management system (DBMS) allows multiple users to access information that is accessible remotely and twenty-four hours a day, seven days a week.
- **Data Redundancy or Data Duplication is Minimized:** In a database management system, information is kept concise and only appears once to avoid data unpredictability. This is done using a technique called Normalization (Database normalization is the process of structuring a database, usually a relational database, in accordance with a series of so called normal forms in order to reduce data redundancy and improve data integrity). Data redundancy is reduced as a result of this capability. For businesses, this implies that they won't have to repeat the same information over and over. Companies can now drastically cut the cost of storing company data on storage devices.

- **Data Management Made Simple:** Another benefit of database management software is that it facilitates data management by providing users with easy yet powerful tools for entering, changing, and exporting corporate data. Through data customization, Database Management System also decreases individual users' reliance on computer specialists and programmers to satisfy their specific demands.
- **No Dependency on Any Programming Language:** Yet another benefit of Database Management Systems is that it is independent of any type of programming language. This means that one does not have to know any specific programming language in order to access a Database Management System. Writing SQL or NoSQL queries would be sufficient irrespective of what programming language is being used in the application.
- **Data Durability:** Database Management Systems also ensures data durability, that is, even if there is a power outage or any other disaster for that matter, the data in the Database will persist.

Features Of Database Management Systems

Minimum Redundancy and Duplication - Because databases are used by so many people, the risks of data duplication are relatively high. But in a database management system, data files are shared which brings down data duplication and redundancy.

Reduced amount of space and money spent on storage - All database management systems must save a large amount of data. However, proper data integration saves a lot of space in the database management system

Data Organization - In a Database Management system, a digital repository's information is structured in a clear hierarchical structure using records, tables, and objects.

Customization of the Database - Along with the default and required components (records, tables, or objects) that make up a database's structure, custom elements can be constructed to fit the demands of unique users.

Data Retrieval. - The database management system, or DBMS, accepts and stores data from users. Users can subsequently get their records from the database and save them as a file, print them, or display them on the screen.

Usage Of Query Languages - A typical Database Management System allows users to utilize query languages for collecting, searching, sorting, altering, and other tasks that enable them to manipulate their database entries.

Multi User Access- Multiple users can access all forms of information contained in the same data store with a Multi-User Access Database Management System.

Data Integrity is Maintained - Multiple users can access all information in a database, but only one user can edit the same piece of data at a time. This feature allows you to avoid database corruption and failure and ensures that the Integrity of Data is maintained.

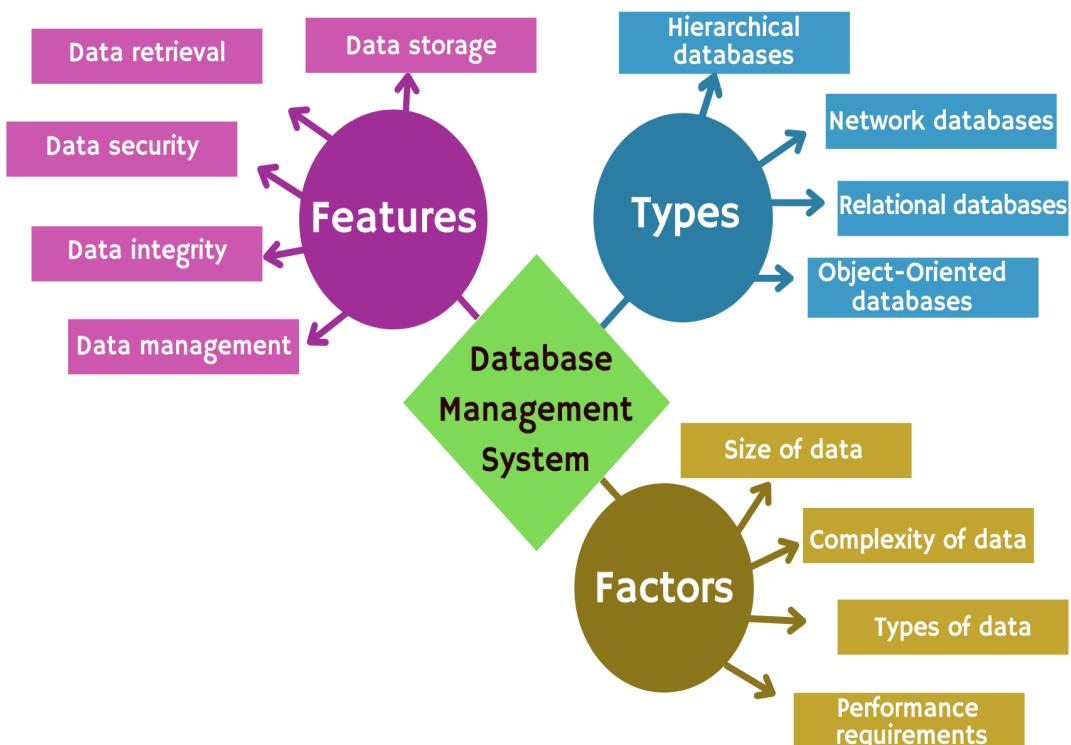
Management of Metadata - Metadata is “data that provides information about other data”, but not the content of the data, such as the text of a message or the image itself. The metadata library (or data dictionary) in DBMS database management software explains how the database is organized and what parts (objects, associated files, records, and so on) make up its structure.

Maintenance of a Large Database - Only a database management system can keep large databases of large corporations up to date. These databases necessitate a high level of security as well as backup and recovery capabilities. Database Management System includes all of these functionalities. It has the ability to keep a database with a large amount of data and information.

Data Durability - All data files are permanently stored by Database Management System, so there is no risk of data loss. If the data is lost, the organization’s data files can be saved using a backup and recovery procedure. As a result, there is no need to be concerned about data loss in Database Management Systems.

Provides a High Level of Data Security - All companies that handle a substantial volume of data are concerned about security. Except for the Database Administrator or the department head, Database Management Systems does not grant complete database access. They have the ability to change the database and create all of the users, therefore the database management system's security level is increased.

Enhanced File Uniformity - It is critical to rationalize and govern modern data management systems. A progressive database system's application software enables the application of the same rules to all data across the organization.



6. PROJECT DESIGN[3]

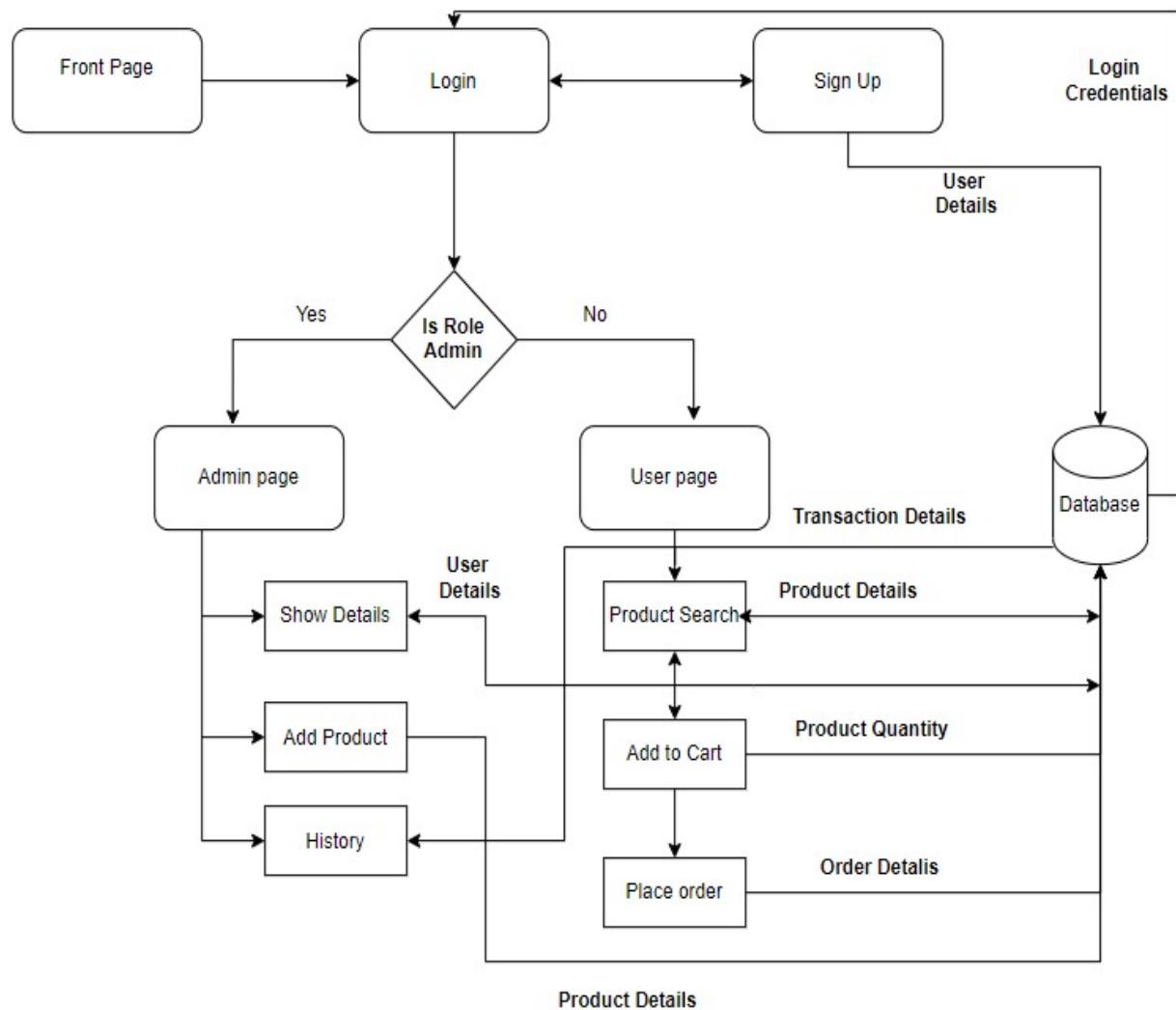


Figure 1: Flow Diagram

7. ER DIAGRAM OF DATABASE

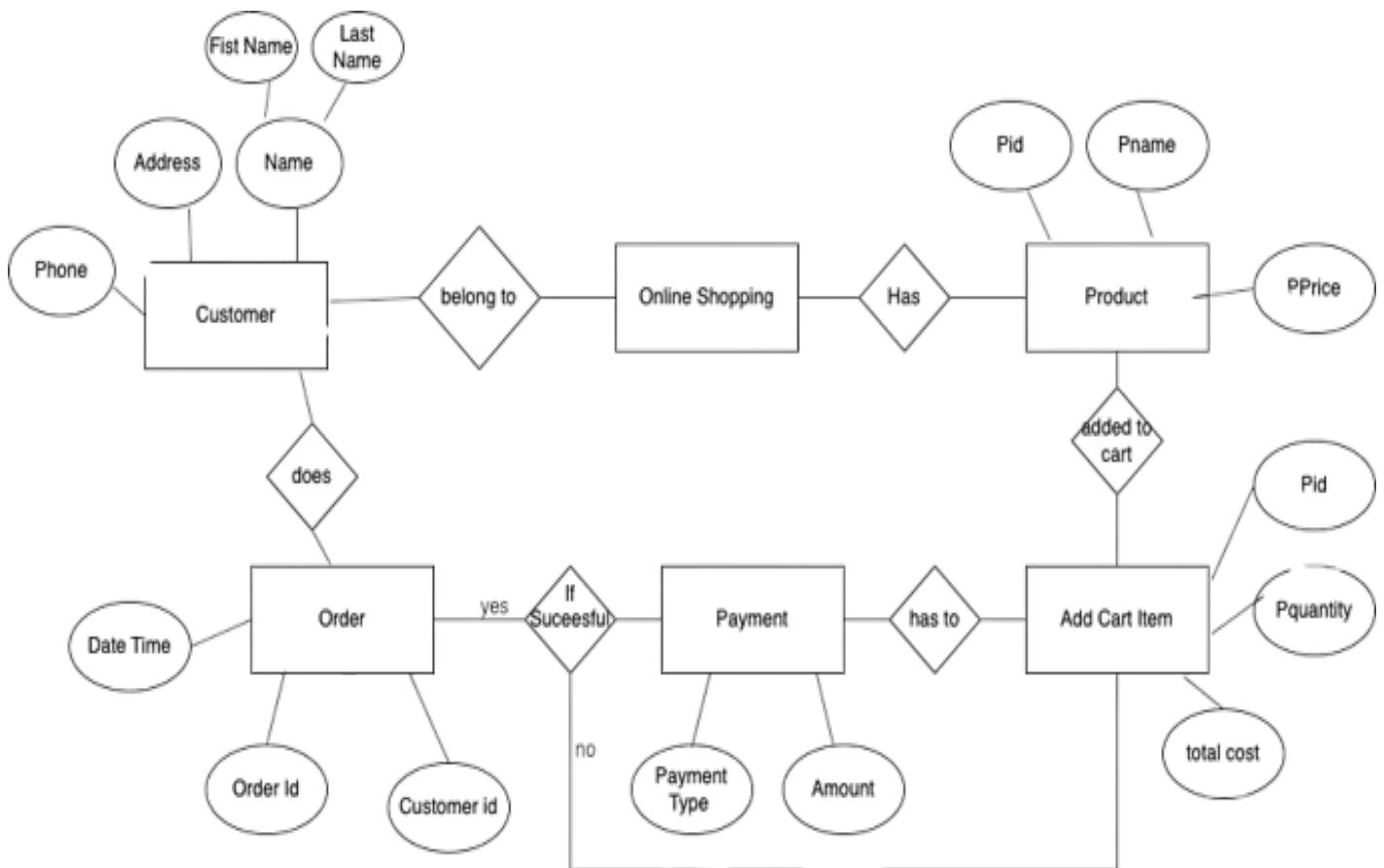


Figure 2 : ER Diagram

8. DATABASE DESIGN

In this section, the basic structure of the tables composing the database for the project are shown along with information about primary and foreign keys.

User

SNO	NAME	TYPE	DESCRIPTION
1	User ID	INT	Primary key for Customer identification
2	Password	Varchar	Security for Customer
3	First Name	Varchar	
4	Last Name	Varchar	
5	Email	Varchar	Primary key for User Authorization
6	Gender	Varchar	
7	Address	Varchar	
8	Phone	Varchar	

Product

SNO	NAME	TYPE	DESCRIPTION
1	P_ID	INT	Primary key for Customer identification
2	P_NAME	Varchar	
3	P_DESCRIPTION	Varchar	
4	P_IMAGE	Varchar	
5	P_PRICE	INT	

Order

SNO	NAME	TYPE	DESCRIPTION
1	orderid	Varchar	
2	sno	INT	
3	productid	INT	Foreign Key, reference to table ‘product’
4	productname	Varchar	
5	price	INT	
6	quantity	INT	
7	orderdate	DATE	
8	Email	Varchar	Primary Key

Add to Cart

SNO	NAME	TYPE	DESCRIPTION
1	sno	INT	
2	P_ID	INT	Primary Key
3	P_NAME	Varchar	
4	P_IMAGE	Varchar	
5	P_PRICE	INT	
6	P_QUANTITY	INT	
7	P_TOTAL	INT	
8	Email	Varchar	Foreign Key

9. USER INTERFACE DESIGN

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 books, CDs, computers, mobile phones, electronic items, and Clothes.



Figure 3: Master Page for User(Menu)

Login Page

Admin User

Email ID:

Password:

Don't Have an Account? [Sign Up](#)

Figure 4: Login Page

If User Credentials or Role are Invalid

Login Page

Admin User

Email ID:

Password:

Don't Have an Account? [Sign Up](#)

Login

Invalid email, password, or role.

Figure 5: Incorrect Login

Registration Page for New User

Sign Up

First Name:

Last Name:

Email:

Gender:

Select Gender ▾

Address:

Phone:

Password:

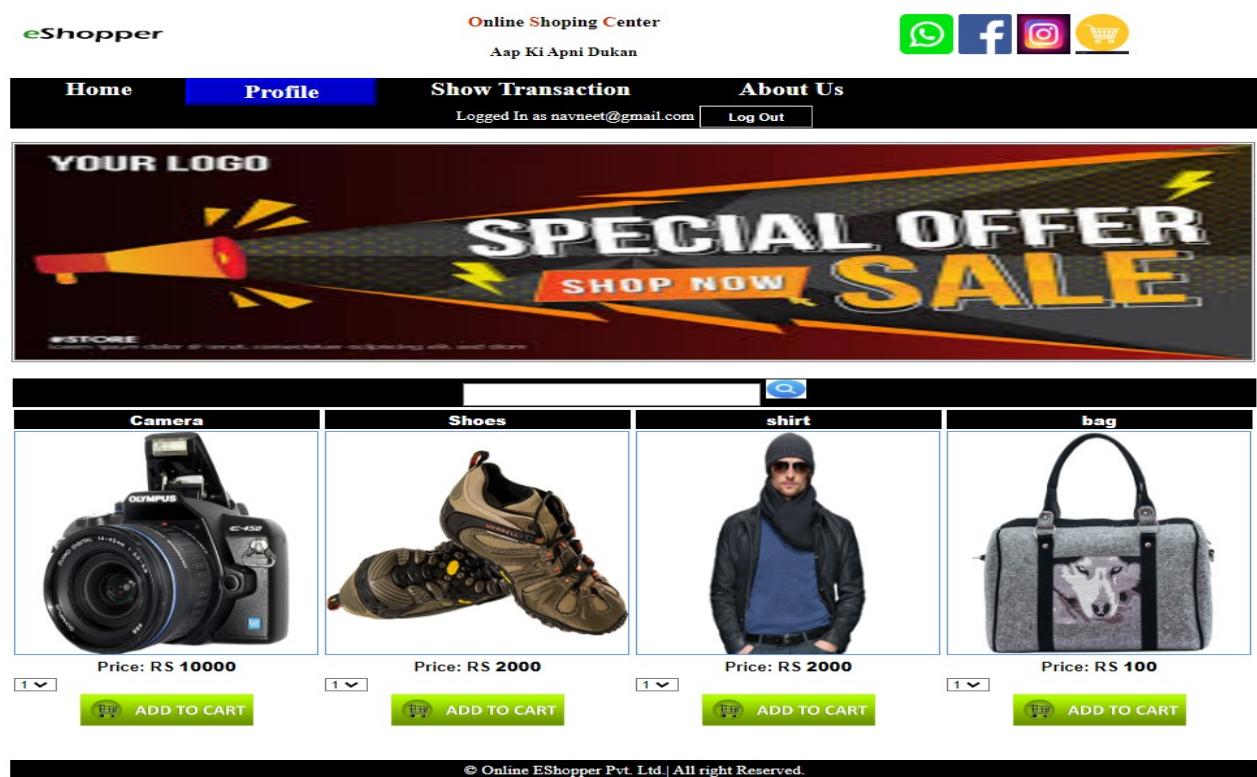
Confirm Password:

Sign Up

Already Have an Account? [Sign In](#)

Figure 6: Registration of the New User

If User Click on Add to Cart Button



© Online EShopper Pvt. Ltd. | All right Reserved.

Figure 7: Active User

After User Click on Add to Cart Button

You Have Following Product In Cart						
Continue Shopping						
Sr. No	Product ID	Product Image	Product Name	Prize	Quantity	Total Prize
1	2		Shoes	2000	1	2000
Remove						
						Total Amount 2000
Button						

Figure 8: Add to Cart to Page

Profile Detail of Current Active User

eShopper Online Shoping Center
Aap Ki Apni Dukan

Home Profile Show Transaction About Us
Logged In as navneet@gmail.com Log Out



User Profile

First Name:	Navneet
Last Name:	Kumar
Email:	navneet@gmail.com
Gender:	Male
Address:	Sikkim
Phone:	1236547895

Thanks For being our user
© Online EShopper Pvt. Ltd | All right Reserved.

Figure 9: Profile Detail

Transaction Detail of the User

eShopper

Online Shoping Center

Aap Ki Apni Dukan



Home

Profile

Show Transaction

About Us

Logged In as navneet@gmail.com

[Log Out](#)



OrderId	Product Id	Product Name	Price	Quantity	Order Date	Status
1115772024z8gu90152		Shoes	2000	1	07-07-2024 00:00:00	Completed
1115772024z8gu90151		Camera	10000	1	07-07-2024 00:00:00	Completed
1115772024z8gu90152		Shoes	2000	1	07-07-2024 00:00:00	Completed
1115772024z8gu90153		shirt	2000	1	07-07-2024 00:00:00	Completed
1147720245rhCn142		Shoes	2000	1	07-07-2024 00:00:00	Pending
1147720245rhCn141		Camera	10000	1	07-07-2024 00:00:00	Pending
1147720245rhCn142		Shoes	2000	1	07-07-2024 00:00:00	Pending
1147720245rhCn143		shirt	2000	1	07-07-2024 00:00:00	Pending
317872024ytblm43172		Shoes	2000	1	08-07-2024 00:00:00	
317872024ytblm43171		Camera	10000	1	08-07-2024 00:00:00	
317872024ytblm43172		Shoes	2000	1	08-07-2024 00:00:00	
317872024ytblm43173		shirt	2000	1	08-07-2024 00:00:00	
317872024ytblm43171		Camera	10000	1	08-07-2024 00:00:00	

[Show Transaction](#)

© Online EShopper Pvt. Ltd. | All right Reserved.

Figure 10: Active User Transaction Detail

10.ADMIN INTERFACE DESIGN



Figure 11: Master Page for Admin

Login Page

Admin User

Email ID:

Password:

Don't Have an Account? [Sign Up](#)

[Login](#)

Figure 12: Login for Admin

If Admin Credentials or Role are Invalid

Login Page

Admin User

Email ID:

Password:

Don't Have an Account? [Sign Up](#)

[Login](#)

Invalid email, password, or role.

Figure 13: Incorrect Login

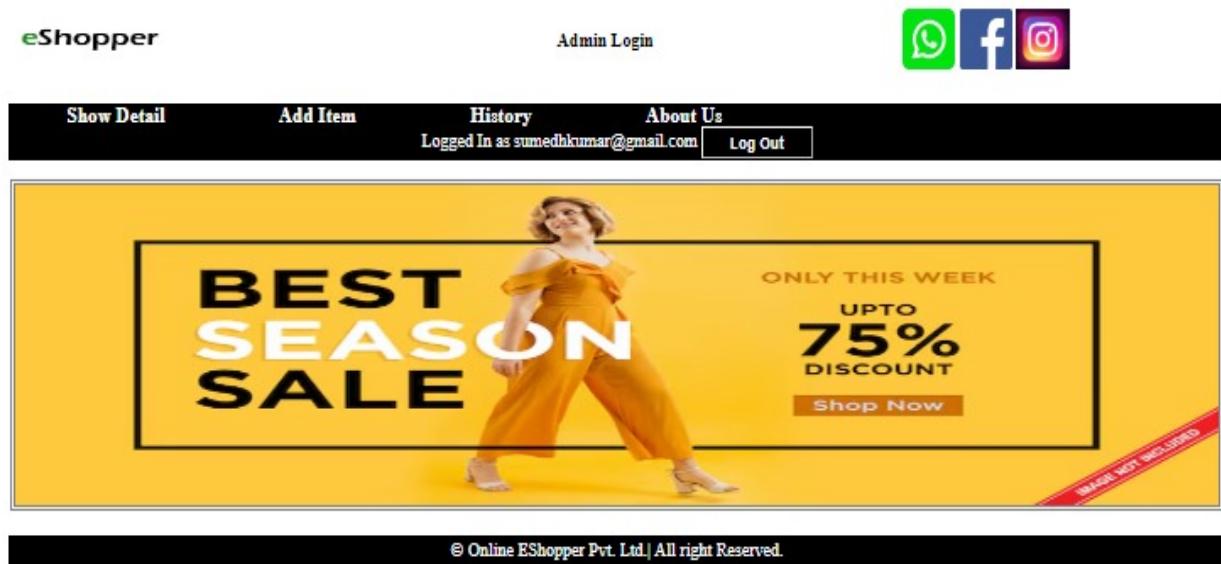


Figure 14: Landing Page

Registered Users Detail

eShopper

Admin Login



Show Detail

Add Item

History

Logged In as sumedhkumar@gmail.com

[Log Out](#)



First Name	Last Name	Email	Gender	Address	Phone	Role	Operation
Navneet	Kumar	navneet@gmail.com	Male	Sikkim	1236547895	User	Edit Delete
Sumedh	Kumar	sumedhkumar@gmail.com	Male	Boudh Vihar Colony patna	2589631489	Admin	Edit Delete
Nekhil	Kumar	kumarnekhil@gmail.com	Male	Sikkim	1258746988	User	Edit Delete
Priya	Kumari	P@gmail.com	Female	j.k	7852369412	User	Edit Delete
			Male				Insert

© Online EShopper Pvt. Ltd. | All right Reserved.

Figure 15: User Detail Page

Inserting Detail of New User

First Name	Last Name	Email	Gender	Address	Phone	Role	Operation
Navneet	Kumar	navneet@Gmail.com	Male	Sikkim	1236547895	User	Edit Delete
Sumedh	Kumar	sumedhkumar@gmail.com	Male	Boudh Vihar Colony patna	2589631489	Admin	Edit Delete
Nekhil	Kumar	kumarnekhil@gmail.com	Male	Sikkim	1258746988	User	Edit Delete
Priya	Kumari	P@gmail.com	Female	j.k	7852369412	User	Edit Delete
Priyank	Kumar	priyank@yahoo.com	Male	bihar	2587413698	User	Edit Delete
<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> Male <input type="text"/> <input type="text"/> <input type="text"/> Insert							

Inserted Successfully

© Online EShopper Pvt. Ltd. All right Reserved.

Figure 15.1: User Insertion

Deleting Record for Non-Active User

First Name	Last Name	Email	Gender	Address	Phone	Role	Operation
Navneet	Kumar	navneet@Gmail.com	Male	UP	9934039924	User	Edit Delete
Sumedh	Kumar	sumedhkumar@gmail.com	Male	Boudh Vihar Colony patna	2589631489	Admin	Edit Delete
Nekhil	Kumar	kumarnekhil@gmail.com	Male	Sikkim	1258746988	User	Edit Delete
Priya	Kumari	P@gmail.com	Female	j.k	7852369412	User	Edit Delete
<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> Male <input type="text"/> <input type="text"/> <input type="text"/> Insert							

Record Deleted

© Online EShopper Pvt. Ltd. All right Reserved.

Figure 15.2: User Deleted

If Admin wants to change Details of any User

First Name	Last Name	Email	Gender	Address	Phone	Role	Operation
Navneet	Kumar	navneet@gmail.com	Male	Sikkim	1236547895	User	Update Cancel
Sumedh	Kumar	sumedhkumar@gmail.com	Male	Boudh Vihar Colony patna	2589631489	Admin	Edit Delete
Nekhil	Kumar	kumarnekhil@gmail.com	Male	Sikkim	1258746988	User	Edit Delete
Priya	Kumari	P@gmail.com	Female	j.k	7852369412	User	Edit Delete
Priyank	Kumar	priyank@yahoo.com	Male	bihar	2587413698	User	Edit Delete
			Male				Insert

© Online EShopper Pvt. Ltd | All right Reserved.

Figure 15.3: User Edit

Updated Detail of User

First Name	Last Name	Email	Gender	Address	Phone	Role	Operation
Navneet	Kumar	navneet@gmail.com	Male	UP	9934039924	User	Edit Delete
Sumedh	Kumar	sumedhkumar@gmail.com	Male	Boudh Vihar Colony patna	2589631489	Admin	Edit Delete
Nekhil	Kumar	kumarnekhil@gmail.com	Male	Sikkim	1258746988	User	Edit Delete
Priya	Kumari	P@gmail.com	Female	j.k	7852369412	User	Edit Delete
Priyank	Kumar	priyank@yahoo.com	Male	bihar	2587413698	User	Edit Delete
			Male				Insert

Row Has Been Updated

© Online EShopper Pvt. Ltd | All right Reserved.

Figure 15.4: User Updated

Adding Product for the Users

The screenshot shows the eShopper website interface. At the top, there is a navigation bar with links for 'Show Detail', 'Add Item', 'History', and 'About Us'. It also displays the user status 'Logged In as sumedhkumar@gmail.com' and a 'Log Out' button. Social media icons for WhatsApp, Facebook, and Instagram are present. Below the navigation bar is a large banner with the text 'YOUR LOGO' and 'SPECIAL OFFER SALE'. The main content area is titled 'Adding Product' and contains fields for 'Product Name', 'Product Description', 'Product Image' (with a file upload button), and 'Product Price'. A 'Submit' button is at the bottom, followed by a copyright notice: '© Online EShopper Pvt. Ltd. All right Reserved.'

Figure 16: Add Item Page

History Option For Transaction Detail

The screenshot shows the eShopper website interface, similar to Figure 16 but with a different active menu item. The 'History' link in the navigation bar is highlighted in blue. The main content area is titled 'Adding Product' and contains fields for 'Product Name', 'Product Description', 'Product Image' (with a file upload button), and 'Product Price'. A 'Submit' button is at the bottom, followed by a copyright notice: '© Online EShopper Pvt. Ltd. All right Reserved.'. On the right side of the page, there is a link 'Show All Order Detail'.

Figure 17: Order History

History of All Transaction Till Date

eShopper

Admin Login



Show Detail

Add Item

History

Logged In as sumedhikumar@gmail.com

[Log Out](#)

YOUR LOGO



SPECIAL OFFER
SHOP NOW **SALE**

#STORE

Select Date:

[Show All Order Detail](#)

OrderId	ProductName	Price	Quantity	OrderDate	Status
1115772024z8gu9015	Shoes	2000	1	07-07-2024 00:00:00	Completed
1115772024z8gu9015	Camera	10000	1	07-07-2024 00:00:00	Completed
1115772024z8gu9015	Shoes	2000	1	07-07-2024 00:00:00	Completed
1115772024z8gu9015	shirt	2000	1	07-07-2024 00:00:00	Completed
1147720245rhCn14	Shoes	2000	1	07-07-2024 00:00:00	Pending
1147720245rhCn14	Camera	10000	1	07-07-2024 00:00:00	Pending
1147720245rhCn14	Shoes	2000	1	07-07-2024 00:00:00	Pending
1147720245rhCn14	shirt	2000	1	07-07-2024 00:00:00	Pending
345872024lyual2845	Camera	10000	1	08-07-2024 00:00:00	
345872024lyual2845	Shoes	2000	1	08-07-2024 00:00:00	
345872024lyual2845	dress	600	1	08-07-2024 00:00:00	
317872024ytblm4317	Shoes	2000	1	08-07-2024 00:00:00	
317872024ytblm4317	Camera	10000	1	08-07-2024 00:00:00	
317872024ytblm4317	Shoes	2000	1	08-07-2024 00:00:00	
317872024ytblm4317	shirt	2000	1	08-07-2024 00:00:00	
317872024ytblm4317	Camera	10000	1	08-07-2024 00:00:00	

© Online EShopper Pvt. Ltd | All right Reserved.

Figure 17.1: Detail of All Order

Detail of Order Searched for Particular Date

eShopper

Admin Login



Show Detail

Add Item

History

Logged In as sumedhkumar@gmail.com

[Log Out](#)



[Show All Order Detail](#)

Select Date:

Year: Month:

July 2024						
Su	Mo	Tu	We	Th	Fr	Sa
30	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31	1	2	3
4	5	6	7	8	9	10

Order Status	OrderID	ProductName	Price	Quantity	OrderDate
<input checked="" type="radio"/> Pending <input type="radio"/> Completed	1115772024z8gu9015	Shoes	2000	1	07-07-2024 00:00:00
<input checked="" type="radio"/> Pending <input type="radio"/> Completed	1115772024z8gu9015	Camera	10000	1	07-07-2024 00:00:00
<input checked="" type="radio"/> Pending <input type="radio"/> Completed	1115772024z8gu9015	Shoes	2000	1	07-07-2024 00:00:00
<input checked="" type="radio"/> Pending <input type="radio"/> Completed	1115772024z8gu9015	shirt	2000	1	07-07-2024 00:00:00
<input checked="" type="radio"/> Pending <input type="radio"/> Completed	1147720245rhCn14	Shoes	2000	1	07-07-2024 00:00:00
<input checked="" type="radio"/> Pending <input type="radio"/> Completed	1147720245rhCn14	Camera	10000	1	07-07-2024 00:00:00
<input checked="" type="radio"/> Pending <input type="radio"/> Completed	1147720245rhCn14	Shoes	2000	1	07-07-2024 00:00:00
<input checked="" type="radio"/> Pending <input type="radio"/> Completed	1147720245rhCn14	shirt	2000	1	07-07-2024 00:00:00

© Online EShopper Pvt. Ltd. | All right Reserved.

Figure 17.2: Order History Search By Date

11. LIMITATIONS AND FUTURE DEVELOPMENT

There are some limitations for the current system to which solutions can be provided as a future development:

1. The system is not configured for multi- users at this time. The concept of transaction can be used to achieve this.
2. The Website is not accessible to everyone. It can be deployed on a web server so that everybody who is connected to the Internet can use it.
3. Payment validation is not done. Third party proprietary software can be used for validation check.

As for other future developments, the following can be done:

1. The Administrator of the web site can be given more functionalities, like looking at a specific customer's profile, the items that can be reordered, etc.
2. Multiple Shopping carts can be allowed.

12.CONCLUSION

The Internet has become a major resource in modern business, thus electronic shopping has gained significance not only from the entrepreneur's but also from the customer's point of view. For the entrepreneur, electronic shopping generates new business opportunities and for the customer, it makes comparative shopping possible. As per a survey, most consumers of online stores are impulsive and usually make a decision to stay on a site within the first few seconds. "Website design is like a shop interior. If the shop looks poor or like hundreds of other shops the customer is most likely to skip to the other site". Hence we have designed the project to provide the user with easy navigation, retrieval of data and necessary feedback as much as possible.

In this project, the user is provided with an e-commerce web site that can be used to purchase product online. To implement this as a web application we used ASP.NET as the Technology. ASP.NET has several advantages such as enhanced performance, scalability, built-in security and simplicity. To build any web application using ASP.NET we use programming language C#. C# was the language used to build this application. For the client browser to connect to the ASP.NET with the help SQL Server. ASP.NET uses ADO.NET to interact with the database as it provides in- memory caching that eliminates the need to contact the database server frequently and it can easily deploy and maintain an ASP.NET application. SQL Server management was used as back-end database since it is one of the most popular open source databases, and it provides fast data access, easy installation and simplicity.

This project helps in understanding the creation of an interactive web page and the technologies used to implement it. The design of the project which includes Data Model illustrates how the database is built with different tables, how the data is accessed and processed from the tables. The building of the project has given us a precise knowledge about how ASP.NET is used to develop a website, how it connects to the database to access the data and how the data and web pages are modified to provide the user with a shopping cart application.

13. REFERENCES

1. https://www.w3schools.com/cs/cs_getstarted.php
2. <https://aw.club/global/en/blog/c-sharp-dot-net-introduction>
3. https://en.wikipedia.org/wiki/.NET_Framework_version_history#.NET_Framework_4.8
4. <https://www.geeksforgeeks.org/what-is-database/>
5. <https://app.diagrams.net/>
6. https://www.w3schools.com/cs/cs_intro.php
7. <https://dotnet.microsoft.com/en-us/apps/aspnet>
8. [https://www.w3schools.com/cs/index.php#:~:text=C%23%20\(C%2DSharp\)%20is,apps%2C%20games%20and%20much%20more.](https://www.w3schools.com/cs/index.php#:~:text=C%23%20(C%2DSharp)%20is,apps%2C%20games%20and%20much%20more.)
9. <https://www.youtube.com/>
10. <https://www.google.co.in/>