A Project/Dissertation Report

on

E-Commerce Shopping Website

Submitted in partial fulfillment of the
requirement for the award of the degree of

Bachelor of Technology in Computer Science and Engineering

GALGOTIAS UNIVERSITY
(Established under Galgotias University Uttar Pradesh Act No. 14 of 2011)

Under The Supervision of
Mr. Padmanabhan P.
Associate Professor

Submitted By

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18SCSE1120026

SCHOOL OF COMPUTING SCIENCE AND ENGINEERING
DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
GALGOTIAS UNIVERSITY, GREATER NOIDA
INDIA
May, 2022

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SCHOOL OF COMPUTING SCIENCE AND ENGINEERING GALGOTIAS UNIVERSITY, GREATER NOIDA

CANDIDATE'S DECLARATION

I hereby certify that the work which is being presented in the thesis/project/dissertation, entitled **"E-Commerce Shopping Website"** in partial fulfillment of the requirements for the award of the Bachelor of technology submitted in the School of Computing Science and Engineering of Galgotias University, Greater Noida, is an original work carried out during the period of Janaury-2022 to May-2022, under the supervision of **Mr. Padmanabhan P. Associate Professor** Department of Computer Science and Engineering, Galgotias University, Greater Noida

The matter presented in the thesis/project/dissertation has not been submitted by me for the award of any other degree of this or any other places.

Name: **Nasir Firdaush**

Admission No: **18SCSE1120026**

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

Supervisor Name: **Mr. Padmanabhan p.**

Designation: **Associate Professor**

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CERTIFICATE

The Final Thesis/Project/ Dissertation Viva-Voce examination of Name: **Nasir Firdaush**, Admission No: **18SCSE1120026** has been held on ----------------------and his work is recommended for the award of Bachelor of Technology Computer Science and Engineering.

Signature of Examiner(s)   **Signature of Supervisor(s)**

Signature of Project Coordinator   **Signature of Dean**

Date: April, 2022
Place: Greater Noida

ACKNOWLEDGEMENT

Abstract

Online Shopping play a great importance in the modern business environment. Online Shopping has opened the door of opportunity and advantage to the firms. This paper analyzed the different issue of online shopping. The research aims to provide theoretical contribution in understanding the present status of online shopping. The Study Discuss the consumers' online shopping behaviors. Paper also identifies the problems face by the consumers when they want to accept internet shopping. Present paper is an expressive study based on the detailed review of earlier pertinent studies related to the various concepts of online shopping to discover the concept of online shopping. Solitude and safety risk emerge regularly as a reason for being cautious about internet shopping. Shopping convenience, information seeking, social contact, and diversity affects the consumer attitude towards online shopping. The impossibility of product testing, problems with complaints, product returns and miss use of personal data are the main doubts regarding on-line shopping.

Keywords: React, Redux, Express, Node, Mongo dB, Bootstrap 3, CSS, HTML, Ecommerce.

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CHAPTER-1
Introduction

1.1. Introduction

An E-commerce website requires appropriate strategy of successful design and implementation. Everything is required to plan from scratch to end of website. The e-commerce sector is seen the exponential growth thus a new option will easily part of this regatta of commercial website. The e-commerce website will feature the online shopping facility of various fashion products under a single web space. The proposed web application will allow business personnel to make their total business using it and increase their reachability thousands of times more than today they have, over the internet. It will allow multiple shopping vendors to sale their products online. The product management in the system will be done in the form of categories. The safety of information is the main requirement of the system and will be handling according to that. To formulate this project first task is to do is cost estimation. For probabilistic assessment of the project cost estimation is required. Cost estimation covers the accurate; estimations of cost and effort required for the project. As a project manager and developer as well, it is estimates are defined to early stage in the project. Cost estimation in application development project includes the set of procedures and techniques that will be utilized, required to produce by organization for development. The available resources of a company are also affecting the cost estimation. It will be very complex project. To demonstrate knowledge learnt in class, tech communities and online materials. It will take time of 3months to get the shape or get the basic structure. The environment variants depend on the further requirements of the ecommerce web application.

1.2. Formulation of Problem

Traditionally, customers are used to buying the products at the real, in other words, factual shops or supermarkets. It needs the customers to show up in the shops in person, and walk around different shopping shelves, and it also needs the owners of shops to stock, exhibit, and transfer the products required by customers. It takes labor, time and

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space to process these operations. Furthermore, the spread of the Covid-19 pandemic has caused a lot of changes in our lifestyle, people fearing to get outside their homes, transportation almost shut down and social distancing becoming all the more important. Big to small scale business that relied on the traditional incurs a lot of consequence due to the lockdown issues. Some tend to more towards using social media platforms like Facebook to sell their product. However, the social media platforms have been beneficial for marketing purposes alone but leave the whole task of customer and massive order management via direct messaging (DM), which takes a lot of time to respond to all customers. In addition, everyone tends to use social media, posing a great challenge to differentiate between scammers (fraudsters) and legit sellers.

1.2.1 Tools and Technology Used

Hardware Requirements:

The most common set of requirements defined by any operating system or software application is the physical computer resources, also known as hardware. A hardware requirements list is often accompanied by a hardware compatibility list (HCL), especially in case of operating systems. An HCL lists tested, compatibility and sometimes incompatible hardware devices for a particular operating system or application. The following sub-sections discuss the various aspects of hardware requirements.

Hardware Requirements for Present Project:

Processor: Intel dual Core, i3 or above

Ram: 2 GB or Higher

Hard Disk: 80 GB or Higher

Software Requirements:

Software Requirements deal with defining software resource requirements and pre-requisites that need to be installed on a computer to provide optimal functioning of an application. These requirements or pre-requisites are generally not included in

the software installation package and need to be installed separately before the software is installed.

Software Requirements for Present Project:

Operating System:	Windows 7/ XP/8 or Higher
Front End:	Html, CSS, JavaScript, React
Server Side Script:	Node, Express
Database:	Mongo DB

CHAPTER-2
Literature Survey

Literature review is an expressive study based on the detailed review of earlier pertinent studies related to the various concepts of online shopping to discover the concept of online shopping. It highlights the status of online shopping, importance and problems of online shopping, factors affecting online shopping and a critical review of the privacy and security issues in online shopping.

Online buying behaviour is affected by various factors like, economic factors, demographic factors, technical factors, social factors, cultural factors, psychological factors, marketing factors and legislative factors. Customers choose an online-shop mainly based on references, clarity terms of delivery, graphic design and additional services. Problematical customers read discussions on the Internet before they spend their money on-line and when customers are incapable to purchase the product fast and with no trouble they leave online-shop. Kotler, (2003) described Consumer buying method as learning, information-processing and decision-making activity divided in several consequent steps: Problem identification, Information search, Alternatives evaluation, Purchasing decision, Post-purchase behaviour. Euthymia identified the main constituent of the online shopping experience as follows: the functionality of the Web site that includes the elements trade with the site's usability. the emotional elements planned for lowering the customer's hesitation by communicating trust and credibility of the online seller and Web site and the content elements including the aesthetic aspects of the online presentation and the marketing mix. Usability and trust are the issues more regularly found to influence the online consumer's behaviour. Karayiannis, (2 examined that discriminating of potential determinants between web- shoppers and non-shoppers. Free shipping is a great motivator to purchase the products and customers are willing to pay nominal charges for getting their products. While compare the shopping with others shopping, consumers take product price and shipping charges almost equally into deliberation. There are some ways that retailers can do to improve the experience for their online shoppers. The first is to write the expected delivery date of the order, customers are willing to wait for their orders but want to know just how long that force is. Timely coming of product shipment encourages shoppers to recommend an online

retailer. Consumers also want to track updates and delivery notifications to understand when their package is incoming. Online shoppers want flexibility in their shipping, mainly the ability to give special delivery instructions or schedule a delivery time. Customers also want to get the address changing option for filling the wrong address when they are purchasing online.

SCOPE AND LIMITATION

Every project is done to achieve a set of goals with some conditions keeping in mind that it should be easy to use, feasible and user friendly. As the goal of this project is to develop an online fashion brochure system, this system will be designed keeping in mind the conditions (easy to use, feasibility and user friendly) stated above. It may help in effective and efficient order management. In every shot time, the collection will be obvious, simple and sensible. It is very possible to observe the customer potentials and purchase patterns because all the ordering history is store in the database. It is efficient managing all the operations of an online store within a single platform. The project aims to automate the business process of E-Commerce. The proposed project would cover:

Customer Side

- Customer can view/search products without login.
- Customer can also add/remove product to cart without login (if customer try to add same product in cart. It will add only one)
- When customer tries to purchase product, then he/she must login to system. After creating account and login to system, he/she can place order.
- If customer clicks on pay button, then their payment will be successful and their order will be placed.
- Customer can check their ordered details by clicking on orders button. Customer can see the order status (Pending, Confirmed, and Delivered) for each order
- Customer can download their order invoice for each order
- Customer can send feedback to admin (without login)

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Administrator Side

- Admin can provide username, email, password and your admin account will be created.
- After login, there is a dashboard where admin can see how many customers is registered, how many products are there for sale, how many orders placed.
- Admin can add/delete/view/edit the products.
- Admin can view/edit/delete customer details.
- Admin can view/delete orders.
- Admin can change status of order (order is pending, confirmed, out for delivery, delivered) Admin can view the feedbacks sent by customers.

Sample Code:

```html
<!DOCTYPE html>
<html lang="en">
  <head>
    <meta charset="utf-8" />
    <link rel="icon" href="%PUBLIC_URL%/favicon.ico" />
    <meta name="viewport" content="width=device-width, initial-scale=1" />
    <meta name="theme-color" content="#000000" />
    <meta
      name="description"
      content="Web site created using create-react-app"
    />
    <link rel="apple-touch-icon" href="%PUBLIC_URL%/logo192.png" />

    <link rel="manifest" href="%PUBLIC_URL%/manifest.json" />

    <title>React App</title>
  </head>
  <body>
    <noscript>You need to enable JavaScript to run this app.</noscript>
    <div id="root"></div>

  </body>
</html>
```

```jsx
import React, { Fragment } from "react";
import {CgMouse} from "react-icons/all";
import "./Home.css";

const Home = () => {
  return (
    <Fragment>
      <div className="banner">
        <p>Welcome to Ecommerce</p>
        <h1>FIND AMAZING PRODUCTS BELOW</h1>

        <a href="#container">
          <button>
            Scroll
            <CgMouse />
          </button>
```

```
        </a>
      </div>
    </Fragment>
  );
};

export default Home;
```

```
import "./App.css";
import Header from "./component/layout/Header/Header.js";
import { BrowserRouter as Router, Route } from "react-router-dom";
import WebFont from "webfontloader";
import React from "react";
import Footer from "./component/layout/Header/Footer.js";
import Home from "./component/Home/Home.js";

function App() {
  React.useEffect(() => {
    WebFont.load({
      google: {
        families: ["Roboto", "Droid sans", "Chilanka"],
      },
    });
  }, []);

  return (
    <Router>
      <Header />
      <Route extact path="/" component={Home} />
      <Footer />
    </Router>
  );
}

export default App;
```

```
import React from "react";
import playStore from "../../../images/playstore.png"
import appStore from "../../../images/Appstore.png"
import "./Footer.css"

const Footer = () => {
```

```jsx
  return (
    <footer id="footer">
      <div class="leftFooter">
        <h4>Download Our APP</h4>
        <p>Download App for Android and IOS mobile phone</p>
        <img src={playStore} alt="playstore"/>
        <img src={appStore} alt="Appstore"/>
      </div>
      <div class="midFooter">
        <h1>ECOMMERCE</h1>
        <p>High Quality is our first priority</p>
        <p>Copyright 2022 &copy; Nasir Khan</p>
      </div>

      <div class="rightFooter">
            <h4>Follow Us</h4>
            <a href="/">Instagram</a>
            <a href="/">Youtube</a>
            <a href="/">Facebook</a>
      </div>
    </footer>
  );
};

export default Footer;
```

```js
const exprees = require("express");
const app = exprees();
const cookieParser = require("cookie-parser")



app.use(exprees.json());
app.use(cookieParser());


const errorMiddleware = require("./middleware/error")


// Route Imports

const product = require("./routes/productRoute");
```

```
const user = require("./routes/userRoute");
const order  = require("./routes/orderRoute");


app.use("/api/v1",product);
app.use("/api/v1",user);
app.use("/api/v1",order)


// Middleware For error

app.use(errorMiddleware)




module.exports = app;
```

```
const mongoose = require("mongoose");

const productSchema = mongoose.Schema({

    name: {
        type: String,
        required: [true, "Please Enter product Name"],
        trim: true
    },
    description: {
        type: String,
        required: [true, "Please Enter product Description"]
    },
    price: {
        type: Number,
        required: [true, "Please Enter product price"],
        maxLenght: [8, "Price cannot exceed 8 Characters"]
    },
    ratings: {
        type: Number,
        default: 0
    },
    image: [
```

```
        {
            public_id: {
                type: String,
                required: true
            },
            url: {
                type: String,
                required: true
            }
        }
    ],
    category:{
        type:String,
        required:[true,"Please Enter Product Category"]

    },
    Stock:{
        type:Number,
        required:[true,"Please Enter product Stocks"],
        maxLength:[4,"Stock cannot exceed 4 character"],
        default:1
    },
    numOfReviews:{
        type:Number,
        dafault:0
    },
    reviews:[
        {
            user:{
                type:mongoose.Schema.ObjectId,
                ref:"User",
                required:true,
            },
            name:{
                type:String,
                required:true,
            },
            rating:{
                type:Number,
                required:true,
            },
            comment:{
                type:String,
                required:true,
            }
```

```
        }
    ],

    user:{
        type:mongoose.Schema.ObjectId,
        ref:"User",
        required:true,
    },
    createdAt:{
        type:Date,
        default:Date.now
    }

})

module.exports = mongoose.model("Product",productSchema)
```

CHAPTER-3
Working of Project/Methodology

Methodology

This Section describes the methodology applied during the development of E-Commerce. A methodology is a model, which project managers employ for the design, planning, implementation and achievement of their project objectives. Effective project management is essential in absolutely any organization, regardless of the nature of the business and the scale of the organization. From choosing a project to right through to the end, it is important that the project is carefully and closely managed. Based on the nature of my project solution, it was essential to use incremental Software development life cycle (SDLC). The project typically has a number of Phases and the level of control required over each phase are primarily defined by the nature of the Project, the complexity of the same and the industry to which the Project has to cater to. An Incremental (SDLC) model consists of a number of dependent increments that are completed in a prescribed sequence. Each increment includes a Launching, Monitoring and Controlling, and Closing Process Group for the functions and features in that increment only. Each increment integrates additional parts of the solution until the final increment, where the remaining parts of the solution are integrated.

Justification for the Methodology

This model can be used when the requirements of the complete system are clearly defined and understood, like the case of this project where.

Major requirements were evidently defined; however, some details evolved with time. There was a need to complete the project within a short time schedule.
A new technology is being used or the resources with needed skill set are not available. I was learning Flask and Django and could iterate from one technology to another to ensure I effective implement all the functionalities.
The project had some high-risk features and goals.

The Incremental model is much better equipped to handle change. Each incremental functionality is verified by the customer and hence the relative risk in managing large and complex projects is substantially reduced. On the downside, there is a possibility of gold plating, wherein the functionalities not really required end up being built into the Product or Deliverable. In a nutshell, Incremental SDLC provide plethora of advantages inducing.

Generates working software quickly and early during the software life cycle.

- This model is more flexible and less costly to change scope and requirements.
- It is easier to test and debug during a smaller iteration.
- In this model customer can respond to each built.
- Lowers initial delivery cost.
- Easier to manage risk because risky pieces are identified and handled during it'd iteration.

SYSTEM ANALYSIS

Analysis is an important part of any project; is analysis is not done properly then whole project move in the wrong direction. It also provides a schedule for proper project work. Analysis task divided into 3 areas:

- Problem Recognition.
- Feasibility Study.
- Requirement Analysis.

Feasibility Study

Feasibility study of the system is a very important stage during system design. Feasibility study is a test of a system proposal according to its workability impact on the organization, ability to meet user needs, and effective use of resources. Feasibility study decides whether the system is properly developed or not. There are five types of feasibility as mentioned below:

- Technical Feasibility
- Time Schedule feasibility
- Operational feasibility
- Implementation feasibility
- Economic Feasibility
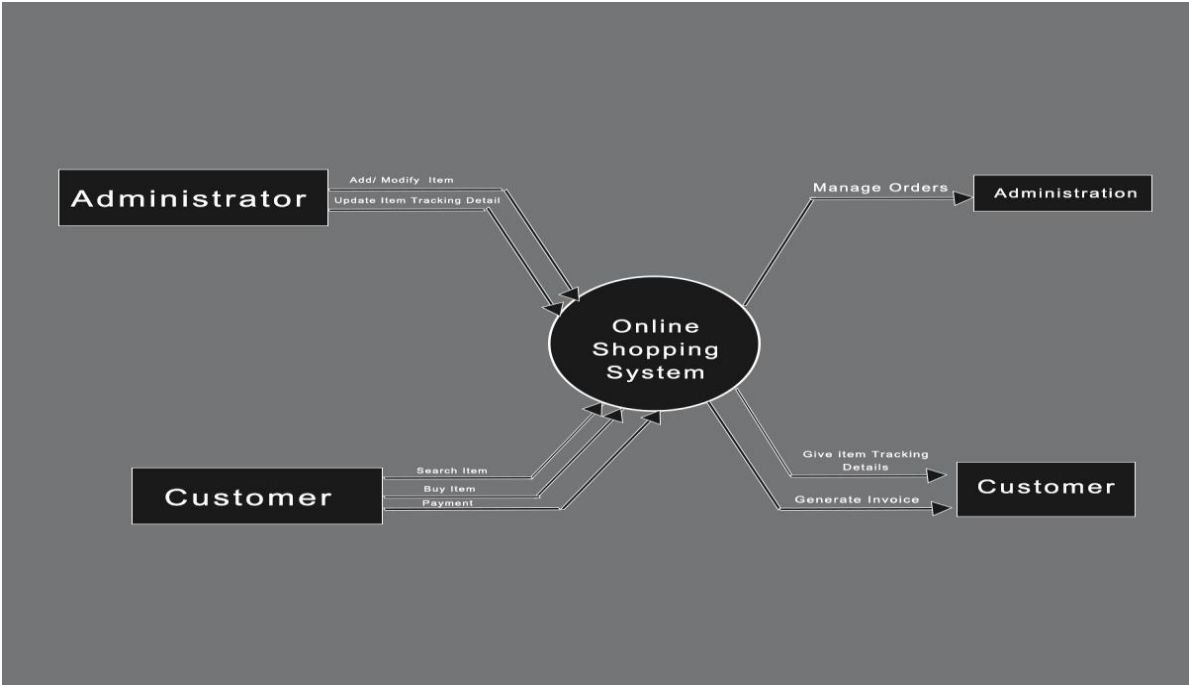
CHAPTER-4
Project Design

SYSTEM DESIGN

The section describes the system study, analysis, design strengths and weaknesses of the current system, Contest level diagrams, Entity Relationship Diagram, Architectural design. After interpretation of the data, tables were drawn and process of data determined to guide the researcher of the implementation stage of the project. The tools, which were employed during this methodology stage, where mainly tables, Data Flow Diagrams and Entity Relationship Diagrams. The design ensures that only allows authorized users to access the systems information.
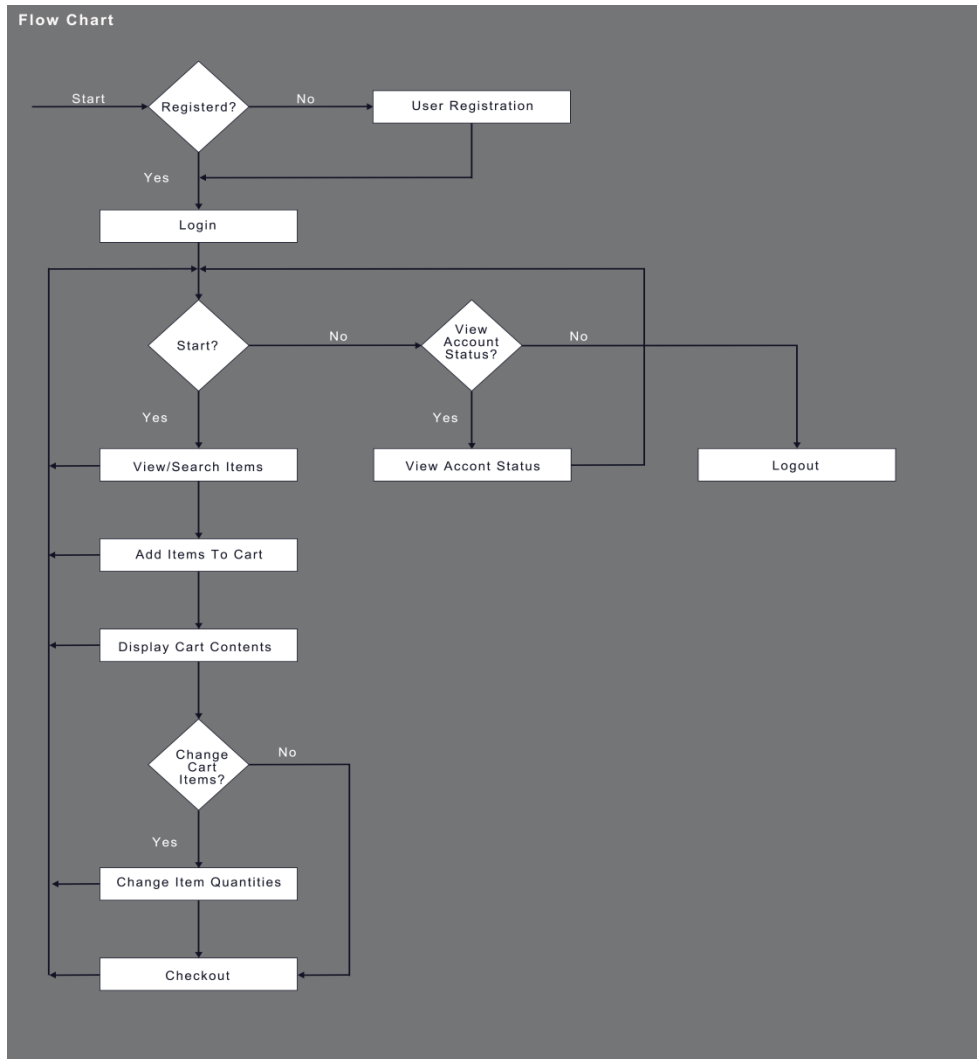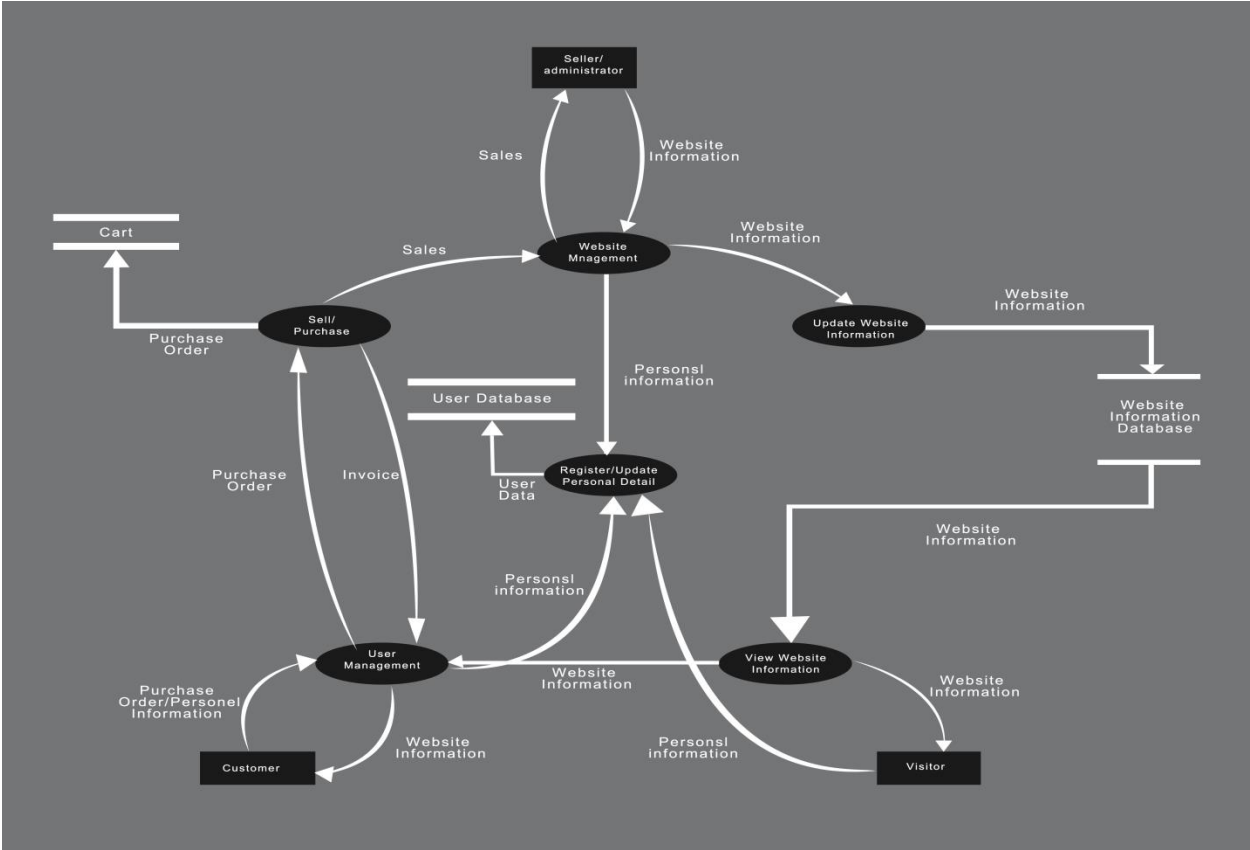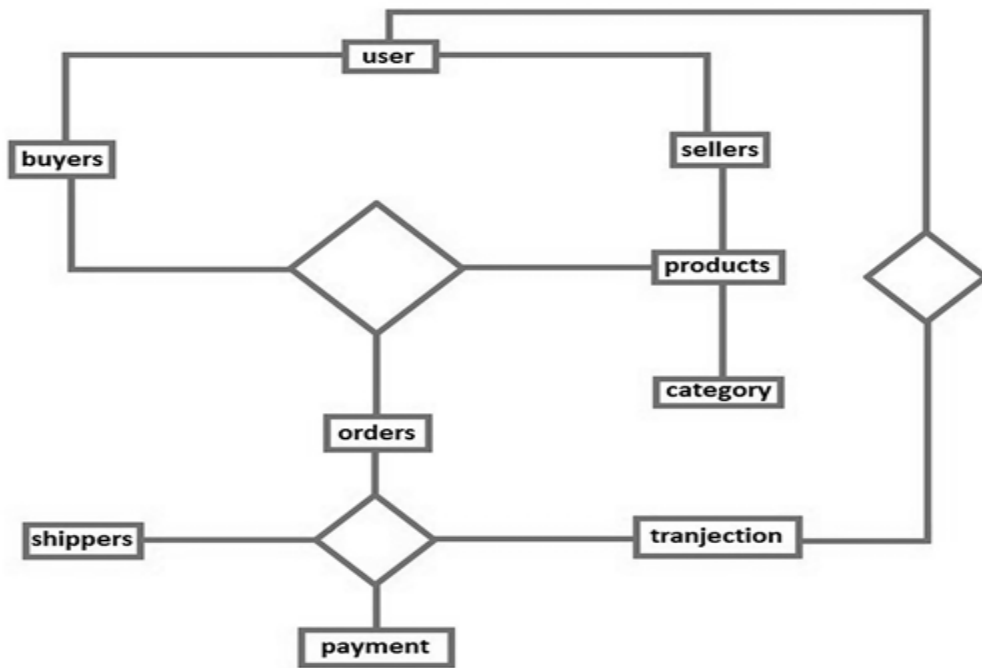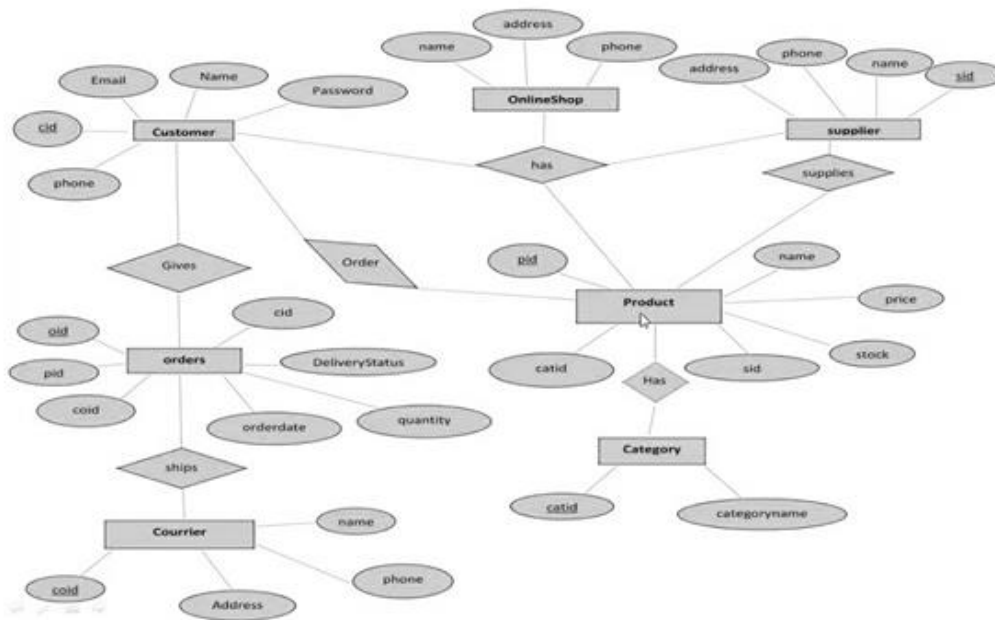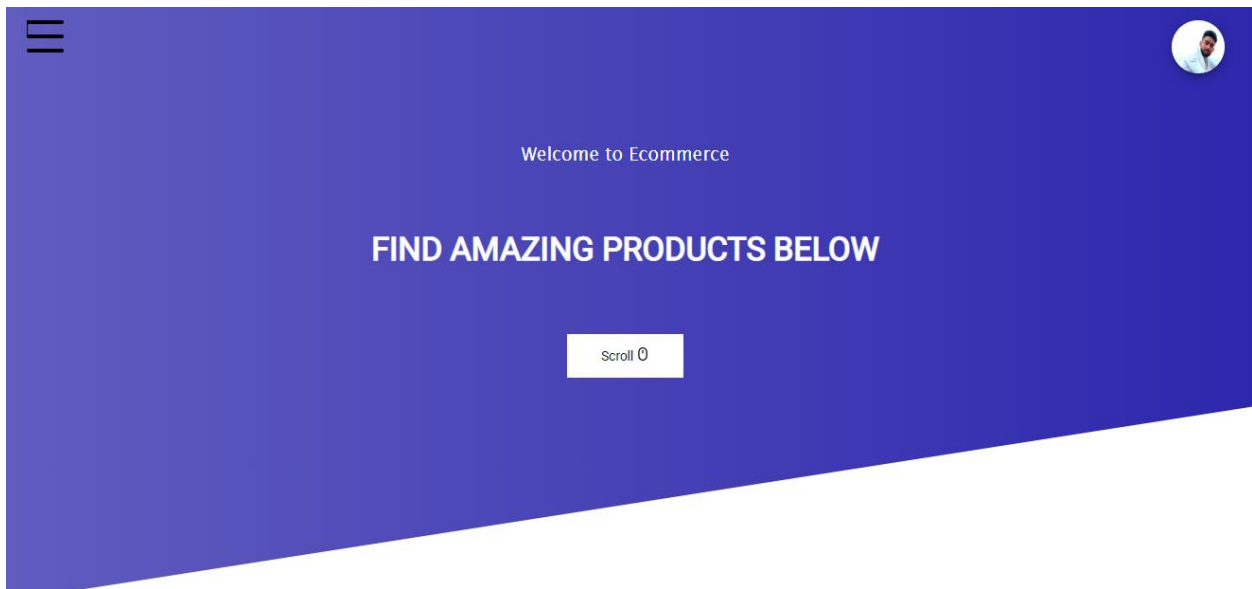
Process Flow
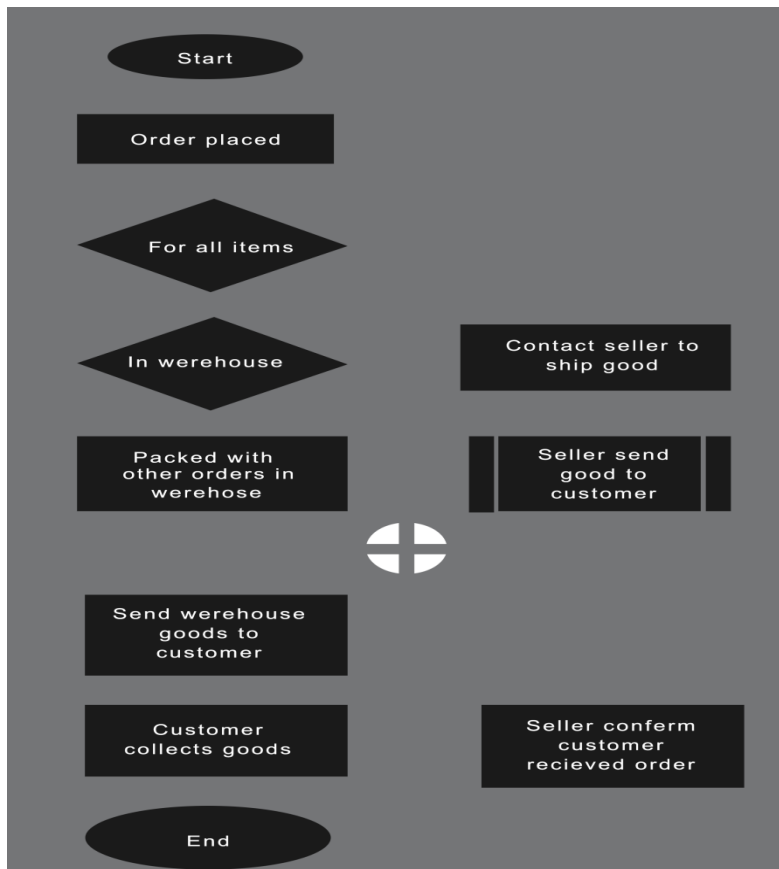
Data Flow Diagrams

Flow Chart

UML Diagram

Data Design

Data Relationships

CHAPTER-5
Result and Discussion

Create Product

Product Name

Price

Product Description

Choose Category

Stock

Choose Files

CREATE

ECOMMERCE.

- Dashboard
- Products
- Orders
- Users
- Reviews
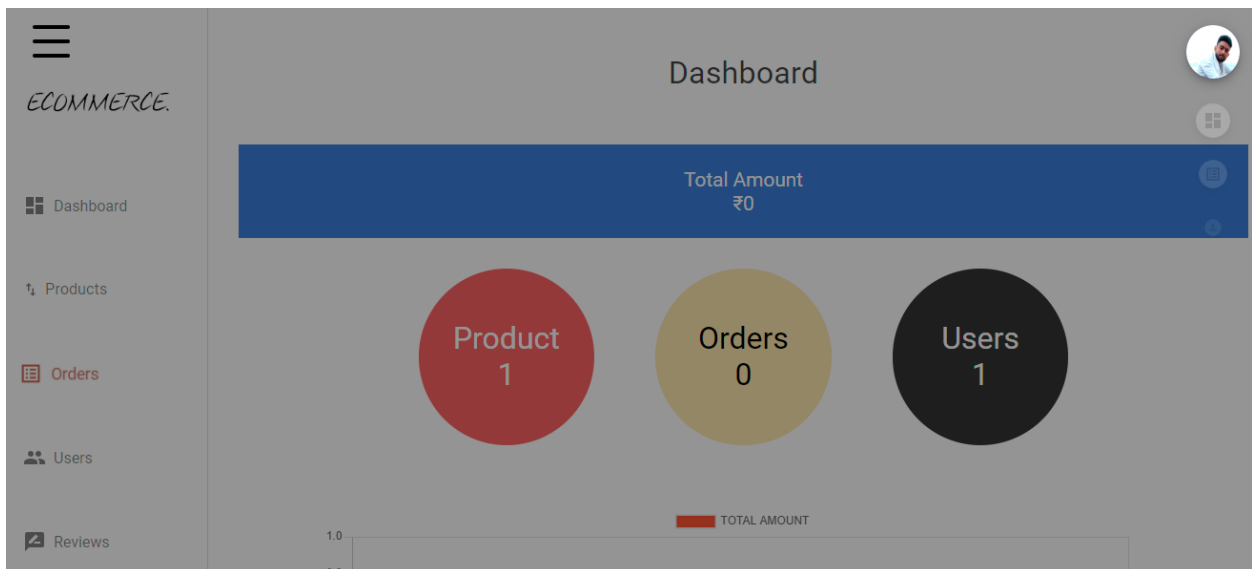
ALL PRODUCTS

Product ID	Name	Stock	Price
6259591d9ea67dde2c76ba7c	Lenovo Laptop	1	10,000

ECOMMERCE.

- Dashboard
- Products
- Orders
- Users
- Reviews

LOGIN   REGISTER

Name

Email

Password

Choose File

Register

ECOMMERCE.

ALL USERS

User ID	Email	Name	Role
6259dc1a9136c97ee044e224	nasirkhan000k@gmail.com	Nasir Khan	admin

Dashboard

Products

Orders

Users

Reviews

1-1 of 1

ALL USERS

User ID	Email	Name	Role
6259dc1a9136c97ee044e224	nasirkhan000k@gmail.com	Nasir Khan	admin

1-1 of 1

ECOMMERCE.

- Dashboard
- Products
- Orders
- Users
- Reviews

About Us

Nasir Khan

VISIT INSTAGRAM

This is a sample wesbite made by Nasir Khan.

Our Brands

CHAPTER-6
Conclusion and Future Scope

CONCLUSION

The project entitled E-Commerce system was completed successfully. The system has been developed with much care and free of errors and at the same time it is efficient and less time consuming. The purpose of this project was to develop a web application for purchasing items from a fashion shop. This project enabled me gain valuable information and practical knowledge on several topics like designing web pages using html & CSS, usage of responsive templates, designing of full stack Django application, and management of database using SQLite 3. The entire system is secured. Also, the project helped me understanding about the development phases of a project and software development life cycle. I learned how to test different features of a project. This project has given me great satisfaction in having designed an application which can be implemented to any nearby shops or branded shops selling various kinds of products by simple modifications. However, it was very challenging learning and developing an application using a new technology.

SCOPE

There is a scope for further development in our project to a great extent. A number of features can be added to this system in future like providing. feature we wished to implement was providing classes for customers so that different offers can be given to each class. System may keep track of history of purchases of each customer and provide suggestions based on their history using Machine Learning Algorithm. These features could have been implemented if time and skills did not limit me.

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