

MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE

Deemed to be University

(Declared under Distinct Category by Ministry of Education, Govt. of India)

NAAC Accredited with A++ Grade



Project Report

on

Development of Refurbished Laptops Ecommerce Website

Submitted By:

Harsh Prajapati

(0901CA221029)

Industry Mentor:

Mr. Himanshu Gupta (Project Guide, TechieShubhdeep IT Solution Pvt. Ltd.)

Faculty Mentor:

Dr. Anshu Chaturvedi (Professor)

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

MADHAV INSTITUTE OF TECHNOLOGY AND SCIENCE

GWALIOR- 474005 (MP) Estd. 1957

JAN – JUNE 2024

MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE

Deemed to be University

(Declared under Distinct Category by Ministry of Education, Govt. of India)

NAAC Accredited with A++ Grade



Project Report

on

Development of Refurbished Laptops Ecommerce Website

A project report submitted in partial fulfilment of the requirement for the degree of

**MASTER IN COMPUTER APPLICATION
in
COMPUTER SCIENCE AND ENGINEERING**

Submitted By:

Harsh Prajapati

(0901CA221029)

Industry Mentor:

Mr. Himanshu Gupta (Project Guide, TechieShubhdeep IT Solution Pvt. Ltd.)

Faculty Mentor:

Dr. Anshu Chaturvedi (Professor)

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

MADHAV INSTITUTE OF TECHNOLOGY AND SCIENCE

GWALIOR- 474005 (MP) Estd. 1957

JAN – JUNE 2024



PROJECT COMPLETION CERTIFICATE

CIN: U72900MP2014PTC032827

Date: 23/04/2024

Ref. No: 002024/E-246

This is to certify that Mr. Harsh Prajapati has successfully completed a Project on Development of Refurbish Laptop E-Commerce Website using MERN Technology with TechiesShubhdeep IT Solutions Pvt Ltd.

His project duration was 4 months.

His Performance is Very good Overall, his Exceptional performance during the internship reflects his dedication, talent, and potential for future success in the field.

We value his contribution to TechiesShubhDeep IT Solutions Pvt Ltd.

TechiesShubhDeep IT Solutions (P) Ltd.

Ravi
Rajul Jain

General Manager

Sandeep Gupta

Sandeep Gupta

CEO & Director

MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE


Deemed to be University

(Declared under Distinct Category by Ministry of Education, Govt. of India)

NAAC Accredited with A++ Grade

CERTIFICATE

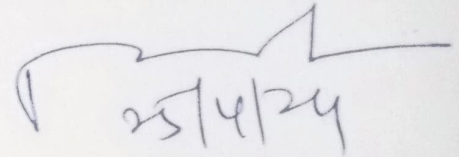
This is certified that **Harsh Prajapati (0901CA221029)** has submitted the project report titled **Development of Refurbished Laptops Ecommerce Website** under the mentorship of **Mr. Himanshu Gupta (Project Guide, TechieShubhdeep IT Solution Pvt. Ltd)** in partial fulfilment of the requirement for the award of degree of **Master in Computer Application** of Computer Science and Engineering from **Madhav Institute of Technology and Science, Gwalior.**



Dr. Anshu Chaturvedi

(Professor)

Computer Science and Engineering



25/4/24

Dr. Manish Dixit

(Professor and Head)

Computer Science and Engineering

Dr. Manish Dixit
Professor & HOD
Department of CSE
M.I.T.S. Gwalior

MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE

Deemed to be University

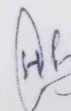
(Declared under Distinct Category by Ministry of Education, Govt. of India)

NAAC Accredited with A++ Grade

DECLARATION

I hereby declare that the work being presented in this project report, for the partial fulfilment of requirement for the award of the degree of Master in Computer Application in Computer Science and Engineering at **Madhav Institute of Technology & Science, Gwalior** is an authenticated and original record of my work under the mentorship of **Mr. Himanshu Gupta** (Project Guide, TechieShubhdeep IT Solution Pvt. Ltd)

I declare that I have not submitted the matter embodied in this report for the award of any degree or diploma anywhere else.



Harsh Prajapati

0901CA221029

2022 – 2024

Master in Computer Application
Computer Science and Engineering

MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE

Deemed to be University

(Declared under Distinct Category by Ministry of Education, Govt. of India)

NAAC Accredited with A++ Grade

ACKNOWLEDGEMENT

The full semester project has proved to be pivotal to my career. I am thankful to my institute, **Madhav Institute of Technology and Science** to allow me to continue my disciplinary project. I extend my gratitude to the Director of the institute, **Dr. R. K. Pandit** and Dean Academics, **Dr. Manjaree Pandit** for this.

I would sincerely like to thank my department, **Department of Computer Science and Engineering**, for allowing me to explore this project. I humbly thank **Dr. Manish Dixit**, Professor and Head, Department of Computer Science and Engineering, for his continued support during the course of this engagement, which eased the process and formalities involved.

I would like to extend my heartfelt appreciation to **Mr. Himanshu Gupta** (Project Guide, TechieShubhdeep IT Solution Pvt Ltd) for his exceptional mentorship, guidance and assistance throughout the project. His valuable inputs and feedback during the course of the project have helped me enhance my knowledge and skills. His constant encouragement and support have been instrumental in the successful completion of this project.

I am sincerely thankful to my faculty coordinator. I am grateful to the guidance of **Dr. Anshu Chaturvedi** (Professor), Computer Science and Engineering, for her continued support and guidance throughout the project. I am also very thankful to the faculty and staff of the department.



Harsh Prajapati

0901CA221029

2022 – 2024

**Master in Computer Application
Computer Science and Engineering**

ABSTRACT

This project focuses on the development of a web-based application, specifically an Ecommerce Website for Refurbished Laptops, targeting consumers seeking reliable and affordable computing solutions. The website will feature a diverse selection of refurbished laptops from various brands, each undergoing thorough inspection and refurbishment to ensure performance and reliability. Detailed product descriptions and specifications will enable informed purchasing decisions based on individual needs, considering factors such as brand, processor, price, and usage requirements. The user-friendly interface will allow for easy browsing and comparison of laptops, enhancing customer satisfaction and facilitating efficient decision-making. Rigorous quality assurance measures will be implemented to ensure that each laptop meets high standards before being listed for sale, often accompanied by warranties or return policies for added peace of mind. The website will prioritize responsive customer support through various communication channels, including email and phone, to assist customers with inquiries or concerns. Ultimately, the goal of this project is to create a seamless and satisfactory shopping experience by offering quality products, transparent information, intuitive navigation, rigorous testing, and responsive customer assistance.

सार

यह परियोजना पुनर्निर्मित लैपटॉप्स के लिए एक वेब-आधारित एप्लिकेशन के विकास पर ध्यान केंद्रित करती है, विशेष रूप से उन उपभोक्ताओं को लक्षित करते हुए जो विश्वसनीय और मिताहारी गणना समाधानों की तलाश में हैं। वेबसाइट पर विभिन्न ब्रांडों से पुनर्निर्मित लैपटॉप्स का विविध चयन होगा, प्रत्येक को प्रदर्शित किया जाएगा, गोडन, और निर्भरता को सुनिश्चित करने के लिए पूर्ण जाँच और पुनर्निर्माण का संविधान किया जाएगा। विस्तृत उत्पाद विवरण और विशेषताएं व्यक्तिगत आवश्यकताओं के आधार पर जानकारी प्राप्त करने की अनुमति देंगी, जैसे कि ब्रांड, प्रोसेसर, मूल्य, और उपयोग की आवश्यकताएं इत्यादि। उपयोगकर्ता-मित्र इंटरफ़ेस लैपटॉप की आसान ब्राउज़िंग और तुलना की अनुमति देगा, ग्राहक संतुष्टि को बढ़ावा देकर और प्रभावी निर्णय लेने की सुविधा प्रदान करेगा। हर लैपटॉप को बेचने से पहले उच्च मानकों को पूरा करने के लिए कड़ी मानक आश्वासन उपायोग किए जाएंगे, अक्सर जब गारंटी या वापसी नीतियों के साथ जुड़ा होता है, तो इसके साथ आता है या नहीं। वेबसाइट कॉम्प्यूटर के जरिए सहायता के लिए उत्तरदाता ग्राहक समर्थन को बढ़ावा देगा, जैसे ईमेल और फोन, जिससे ग्राहकों को पूछताछ या समस्याओं में सहायता प्रदान करने में सहायक हो सकता है। इस परियोजना का उद्देश्य गुणवत्ता उत्पाद, पारदर्शी जानकारी, सुसंगत नेविगेशन, कठिन परीक्षण, और संवेदनशील ग्राहक सहायता के माध्यम से एक संगत और संतोषप्रद खरीदारी अनुभव बनाना है।

LIST OF FIGURES

Figure Number	Figure Caption	Page No.
2.3.1	Data Flow Diagram Level 0	6
2.3.2	Data Flow Diagram Level 1 (Admin)	7
2.3.2	Data Flow Diagram Level 1 (User)	8
3.1	Database Design	9
3.2	Database Table	10
3.3	Entity Relationship Diagram	12

LIST OF TABLES

Collection Number	Table Title	Page No.
3.2.1	User Table	10
3.2.2	Product Table	10
3.2.3	Order Table	10
3.2.4	Contact Table	11
3.2.5	Category Table	11
3.2.6	Subcategory Table	11

LIST OF CONTENTS

TITEL	PAGE NO.
Abstract.....	v
सार.....	vi
List of figures.....	vii
List of tables.....	viii
Chapter 1: Introduction.....	1
1.1 Problem Identification.....	1
1.2 Parent Organization.....	2
1.3 Hardware & Software Specification.....	3
Chapter 2: System Analysis.....	4
2.1 Problem Analysis.....	4
2.2 Feasibility Study.....	4
2.2.1 Economical Feasibility.....	4
2.2.2 Technical Feasibility.....	5
2.2.3 Behavioural Feasibility.....	5
2.3 Data Flow Diagram.....	6
2.3.1 Level -0 DFD.....	6
2.3.2 Level -1 DFD – Admin.....	7
2.3.3 Level -1 DFD – User.....	8
Chapter 3: System Design.....	9
3.1 Database Design.....	9
3.2 Database Table.....	10
3.3 E-R Diagram.....	12
Chapter : 4 Testing.....	13
4.1 Unit Testing.....	13
4.2 Integration Testing.....	14
4.3 Validation Testing.....	15
Chapter: 5 Implementation.....	16
Chapter: 6 Sample Forms and Report.....	18

Chapter: 7 Conclusion And Future Scope.....	32
Bibliography.....	33
Plagiarism Report.....	34
Fortnightly Progress Report.....	35

Chapter 1

INTRODUCTION

Chapter 1

INTRODUCTION

Chapter 1: Introduction

This project involves the development of an ecommerce website specifically designed for refurbished laptops, targeting consumers who prioritize reliability and affordability in their computing solutions. Our goal is to create a user-friendly platform where students, professionals, and technology enthusiasts can easily browse and purchase refurbished laptops from popular brands like Dell, HP, Lenovo, Apple, and more. Each laptop will undergo thorough inspection and refurbishment by experienced technicians to ensure optimal performance. The website will feature detailed product descriptions, specifications, and high-resolution images to aid customers in making informed decisions. Key features include a user-friendly interface for easy browsing and comparison, secure payment options, warranties, and responsive customer support services. Ultimately, this project aims to deliver a seamless and satisfying shopping experience by offering quality products and transparent information to our valued customers.

1.1 Problem Identification

Limited Selection: Many existing websites offering refurbished laptops provide a limited range of options, which can restrict customer choice and fail to meet specific requirements or preferences.

Unclear Product Information: Insufficient or unclear product descriptions and specifications often pose a significant challenge for customers. This lack of clarity can lead to dissatisfaction or confusion, as customers may struggle to understand the features and condition of the laptops they are considering purchasing.

Lack of Warranty or Guarantee: The absence of a warranty or guarantee for refurbished laptops can create a barrier to purchase. Customers may feel uncertain about the reliability of these products and may be hesitant to proceed with a transaction without appropriate assurances against defects or malfunctions.

Poor Customer Support: Inadequate customer support services can contribute to customer frustration. When customers encounter issues with their refurbished laptops or require assistance, the absence of responsive and helpful support can negatively impact their overall experience.

Failure to Meet Expected Performance Standards: Due to inconsistent refurbishment processes, some refurbished laptops may not perform up to expected standards. This can manifest

as slower processing speeds, diminished battery life, or other performance-related issues, ultimately leading to customer dissatisfaction.

1.2 Parent Organisation

Techieshubhdeep IT Solutions Pvt. Ltd. has earned a reputation as a leading institute for C, C++, Java, .NET, PHP, Website Designing And Development, Application Development, Research and Development training. We specialize in guiding B Tech, M Tech, B E, BCA, MCA, and M.Sc. students to develop strong programming skills.

At Techieshubhdeep Solution Pvt. Ltd., we are committed to providing high-quality guidance to our students without compromising on excellence. Our team of specialist IT professionals offers live project training to help students excel in the software industry.

In addition to training, we also offer web design and development services tailored to businesses. Our primary goal is customer satisfaction, ensuring continuous support in website development and maintenance to help upgrade their businesses. We pay close attention to our clients' ideas, color preferences, and overall vision to deliver the best possible website.

Our team understands the importance of usability, functionality, and visualization in designing interfaces and websites. We work closely with clients to ensure their goals are met through our designs.

Our services are flexible and cater to our clients' needs and budget, offering:

- Custom Website
- Design Custom Interface
- Design Customized
- Website Packages Template Designs

With our experienced designers, we strive to create designs that meet your company's specific requirements and exceed your expectations.

1.3 Hardware and Software Specification

Hardware Specification

For this project, the hardware specifications include an Intel Core i5 processor, 8 GB of RAM, and a 512 GB solid-state drive (SSD), all running on a 64-bit system. The Intel Core i5 processor will handle tasks efficiently, such as running your development environment and servers. With 8 GB of RAM, you'll have enough memory to run multiple applications smoothly without slowdowns. The 512 GB SSD provides ample storage space and faster read/write speeds compared to traditional hard drives, which helps in quicker loading of your project files and applications. The 64-bit architecture ensures compatibility with modern software and allows you to utilize the full potential of your hardware.

Software Specifications:

- **Window 11 operating system:** The decision to utilize Windows 11 as the operating system stems from its advanced features, enhanced security measures, and improves user interfaces, with its modern design and optimized performance, it provides a stable and secure environment for software development.
- **Visual Studio Code:** VS Code, short for Visual Studio Code, is a popular and user-friendly code editor used by developers to write and edit software code. It offers a simple and intuitive interface with powerful features like syntax highlighting, auto-completion of code, and built-in Git integration for version control. VS Code supports a wide range of programming languages and can be customized with various extensions to enhance functionality based on specific needs. It's lightweight, fast, and free to use, making it a preferred choice for developers across different platforms and coding projects.
- **Postman:** Postman is a helpful tool used by developers to test and interact with APIs (Application Programming Interfaces) easily. It provides a user-friendly interface where you can send requests to APIs, inspect responses, and debug issues. Postman lets you organize and save API requests into collections, making it convenient for running tests repeatedly. It also supports various types of requests like GET, POST, PUT, DELETE, etc., and allows for setting headers, parameters, and authentication methods. Overall, Postman simplifies the process of API testing and development, making it a valuable tool for developers working with web services.

Chapter 2

SYSTEM ANALYSIS

Chapter 2: System Analysis

2.1 Problem Analysis

The e-commerce website dedicated to refurbished laptops encounters critical challenges that require resolution for success. Rigorous testing is necessary to maintain high-quality standards for all laptops. Transparent descriptions of each laptop's condition and specifications are crucial to establish customer trust. Implementing a secure payment system is essential to safeguard transactions. Responsive customer support after purchases is vital for ensuring customer satisfaction. Lastly, providing affordable yet reliable laptops is key to remaining competitive in the market. Addressing these challenges effectively aims to establish a trusted and user-friendly platform for purchasing refurbished laptops.

2.2 Feasibility Study

2.2.1 Economical Feasibility:

Personal expenses:

The project employs a System Analyst for 7 days monthly at a rate of 3,000/-, a Programmer for 25 days monthly at a rate of 5,000/-, and a Database Specialist for 10 days monthly at a rate of 2,000/-. The total cost for these roles amounts to 10,000/-. Each person's workload is carefully planned to efficiently manage project tasks within the allocated budget. The System Analyst, Programmer, and Database Specialist play crucial roles in ensuring the project's smooth operation while controlling costs. This breakdown illustrates the resource allocation and expenses necessary to achieve our project objectives.

Other expenses:

The project's cost breakdown encompasses essential items for the workspace. This includes 960/- for electricity, 800/- for stationery, 2,500/- for workspace facilities, and 1,500/- for Wi-Fi services, totaling 5,760/-. These resources are critical for maintaining a productive workspace that supports project activities effectively. By effectively managing these costs, we ensure efficient planning and budgeting to meet our project needs.

Hardware & Software expenses:

The hardware and software expenses for setting up a development environment include a Development Server for Node.js and Express.js, priced at 5000 rupees. Additionally, the Server Software (Operating System) costs 1000 rupees, and the DBMS Server using MongoDB Atlas adds another 1000 rupees. In total, these expenses amount to 7000 rupees. This budget covers the essential tools and platforms needed for creating and managing software applications.

2.2.2 Technical Feasibility:

Hardware requirements-

S. No.	Hardware	Specification
1.	Processor	Intel Core i5, 2.24 GHz
2.	RAM	8GB
3.	SSD	512GB

Software requirements-

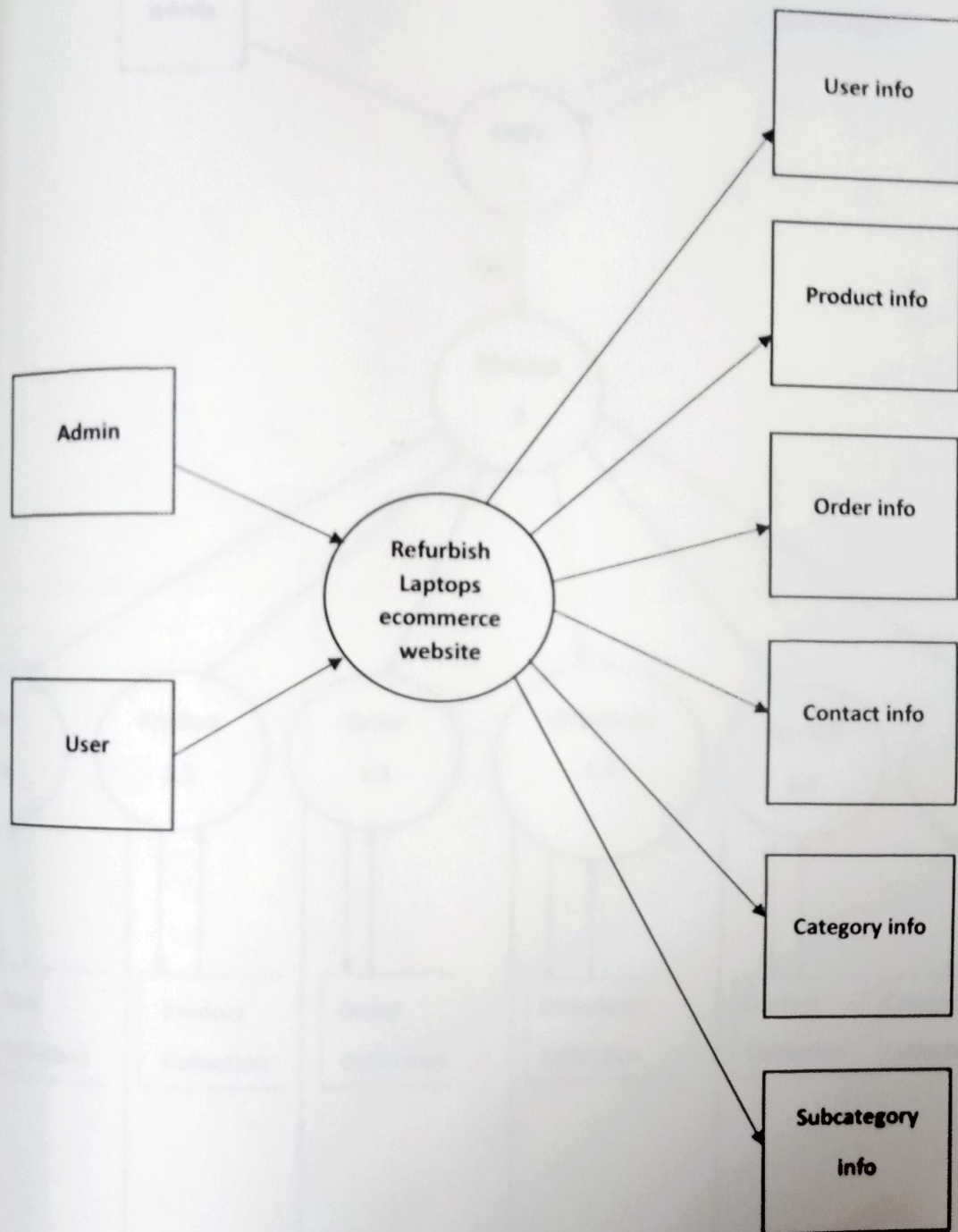
S. No.	Software	Description
1.	Operating System	Window 11
2.	Front-tend	HTML, CSS, Bootstrap, JavaScript, React JS
3.	Back-end	Node JS, Express JS, MongoDB
4.	Supporting Server	Node JS with Express JS
5.	Applications	VS Code, Postman

2.2.3 Behavioural Feasibility:

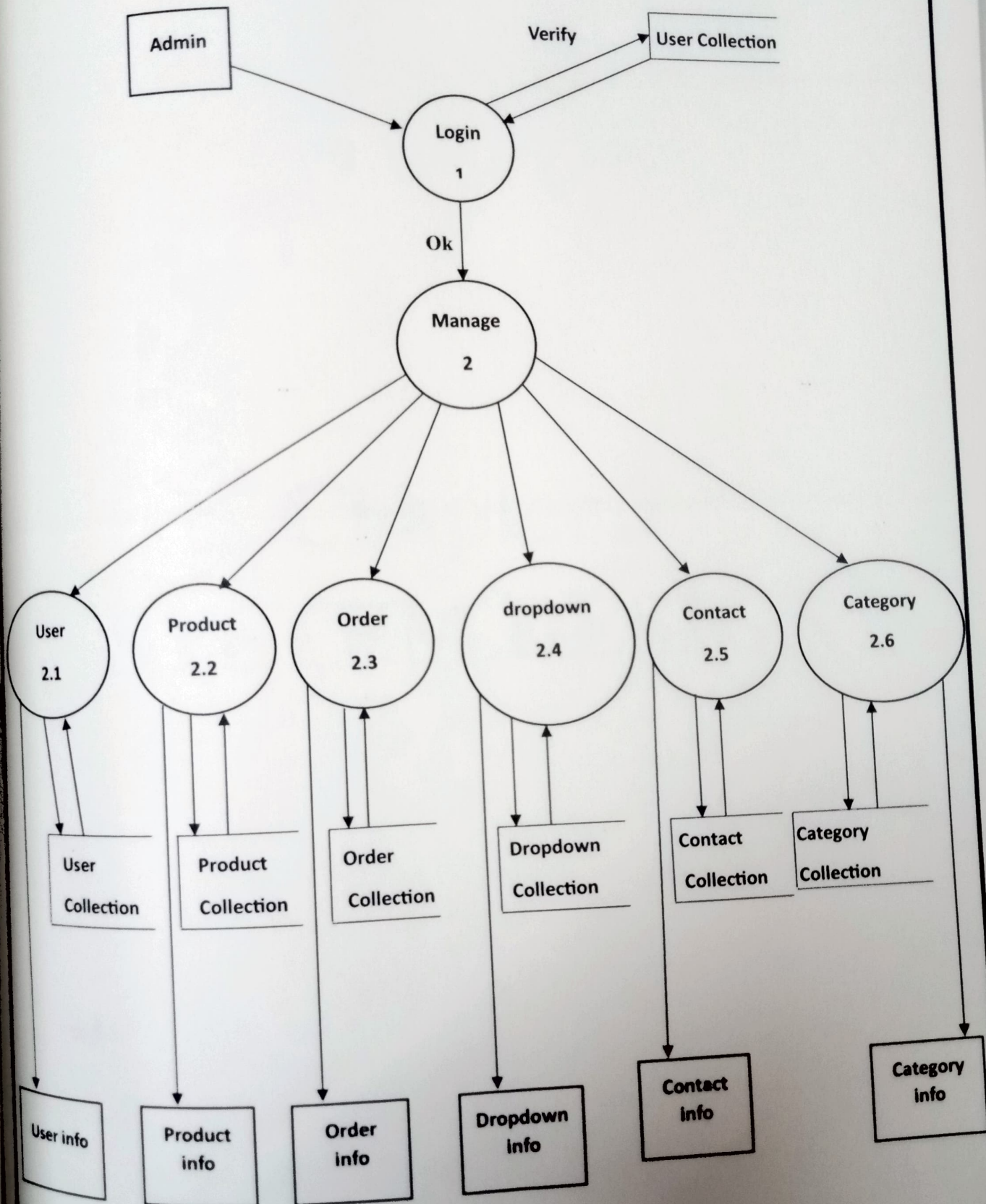
In assessing the behavioral feasibility of our refurbished laptops e-commerce website, the focus lies on how customers will utilize and trust the platform. The goal is to comprehend whether customers are comfortable purchasing refurbished laptops online and if they harbor concerns regarding product quality. Understanding how customers engage in online electronics shopping and the factors that influence their purchasing decisions is essential. Establishing trust is paramount; it is imperative for customers to have confidence in our product information and the quality of our laptops. Providing exceptional customer support is also crucial. Through the analysis of competitors, valuable insights can be gained from their experiences to enhance our website's user-friendliness and effectively meet customer needs.

2.3 Data Flow Diagram

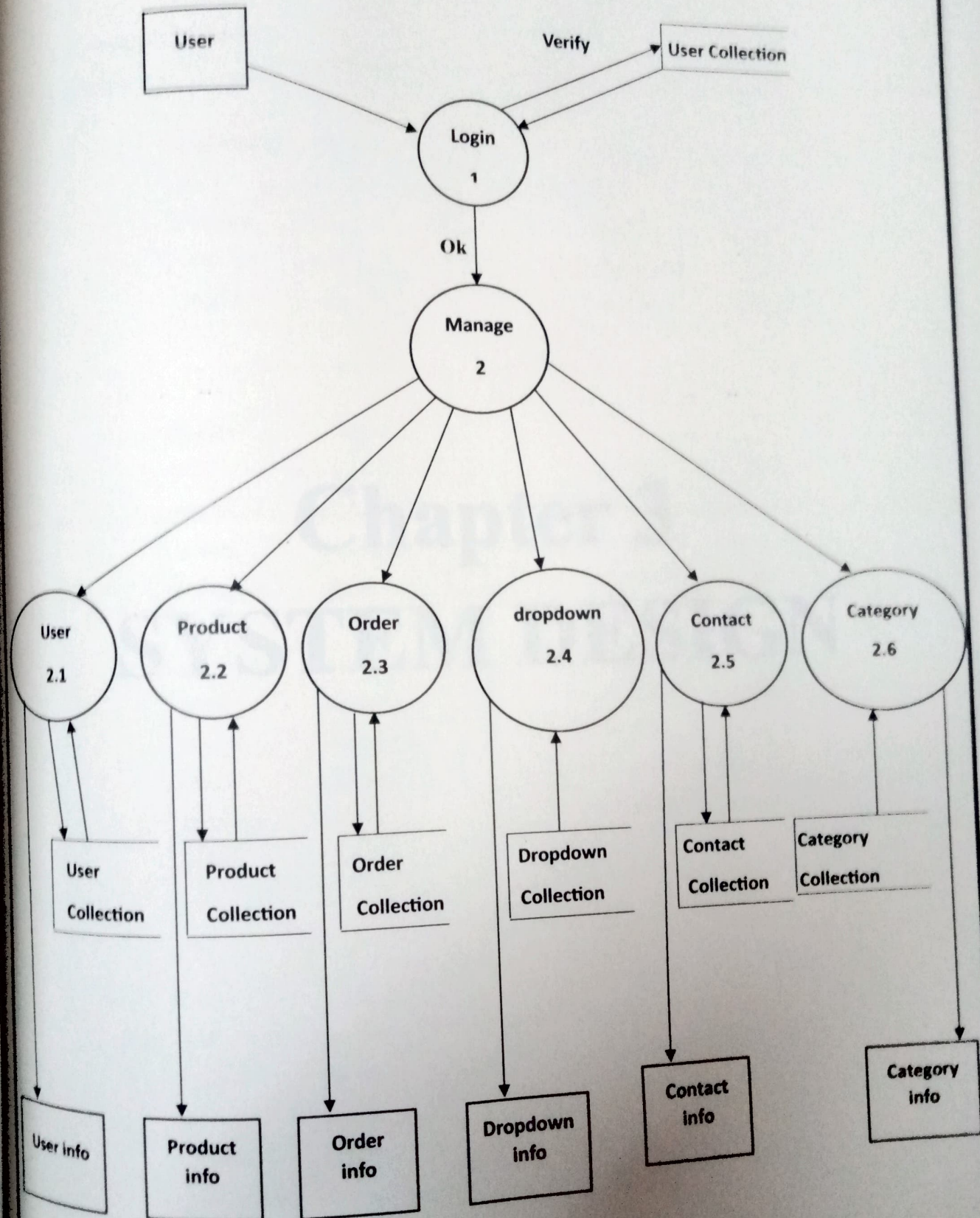
2.3.1 Level - 0 DFD



2.3.2 Level - 1 DFD - Admin



2.3.2 Level - 1 DFD - User



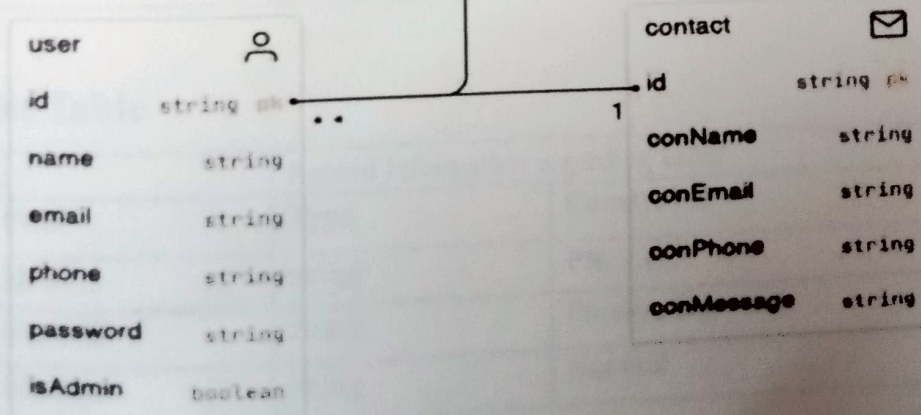
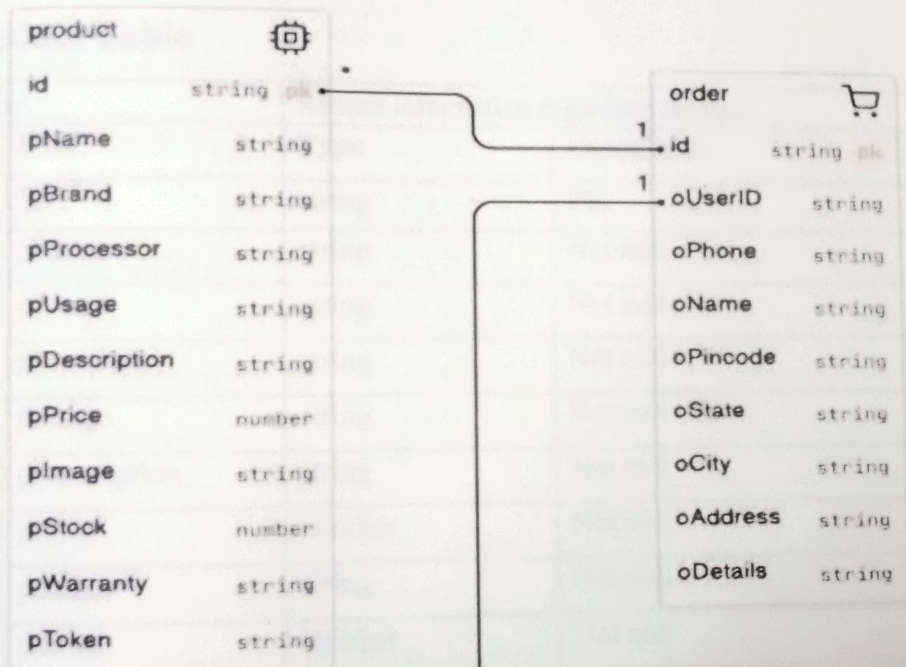
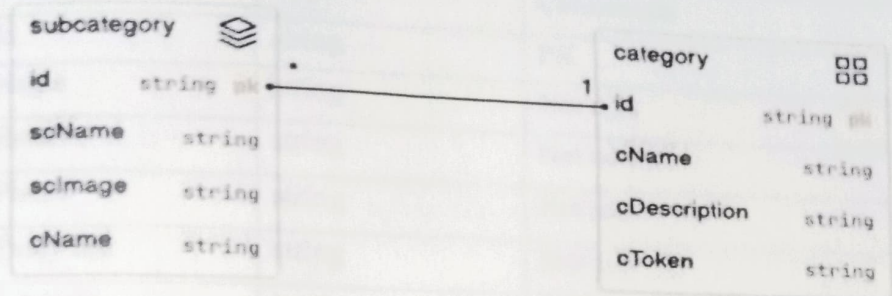
Chapter 3

SYSTEM DESIGN

Chapter 3: System Design

3.1 Database Design

Unified Modeling Language (UML)



3.2 Database Tables

3.2.1 User Table

Description:		Record information regarding User	
S. No.	Field	Type	Constraints
1	Id	string	PK
2	Name	string	Not null
3	Email	string	Not null
4	Phone	string	Not null
5	Password	string	Not null
6	isAdmin	boolean	Not null

3.2.2 Product Table

Description:		Record information regarding product	
S. No.	Field	Type	Constraints
1	<u>Id</u>	string	PK
2	pName	string	Not null
3	pBrand	string	Not null
4	pProcessor	string	Not null
5	pUsage	string	Not null
6	pDescription	string	Not null
7	pPrice	number	Not null
8	pImage	string	Not null
9	pStock	number	Not null
10	pWarranty	number	Not null
11	pToken	string	Not null

3.2.3 Order Table

Description:		Record information regarding order	
S. No.	Field	Type	Constraints
1	<u>Id</u>	string	PK
2	oUserID	string	Foreign Key
3	oPhone	string	Not null

4	oName	string	Not null
5	oPincode	string	Not null
6	oState	string	Not null
7	oCity	string	Not null
8	oAddress	string	Not null
9	oDetails	string	Not null

3.2.4 Contact Table

Description:		Record information regarding contact	
S.No.	Field	Type	Constraints
1	<u>Id</u>	string	PK
2	conName	string	Not null
3	conEmail	string	Not null
4	conPhone	number	Not null
5	conMessage	string	Not null

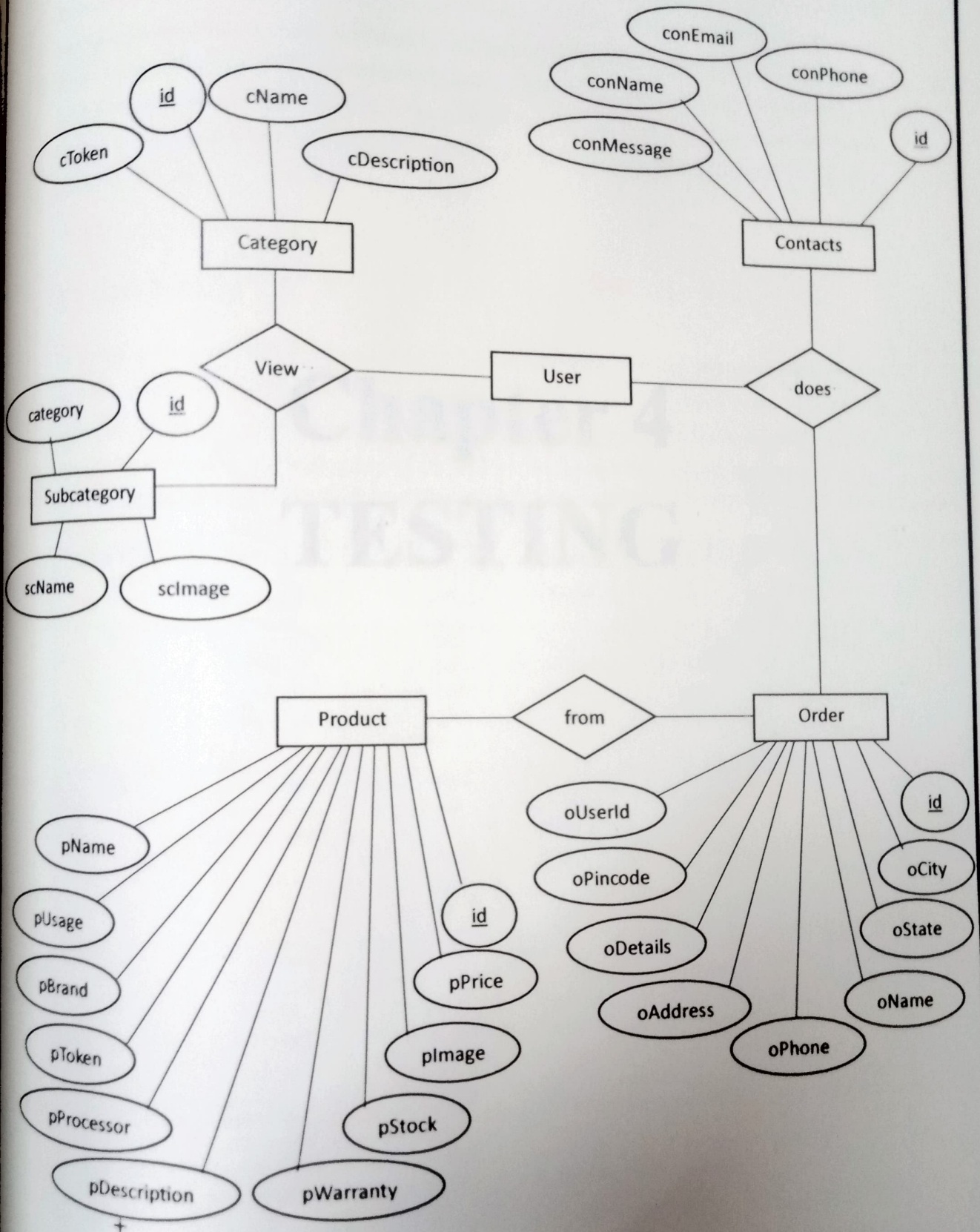
3.2.5 Category Table

Description:		Record information regarding category	
S.No.	Field	Type	Constraints
1	<u>Id</u>	string	PK
2	cName	string	Not null
3	cDescription	string	Not null
4	cToken	string	Not null

3.2.6 Subcategory Table

Description:		Record information regarding subcategory	
S.No.	Field	Type	Constraints
1	<u>Id</u>	string	PK
2	scName	string	Not null
3	scImage	string	Not null
4	cName	string	Not null

3.3 E-R Diagram



Chapter 4

TESTING

Chapter 4: Testing

Testing means checking to make sure everything works correctly. This includes testing if all the different parts of the project function as they should, making sure they work together well, checking how fast and efficient the project is, seeing if it's easy for people to use, ensuring it's secure from hackers, testing if it works on different devices and systems, and making sure any updates don't cause problems. Testing helps make sure the project is reliable and meets the needs of its users before it's fully finished and used. So here we are using three testing approaches to check that the development system met the specified requirement or not.

4.1 Unit Testing

Unit testing on a refurbish laptops ecommerce website involves checking each small part, such as buttons, forms, and calculations, to ensure they function correctly independently. This process resembles testing puzzle pieces to confirm they fit seamlessly together when constructing the entire website. By conducting unit testing, any issues can be identified early on, ensuring that each component operates effectively before integration into the complete system.

Test Case	Test Case Description	Action	Expected Result	Actual Result	Pass/Fail
C1	Test user login with valid email and password	Enter valid email and password and click login button	Login Successfully on user dashboard	Login Successfully on user dashboard	Pass
C2	Test login form with invalid email	Enter invalid email and valid password and click login button	Error message displayed: "Invalid Email"	Error message displayed: "Invalid Email"	Pass
C3	Test login form with invalid password	Enter valid email and invalid password and click login button	Error message displayed: "Invalid Password"	Error message displayed: "Invalid Password"	Pass
C4	Test admin login with valid email and password	Enter valid email and password and click login button	Login Successfully on admin dashboard	Login Successfully on admin dashboard	Pass

C5	Test login with empty form	Click on login button without entering	Error message displayed: "Empty Form"	Error message displayed: "Empty Form"	Pass
----	----------------------------	--	---------------------------------------	---------------------------------------	------

4.2 Integration Testing

Test Category	Scenario	Steps	Expected Outcome	Pass/Fail
User Registration and Authentication	Test user registration functionality.	<ol style="list-style-type: none"> 1. Input valid user details. 2. Submit registration form. 3. Verify successful registration message. 4. Log in using registered credentials. 	User is registered successfully and can log in using the registered credentials.	Pass
	Test authentication and authorization.	<ol style="list-style-type: none"> 1. Log in with valid credentials. 2. Verify access to user-specific pages (e.g., account dashboard). 3. Attempt to access restricted pages without authentication. 	<p>User can access user-specific pages after successful login.</p> <p>Access to restricted pages is denied without authentication.</p>	Pass
	Test product listing and search functionality.	<ol style="list-style-type: none"> 1. Navigate to product catalog. 2. Verify products are displayed correctly. 3. Search for products using keywords. 4. Verify relevant products are returned. 	<p>Products are displayed accurately.</p> <p>Search returns relevant products based on keywords.</p>	Pass
Product Catalog and Search	Test filtering and sorting.	<ol style="list-style-type: none"> 1. Apply various filters (e.g., by brand, price range). 2. Verify products are filtered correctly. 3. Sort products by different criteria (e.g., price, popularity). 	Products are filtered and sorted accurately based on applied criteria.	Pass
	Test adding products to the cart.	<ol style="list-style-type: none"> 1. Add products to the cart. 2. Verify cart displays correct products, quantities, and prices. 	Cart displays added products with accurate details (quantities, prices).	Pass
Adding to Cart and Checkout	Test checkout process.	<ol style="list-style-type: none"> 1. Proceed through checkout steps (entering shipping details, choosing payment method). 	Checkout process completes successfully.	Pass

Test Category	Scenario	Steps	Expected Outcome	Pass/Fail
User Profile and Order Management	Test user profile functionality.	2. Complete checkout process. 3. Verify order is processed and reflected in the database.	Order is processed and recorded in the database.	Pass
		1. Update user information (e.g., shipping address). 2. Verify changes are saved correctly. 3. View order history. 4. Verify accurate order information is displayed.	User information updates are saved correctly. Order history displays accurate information about past orders.	
Cross-Browser and Cross-Device Compatibility	Test website responsiveness.	1. Access the website using different browsers (Chrome, Firefox, Safari). 2. Access the website using different devices (desktop, tablet, mobile).	Consistent user experience and responsiveness across different browsers and devices.	Pass

4.3 Validation Testing

Validation testing for a refurbished laptops e-commerce website focuses on ensuring that all functionalities operate correctly. This includes verifying that users can easily sign up and log in. Additionally, we test how products are displayed on the website, ensuring that search functionality works effectively and products are sorted accurately. The checkout process and order management are tested to ensure smooth operation without any issues. Furthermore, we verify that the website functions consistently across various browsers and devices such as phones and tablets. The primary objective is to identify and resolve any issues before the website is launched, ensuring customers have a positive experience when shopping for refurbished laptops online.

Chapter 5

Implementation

Chapter 5: Implementation

Firstly, we need to install some IDE software for implementing our project which are as follows:

5.1 Visual Studio Code

- Go to the official Visual Studio Code website <https://code.visualstudio.com/Download/>
- Click on the "Download" button for the version of VS Code you want to install.
- Choose the components you want to install, such as languages, frameworks, and tools.
- Click on the "Install" button to start the installation process.
- Follow the installation wizard and select the options that suit your needs.

5.2 Node.js

Install Node.js:

- Download and install Node.js from the official website (<https://nodejs.org>).
- Node.js comes with npm (Node Package Manager) which you will use to install packages for your project.

5.3 MongoDB Atlas

Create a MongoDB Atlas Account:

- Go to the MongoDB Atlas website (<https://www.mongodb.com/cloud/atlas>) and sign up for an account.
- Follow the prompts to set up a new cluster (database) within MongoDB Atlas.

Create a Database and Collection:

- Once your cluster is set up, create a new database and define collections (similar to tables in relational databases) to store your application data.

5.4 Implementing REST APIs with Express.js

Define API Routes:

Create routes to handle CRUD operations (Create, Read, Update, Delete) for your application data.

5.5 Testing APIs with Postman

Install Postman:

- Download and install Postman from the official website (<https://www.postman.com/downloads/>).

Testing APIs:

- Launch Postman and create a new request.
- Enter the API endpoint URL (e.g., `http://localhost:5000/api/products`) and select the appropriate HTTP method (GET, POST, PUT, DELETE).
- Send the request and observe the response to test your Express.js APIs.

Chapter 6

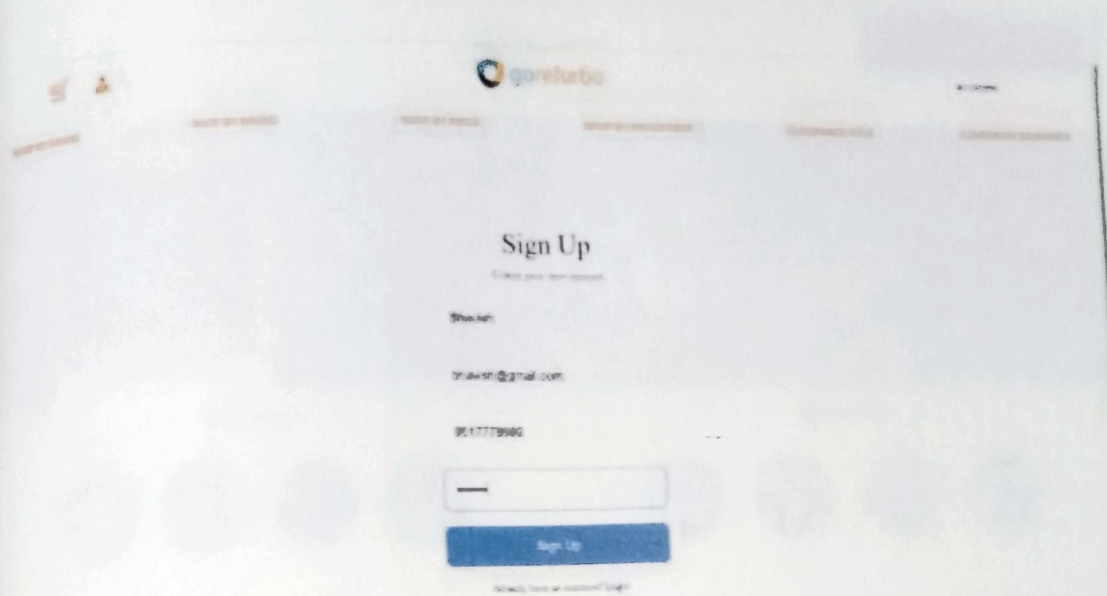
SAMPLE FORMS AND REPORT

Chapter 6

SAMPLE FORMS AND REPORT

Chapter 6: Sample Forms and Report

1. User Signup



The image shows a 'Sign Up' form for 'goreturbo'. The form is centered on a light blue background. At the top, there is a navigation bar with the 'goreturbo' logo and several menu items. Below the navigation bar, the title 'Sign Up' is displayed, followed by the subtitle 'Create your new account'. The form contains three input fields: a text field for 'Full Name' with the value 'Shawsh', an email field for 'Email' with the value 'shawsh@gmail.com', and a phone number field for 'Phone Number' with the value '9517779980'. Below these fields is a blue 'Sign Up' button. At the bottom of the form, there is a link that says 'Already have an account? Login'.

goreturbo

Sign Up

Create your new account

Full Name

shawsh

Email

shawsh@gmail.com

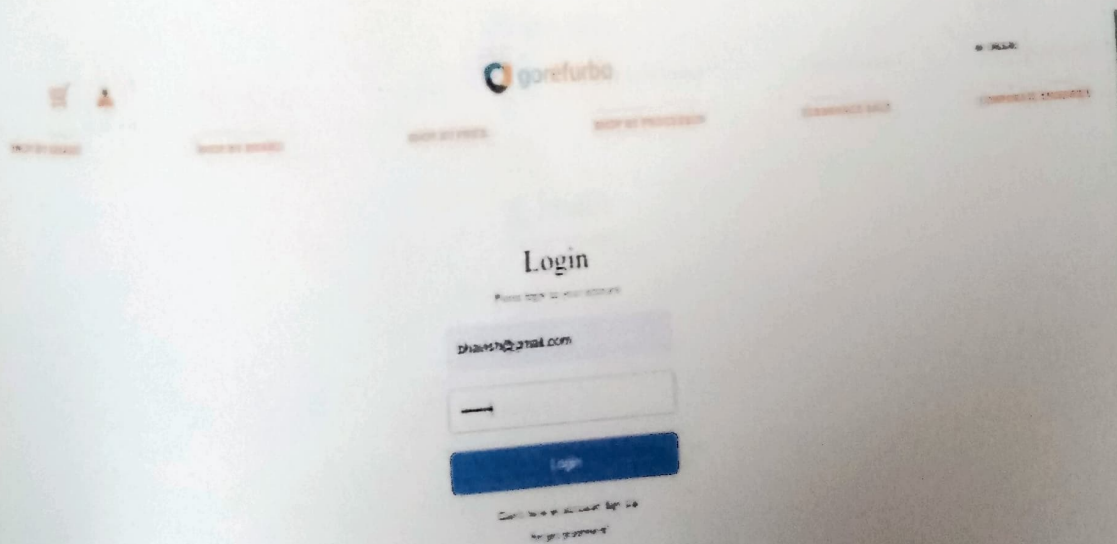
Phone Number

9517779980

Sign Up

Already have an account? Login

2. User Login



The image shows a 'Login' form for 'goreturbo'. The form is centered on a light blue background. At the top, there is a navigation bar with the 'goreturbo' logo and several menu items. Below the navigation bar, the title 'Login' is displayed, followed by the subtitle 'Please login to your account'. The form contains two input fields: an email field for 'Email' with the value 'shawsh@gmail.com' and a password field for 'Password' with a masked value '*****'. Below these fields is a blue 'Login' button. At the bottom of the form, there is a link that says 'Don't have an account? Sign Up'.

goreturbo

Login

Please login to your account

Email

shawsh@gmail.com

Password

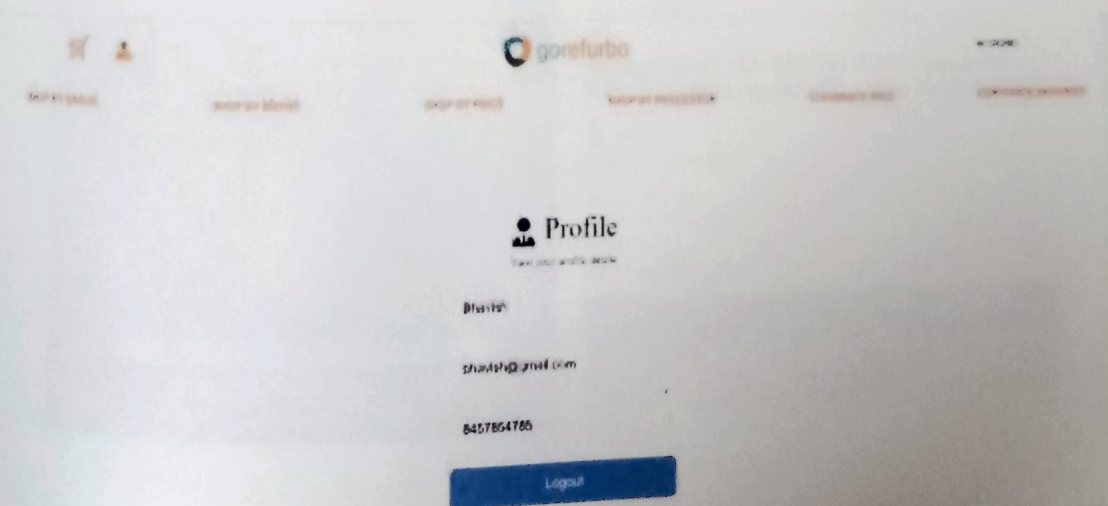
Login

Don't have an account? Sign Up

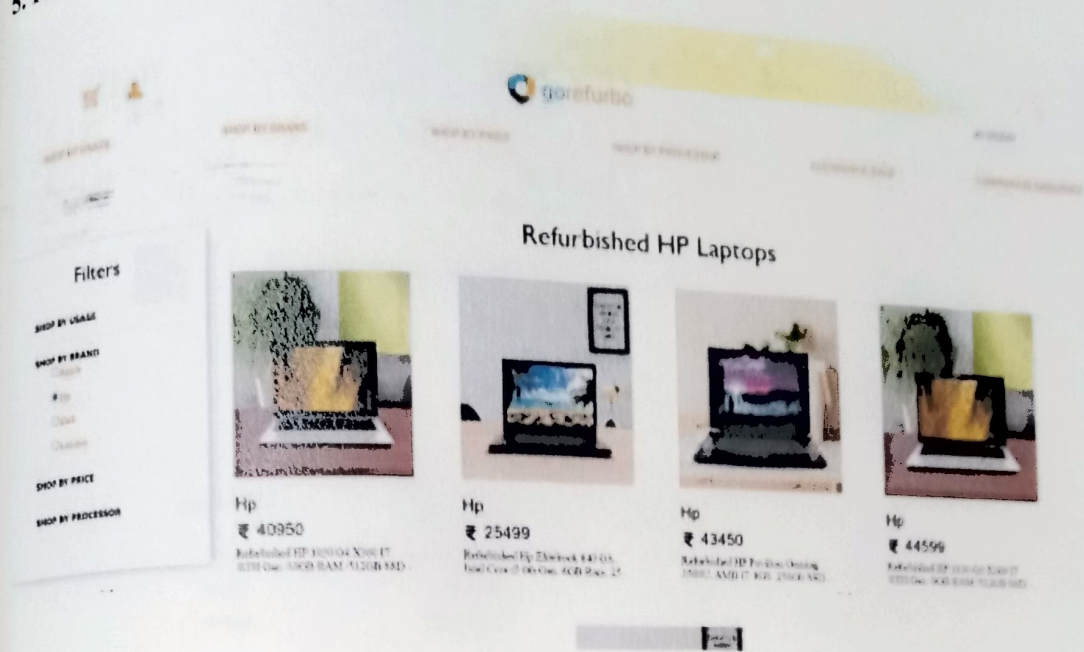
3. User Dashboard



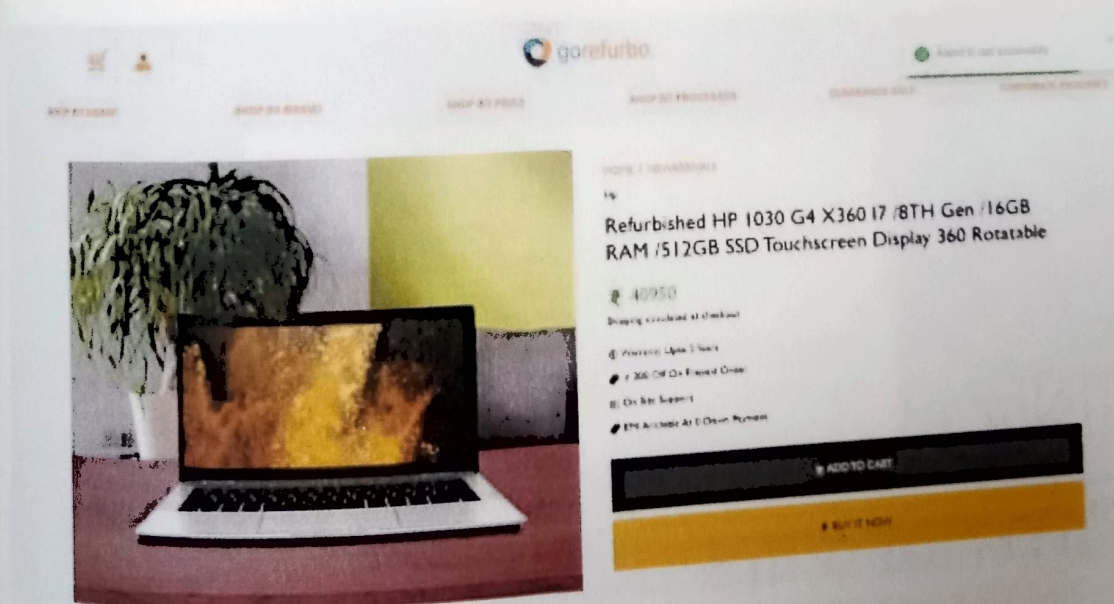
4. User Profile



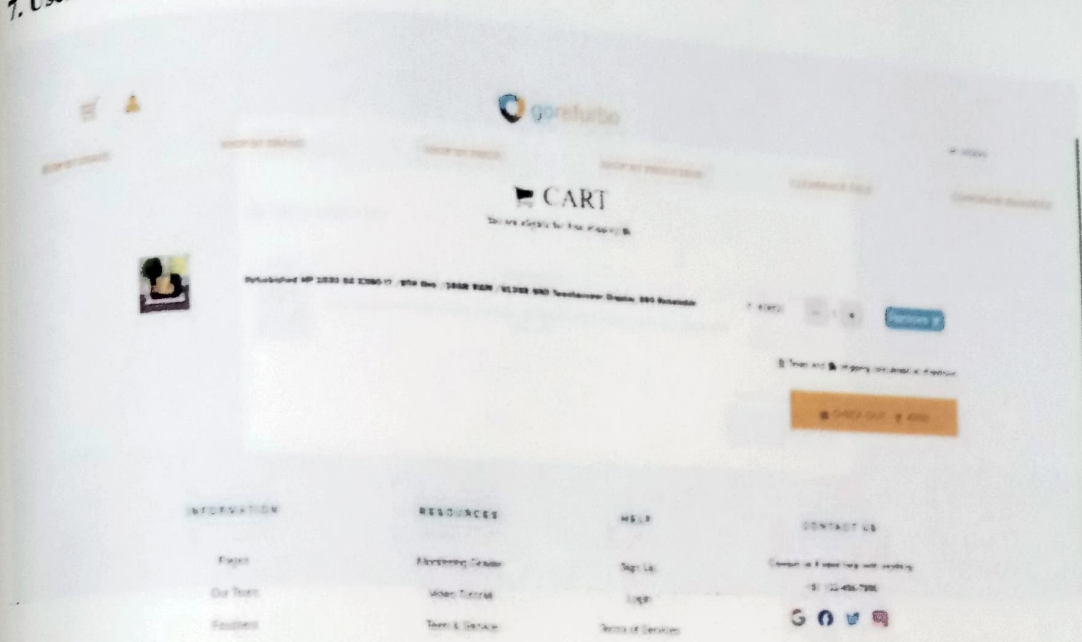
5. Filter Product



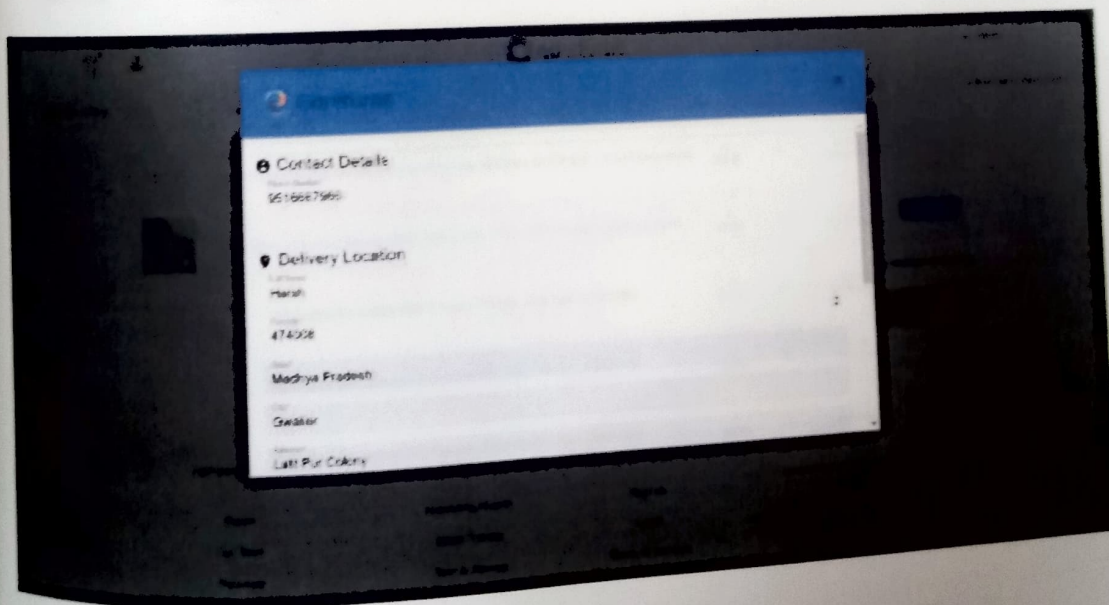
6. Product Description

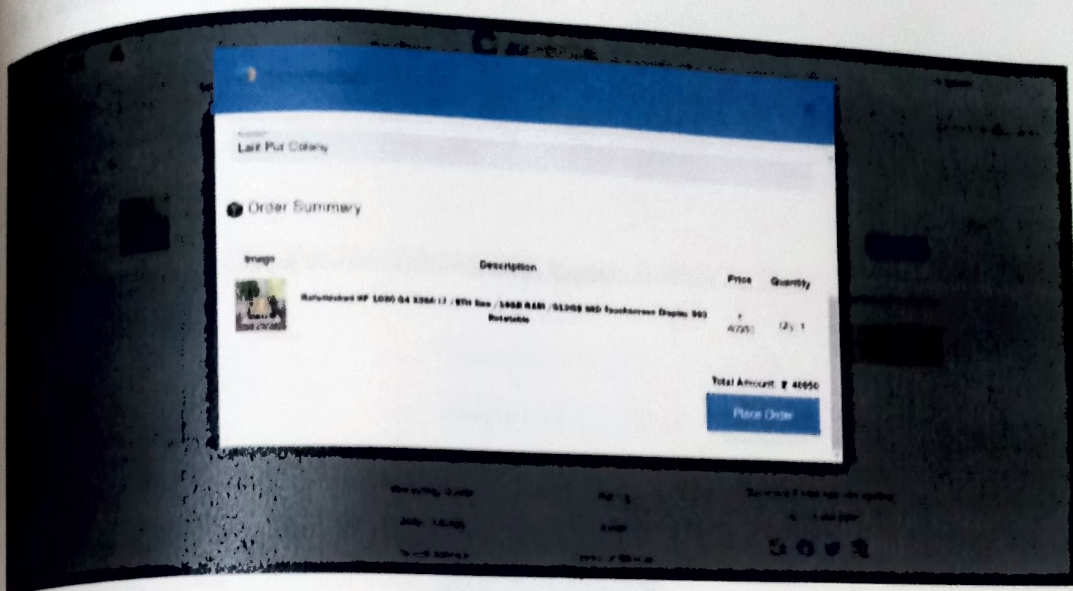


7. User Cart



8. Order Summary & Checkout





9. My Orders

DESKTOP LAPTOP SMARTPHONE TABLET TV

My Orders

Image	Description	Price	Quantity	Status	Action
	Refurbished HP EliteBook 840 G3, Intel Core i5 8th Gen, 8GB Ram, 256 GB SSD, 14 inch Touchscreen	\$2599	1	Order Confirmed	Cancel
	Refurbished HP Pavilion Gaming 15600, AMD i7, 16GB, 256GB SSD, 15.6" HDG, RGB Backlit Keyboard	\$13499	4	Order Confirmed	Cancel
	Refurbished Dell Latitude 5420 17 Laptop 11th Gen, 16GB Ram, 512GB SSD	\$3680	1	Order Confirmed	Cancel
	Refurbished Dell Latitude 5410 15 Laptop, 10th Gen, 8 GB Ram, 256GB SSD	\$6900	3	Order Confirmed	Cancel
	Refurbished Dell Latitude 5410 15 Laptop, 10th Gen, 8 GB Ram, 256GB SSD	\$6900	4	Canceled	Help
	Refurbished HP 1030 G4 1366 (7" 9TH Gen / 16GB RAM / 512GB SSD Touchscreen Display 90) Retestable	\$4050	1	Order Confirmed	Cancel

10. Customer Query

The screenshot shows the 'Get In Touch' contact form on the qorelabs website. The form is centered on the page and includes the following elements:

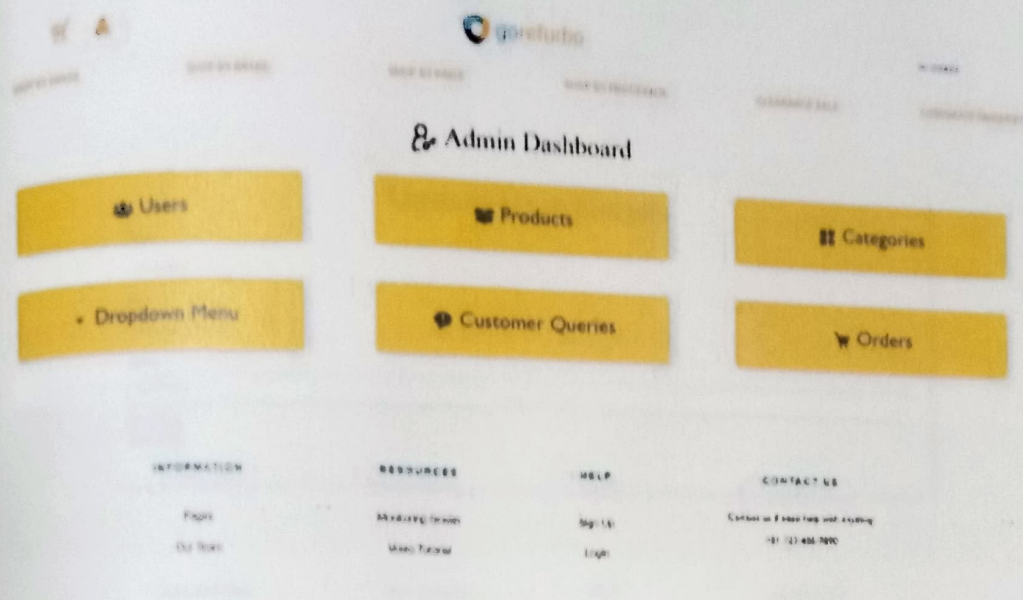
- Header:** The qorelabs logo is at the top center. Navigation links for 'Home', 'About Us', 'Services', 'Contact Us', and 'Privacy Policy' are visible at the top.
- Form Title:** 'Get In Touch' is displayed in a large, bold font.
- Form Fields:** Below the title, there are several input fields for 'Name', 'Email', 'Phone', and 'Message'. There is also a checkbox for 'I agree to the terms and conditions'.
- Submit Button:** A blue button labeled 'SEND MESSAGE' is located at the bottom of the form.

11. Admin Login

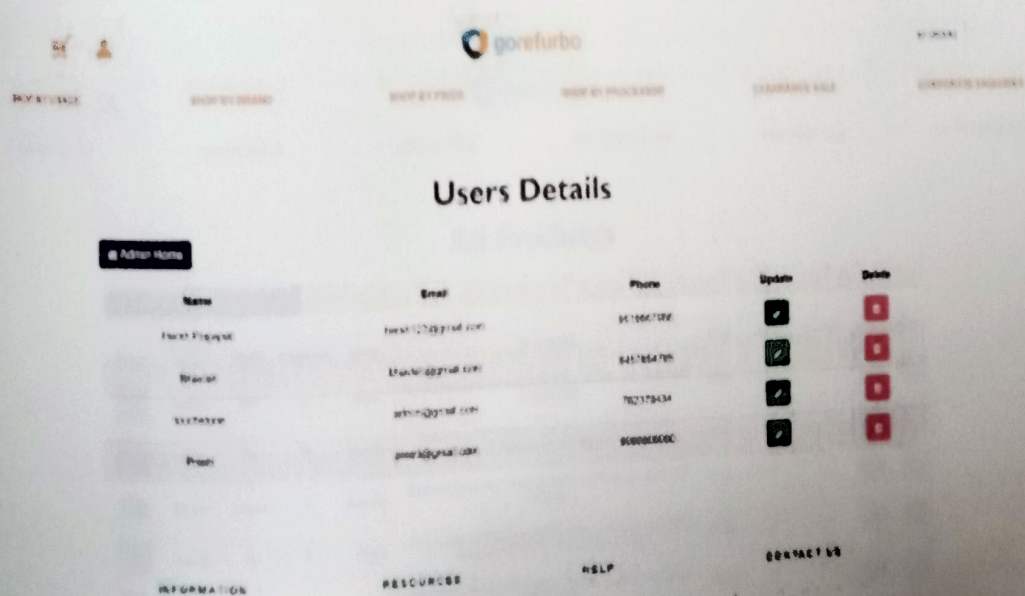
The screenshot shows the Admin Login form on the qorelabs website. The form is centered on the page and includes the following elements:

- Header:** The qorelabs logo is at the top center. Navigation links for 'Home', 'About Us', 'Services', 'Contact Us', and 'Privacy Policy' are visible at the top.
- Form Title:** 'Login' is displayed in a large, bold font.
- Form Fields:** Below the title, there are input fields for 'Email' and 'Password'. There is also a checkbox for 'Remember Me'.
- Submit Button:** A blue button labeled 'Login' is located at the bottom of the form.

12. Admin Dashboard



13. User Details



14. Update User Details

Update User Details

Name

Username

Email

Admin Approval

Phone

Load

15. Product Details

All Products

Admin Home Add Product

Image	Product Name	Brand	Processor	Usage	Description	Price	Stock	Warranty	Update	Delete
	Laptop	Lenovo	i7	Basic	Asus ZenBook 14 (14" FHD, 8GB RAM, 256GB SSD)	24,990	20	1		
	Laptop	HP	i7	Desktop	Refurbished HP 15 (15.6" FHD, 8GB RAM, 256GB SSD) Touchscreen Display, 2500 Resolution	4,990	20	1		
	Laptop	Lenovo	i5	Business	Refurbished Lenovo ThinkPad T480 Core i5, 8GB, 256GB SSD	25,190	10	1		
	Laptop	HP	i5	Basic	Refurbished HP 15 (15.6" FHD, 8GB RAM, 256GB SSD) Touchscreen Display, 2500 Resolution	25,490	17	1		
	Laptop	Lenovo	i5	Basic	Refurbished Lenovo ThinkPad T480 Core i5, 8GB, 256GB SSD	27,990	10	1		
	Laptop	Lenovo	i5	Basic	Refurbished Lenovo ThinkPad T480 Core i5, 8GB, 256GB SSD	28,490	10	1		

16. Add New Product

Add Product

Product Name

Laptop

Brand

Dell

Processor

i3

Usage

Basic

Description

This is very good product

Price

89999

Image

Choose File 16:16:16

Stock

100

Warranty

5

Submit

17. Update Product Details

Edit Product Details

1994

Student

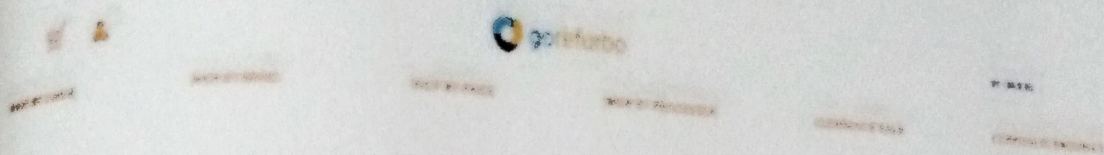
18. Category Details

The screenshot shows the 'All Categories' page in the Admin-Store application. The page features a table with the following columns: Category Name, Description, Update, and Delete. The table contains four rows of data:

Category Name	Description	Update	Delete
BOOK BY LANGUAGE	List your books according to their language		
BOOK BY AUTHOR	List your books according to the author		
BOOK BY PUBLISHER	List your books according to the publisher		
BOOK BY TOPIC	List your books according to the topic		

The top navigation bar includes the 'Admin-Store' logo and the 'All Categories' tab. The bottom of the page shows a 'Page 1 of 1' indicator and a 'Go' button.

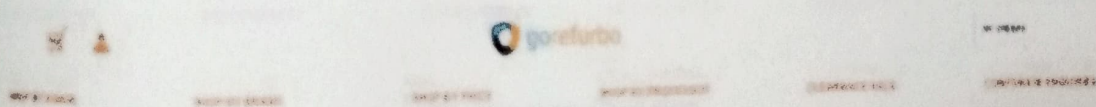
21. Subcategory Details



Dropdown Menu Details

Image	Name	Category	Status	Action
	Kami	SHEEP ST. CLOAK		
	B. J. J. J.	SHEEP ST. CLOAK		
	Apple	CHEF ST. CLOAK		
	MJ	SHEEP ST. CLOAK		
	(Order 123)	M&P ST. CLOAK		
	JJ	SHEEP ST. CLOAK		
	(Order 123)	M&P ST. CLOAK		

22. Add Subcategory



Dropdown Details

Name:
 Email:
 Phone:
 Address:
 City: State: Zip:
 Country:
 Submit

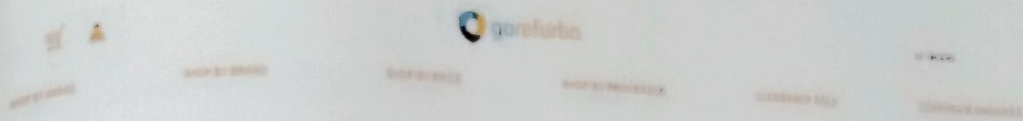
Edit Dropdown Details

24. Customer Query

Customer Queries

Customer Name	Email	Phone	Message	Action
Mr. John Doe	john.doe@gmail.com	9876543210	Product query & not paid	
Mr. Jane Doe	jane.doe@gmail.com	9876543210	Product query & not paid	

25. Orders Details



All Orders

Admin Panel

Image	Description	Price	Quantity	Status	Delivered	Review
	Refurbished HP EliteBook 840 G3, Intel Core i5, 8GB Ram, 256 GB SSD - 14 inch Touchscreen	₹ 25499	1	Order Confirmed		
	Refurbished Dell Latitude E7470 15 Laptop, Intel Core i7, 8GB RAM, 256GB SSD	₹ 22000	1	Delivered		
	Refurbished HP EliteBook 840 G3, Intel Core i5, 8GB Ram, 256 GB SSD - 14 inch Touchscreen	₹ 25499	1	Delivered		
	Refurbished HP Pavilion Gaming 3000G, AMD i7, RGB, 256GB SSD, 15.6 inch, 4GB Graphics Card	₹ 42400	1	Order Confirmed		

Chapter 7

CONCLUSION

Chapter 7

CONCLUSION

Chapter 7: Conclusion And Future Scope

Conclusion

In summary, purchasing refurbished laptops from this ecommerce platform offers several advantages. Firstly, it enables significant cost savings compared to purchasing brand new laptops, without compromising on performance or reliability. Secondly, opting for refurbished laptops contributes to reducing electronic waste by giving functional devices a second life instead of ending up in landfills. Thirdly, the platform offers a diverse selection of quality refurbished laptops that undergo thorough testing, cleaning, and restoration to meet high standards. Various brands and models are available to cater to different needs and budgets. Lastly, shopping on this platform is convenient with an easy online browsing experience, detailed descriptions, and specification comparisons to aid informed decision-making. The availability of a responsive customer support team further enhances the shopping experience. In essence, buying a refurbished laptop from this ecommerce platform is a financially savvy and environmentally conscious choice, aligning with sustainable practices. Start exploring the selection today to discover the ideal refurbished laptop for your requirements.

Future Scope

The future scope of a refurbished laptops e-commerce website is promising. Key areas for growth include expanding market reach globally, diversifying product offerings to include smartphones and tablets, and enhancing customer experience with features like live chat support and personalized recommendations. Emphasizing sustainability benefits can attract eco-conscious consumers, while partnerships with manufacturers improve credibility. Developing a mobile app for easy browsing and using data analytics for personalized marketing are essential. Continuous innovation and education about refurbished electronics will build customer trust and loyalty. Engaging in social responsibility initiatives further enhances reputation and impact. These strategic focuses will drive sustained growth and success in the academic sector.

Bibliography

S. No.	Website
1	https://www.w3schools.com/
2	https://www.javatpoint.com/
3	https://www.youtube.com/
4	https://www.google.com/
5	https://developer.mozilla.org/

PLAGIARISM REPORT

Similarity Report

PAPER NAME

Harsh Prajapati Project Report.pdf

AUTHOR

Harsh Prajapati

WORD COUNT

4085 Words

CHARACTER COUNT

20773 Characters

PAGE COUNT

33 Pages

FILE SIZE

991.3KB

SUBMISSION DATE

Apr 15, 2024 3:30 PM GMT+5:30

REPORT DATE

Apr 15, 2024 3:30 PM GMT+5:30

● 14% Overall Similarity

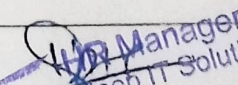
The combined total of all matches, including overlapping sources, for each database.


- 6% Internet database
- 1% Publications database
- Crossref database
- Crossref Posted Content database
- 11% Submitted Works database

● Excluded from Similarity Report

- Bibliographic material

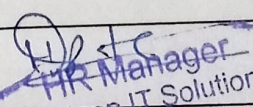
FORMATFORTNIGHTLY PROGRESS REPORT (FPR) FROM INDUSTRY MENTOR

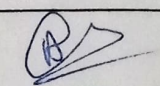
Name of student	Harsh Prajapati		Department	CSE	
Industry/Organization	TechieShubhdeep IT solutions PVT Ltd.		4 months	16/01/2024 -24/01/2024	
Criterion	Poor	Average	Good	Very Good	Excellent
Punctuality/Timely completion of assigned work			✓		
Learning capacity/Knowledge up gradation			✓		
Performance/Quality of work				✓	
Behaviour/Discipline/Team work			✓		
Sincerity/Hard work				✓	
Comment on nature of work done/Area/Topic	He is learning MERN Stack.				
<u>OVERALL GRADE (Any one)</u>	<u>POOR/AVERAGE/GOOD/VERY GOOD/EXCELLENT</u>				
<u>Name of Industry Mentor</u>	Mr. Himanshu Gupta				
<u>Signature of Industry Mentor</u>	 Himanshu Gupta Manager Techieshubhdeep IT Solutions Pvt. Ltd.				

Receiving Date	17/1/24	Name of Faculty Mentor	Dr. Anshu Chaturvedi	Sign	
----------------	---------	------------------------	----------------------	------	---

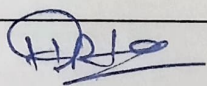
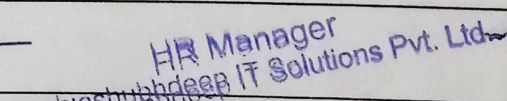
(2)

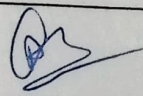
FORMAT**FORTNIGHTLY PROGRESS REPORT (FPR) FROM INDUSTRY MENTOR**

Name of student	HARSH PRAJAPATI		Department	CSE (Program: MCA)	
Industry/Organization	Techie Shubhdeep IT Solution Pvt Ltd		Date/Duration	25/01/2024-31/01/2024	
Criterion	Poor	Average	Good	Very Good	Excellent
Punctuality/Timely completion of assigned work			✓		
Learning capacity/Knowledge up gradation				✓	
Performance/Quality of work				✓	
Behaviour/Discipline/Team work				✓	
Sincerity/Hard work			✓		
Comment on nature of work done/Area/Topic	He is a good learner. now he is working on Ecommerce website.				
<u>OVERALL GRADE (Any one)</u>	<u>POOR/AVERAGE/GOOD/VERY GOOD/EXCELLENT</u>				
<u>Name of Industry Mentor</u>	Mr. Himanshu Gupta				
<u>Signature of Industry Mentor</u>	 HR Manager Techieshubhdeep IT Solutions Pvt. Ltd.				

Receiving Date	6/2/24	Name of Faculty Mentor	Dr. Anshu Chaturvedi	Sign	
----------------	--------	------------------------	----------------------	------	---

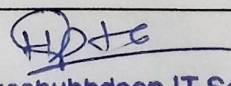
FORMATFORTNIGHTLY PROGRESS REPORT (FPR) FROM INDUSTRY MENTOR

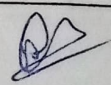
Name of student	HARSH PRAJAPATI		Department	CSE (Program: MCA)	
Industry/Organization	Techie Shubhdeep IT Solution Pvt Ltd		Date/Duration	01/02/2024/15/02/2024	
Criterion	Poor	Average	Good	Very Good	Excellent
Punctuality/Timely completion of assigned work				✓	
Learning capacity/Knowledge up gradation			✓		
Performance/Quality of work			✓		
Behaviour/Discipline/Team work				✓	
Sincerity/Hard work			✓		
Comment on nature of work done/Area/Topic	He created login, Signup page for user authentication with JWT				
<u>OVERALL GRADE (Any one)</u>	<u>POOR/AVERAGE/GOOD/VERY GOOD/EXCELLENT</u>				
<u>Name of Industry Mentor</u>	Mr. Himanshu Gupta				
<u>Signature of Industry Mentor</u>	 				

Receiving Date	20/2/24	Name of Faculty Mentor	Dr. Anshu Chaturvedi	Sign	
----------------	---------	------------------------	----------------------	------	---

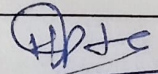
(4)


FORMATFORTNIGHTLY PROGRESS REPORT (FPR) FROM INDUSTRYMENTOR

Name of student	HARSH PRAJAPATI		Department	CSE (Program: MCA)	
Industry/Organization	Techie Shubhdeep IT Solution Pvt Ltd		Date/Duration	16/02/2024-29/02/2024	
Criterion	Poor	Average	Good	Very Good	Excellent
Punctuality/Timely completion of assigned work				✓	
Learning capacity/Knowledge up gradation				✓	
Performance/Quality of work					✓
Behaviour/Discipline/Team work				✓	
Sincerity/Hard work				✓	
Comment on nature of work done/Area/Topic	He is working on user Dashboard. like add to card / filter / checkout				
<u>OVERALL GRADE (Any one)</u>	<u>POOR/AVERAGE/GOOD/VERY GOOD/EXCELLENT</u>				
<u>Name of Industry Mentor</u>	Mr. Himanshu Gupta				
<u>Signature of Industry Mentor</u>	 techieshubhdeep IT Solutions Pvt. Ltd.				

Receiving Date	12/4/24	Name of Faculty Mentor	Dr. Anshu Chaturvedi	Sign	
----------------	---------	------------------------	----------------------	------	---

FORMAT**FORTNIGHTLY PROGRESS REPORT (FPR) FROM INDUSTRY MENTOR**

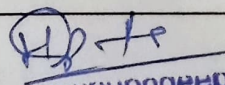
Name of student	HARSH PRAJAPATI		Department	CSE (Program: MCA)	
Industry/Organization	Techie Shubhdeep IT Solution Pvt Ltd		Date/Duration	01/03/2024 - 15/03/2024	
Criterion	Poor	Average	Good	Very Good	Excellent
Punctuality/Timely completion of assigned work				✓	
Learning capacity/Knowledge up gradation				✓	
Performance/Quality of work					✓
Behaviour/Discipline/Team work				✓	
Sincerity/Hard work				✓	
Comment on nature of work done/Area/Topic	He is working on Admin Dashboard. Product description User Profile				
<u>OVERALL GRADE (Any one)</u>	<u>POOR/AVERAGE/GOOD/VERY GOOD/EXCELLENT</u>				
<u>Name of Industry Mentor</u>	Mr. Himanshu Gupta				
<u>Signature of Industry Mentor</u>	 techieshubhdeep IT Solutions Pvt.Ltd.				

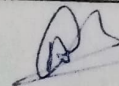
Receiving Date	12/4/24	Name of Faculty Mentor	Dr. Anshu Chaturvedi	Sign	
----------------	---------	------------------------	----------------------	------	---

(6)

FORMAT

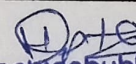
FORTNIGHTLY PROGRESS REPORT (FPR) FROM INDUSTRY MENTOR


Name of student	HARSH PRAJAPATI		Department	CSE (Program: MCA)	
Industry/Organization	Techie Shubhdeep IT Solution Pvt Ltd		Date/Duration	16/03/2024 - 31/03/2024	
Criterion	Poor	Average	Good	Very Good	Excellent
Punctuality/Timely completion of assigned work				✓	
Learning capacity/Knowledge up gradation				✓	
Performance/Quality of work					✓
Behaviour/Discipline/Team work					✓
Sincerity/Hard work					✓
Comment on nature of work done/Area/Topic	Now He is working finalize his e-commerce project.				
<u>OVERALL GRADE (Any one)</u>	<u>POOR/AVERAGE/GOOD/VERY GOOD/EXCELLENT</u>				
<u>Name of Industry Mentor</u>	Mr. Himanshu Gupta				
<u>Signature of Industry Mentor</u>	 TECHIESHUBHDEEPT I I SOLUTIONS PVT.LTD.				

Receiving Date	12/4/24	Name of Faculty Mentor	Dr. Anshu Chaturvedi	Sign	
----------------	---------	------------------------	----------------------	------	---

FORMAT

FORTNIGHTLY PROGRESS REPORT (FPR) FROM INDUSTRY
MENTOR

Name of student	HARSH PRAJAPATI		Department	CSE (Program: MCA)	
Industry/Organization	Techie Shubhdeep IT Solution Pvt Ltd		Date/Duration	01/04/2024 - 15/04/2024	
Criterion	Poor	Average	Good	Very Good	Excellent
Punctuality/Timely completion of assigned work					✓
Learning capacity/Knowledge up gradation				✓	
Performance/Quality of work					✓
Behaviour/Discipline/Team work					✓
Sincerity/Hard work					✓
Comment on nature of work done/Area/Topic	In this duration He is finalize his project in proper manner.				
<u>OVERALL GRADE (Any one)</u>	<u>POOR/AVERAGE/GOOD/VERY GOOD/EXCELLENT</u>				
<u>Name of Industry Mentor</u>	Mr. Himanshu Gupta				
<u>Signature of Industry Mentor</u>	 <u>Date</u> techieshubhdeep IT Solutions Pvt.Ltd.				

Receiving Date	23/4/24	Name of Faculty Mentor	Dr. Anshu Chaturvedi	Sign	
----------------	---------	------------------------	----------------------	------	---