ST.TERESA'S COLLEGE (AUTONOMOUS), ERNAKULAM

AFFILIATED TO MAHATMA GANDHI UNIVERSITY , KOTTAYAM.

PROJECT REPORT ON

CONSUMER COMPUTING

In partial fulfillment of the requirements for the award of the degree of

BVoc Software Development

Submitted By

JAYASUDIKSHA M

III BVoc Software Development

Register No : VB21SWD015

Under the guidance of

Ms.ELIZABETH PAUL

Assistant Professor

Department of Computer Applications

2021-24

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CERTIFICATE

ST. TERESA'S COLLEGE
(AUTONOMOUS)
ESTD 1925

This is to certify that the project report on "**Consumer Computing**" is a bonafide record of the work done by **JAYASUDIKSHA M(VB21SWD015)** during the year 2021-24 and submitted in partial fulfillment of the requirement for the degree of BVoc Software Development of Mahatma Gandhi University.

Submitted for the end semester exam held on 22/3/2024

Head of the Department

Teacher in charge

External Examiner

DECLARATION

I , **JAYASUDIKSHA M(Register no: VB21SWD015) , BVoc Software Development** final year student of St.Teresa's College(Autonomous), Ernakulam , hereby declare that the project submitted named **CONSUMER COMPUTING** for the Bachelor's of Vocational Degree in Software Development is my original work. I further declare that the said work has not previously been submitted to any other university or academic body.

jayasudiksha.

Place : Ernakulam **JAYASUDIKSHA M**

Date : 22/03/2024

ACKNOWLEDGEMENT

First and foremost , I would like to thank god almighty for the successful completion of my project. I express my sincere thanks to **Provincial Superior and Manager Rev Dr Sr Vinitha CSST , Director Rev Sr Emeline CSST and Principal Dr. Alphonsa Vijaya Joseph** of St.Teresa's College (Autonomous) for giving me an opportunity to undertake this project. I also extend my sincere gratitude to **Ms. Elizabeth Paul** , my project guide for her constant support which helped in the successful completion of my project.I'm grateful to all the faculties of Department of Computer Applications for their valuable help and guidance during each stage of my project. Last but not the least , I would like to thank my parents , friends and my sibling for motivating me and providing me the right environment for making this project work a great success.

JAYASUDIKSHA M

SYNOPSIS

Consumer Computing is a webpage which explores the complex relationship between buyer satisfaction and salesperosn promotions within the electronic gadgets industry , aiming to provide insights for businesses to enhance customer experiences , drive sales and build brand loyalty.

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1. INTRODUCTION

1.1 ABOUT THE PROJECT

Consumer Computing is a project which focuses on exploring the intricate relationship between buyer satisfaction and salesperson promotions within this dynamic market. By investigating this interplay, we aim to provide valuable insights for manufacturers and retailers to enhance customer experiences, drive sales, and foster brand loyalty.

1.2 OBJECTIVES OF THE PROJECT

This project seeks to achieve the following objectives:

-> Examine the Relationship between Salesperson Promotions and Buyer Satisfaction.

->Identify Key Factors Influencing Buyer Satisfaction.

->Assess the Role of Technology Knowledge in Salesperson Effectiveness.

->Examine the Impact of Buyer Satisfaction on Repurchase Intentions and Brand Loyalty.

2.SYSTEM ANALYSIS

2.1 INTRODUCTION

System Analysis is a detailed study of the various operations performed by the system and their relationship within the modules of the system. This phase involves the study of the parent system and identification of the system objectives . The main objective of this phase involves gathering of necessary information and using the structured tool for analysis. This includes designing the system. In this project,the requirements are studied in detail and information are collected and documented.

2.2 EXISTING SYSTEM

There’s another website online where you can purchase electronic gadgets , but with some differences. They specialize in selling refurbished or renewed gadgets. Unlike the previous websites, there’s no integrated login systen for both buyers and sellers in a single webpage.Unfortunately , there have been more complaints from customers , such as receiving non-branded items or gadgets with drained batteries. Additionally , some companies don’t even have a dedicated webpage for sellers.

2.3 PROPOSED SYSTEM

The website is designed to meet buyers needs by allowing them to purchase reliable gadgets directly from wholesalers. Retailers can also use the platform to facilitate transactions between wholesalers and buyers, managing delivery and service logistics. Sellers will receive salary boosts depending on their monthly performance evaluations.

2.4 JUSTIFICATION FOR THE PROPOSED SYSTEM

The justification for the outlined features on the webpage lies in their potential to streamline the buying process for consumers while also benefiting sellers and retailers. By enabling buyers to purchase directly from wholesalers, the platform eliminates middlemen, reducing costs and potentially offering lower prices to consumers. Additionally, having retailers serve as intermediaries for delivery and service ensures a seamless experience for buyers, while also creating opportunities for retailers to earn income. Finally, incentivizing sellers with salary hikes based on performance incentivizes them to provide excellent products and service, ultimately benefiting both buyers and the overall success of the platform.

2.5 BENEFITS OF THE PROPOSED SYSTEM

The platform offers numerous benefits for all parties involved. Buyers benefit from access to trusted gadgets directly from wholesalers, ensuring quality and reliability. Retailers can streamline their operations by acting as intermediaries, earning commissions while facilitating transactions and providing additional services. Sellers are incentivized to perform at their best, with the potential for salary increases based on their overall monthly performance. Overall, the platform creates a win-win situation, enhancing efficiency and satisfaction for buyers, retailers, and sellers alike.

2.6 SYSTEM SPECIFICATIONS

System specification specifies the hardware and software configuration of the new system. It helps to define the operational and performance guidelines for a system. Consumer Computing is a website developed in HTML, CSS and Javascript for updating , viewing and buying a electronic gadget.

2.7 OPERATING SYSTEM

Windows 8 is part of the series of operating systems developed by Microsoft. Like other versions of Windows, it features a graphical user interface with a desktop that enables users to interact with files and folders in windows. Microsoft launched Windows 8 on October 26 , 2012 as a response to the increasing demand for graphical user interfaces (GUIs). Initially released as an operating environment designed to run on top of MS-DOS, Windows 8 marked a significant evolution in the Windows ecosystem. Over the past two decades, Windows has remained one of the most widely used operating systems for personal computers (PCs), maintaining its status as a dominant force in the industry.

2.8 LANGUAGE OR S/W PACKAGE

HTML, CSS, and JavaScript are used to construct the webpage, utilizing Notepad for coding purposes. Notepad serves as a platform for writing code, while HTML, CSS, and JavaScript are employed respectively for structuring web content, styling elements, and adding interactivity and functionality to the webpage.

2.9 H/W & S/W SPECIFICATION

−> Front End : HTML, CSS, Javascript

−> Back End : Javascript

−> Operating System : Windows 8

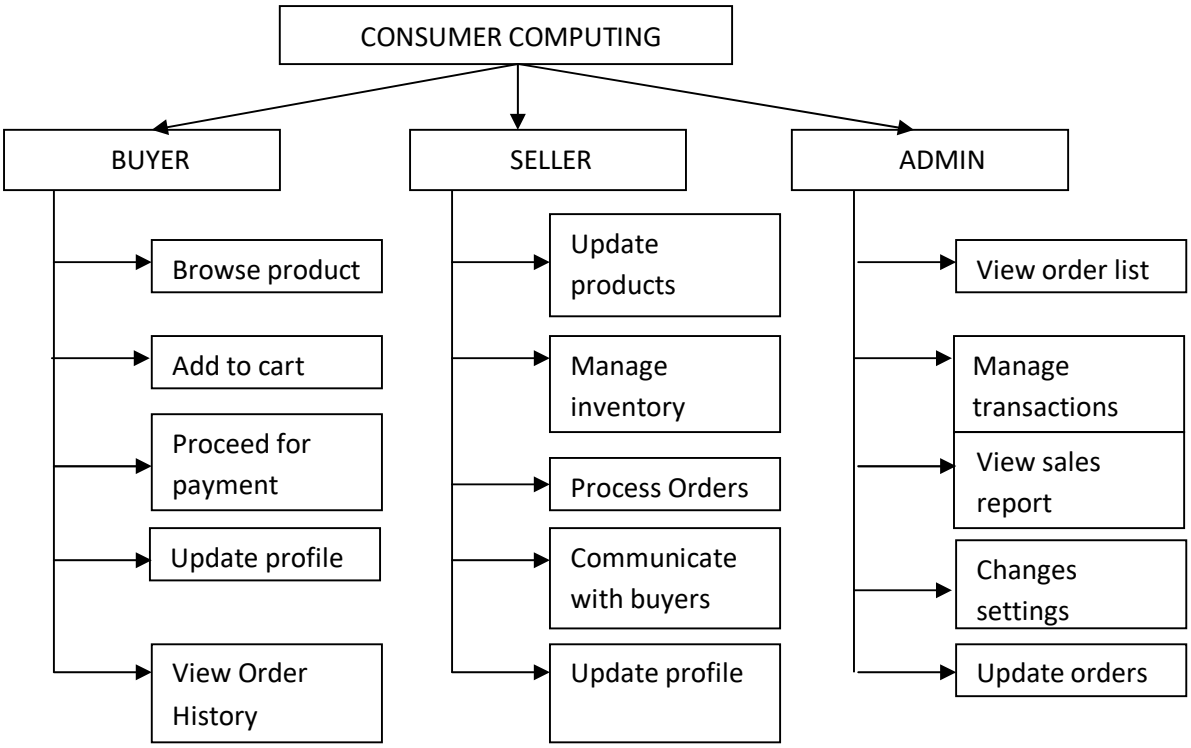
- > Browser: Google Chrome

3 SYSTEM DESIGN

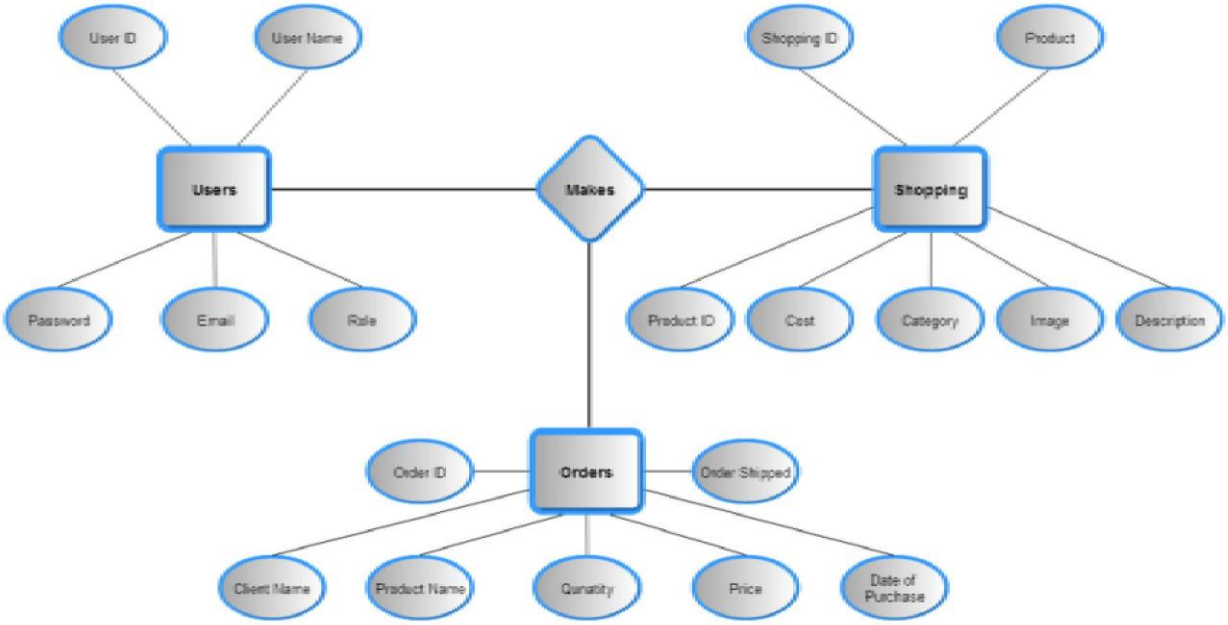
3.1 INTRODUCTION

System design is the process of defining the architecture, components, modules, interfaces, and data for a system to satisfy specified requirements. It involves analyzing and decomposing complex systems into smaller, more manageable parts, and then integrating them to create a cohesive solution. System design is crucial in ensuring that a system is reliable, scalable, maintainable, and meets the needs of its users.

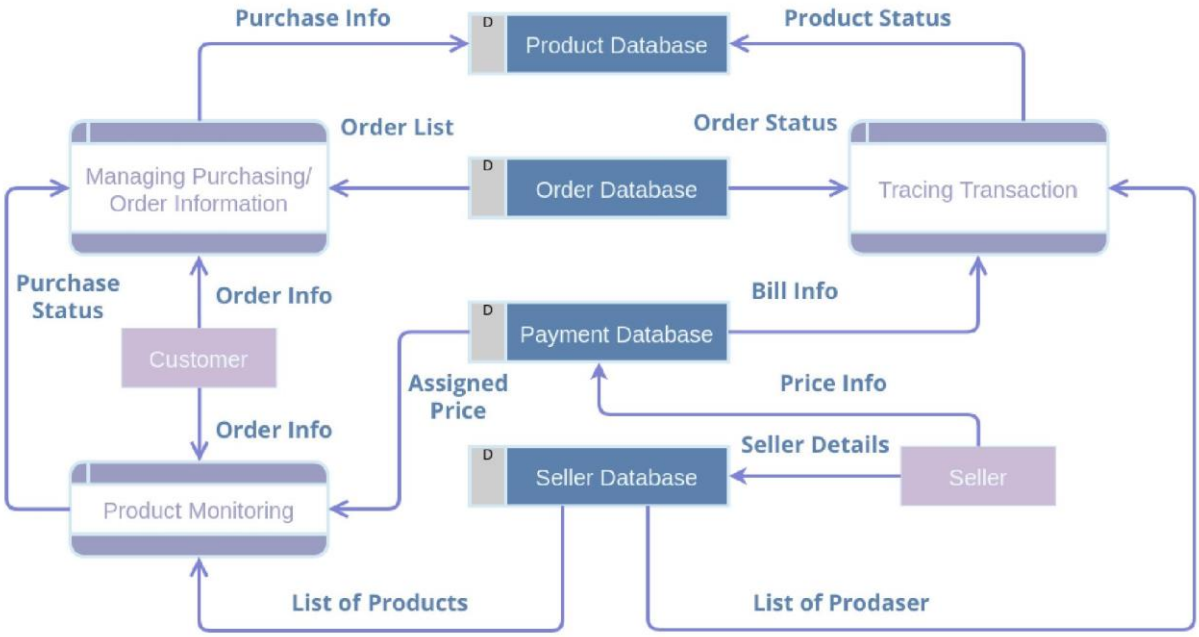
3.2 HIERARCHICAL CHART



3.3 E-R DIAGRAM



3.4 DATA FLOW DIAGRAM



3.5 DATA DICTIONARY

FIELD NAME	*DATA TYPE*	*FIELD LENGTH*	*CONSTRAINT*	*DESCRIPTION*
Username	Varchar	10	Not null	User's username used for login
Password	Varchar	15	Not Null	User's Password used for login(stored as hashed)
Name	Varchar	20	Not Null	Name of the Buyer/Seller/Product
User ID	Integer	10	Foreign Key	Identified by the user who placed the order

3.6 DATABASE DESIGN

-> Users table :

Field	*Data Type*	*Length*	*Constraint*	*Description*
UserID	INT	-	Primary Key	Unique Identification
Username	VARCHAR	50	Not Null	For Login
Password	VARCHAR	100	Not Null	For Login
Email	VARCHAR	100	Not Null	User mail id
Phone	VARCHAR	20	-	User phone number
Role	VARCHAR	10	Not Null	User role

4 SYSTEM DEVELOPMENT

4.1 INTRODUCTION

Systems development is the process of defining, designing, testing, and implementing a new software application or program. It could include the internal development of customized systems, the creation of database systems, or the acquisition of third party developed software.

4.2 PROCESS DESCRIPTION

User Authentication:

->Upon visiting the webpage, users are presented with a login/signup interface.

->Buyers, sellers, and admins can create accounts or log in using their credentials.

Buyer :

->Once logged in, buyers are directed to their dashboard.

->Buyers can browse through a catalog of electronic gadgets, view product details, and add items to their shopping cart.

->Buyers can proceed to checkout, where they can select payment methods and enter shipping details.

->After confirming the order, buyers receive a confirmation message and can track their orders from their dashboard.

Seller :

->Sellers, upon logging in, are directed to their dashboard.

->Sellers can add new electronic gadgets to the catalog, specifying details like product name, description, price, quantity, and category.

->Sellers can also update or remove existing listings and manage their inventory.

->Sellers receive notifications of new orders, which they can process by updating the order status and shipping details.

Admin :

->Admins have access to a dedicated admin panel upon logging in.

->Admins can manage user accounts, including approving new registrations and handling account-related issues.

->Admins can review and moderate product listings, ensuring compliance with platform policies.

->Admins have access to sales and performance reports, allowing them to analyze trends and make informed decisions.

->Admins can also handle customer support requests and resolve disputes between buyers and sellers.

Common Features:

->All users have access to a search functionality to find specific products.

->Users can view their order history, track shipments, and manage account settings.

->The webpage may also include features like product recommendations, wishlists, and ratings/reviews.

CODING

Selecting the role

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <title>Buyer or Seller Selection</title>
  <style>
    body {
      font-family: Arial, sans-serif;
      margin: 50px;
```

```
  background-color: #f2f2f2; /* Light background color */
}
h1 {
  text-align: center;
  color: #ffffff; /* White text color */
}
.selection {
  display: flex;
  justify-content: center;
  margin-top: 30px;
}
.btn {
  padding: 10px 20px;
  margin: 0 10px;
  font-size: 16px;
  cursor: pointer;
  border: none;
  outline: none;
  transition: all 0.3s ease;
}
.btn:hover {
  transform: scale(1.1); /* Button scale on hover */
}
#buyer {
```

```
    background-color: #FFFFED; /* Light yellow */
    border-radius: 50px; /* Circular button */
  }
  #seller {
    background-color: #99ff99; /* Light green */
    border-radius: 10px; /* Rounded corners */
  }
  #Admin{
    background-color: #cc99ff; /* Light purple */
    border-radius: 0%; /* Square */
  }
  #Click-to-view-permissions{
    background-color: #ffcc66; /* Light orange */
    border-radius: 25px; /* Rounded */
  }
body, html {
    height: 100%;
    margin: 0;
  }
  .video-container {
    position: fixed;
    top: 0;
    right: 0;
    bottom: 0;
```

```
      left: 0;
      overflow: hidden;
      z-index: -1;
    }
    video {
      min-width: 100%;
      min-height: 100%;
      width: auto;
      height: auto;
      position: absolute;
      top: 50%;
      left: 50%;
      transform: translate(-50%, -50%);
    }
    /* Additional styles for content */
    .content {
      text-align: center;
      padding: 50px;
      color: white;
    }
  </style>
</head>
<body>
<div>
```

```
  <h1>Select Your Role</h1>
  <div class="selection">
    <button class="btn" id="buyer"
onclick="redirectTo('Login.html')"><b>Buyer</b></button>
    <button class="btn" id="seller"
onclick="redirectTo('Loginseller.html')"><b>Seller</b></button>
    <button class="btn" id="Admin"
onclick="redirectTo('adminlogin.html')"><b>Admin</b></button>
    <button class="btn" id="Click-to-view-permissions"
onclick="redirectTo('adminpermission.html')"><b>Click to view
permissions</b></button>
  </div>
</div>
<div class="video-container">
  <video autoplay loop muted>
    <source src="Backgroundvideo.mp4" type="video/mp4">
    <!-- Include other video formats here if needed (WebM, Ogg, etc.) -->
    Your browser does not support the video tag.
  </video>
</div>
<script>
  function redirectTo(page) {
    window.location.href = page;
  }
</script>
</body>
```

```
</html>
```

Buyer Profile

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <title>Buyer Profile</title>
  <style>
    /* Add CSS styling here */
    body {
      font-family: Arial, sans-serif;
      background-color: #f4f4f4;
      margin: 0;
      padding: 20px;
      background-image: url('product1.jpg');
    }
    .profile {
      max-width: 600px;
      margin: 0 auto;
      background-color: #fff;
      padding: 20px;
      border-radius: 8px;
      box-shadow: 0 0 10px rgba(0, 0, 0, 0.1);
    }
```

```
    h1 {
      text-align: center;
    }
    .buyer-info {
      margin-bottom: 20px;
      position: relative;
    }
    .buyer-info label {
      font-weight: bold;
    }
    .tick {
      position: absolute;
      top: 0;
      right: -20px;
      color: green;
    }
  </style>
</head>
<body>

<div class="profile">
  <h1>Buyer Profile</h1>
  <div class="buyer-info">
    <label for="name">Name:</label>
```

```
    <span id="name">John Doe</span>
    <span class="tick">✓</span>
    <button onclick="updateField('name')">Update</button>
  </div>
  <div class="buyer-info">
    <label for="age">Age:</label>
    <span id="age">30</span>
    <span class="tick">✓</span>
    <button onclick="updateField('age')">Update</button>
  </div>
  <div class="buyer-info">
    <label for="location">Location:</label>
    <span id="location">New York</span>
    <span class="tick">✓</span>
    <button onclick="updateField('location')">Update</button>
  </div>
  <div class="buyer-info">
    <label for="interests">Interests:</label>
    <ul id="interests">
      <li>Sports</li>
      <li>Technology</li>
      <li>Travel</li>
    </ul>
    <span class="tick">✓</span>
```

```
    <button onclick="updateField('interests')">Update</button>
  </div>
  <div class="buyer-info">
    <label for="budget">Budget:</label>
    <span id="budget">$1000 - $1500</span>
    <span class="tick">✓</span>
    <button onclick="updateField('budget')">Update</button>
  </div>
</div>

<script>
  // Function to update field
  function updateField(field) {
    let newValue = prompt("Enter new value:");
    if (field === 'name' && !isNaN(newValue)) {
      alert("Invalid input for name. Please enter a valid name.");
      return;
    }
    document.getElementById(field).textContent = newValue;
    localStorage.setItem(field, newValue);
    updateTick(field);
  }

  // Function to update tick mark
```

```
  function updateTick(field) {
    let tickElement = document.querySelector(`#${field} + .tick`);
    tickElement.style.visibility = 'visible';
  }

  // Function to load data from localStorage
  function loadData() {
    let fields = ['name', 'age', 'location', 'budget'];
    fields.forEach(field => {
      let value = localStorage.getItem(field);
      if (value) {
        document.getElementById(field).textContent = value;
        updateTick(field);
      }
    });
  }

  // Load data when the page loads
  window.onload = loadData;
</script>

</body>
</html>
```

5 SYSTEM TESTING AND IMPLEMENTATION

5.1 INTRODUCTION

System testing is defined as testing of a complete and fully integrated software product. This testing falls in black box testing wherein knowledge of the inner design of the code is not a pre-requisite and is done by the testing team. System testing tests the design and behavior of the system and the expectations of the customer.

5.2 SYSTEM IMPLEMENTATION

The system implementation for the provided HTML code involves creating separate login pages for buyers, sellers, and admins, each tailored to the specific functionality and permissions associated with their respective roles. Upon selecting their role on the homepage, users are redirected to the corresponding login page using JavaScript. The login pages authenticate users based on their credentials and grant access to the appropriate features and functionalities of the electronic gadget online shopping system. For example, the buyer login page allows users to browse products, add items to their cart, and place orders, while the seller login page enables sellers to manage their product listings and fulfill orders. The admin login page provides access to administrative tasks such as user management, product moderation, and generating reports. Additionally, the system incorporates security measures such as password hashing and HTTPS encryption to protect user data and ensure a secure browsing experience. Overall, the system implementation seamlessly integrates user role selection with the respective functionalities of the electronic gadget online shopping platform, providing an intuitive and efficient user experience for buyers, sellers, and admins.

5.3 DEBUGGING

Debugging is the process of identifying and fixing errors or bugs in software code. It involves systematically investigating, diagnosing, and resolving issues that prevent a program from functioning correctly. Debugging is an essential part of the software development lifecycle, as it ensures that the final product meets the intended requirements and functions as expected.

5.3.1 BLACK BOX TESTING

Functional Testing:

->Verify that clicking the "Update" button prompts the user to enter a new value for the corresponding field.

->Test entering valid and invalid values for each field and ensure appropriate error handling and validation messages are displayed.

->Confirm that after entering a new value and clicking "OK," the updated value is displayed in the corresponding field.

User Interface Testing:

->Test the layout and styling of the profile page to ensure it is visually appealing and user-friendly.

->Verify that the profile elements (labels, input fields, buttons) are aligned correctly and have appropriate spacing.

->Check the visibility and positioning of the tick marks (✓) that indicate successful updates for each field.

Data Persistence Testing:

->Confirm that entered values are stored persistently in the local storage after updating each field.

->Test reloading the page and verify that the stored values are loaded and displayed correctly without loss of data.

->Ensure that clearing the local storage removes the stored values and resets the fields to their default state upon page reload.

Boundary Testing:

->Test entering boundary values for numeric fields like age and budget to ensure they are handled correctly.

->Verify that the application correctly handles edge cases, such as empty input or excessively long input strings.

5.3.2WHITE BOX TESTING

Unit Testing:

->Test each JavaScript function (updateField(), updateTick(), loadData()) individually to ensure they perform their intended tasks correctly.

->Verify that the updateField() function correctly handles different scenarios, such as validating input values and updating the DOM elements.

Code Coverage Testing:

->Use code coverage tools to analyze which parts of the JavaScript code are executed during testing.

->Aim to achieve high code coverage to ensure that all statements, branches, and functions are exercised during testing.

Error Handling Testing:

->Test error handling mechanisms to ensure that appropriate error messages are displayed when necessary.

->Verify that the code gracefully handles unexpected scenarios, such as invalid user input or errors during data retrieval from localStorage.

Performance Testing:

->Evaluate the performance of the JavaScript code, especially for operations that involve manipulating the DOM or accessing localStorage.

->Measure the execution time of critical functions and assess whether the code meets performance requirements.

Security Testing:

->Review the code for potential security vulnerabilities, such as cross-site scripting (XSS) or injection attacks.

->Ensure that sensitive data stored in localStorage is properly encrypted or sanitized to prevent unauthorized access.

Compatibility Testing:

->Test the code across different web browsers and environments to ensure compatibility and consistent behavior.

->Verify that the code works as expected on various devices and screen sizes.

5.4 SYSTEM SECURITY

System security is the control of access to a computer system's resources, especially its data and operating system. It includes restricting access to the application by unwanted users. In this application, the access to it is controlled by providing a login. Only the registered users can access the data. This facility is considered as a system security.

5.5 SCOPE FOR FUTURE ENHANCEMENT

The publication of the paper will align with cutting-edge research standards, while adjustments to CSS and connectivity are required. Collaboration with HP will be integral to the implementation of the webpage, and modifications to the dashboards for buyers, sellers, and admins are necessary.

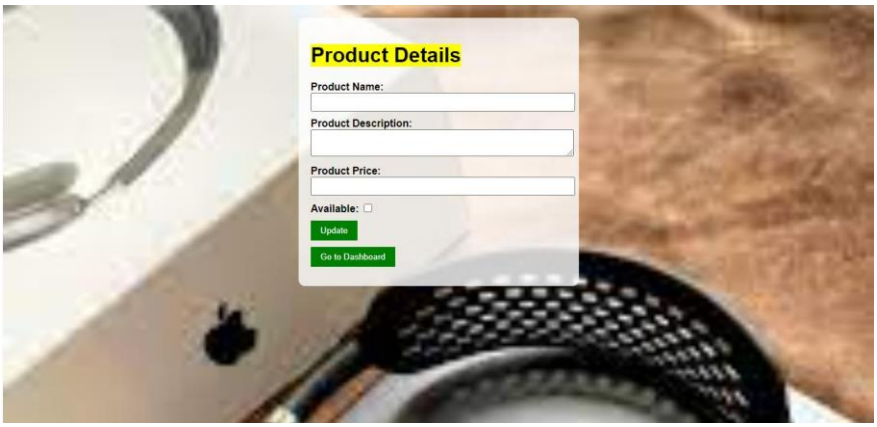
6 CONCLUSION

The publication of the paper will align with cutting-edge research standards, while adjustments to CSS and connectivity are required. Collaboration with HP will be integral to the implementation of the webpage, and modifications to the dashboards for buyers, sellers, and admins are necessary.

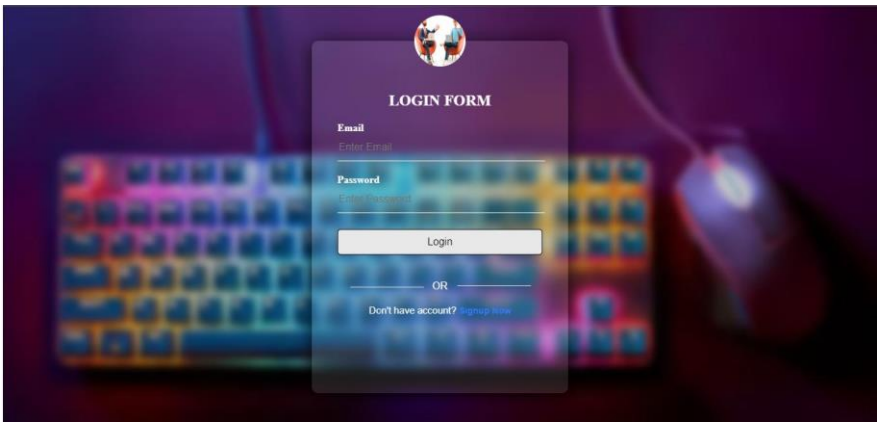
7 APPENDIX

7.1 SAMPLE INPUT SCREEN

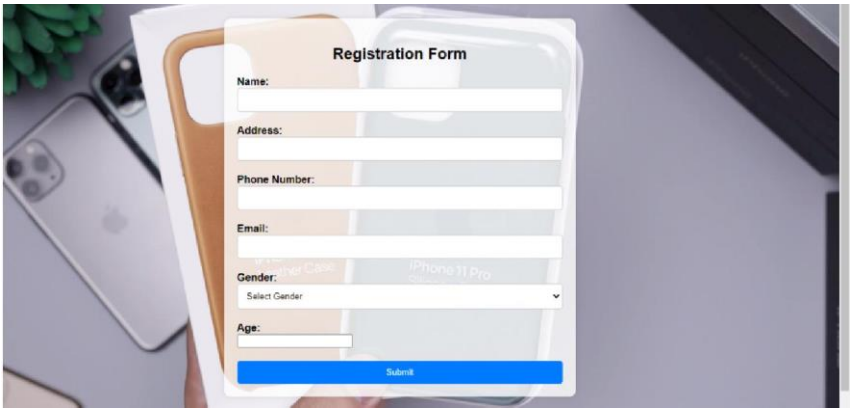
Product details :



Login (Admin) :

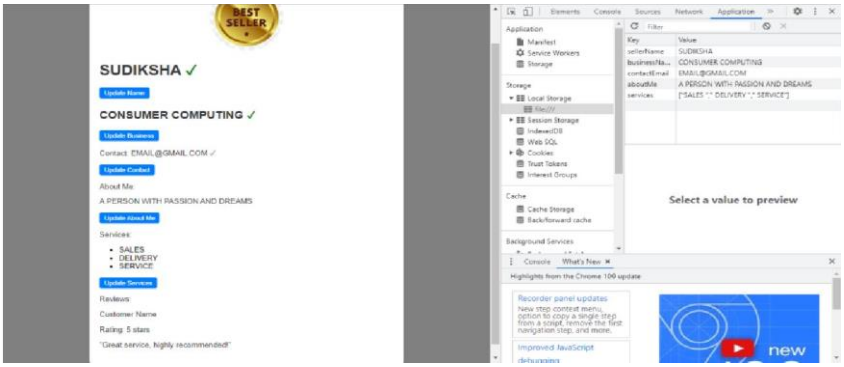


Registration form :

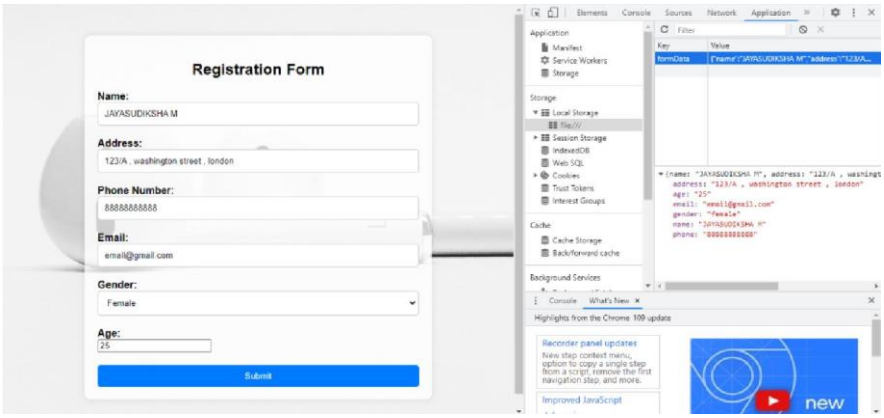


7.2 SAMPLE OUTPUT SCREEN

Seller bio :



Registration form :



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