Front-End UI/UX Mini Project

1. Title Page

- **Project Title 1: E-COMMERCE PRODUCT PAGE**
- **Project Title 2: CUSTOMER FEEDBACK FORM**

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- **Course: Ui/Ux Design Fundamentals**

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- **Instution: Lamrin Tech Skill University**
- **Date Of Submission: 5-1-2026**

PROJECT 1:

Abstract

This project focuses on the design and development of a responsive **E-commerce Product Page** using **HTML**, **CSS**, and **JavaScript**. The main objective is to present product information in an attractive and user-friendly manner while encouraging customers to make a purchase.

HTML is used to structure the content of the page, including product images, descriptions, prices, and action buttons. CSS is applied to enhance the visual appearance through layout design, colors, fonts, and responsiveness across different screen sizes. JavaScript is used to add interactivity, such as image switching, quantity selection, price updates, and dynamic user feedback.

The product page is designed to be simple, efficient, and visually appealing, simulating a real-world online shopping experience. This project helps in understanding the fundamentals of front-end web development and demonstrates how static and dynamic web technologies work together to build an effective e-commerce interface.

Objectives

- Design a simple and attractive e-commerce product page
- Display product details clearly
- Improve user interaction using JavaScript

- Learn basic front-end web development

Scope of the Project

- Front-end only (no backend or database)
- Single product page design
- No real payment or login system
- Focus on UI and user experience

HTML Tags Overview

- **<!DOCTYPE html> –** Declares the document type as HTML5
- **<html lang="en"> –** Root element of the webpage and sets the language to English
- **<head> –** Contains metadata, page title, and external resource links
- **<meta charset="UTF-8"> –** Ensures proper character encoding
- **<title> –** Defines the title shown in the browser tab
- **<link> –** Used to include Bootstrap CSS and custom CSS file
- **<body> –** Contains all visible content of the webpage
- **<nav> –** Creates the top navigation bar
- ** –** Centers and aligns page content
- **<a> –** Used for brand name and navigation links
- **<button> –** Used for navbar toggle and action buttons
- ** –** Creates a navigation menu list
- ** –** Represents individual navigation items
- **<section> –** Groups the hero/banner content
- ** –** Creates a Bootstrap grid row
- ** –** Divides the hero section into columns
- **<h2> –** Displays the main heading text
- **<img> –** Displays product and banner images
- **<h4> –** Displays the product section heading
- ** –** Defines each product column
- ** –** Displays products inside card components
- ** ** – Contains product details
- **<h6> –** Displays product names
- **<p> –** Displays product prices
- **<script> –** Links Bootstrap and custom JavaScript files

CSS Overview

- **body –** Sets the overall background color and default font for the webpage
- **background-color –** Applies a light background color to the page
- **font-family –** Defines the default font style for all text
- **.hero-section –** Styles the hero/banner section of the page
- **padding –** Adds vertical spacing inside the hero section
- **.product-card –** Targets individual product cards
- **transition –** Adds smooth animation effects to the product cards
- **.product-card:hover** – Applies styles when the user hovers over a product card
- **transform –** Moves the card slightly upward on hover
- **#mainphoto –** Sets a fixed height for the main hero image
- **#lastphoto –** Sets a fixed height for the last product image

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JavaScript Overview

- **function addToCart(button) –** Defines a function that runs when the "Add to Cart" button is clicked
- **button –** Refers to the button element that triggered the function
- **alert() –** Displays a popup message to confirm the product was added successfully
- **const product –** Creates an object to store product details
- **name –** Stores the product name using the button's data attribute
- **price –** Stores the product price using the button's data attribute
- **button.dataset.name** – Retrieves the product name from the HTML data attribute
- **button.dataset.price –** Retrieves the product price from the HTML data attribute
- **console.log() –** Prints messages and product data in the browser console
- **product –** Displays the complete product object in Inspect mode

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Tools and Technologies Used

- **HTML** – page structure
- **CSS** – layout, colors, and styling
- **JavaScript** – interactivity
- **VS Code** – code editor
- **Web Browser** – testing (Chrome/Edge)

HTML Structure Overview

- Header section for product title

- Image section for product display
- Product details (price, description)
- Quantity selector
- Buttons: Add to Cart, Buy Now

CSS Styling Strategy

- Use Flexbox for layout
- Apply consistent colors and fonts
- Add spacing and alignment
- Button hover effects
- Responsive design for mobile and desktop

Key Features

- Responsive product layout
- Interactive buttons
- Quantity selection
- Clean and modern design
- User-friendly interface

Challenges Faced & Solutions

Challenge	Solution

Page not responsive	Used Flexbox
Layout alignment issues	Proper margins and padding
Adding interactivity	JavaScript event handling

Outcome

- Successfully created a functional product page
- Improved understanding of HTML, CSS, and JS
- Enhanced UI/UX design skills
- Project ready for academic submission

Future Enhancements

- Add shopping cart functionality
- Backend integration
- Payment gateway
- User login and signup
- Product reviews and ratings

SOURCE CODE

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
```

```
  <title>product collection</title>

  <!-- Bootstrap CSS -->
  <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.3.2/dist/css/bootstrap.min.css"
rel="stylesheet">

  <!-- Custom CSS -->
  <link rel="stylesheet" href="style.css">
</head>
<body>

<!-- Top Navbar -->
<nav class="navbar navbar-expand-lg navbar-light bg-white shadow-sm">
  <div class="container">
    <a class="navbar-brand fw-bold text-success" href="#">PRODUCT PAGE</a>

    <button class="navbar-toggler" data-bs-toggle="collapse" data-bs-target="#navMenu">
      <span class="navbar-toggler-icon"></span>
    </button>

    <div class="collapse navbar-collapse" id="navMenu">
      <ul class="navbar-nav ms-auto">
        <li class="nav-item"><a class="nav-link" href="#">Categories</a></li>
        <li class="nav-item"><a class="nav-link" href="#">Deals</a></li>
        <li class="nav-item"><a class="nav-link" href="#">Delivery</a></li>
        <li class="nav-item"><a class="nav-link" href="#">Account</a></li>
      </ul>
</div>
  </div>
</nav>

<!-- Hero Section -->
<section class="hero-section">
  <div class="container">
    <div class="row align-items-center">
      <div class="col-md-6">
        <h2 class="fw-bold">Grab Upto 50% Off<br>On Selected Headphone</h2>
<button class="btn btn-success mt-3">Buy Now</button>
      </div>
      <div class="col-md-6 text-center">
        <img src="https://media.istockphoto.com/id/109190483/photo/red-
```

```
arrow.webp?a=1&b=1&s=612x612&w=0&k=20&c=Kv2g3kZLG1xysuySqIqSGuKWQ3rbNw49F
IBqBnAxEzc="            class="img-fluid rounded" alt="Headphone" id="mainphoto">
</div>
   </div>
  </div>
</section>

<!-- Product Section -->
<div class="container my-5">
  <h4 class="mb-3">Headphones For You!</h4>

  <div class="row g-4">

    <!-- Product 1 -->
    <div class="col-md-3">
      <div class="card product-card">
        <img src="https://plus.unsplash.com/premium_photo-1679513691474-
73102089c117?w=500"
            class="card-img-top" alt="AirPods Max">
        <div class="card-body text-center">
          <h6>AirPods Max</h6>
          <p class="text-success fw-bold">₹5,599</p>
          <button           class="btn btn-sm btn-
outline-success"
onclick="addToCart(this)"           data-
name="AirPods Max"           data-
price="5599">
            Add to Cart
          </button>
        </div>
      </div>
    </div>

    <!-- Product 2 -->
    <div class="col-md-3">
      <div class="card product-card">
        <img src="https://images.unsplash.com/photo-1567593179124-7835e19fe1e2?w=500"
class="card-img-top" alt="Bose BT">
        <div class="card-body text-center">
          <h6>Bose BT</h6>
          <p class="text-success fw-bold">₹2,899</p>
```

```
        <button            class="btn btn-sm btn-
outline-success"
onclick="addToCart(this)"            data-
name="Bose BT"            data-price="2899">
          Add to Cart
        </button>
      </div>
    </div>
  </div>

  <!-- Product 3 -->
  <div class="col-md-3">
    <div class="card product-card">
      <img src="https://media.istockphoto.com/id/1351254216/photo/headphones-notepad-
and-pen-on-the-
desk.webp?a=1&b=1&s=612x612&w=0&k=20&c=46JAfPk2jICwaqQ98SaLxuSaS5sSHWt3GjIlb
ombOY=" id="lastphoto">
      <div class="card-body text-center">
        <h6>Vivefox Headphones</h6>
        <p class="text-success fw-bold">₹3,999</p>
        <button            class="btn btn-sm btn-
outline-success"
onclick="addToCart(this)"            data-
name="Vivefox Headphones"            data-
price="3999">
          Add to Cart
        </button>
      </div>
    </div>
  </div>

 </div>
</div>

<!-- Bootstrap JS -->
<script
src="https://cdn.jsdelivr.net/npm/bootstrap@5.3.2/dist/js/bootstrap.bundle.min.js"></scrip
t>

<!-- Custom JS -->
<script src="script.js"></script>
</body> </html>
```

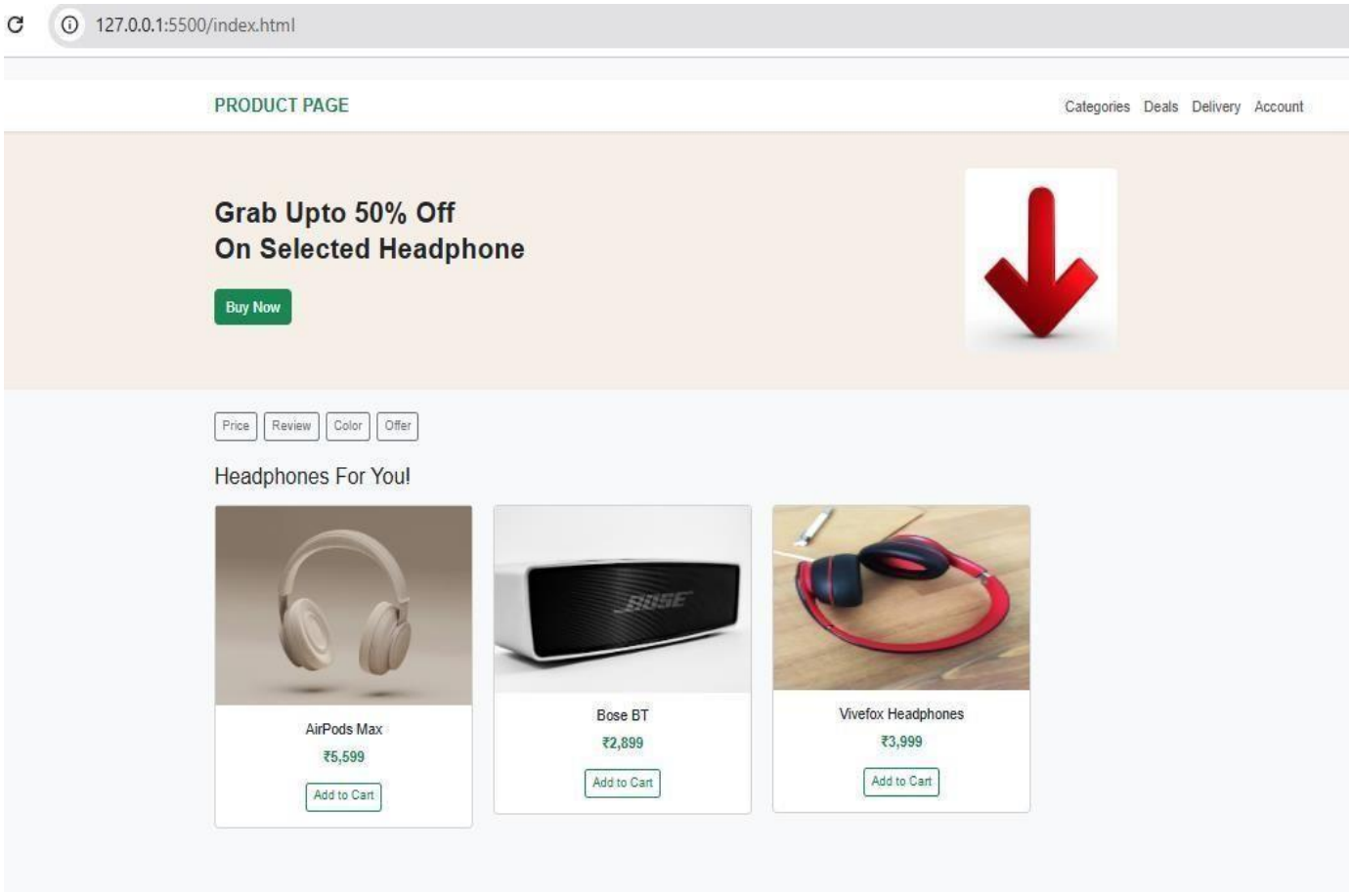
CSS CODE

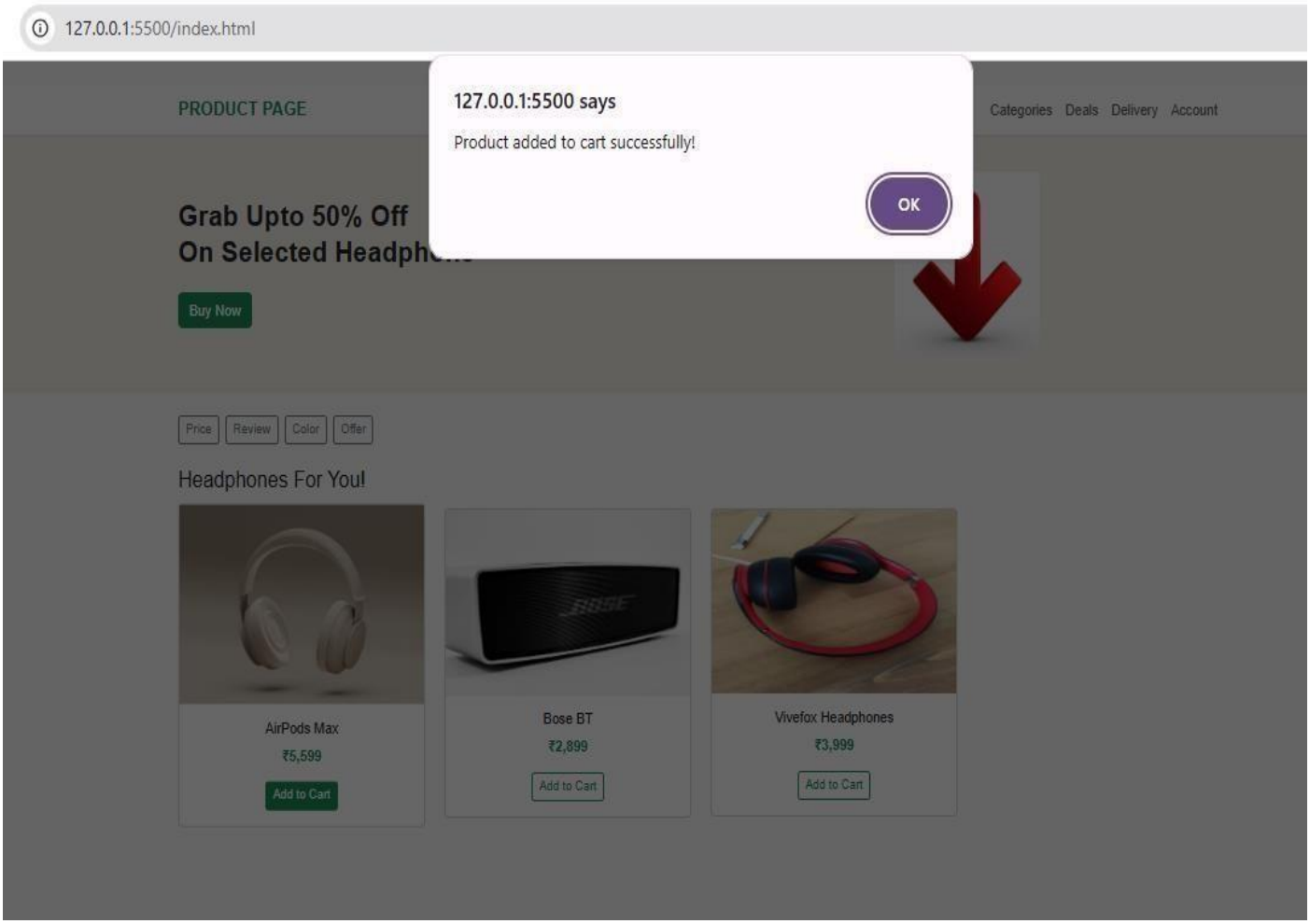
```
body {
   background-color: #f8f9fa;
 font-family: Arial, sans-serif;
 }

 .hero-section {    background-
 color: #f6efe8;
 padding: 40px 0;
 }

 .product-card {
   transition: transform 0.3s;
 }

 .product-card:hover {   transform:
 translateY(-5px); }
 #mainphoto{
 height: 200px;


 }
 #lastphoto{
     height: 200px;
 }
```

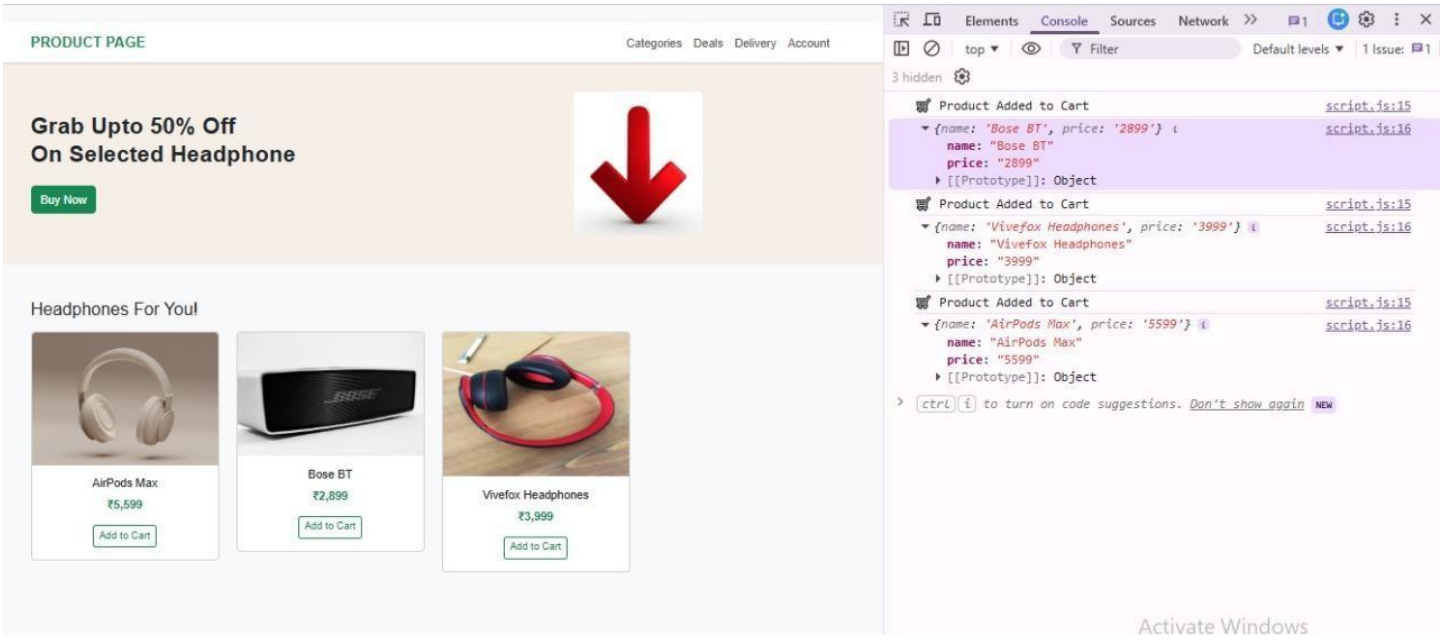
JAVA SCRIPT

```
function addToCart(button) {
alert("add successfully");    const
product = {        name:
button.dataset.name,
       price: button.dataset.price

    };

   console.log("🛒 Product Added to Cart");
console.log(product);
}
```

Screen-shorts of final output




127.0.0.1:5500/index.html
PRODUCT PAGE
Categories Deals Delivery Account
127.0.0.1:5500 says
Product added to cart successfully!
OK
Grab Upto 50% Off
On Selected Headph
Buy Now
Price Review Color Offer
Headphones For You!
AirPods Max
₹5,599
Add to Cart
Bose BT
₹2,899
Add to Cart
Vivefox Headphones
₹3,999
Add to Cart


PRODUCT PAGE
Categories Deals Delivery Account
Grab Upto 50% Off
On Selected Headphone
Buy Now
Headphones For You!
AirPods Max
₹5,599
Add to Cart
Bose BT
₹2,899
Add to Cart
Vivefox Headphones
₹3,999
Add to Cart
Elements Console Sources Network
top
Filter
Default levels
1 Issue: 1
3 hidden
Product Added to Cart script.js:15
{name: 'Bose BT', price: '2899'} script.js:16
name: "Bose BT"
price: "2899"
[[Prototype]]: Object
Product Added to Cart script.js:15
{name: 'Vivefox Headphones', price: '3999'} script.js:16
name: "Vivefox Headphones"
price: "3999"
[[Prototype]]: Object
Product Added to Cart script.js:15
{name: 'AirPods Max', price: '5599'} script.js:16
name: "AirPods Max"
price: "5599"
[[Prototype]]: Object
ctrl i to turn on code suggestions. Don't show again NEW
Activate Windows

Conclusion

In this project, I designed and developed an e-commerce product page using HTML, CSS, and JavaScript. The main goal was to display product details in a clear and attractive way while providing a smooth user experience. Features like product images, pricing, descriptions, and interactive elements help users understand the product easily and encourage them to make a purchase. This project improved my front-end development skills and gave me practical experience in building real-world web pages. Overall, the product page is responsive, user-friendly, and suitable for modern e-commerce websites

Reference

L&T LMS: https://learn.Intedutect.com/Landing/MyCourse

Project 2:

Abstract

This project focuses on the design and development of a responsive Customer Feedback Form using HTML, CSS, JavaScript, and Bootstrap. The main objective of the system is to collect customer opinions in a simple and effective manner to help organizations improve their products and services. The form includes a star-based rating system that allows users to easily rate their experience, along with a text area for providing detailed feedback. JavaScript is used to display the selected rating dynamically and to validate the form before submission, ensuring accurate and complete input. Bootstrap is applied to make the interface responsive and compatible with different devices such as desktops, tablets, and mobile phones. Overall, this project demonstrates the practical implementation of front-end web technologies to create a user-friendly and professional feedback collection system.

OBJECTIVES OF THE PROJECT

- To design and develop a user-friendly Customer Feedback Form using modern web technologies.
- To implement a star-based rating system that allows users to easily rate their experience.
- To provide a text-based feedback section for collecting detailed customer opinions and suggestions.
- To apply JavaScript for real-time rating display and form validation before submission.
- To ensure the feedback form is fully responsive across different devices using Bootstrap.
- To improve user interaction and overall usability through a clean and professional interface.

SCOPE OF THE PROJECT

- The project focuses on front-end development using HTML, CSS, JavaScript, and Bootstrap.
- It supports customer feedback collection through ratings and comments in a structured format.
- The system can be used by small businesses, educational institutions, and servicebased organizations.
- The design is scalable and can be extended to store feedback data using backend technologies.
- Future enhancements may include database integration, admin dashboards, and analytics for feedback analysis.
- The project serves as a foundation for learning responsive design and interactive web form development.

Tools/Technology Used

Category	Tool / Technology	Purpose / Description
Markup Language	HTML5	Used to create the structure and layout of the feedback form
Styling Language	CSS3	Used to design the user interface and improve visual appearance
Programming Language	JavaScript	Used for form validation, star rating interaction, and dynamic rating display
Front-End Framework	Bootstrap 5	Used to make the form responsive across different screen sizes
Code Editor	Visual Studio Code	Used for writing and managing project source code
Web Browser	Google Chrome	Used for testing and debugging the application
Operating System	Windows	Platform used for development and execution

HTML Tags Utilized

- **<!DOCTYPE html>** – Used at the top to declare the document as HTML5
- **<html lang="en">** – Defines the language of the webpage as English
- **<head>** – Contains metadata, title, and external resource links
- **<meta charset="UTF-8">** – Ensures proper display of all character types
- **<meta name="viewport">** – Enables responsive layout on all devices
- **<title>** – Sets the title of the webpage shown in the browser tab
- **<link>** – Used to include Bootstrap CSS and custom stylesheet
- **<body>** – Contains all visible content of the webpage
- ** ** – Centers the feedback form and maintains layout
- ** ** – Groups all feedback form elements
- **<h3>** – Displays the heading of the feedback form
- **<p>** – Provides a short description or instruction text
- **<form>** – Collects user feedback data
- **<label>** – Describes the purpose of each input field
- **<input type="text">** – Used to enter the user's name
- **<input type="email">** – Used to enter the user's email address
- **<input type="radio">** – Used for selecting star rating values
- ** ** – Displays the star-based rating system
- **<label>** ★ **</label>** – Represents individual star icons for rating
- **** – Displays the selected rating value dynamically
- **<textarea>** – Used to enter detailed feedback comments
- **<button>** – Submits the feedback form
- **<script>** – Links JavaScript for validation, rating logic, and form handling

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CSS Structure Overview

- **body** – Used to define overall background color and font style of the webpage
- **.feedback-card** – Used to style the feedback form container with padding and shadow
- **.container** – Used to align and center the form content properly
- **.rating-wrapper** – Used to align star rating and rating text in a single row
- **.star-rating** – Used to display star icons in horizontal alignment
- **.star-rating input** – Used to hide radio buttons from the user interface
- **.star-rating label** – Used to style star icons including size and color
- **.star-rating label:hover** – Used to highlight stars when the user hovers over them
- **.star-rating input:checked ~ label** – Used to highlight selected stars
- **.rating-text** – Used to style the selected rating display text
- **.btn** – Used to style the submit button
- **@media queries** – Used to make the design responsive on different screen sizes

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JavaScript Structure Overview

- **document.getElementById()** – Used to access form and input elements
- **document.querySelectorAll()** – Used to select all star rating radio buttons
- **addEventListener("change")** – Used to detect star rating selection
- **addEventListener("submit")** – Used to handle form submission

- **event.preventDefault() –** Used to prevent default form submission behavior
- **value –** Used to retrieve user-entered input values
- **checked –** Used to check which rating star is selected
- **textContent –** Used to display selected rating dynamically
- **alert() –** Used to show a popup message after successful submission
- **console.log() –** Used to display submitted feedback data in Inspect mode
- **form.reset() –** Used to clear all form fields after submission

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Key Features

Feature	Description
User-Friendly Interface	Simple and clean form layout that allows users to submit feedback easily
Star Rating System	Interactive star-based rating system for quick and intuitive feedback
Dynamic Rating Display	Displays the selected rating value (e.g., 4 / 5) in real time
Detailed Feedback Section	Text area provided for users to enter detailed comments or suggestions
Form Validation	Ensures all required fields are filled before form submission
Responsive Design	Fully responsive layout using Bootstrap for all screen sizes
Instant Submission	Popup message shown after successful feedback submission
Confirmation	User-entered data is logged in the browser console for
Console Data Logging verification	
Clean and Structured Code	Well-organized HTML, CSS, and JavaScript for easy understanding
Scalable Design	Can be extended with backend and database integration in the future

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Challenges Faced During the Project

Challenge	Description

Implementing Star Rating Logic	Ensuring that the correct number of stars are highlighted based on user selection was challenging due to CSS selector behavior
Alignment Issues with Flexbox	Using Flexbox caused unexpected shifting of stars, requiring careful control of HTML order and CSS properties
Form Validation	Validating all input fields, especially the rating selection, before form submission required additional JavaScript logic
Responsive Design	Adjusting the layout to work smoothly on mobile, tablet, and desktop screens needed proper use of Bootstrap classes
Debugging and Testing	Identifying errors and verifying form data using the browser inspect and console tools was time-consuming

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Project Outcomes

Outcome	Description
Working Feedback Form	Successfully developed a functional customer feedback form
Star Rating Feature	Users can select and view ratings easily
Responsive Design	Form adapts well to all screen sizes
Submission Confirmation	Popup message confirms successful submission
Console Data Display	User input data is visible in the browser console

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Future Enhancements

- **Backend Integration –** Store feedback data securely in a database using backend technologies like PHP, Node.js, or Firebase.
- **Admin Dashboard –** Create an admin panel to view, filter, and analyze customer feedback and ratings.
  - **Analytics & Reports –** Add charts and graphs to analyze customer satisfaction trends over time.

SOURCE CODE

```
<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="UTF-8">
<title>Customer Feedback Form</title>
<meta name="viewport" content="width=device-width, initial-scale=1">

<!-- Bootstrap CSS -->
<link href="https://cdn.jsdelivr.net/npm/bootstrap@5.3.2/dist/css/bootstrap.min.css"
rel="stylesheet">

<!-- Custom CSS -->
<link rel="stylesheet" href="form.css">
</head>
<body>

<div class="container d-flex justify-content-center align-items-center min-vh-100"> <div
class="feedback-card">

<h3 class="text-center mb-2">Customer Feedback</h3>
<p class="text-center text-muted mb-4">
We appreciate your time and valuable feedback.
</p>

<form id="feedbackForm">

<div class="mb-3">
<label class="form-label">Name</label>
<input type="text" id="name" class="form-control" required>
</div>

<div class="mb-3">
<label class="form-label">Email</label>
<input type="email" id="email" class="form-control" required>
```

```
</div>

<!-- Rating -->
<div class="mb-3">
<label class="form-label">Rating</label>

<div class="rating-wrapper">
<div class="star-rating">

<input type="radio" id="star5" name="rating" value="5">
<label for="star5">★</label>
<input type="radio" id="star4" name="rating" value="4">
<label for="star4">★</label>

<input type="radio" id="star3" name="rating" value="3">
<label for="star3">★</label>

<input type="radio" id="star2" name="rating" value="2">
<label for="star2">★</label>

<input type="radio" id="star1" name="rating" value="1">
<label for="star1">★</label>

</div>
</div>

<span id="ratingValue">Rating: 0 / 5</span>
</div>

<div class="mb-4">
<label class="form-label">Comments</label>
<textarea id="comments" class="form-control" rows="4" required></textarea>
</div>

<button type="submit" class="btn btn-primary w-100"> Submit Feedback
</button>   </form>

</form>
</div>
</div>

<script src="form.js"></script>

</body>
```

```
</html>
```

CSS CODE

```
body {
background-color: #f5f7fa;  font-family:
"Segoe UI", Tahoma, sans-serif;
}

.feedback-card { background: #ffffff;
padding: 30px; max-width: 420px;  width:
100%;  border-radius: 8px;  box-shadow: 0
10px 25px rgba(0, 0, 0, 0.1);
}

/*  Rating  layout  */   .rating-
wrapper { display: flex; align-
items: center;  gap:
12px;
}

/* Stars aligned left */  .star-rating
{         display: flex;
flex-direction: row-reverse;

}
.star-rating input {   display:
none;
}

.star-rating label { font-size: 28px;
color: #dcdcdc;   cursor: pointer;
transition: color 0.2s ease;
}

.star-rating input:checked ~ label,  .star-rating
label:hover, .star-rating label:hover ~ label {
color:
#ffc107;
}
```

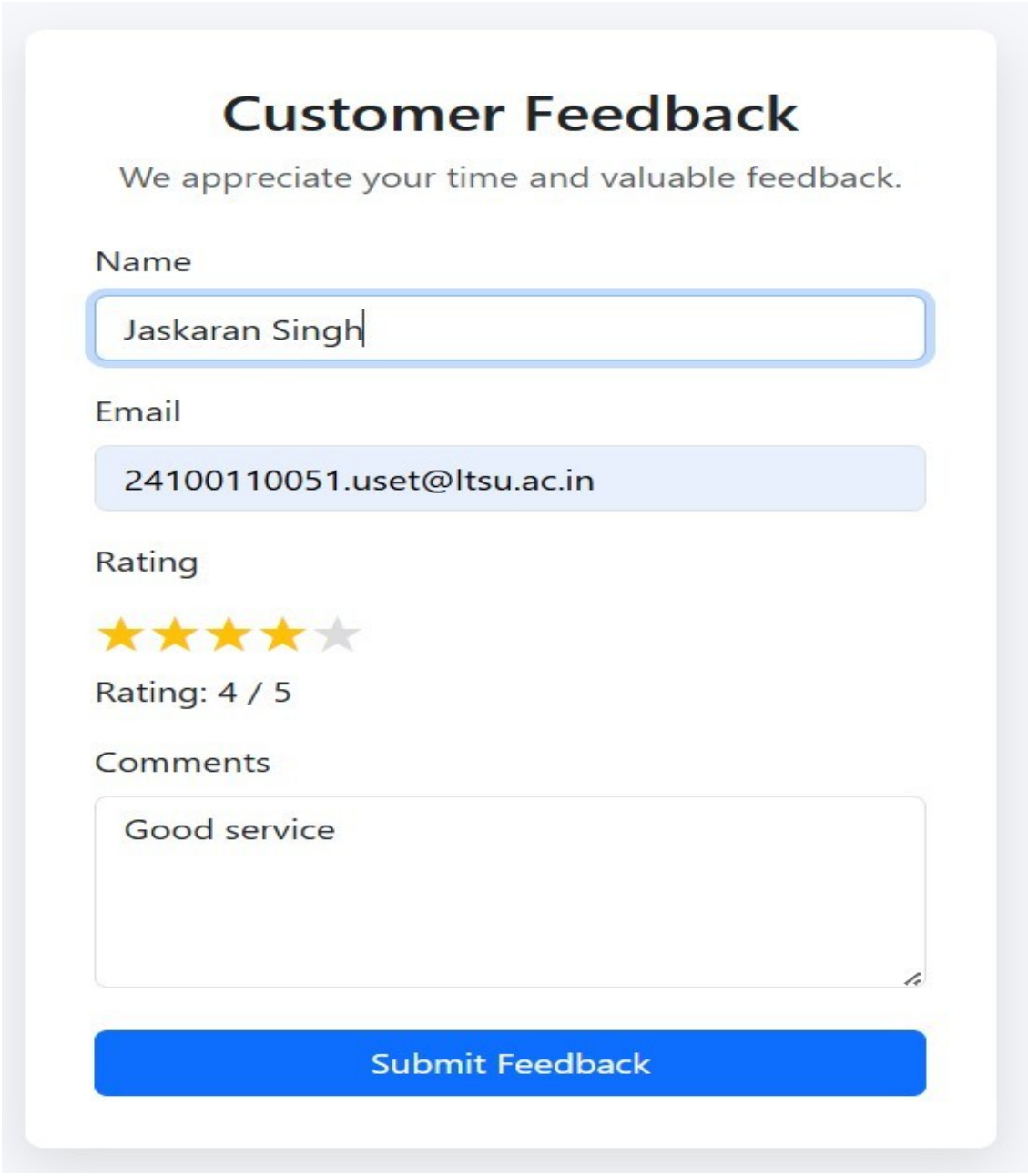
```
/* Rating text */ .rating-text
{
font-size: 14px; color: #555;
}
```

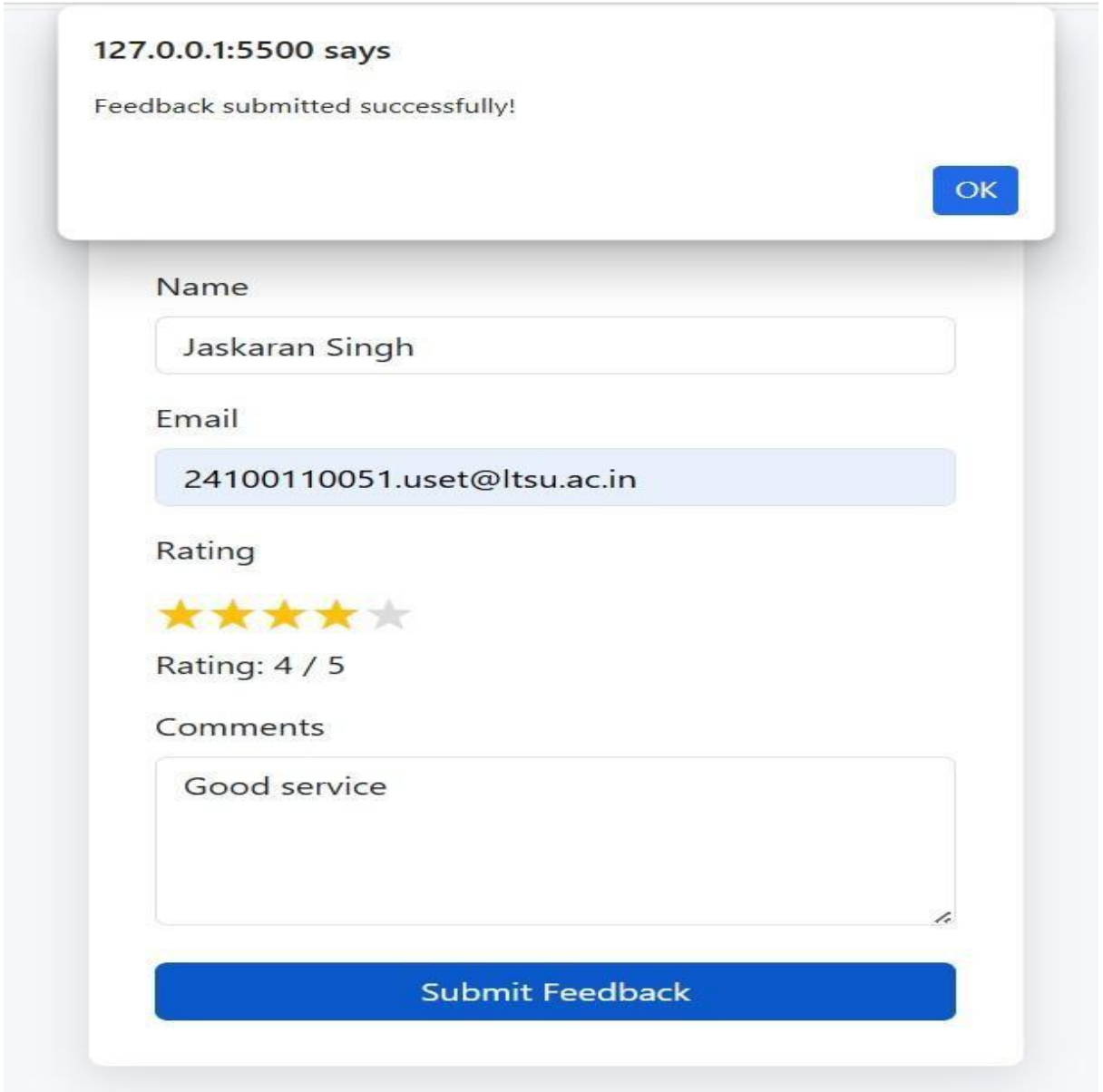
JAVA SCRIPT

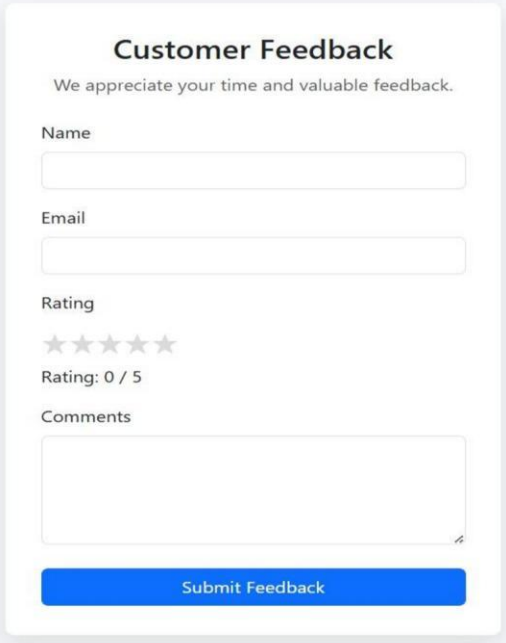
```
const form = document.getElementById("feedbackForm");  const
ratingText = document.getElementById("ratingValue"); const ratingStars
= document.querySelectorAll('input[name="rating"]');


ratingStars.forEach(star => { star.addEventListener("change", function () {
ratingText.textContent = "Rating: " + this.value + " / 5";
});
});


form.addEventListener("submit", function (event) { event.preventDefault();


const name = document.getElementById("name").value;  const
email = document.getElementById("email").value; const
comments = document.getElementById("comments").value;

let selectedRating = "";  ratingStars.forEach(star
=> { if (star.checked) {
selectedRating = star.value;
}
});

if (selectedRating === "") {
alert("Please select a rating before submitting."); return;
}
alert("Feedback submitted successfully!");

console.log("---- Customer Feedback Data       ");  console.log("Name:", name);
console.log("Email:", email);  console.log("Rating:",          selectedRating);
console.log("Comments:", comments);
 console.log("---------------------------------------------------------------------- "); });
```

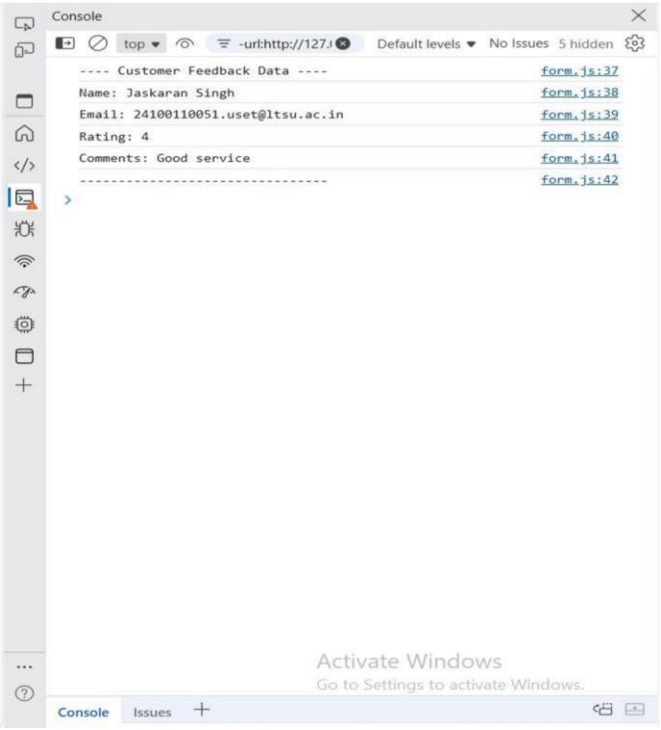
```
form.reset();
ratingText.textContent = "Rating: 0 / 5";
```

Screenshots of Final Outcome




127.0.0.1:5500 says
Feedback submitted successfully!
OK
Name
Jaskaran Singh
Email
24100110051.uset@ltsu.ac.in
Rating
Rating: 4 / 5
Comments
Good service
Submit Feedback


Customer Feedback
We appreciate your time and valuable feedback.
Name
Email
Rating
Rating: 0 / 5
Comments
Submit Feedback


Console
top
Default levels
No Issues
5 hidden
---- Customer Feedback Data ----
Name: Jaskaran Singh
Email: 24100110051.uset@ltsu.ac.in
Rating: 4
Comments: Good service
form.js:37
form.js:38
form.js:39
form.js:40
form.js:41
form.js:42
Activate Windows
Go to Settings to activate Windows.
Console
Issues

Conclusion

The Customer Feedback Form project successfully demonstrates the practical use of HTML, CSS, JavaScript, and Bootstrap to build a responsive and interactive web application. The system allows users to provide ratings and detailed feedback in an easy and user-friendly manner. Features such as realtime rating display, form validation, and submission confirmation enhance the overall user experience. This project not only fulfills its objective of collecting customer feedback effectively but also helps in understanding core front-end development concepts. Overall, it serves as a strong foundation for building more advanced feedback and data-driven web applications in the future

References

L&T LMS: https://learn.Intedutect.com/Landing/MyCourse