





TECH SAKSHAM FINAL PROJECT REPORT TRACK1_APPLIED_CC_FOR_SOFTWARE DEVELOPMENT

E-COMMERCE (T-SHIRT FACTORY)

RAYALASEEMA UNIVERSITY COLLEGE OF ENGINEERING

KURNOOL

ROLL NO	NAME
20RU1A0526	KONDURU HARI PRASAD RAJU
20RU1A0510	CHALAMKOTI SURESH
20RU1A0527	KOPPULA KRISHNA VENI
21RU5A0413	VENNAPUSA HARITHA

Hrishikesh Mahure

Master Trainer

Edunet Foundation

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Thank you.

Sincerely,

Konduru Hari Prasad Raju - 20RU1A0526

Chalamkoti Suresh - 20RU1A0510

Koppula Krishna Veni - 20RU1A0527

Vennaposa Haritha - 21RU5A0413

ABSTRACT

The Levi's T-Shirt Factory website is a modern and user-friendly e-commerce platform designed and developed using HTML, CSS, CSS Flexbox, and media queries. This website offers an immersive shopping experience for customers interested in Levi's branded t-shirts. The use of HTML ensures a structured and accessible layout, while CSS and Flexbox provide a visually appealing and responsive design across various devices. Media queries are implemented to optimize the website's layout for different screen sizes, making it adaptable to smartphones, tablets, and desktops. One of the key features of the website is its secure and efficient checkout page, allowing customers to seamlessly complete their purchases. With a focus on usability and aesthetics, the Levi's T-Shirt Factory website provides an engaging and hassle-free shopping experience for t-shirt enthusiasts.

At its core, the project begins with a robust HTML foundation, establishing a structured framework that prioritizes accessibility and cross-browser compatibility. CSS, the creative powerhouse, breathes life into the website's aesthetic, embracing Levi's distinctive branding with precision and consistency. Moreover, in an era marked by diverse digital devices, the website's responsiveness is paramount, ensuring a smooth user experience across various screen sizes, from desktop computers to smartphones.

A pivotal focus remains on the user, with a design that emphasizes intuitive navigation, delivering a delightful and user-friendly digital journey. The website not only serves as a virtual storefront but also integrates e-commerce functionality, allowing users to browse, engage with, and securely purchase Levi's iconic t-shirt designs.

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CHAPTER 1

INTRODUCTION

1.10verview

The concept of an "E-commerce T-shirt Factory" represents a modern approach to the production and sale of customized or branded T-shirts through online platforms. This innovative business model leverages digital technology and e-commerce capabilities to streamline the entire process, from design creation to order fulfillment. Below, we provide a brief introduction to this concept.

1.2Feature

An E-commerce T-shirt Factory typically offers the following key features:

Online Design Tools: Customers can use online design tools to create customized T-shirt designs, selecting from a variety of colors, fonts, graphics, and styles.

Catalog of Designs: Pre-designed templates or a catalog of designs are often available for customers who prefer ready-made options.

Order Customization: Customers have the flexibility to personalize T-shirts with text, images, and graphics, making each item unique.

Fabric and Size Selection: Options for selecting T-shirt fabric type, color, and size to cater to individual preferences.

Secure Payment: Online payment gateways ensure secure transactions.

Order Tracking: Customers can track the progress of their orders from production to delivery.

Printing and Fulfillment: State-of-the-art printing technology is used to create high-quality prints, and orders are efficiently processed for shipping.

1.3Advantages

The E-commerce T-shirt Factory model offers several advantages:

Customization: Customers can create personalized T-shirts that reflect their style, interests, or branding needs.

Convenience: The entire process, from design to purchase, can be completed online, eliminating the need for physical store visits.

Wider Reach: The online platform enables businesses to reach a global customer base.

Cost-Effective: Reduced overhead costs compared to brick-and-mortar stores can lead to competitive pricing.

Scalability: Businesses can easily scale up operations to meet increased demand.

1.4Scope

The scope of an E-commerce T-shirt Factory extends to various sectors, including:

Individual Consumers: Offering personalized T-shirts for personal use, gifts, or special occasions.

Small Businesses: Providing branded apparel for marketing and promotional purposes.

Event Organizers: Creating custom event-specific T-shirts for gatherings, festivals, and conferences.

Fashion Brands: Expanding product lines and reaching a broader audience through ecommerce.

1.5 Future Work

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CHAPTER 2

SERVICES AND TOOLS REQUIRED

2.1 Services Used

Web Hosting Services: These services provide the infrastructure and server space needed to host the website on the internet. Popular web hosting providers include Amazon Web Services (AWS), Microsoft Azure, Google Cloud Platform (GCP), and various web hosting companies.

Domain Name Registration Services: These services allow you to register a unique domain name (e.g., www.yourtshirtfactory.com) that users can use to access your website. Domain registrars like GoDaddy, Namecheap, and Google Domains offer domain registration services.

Content Delivery Network (CDN) Services: CDNs like Cloudflare or Akamai help improve website performance by caching and delivering content from servers located closer to users, reducing page load times and improving user experience.

SSL Certificate Services: SSL (Secure Sockets Layer) certificates are essential for securing data transmission on your website, particularly during payment transactions. Services like Let's Encrypt provide free SSL certificates, while others like DigiCert offer premium options.

Payment Gateway Services: To process online payments securely, you can integrate payment gateways such as PayPal, Stripe, Square, or Braintree into your website. These services ensure the secure transfer of funds between customers and your business.

Database Hosting Services: To store and manage customer information, product details, and order records, you may use database hosting services like Amazon RDS, MySQL, or MongoDB Atlas for NoSQL databases.

Analytics and Monitoring Services: Services like Google Analytics and Google Search Console help track user behavior on your website, providing valuable insights into customer preferences and areas for improvement.

Email Marketing Services: Tools like Mailchimp, Constant Contact, or SendinBlue can be integrated for email marketing campaigns, customer communication, and newsletters.

Content Management System (CMS): If you use a CMS like WordPress, Drupal, or Joomla to build your website, you may require hosting services that support these platforms.

Customer Support and CRM Services: Services like Zendesk, Freshdesk, or HubSpot CRM can assist in managing customer inquiries, support tickets, and customer relationship management.

Social Media Integration Services: Platforms like Facebook, Instagram, and Twitter provide APIs and services for integrating social media features into your website, facilitating sharing and engagement.

Shipping and Logistics Services: If you handle order fulfillment in-house, you may need to integrate with shipping and logistics services like UPS, FedEx, or USPS to generate shipping **labels and track deliveries.**

Content Delivery Services: If you offer digital content (e.g., design templates), content delivery services like Amazon CloudFront or Azure Content Delivery Network (CDN) can ensure fast and reliable content delivery to customers.

Customer Reviews and Feedback Services: Integrating services like Trustpilot, Yelp, or Google Reviews can help collect and showcase customer feedback and reviews on your website.

Security and Backup Services: Services like Sucuri or SiteLock offer website security solutions, including firewall protection, malware scanning, and backup services to safeguard your website and customer data.

These services collectively enable the development, functionality, security, and performance of an E-commerce T-shirt Factory website, ensuring a seamless and secure experience for both website administrators and customers. The selection of specific services will depend on your website's requirements and scale.

2.1.1 Liberty Profile

The Liberty Profile is a server runtime environment provided by IBM for Java applications. In the context of an E-commerce T-shirt Factory website, it serves as the foundation for hosting the web application. Here's how it is utilized **Web Server:** Liberty Profile acts as a web server, handling incoming HTTP requests and responses.

Java EE Support: It provides support for Java EE (Enterprise Edition) applications, allowing the use of Java technologies to build robust and scalable web applications.

Security: Liberty Profile offers security features to protect sensitive customer data, ensuring secure transactions.

2.2 Tools and Softwares used

These fundamental web technologies are indispensable for the development and functionality of an E-commerce T-shirt Factory website:

HTML (**Hypertext Markup Language**): HTML is the standard markup language used to structure the content of web pages. In the context of the website, HTML is responsible for defining the layout, text, images, and interactive elements. It forms the backbone of the site's structure.

CSS (**Cascading Style Sheets**): CSS is used for styling and layout. It dictates the visual presentation of the website, encompassing elements such as colors, fonts, spacing, and responsiveness. CSS ensures a visually appealing and consistent design.

JavaScript: JavaScript is a versatile scripting language that adds interactivity and dynamic behavior to web pages. Within the E-commerce T-shirt Factory website.

JavaScript serves several critical functions

Interactive Design Tools: JavaScript enables customers to customize T-shirt designs in real-time. It provides the functionality for selecting colors, fonts, graphics, and previewing the final product.

Form Validation: JavaScript is used to validate user inputs in forms, ensuring that data is accurate and properly formatted before submission.

Shopping Cart Functionality: JavaScript powers the shopping cart, allowing customers to add, remove, and update items dynamically. It calculates the total price and updates the cart **in real-time.**

User Experience Enhancement: JavaScript enhances user experience through features like image sliders, tooltips, modal dialogs, and responsive design. These elements contribute to a seamless and engaging interface.

CHAPTER 3

PROJECT ARCHITECTURE

Listings:

1. Domain Name and Hosting:

Choose a domain name that reflects your brand and is easy to remember.

Purchase hosting from a reliable provider.

2. Platform Selection:

Consider using e-commerce platforms like Shopify, WooCommerce (WordPress), Magento, or BigCommerce.

Shopify is user-friendly and popular for small to medium-sized businesses.

3. Design and Development:

Customize the website's design to align with your brand identity.

Ensure the website is mobile-responsive for a seamless experience on all devices.

Add features like a shopping cart, product catalog, and user accounts.

4. Product

Organize products into categories and add filters for easy navigation.

Implement a search bar for quick product searches.

5. Payment Processing:

Set up secure payment gateways like PayPal, Stripe, or Square.

Ensure that the checkout process is simple and user-friendly.

6. Inventory Management:

Implement an inventory system to track stock levels and restock notifications.

Consider using a Product Information Management (PIM) system for better control.

7. Security:

Invest in SSL certificates to secure customer data.

Regularly update and patch your website to protect against vulnerabilities.

8. Shipping and Delivery:

Integrate shipping calculators to provide accurate shipping costs.

Offer multiple shipping options, including express and standard delivery.

9. Returns and Customer Support:

Create a clear return policy and display it prominently.

Provide customer support channels, such as live chat, email, and a contact form.

10. Marketing and SEO:

Optimize your website for search engines (SEO).

Use digital marketing strategies like social media advertising, email marketing, and content marketing to attract customers.

11. Analytics and Tracking:

Use tools like Google Analytics to monitor website traffic and sales.

Analyze customer behavior to make informed decisions.

12. Legal Compliance:

Ensure that your website complies with e-commerce and data protection laws.

Include clear terms and conditions, privacy policy, and a refund policy.

13. Launch and Promotion:

Announce your website launch through social media, email newsletters, and any other relevant channels. Consider offering special promotions or discounts to attract initial customers.

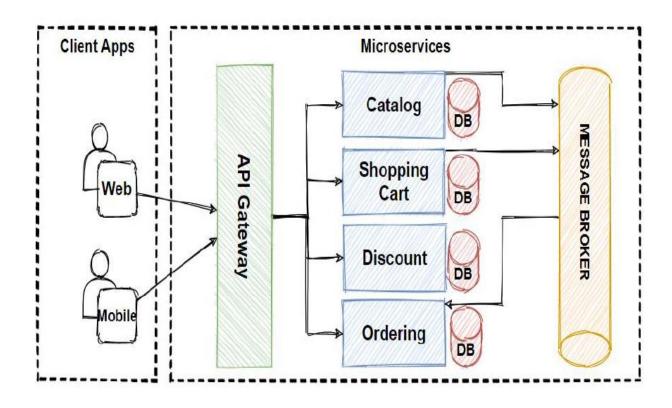
14. Ongoing Maintenance:

Regularly update your website with new products, designs, and features.

Listen to customer feedback and make improvements accordingly.

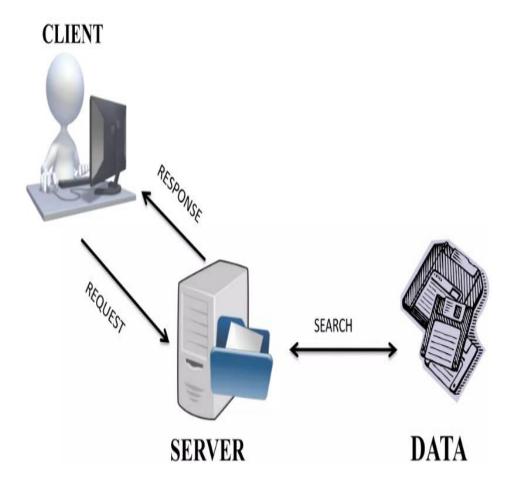
15. Scaling:

As your business grows, consider expanding your product range or targeting new markets. Remember that the success of your e-commerce website depends on not only the technical aspects but also your marketing efforts and customer service. Continuously engage with your audience, analyze data, and adapt your strategy to meet the evolving needs of your customers.





CLIENT- SERVER ARCHITECTURE



CHAPTER 4

ARCHITECTURE BLOCKS DETAIL WORKING

Designing an e-commerce website for selling Levi's factory T-shirts involves several architectural components and working with code to implement these components. Below, I'll outline the key architectural blocks and provide a high-level overview of how they work.

HTML

HTML (Hypertext Markup Language) is a fundamental building block of any web page, and it plays a crucial role in creating an e-commerce website like Levi's Factory T-shirts.

Structure and Layout: HTML defines the overall structure and layout of the web page. It uses elements like <header>, <nav>, <main>, <section>, and <footer> to organize and structure the content.

Content Presentation: HTML is used to present product information, including product names, descriptions, prices, and images. Tags like <h1>, , , and <a> are essential for displaying this content.

Forms: E-commerce websites often include forms for user interactions such as user registration, login, and checkout. HTML <form> elements, along with input fields (<input>), dropdowns (<select>), and buttons (<button>), are used to create these forms.

Navigation: HTML is used to create navigation menus and links. <nav> elements and anchor tags (<a>) are employed to enable users to browse product categories, view their cart, and navigate to different sections of the website.

Product Listings: HTML <section> or <div> elements are used to display individual product listings. These sections contain product images, titles, prices, and buttons to add items to the cart.

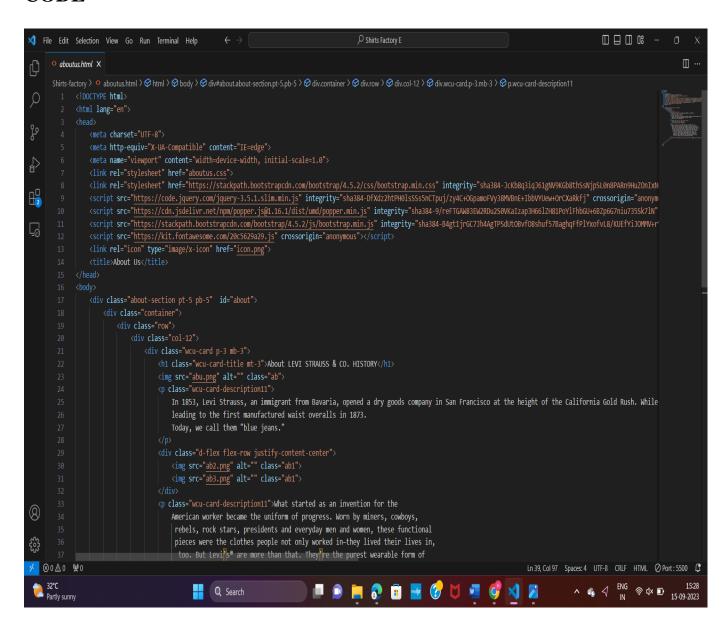
Responsive Design: HTML plays a role in ensuring that the website is responsive, adapting to various screen sizes and devices. HTML attributes like class and id are used in conjunction with CSS and media queries to achieve responsiveness.

Metadata: HTML <meta> tags are used to provide metadata about the web page, such as character encoding (<meta charset>), viewport settings (<meta name="viewport">), and SEO-related information (<meta name="description">, <meta name="keywords">).

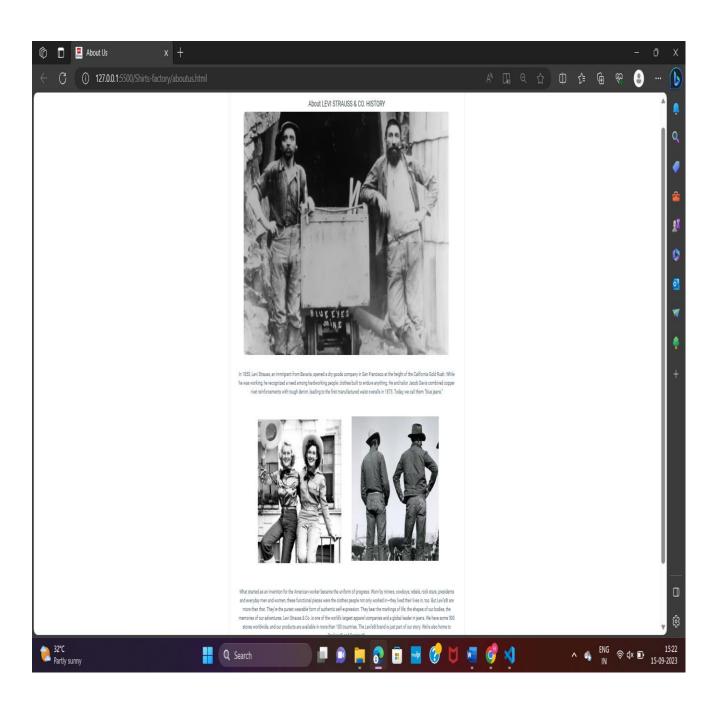
Accessibility: HTML should be structured to ensure accessibility for all users, including those with disabilities. Proper use of semantic HTML elements and providing meaningful alt text for images (alt attribute) is essential for accessibility.

Links and References: HTML is used to create links to external resources like CSS stylesheets and JavaScript files. These resources enhance the visual presentation and functionality of the website.

CODE



OUTPUT



CSS

CSS (Cascading Style Sheets) is a vital component in creating an engaging and visually appealing e-commerce website for Levi's Factory T-shirts. It is used to define the presentation, layout, and styling of HTML elements, transforming a basic web page into a polished and user-friendly shopping platform.

Layout and Structure: CSS is used to establish the layout and structure of the website. It controls the positioning of elements like headers, navigation menus, product listings, and footers. By setting properties like margin, padding, and display, designers can create an organized and aesthetically pleasing layout.

Typography: CSS governs the typography of the website, specifying font families, sizes, line spacing, and colors. Consistent typography enhances the readability of product descriptions, prices, and other textual content.

Colors and Branding: CSS is instrumental in conveying the brand identity of Levi's Factory T-shirts. Designers can define the color scheme, incorporating the brand's primary colors and creating custom color palettes. Background colors, gradients, and border colors help establish a visually appealing design that aligns with the brand's image.

Images and Media: CSS is used to style images, including product photos and logos. This includes setting image dimensions, adding borders, and defining how images should adapt to different screen sizes (responsive design).

Buttons and Links: CSS styles buttons and links to make them visually distinctive and interactive. This includes setting button colors, hover effects, and link underlines, ensuring that users can easily identify clickable elements.

Forms and Input Elements: CSS enhances the appearance of forms and input fields, making them more user-friendly and visually appealing. This can involve customizing form elements, text fields, dropdown menus, and radio buttons.

Responsive Design: CSS plays a pivotal role in creating a responsive web design. Media queries are employed to adapt the layout and styling based on the user's device, ensuring that the website looks and functions well on various platforms, including desktops, tablets, and mobile devices.

Animations and Transitions: CSS can introduce subtle animations and transitions to improve the user experience. For instance, hover effects on product images or smooth transitions between pages can enhance the website's interactivity and engagement.

Accessibility: CSS is used to make the website accessible to all users. It can ensure proper color contrast, text legibility, and focus states for keyboard navigation, contributing to a more inclusive design.

Cross-Browser Compatibility: CSS rules may need adjustments to ensure that the website appears consistently across different web browsers. Specific CSS fixes may be required for older or less standards-compliant browsers to maintain a consistent user experience.

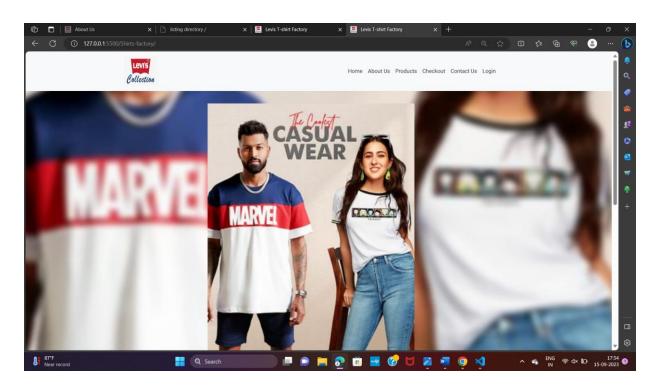
Performance Optimization: CSS files can be optimized by minifying and compressing them. Additionally, techniques like using CSS sprites for icons and images can improve the website's loading speed and overall performance

CODE

```
| Pack | Selection | View of Run Terminal | Major | Pack |
```

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# Absonance | Paris Selection | View Go | Run | Terminal | Helph | Paris | Paris | Runny | Pa
```

OUTPUT



CHECKOUT PAGE

Cart Summary: On the checkout page, customers can review the items they have added to their cart, including t-shirts from Levi's Factory.

Shipping Information: Customers are typically required to enter their shipping details, including their name, address, and preferred shipping method.

Payment Options: Levi's Factory's eCommerce site would offer various payment options, such as credit/debit cards, PayPal, and possibly other digital wallets like Apple Pay or Google Pay.

Promo Codes: There might be a section for customers to enter any promotional codes or **discount coupons they have.**

Order Summary: Before finalizing the purchase, customers can review their order one last time, checking product quantities, sizes, and prices.

Shipping and Handling Costs: The checkout page should display any shipping and handling fees associated with the order.

Payment Confirmation: After providing payment information, customers will receive a payment confirmation, often via email, with details of their order.

Billing Information: If the billing address differs from the shipping address, customers will need to enter this information as well.

Guest Checkout vs. Account Creation: Levi's Factory's eCommerce site might offer both options - guest checkout for those who want a quick purchase and account creation for returning customers.

PRODUCT LISTING

Product Images: T-shirt listings will include high-quality images that showcase the design, color, and fit of the product.

Product Details: Each t-shirt listing will provide information about the product, such as its name, price, available sizes, and a brief description.

Product Reviews and Ratings: Levi's Factory may allow customers to leave reviews and ratings for t-shirts, helping others make informed purchase decisions.

Size Guide: To assist customers in choosing the right size, there may be a size guide with measurements and recommendations.

Add to Cart: Customers can easily add their desired t-shirts to their shopping cart directly from the product listing.

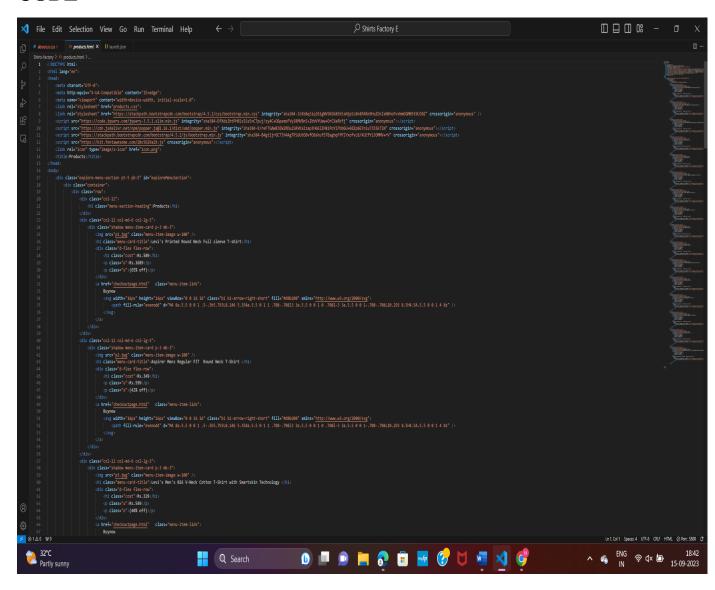
Related Products: Levi's Factory's eCommerce site might suggest related t-shirts or accessories based on the customer's browsing and purchase history.

Availability: It's important to show whether a specific t-shirt is in stock or if there are limited quantities available.

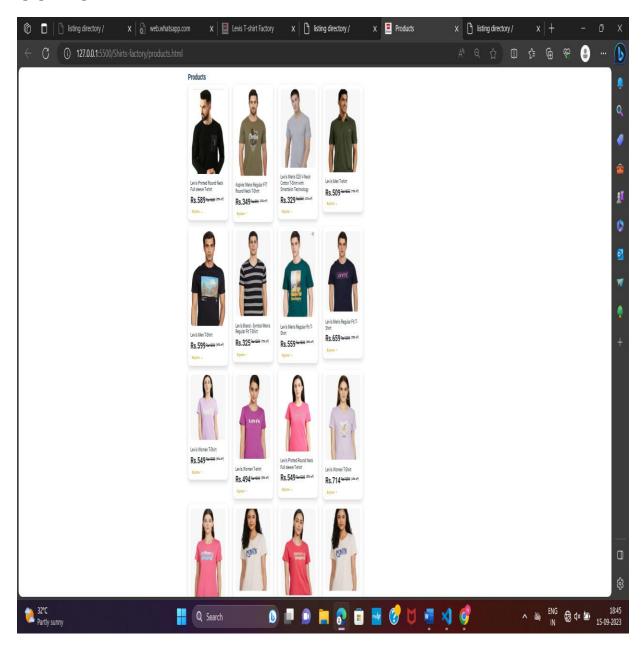
Color Options: If a t-shirt is available in different colors, these options will be displayed for customers to choose from.

Overall, Levi's Factory's eCommerce checkout page and product listings are designed to make the online shopping process convenient and informative, allowing customers to browse and purchase t-shirts with ease. The checkout process should be secure, ensuring the safety of customers' personal and payment information

CODE



OUTPUT



CONCLUSION

Levi's Factory stands as a formidable player in the e-commerce and fashion industry, especially in the realm of t-shirts. The brand's ability to seamlessly blend its rich heritage with modern online retail strategies has allowed it to maintain its iconic status while staying relevant to contemporary consumer preferences. By prioritizing quality, diversification, customization, sustainability, and global reach, Levi's Factory has not only retained its loyal customer base but also attracted new audiences worldwide. Whether through its timeless designs, commitment to eco-conscious practices, or its global accessibility, Levi's Factory continues to exemplify the enduring appeal of a brand that has stood the test of time.

Levi's Factory delivers high-quality, stylish t-shirts that cater to a diverse customer base. The brand's commitment to sustainability and its efficient online platform have solidified its position in the competitive e-commerce t-shirt market. With a focus on customer satisfaction and a global reach, Levi's Factory continues to exemplify how a storied brand can successfully navigate the digital landscape, ensuring its products remain both timeless and contemporary.

The brand's t-shirts, often featuring classic Levi's aesthetics and durable craftsmanship, have become a staple in the wardrobes of fashion-conscious consumers. This success can be attributed to Levi's Factory's unwavering commitment to quality, ensuring that each t-shirt meets the high standards the brand has set over the years.

Levi's Factory caters to various fashion sensibilities, from timeless and minimalist to bold and trendsetting. This diversity ensures that Levi's Factory t-shirts remain a go-to choice for a wide range of consumers.

PROJECT CODE

Git Hub Repo Link

https://team-hari-edunetproject.netlify.app/



