# Cleat Sales Website

## Features and Functionality

The Cleat Sales website is an interactive multi-page web application built using HTML, CSS, and JavaScript.
The website includes four fully functional pages:

### • Home Page

- Personalized greeting based on user input
- Image slider with next/previous controls
- Promotional reveal section with a toggle button

### • Products Page

- Dynamic cleat catalog displayed using JavaScript
- Ability to filter cleats by brand
- Real-time search that updates the displayed products instantly
- Ability to choose a cleat size before adding to the cart
- Shopping cart that updates total live

### • About Page

- Expandable information sections using show/hide buttons
- Fun-fact generator that displays random facts
- Image hover effect with light scaling on pointer hover

### • Contact Page

- Clean, styled contact form
- JavaScript validation before submission
- Real-time error messages to guide the user

Each page includes meaningful JavaScript interactivity, ensuring the application meets project requirements while offering a clean, responsive user experience.

# How JavaScript Enhances User Experience

JavaScript is responsible for all interactive elements across the site. Key enhancements include:

## Event Listeners

Buttons, search fields, drop-down menus, text inputs, toggles, and hover events dynamically update the page without refreshing.

## DOM Manipulation

JavaScript updates parts of the page instantly:

- Cart totals
- Product rendering
- Error messages
- Text reveals
- Fun-fact output
- Page elements shown/hidden based on user actions

## Filtering and Search Logic

The Products Page uses JavaScript (loops, conditionals, and string matching) to:

- Filter products by brand
- Instantly update the displayed cleats as the user types

## Form Validation

On the Contact Page:

- Required fields are checked
- Invalid entries display warnings
- The form prevents submission until everything is correct

## Arrays and Objects

The cleat catalog is stored in **arrays of objects**, such as:

- Product name
- Brand

- Price
- Image
- Available sizes

The cart also uses arrays to track:

- Items
- Quantities
- Selected sizes
- Pricing totals

### Reusable Functions

Functions are used to:

- Render products
- Apply filters
- Validate inputs
- Update cart totals
- Generate fun facts
- Toggle visibility

This modularity improves readability, prevents repeated code, and keeps the project organized.

## Challenges Faced and How They Were Overcome

### 1. JavaScript File Organization

Because each page uses different interactive features, using one large JS file created conflicts.

**Solution:**
Separate files were created:

- script.js
- products.js
- about.js
- contact.js

This made debugging easier and prevented functions from interfering with each other.

## 2. Product Filtering + Size Selection

The product cards needed to include:

- Displaying the product
- Showing a size selector
- Adding to cart
- Updating totals

This required extra DOM manipulation and careful logic.

**Solution:**
A reusable product-rendering function was created. Sizes were added directly inside each card template so the cart could receive the correct selected size.

## 3. Background Styling and Readability

The sports turf background originally appeared too blurry or too washed out.

**Solution:**
A semi-transparent white overlay was added. It reduced blur, improved readability, and kept the sporty aesthetic without overpowering the content.

## 4. Cross-Page Consistency

Different pages were originally styled differently as features were added.

**Solution:**
Shared styles were added to styles.css, and the same navigation bar/header structure was kept across all pages.

# Plans for Additional Features and Backend Integration

Future improvements could expand the project from a demo site to a practical e-commerce platform.

## User Accounts

- Login system
- Saved carts
- Purchase history

## Database-Driven Products

Using MySQL, MongoDB, or Firebase to:

- Store cleat inventory
- Update products without editing code
- Track stock levels

## Real Checkout System

Payment integration using:

- Stripe
- PayPal

## Admin Dashboard

- Add/remove/edit product listings
- Upload new cleats via a form
- Manage inventory and pricing

## Shopping Cart Persistence

- Save cart items using localStorage
- Or save cart sessions on the backend

## Order Tracking

- Confirmation emails
- Tracking statuses
- Delivery updates

These expansions would transform the Cleat Sales website into a complete online store.