Web Programming UM2

Individual Assignment 002

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GitHub: https://github.com/Jordyn-Rhys/IA-2-E-commerce-Website

Business Overview:

Business Name: Solar Symphony

Logo Description: A stylized sunburst composed of modular rays and a central orb, evoking harmony, energy, and clarity.

Slogan: "*Powering Progress, One Ray at a Time.*"

Mission Statement:

"*To make sustainable energy accessible and understandable through a clean, user-friendly platform that empowers individuals to invest in solar solutions with confidence.*"
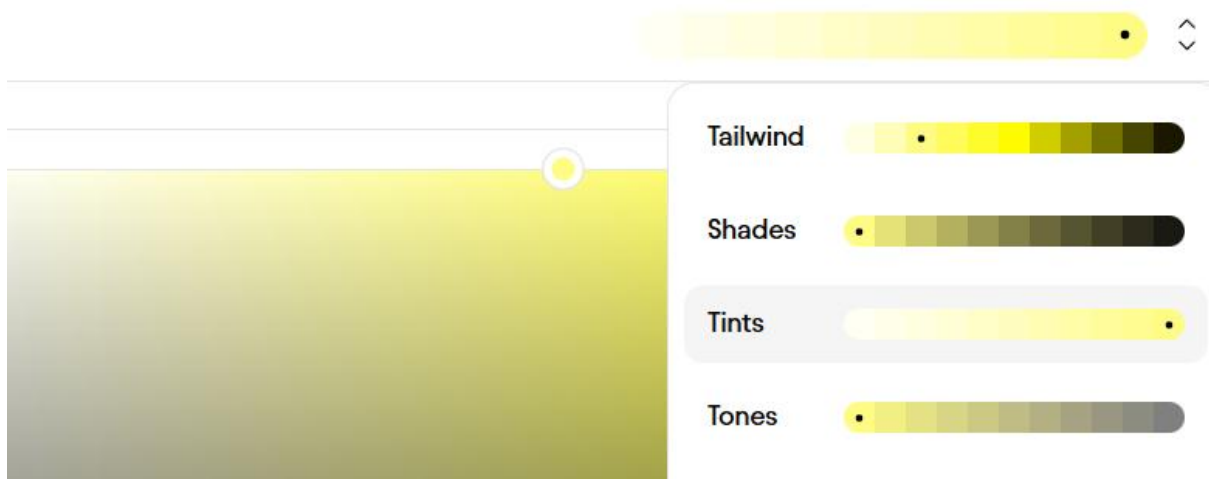
Vision Statement:

"*We envision a future where every household and business can harness the sun's power effortlessly, with tools, products, and support that make solar adoption simple, affordable, and inspiring.*"

Target audience:

"*The Solar Symphony website is designed for environmentally conscious consumers, first-time solar shoppers, and values-driven buyers who seek sustainable, trustworthy solutions. Its primary audience includes homeowners and individuals interested in reducing their carbon footprint, exploring solar energy as a long-term investment, or simply learning more about clean energy options. The site also caters to tech-savvy users who expect a smooth, mobile-friendly experience, as well as those who appreciate clarity, transparency, and mission-driven branding. By combining intuitive design with educational value and ethical appeal, Solar Symphony aims to empower users to make informed, confident decisions about solar adoption.*"

Intended Colour palette:

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Font-Family: 'Quicksand' monospace.

User defined functions:

User-Defined JavaScript Functions — main.js
File: main.js
Purpose: Cart management, checkout flow, and receipt generation

1. $(sel)

- Purpose: Shorthand utility to select a DOM element using document.querySelector.

- Parameters: sel — a CSS selector string.

- Returns: The first matching DOM element.

2. formatMoney(n)

- Purpose: Formats a number into a currency string with two decimal places and thousands separator.

- Parameters: n — a number or string.

- Returns: A formatted string like $1,234.56.

3. readCart()

- Purpose: Retrieves and parses the cart data from localStorage.

- Returns: An array of cart items, or an empty array if none or if parsing fails.

4. saveCart(cart)

- Purpose: Saves the cart array to localStorage as a JSON string.

- Parameters: cart — an array of cart items.

- Returns: None.

5. normalizePrice(value)

- Purpose: Cleans and converts a price string or number to a numeric value.

- Parameters: value — a string or number (e.g. "$25,000.00").

- Returns: A numeric price value.

6. escapeHtml(str)

- Purpose: Escapes HTML-sensitive characters to prevent injection or rendering issues.

- Parameters: str — a string.

- Returns: A safe string with escaped characters.

7. addToCart(id, name, price, img, qty = 1)

- Purpose: Adds a product to the cart or updates its quantity if already present.

- Parameters: id, name, price, img, qty — product details.

- Returns: None. Alerts user and updates cart.

8. renderCart()

- Purpose: Renders the cart UI, calculates subtotal, and attaches quantity/change/remove handlers.

- Returns: None. Updates DOM and subtotal.

9. isLoggedInClientSide()

- Purpose: Checks if the user is logged in by verifying presence of auth Token in localStorage.

- Returns: Boolean (true if logged in).

10. redirectToLoginWithReturn()

- Purpose: Redirects the user to the login page with a return URL to preserve navigation flow.

- Returns: None. Navigates to login.

References

Graham, G. (2025, November 11). *CSS-Tricks - a website about making websites*. CSS-Tricks. https://css-tricks.com/

Learn JavaScript. (n.d.). Learn JavaScript. https://learnjavascript.online/

web.dev. (n.d.). *Web.dev*. https://web.dev/