Topic: Building an E-commerce Product Cart

#### Question:

You are tasked with developing a product cart functionality for an e-commerce website using HTML, CSS, JavaScript, and potentially a framework like React or Vue.js. The product cart should allow users to add products to their cart, update quantities, remove items, and calculate the total cost of their order.

#### Instructions:

## Product Display:

- Create a section to display available products with their names, prices, and images.
- Include buttons or icons to add products to the cart.

# Cart Layout:

- Design a visually appealing cart section where users can view the products they've added.
- Display each product's name, price, quantity, subtotal, and an option to remove the item.

### Adding Products:

- Implement functionality to add products to the cart when users click the "Add to Cart" button.
- Update the cart's contents dynamically without reloading the page.

#### Updating Quantities:

- Allow users to update the quantity of products in their cart, either by inputting a new quantity or using increment/decrement buttons.
- Update the subtotal and total cost of the order accordingly.

### Removing Items:

- Implement functionality to remove items from the cart when users click the "Remove" or "Delete" button next to each product.
- Update the cart's contents and total cost dynamically.

# **Total Calculation:**

- Calculate the total cost of the order based on the quantities and prices of the items in the cart.
- Display the total cost prominently in the cart section.

#### Responsive Design:

• Ensure that the product cart layout is responsive and works well on various screen sizes, from desktop to mobile devices.

### Bonus Task:

Enhance the product cart functionality with the following features:

- Implementing a "Proceed to Checkout" button that redirects users to a checkout page.
- Allowing users to apply discount codes or coupons to their order.
- Persisting the cart's contents across sessions using browser storage (localStorage or sessionStorage).
- Adding animations or transitions to improve the user experience when adding or removing items from the cart.

This task provides a comprehensive challenge covering essential aspects of e-commerce development, including product management, cart functionality, user interaction, and responsive design. It allows candidates to demonstrate their proficiency in front-end web development and their ability to create a seamless shopping experience for users.