What data needs to be stored in a shopping cart?

1. PRODUCT INFORMATION

- **Product ID:** A unique identifier for each product.
- **Product Name:** Name of the product.
- **Quantity:** The number of units selected.
- **Price per Unit:** The cost of one unit.
- **Total Price:** Calculated by multiplying quantity by price per unit.
- **Product Variants:** Size, color, etc. (if applicable).
- **Product Image/Description:** Helps in displaying a summary in the cart.

2. USER INFORMATION

- **User ID/Session ID:** Tracks the user session, whether logged in or guest.
- **Customer Preferences:** Saved preferences, like delivery options or payment methods.
- **Contact Information:** Email, phone number for order confirmation.

3. CART METADATA

- **Cart ID:** A unique identifier for each cart instance.
- **Cart Status:** Active, abandoned, or completed.
- **Time Stamps:** Creation and last update time to track cart activity.
- **Saved Cart:** Option for users to save their cart for later.

4. PRICING & PROMOTIONS

- **Discounts/Coupons:** Codes applied and their effect on **the total price.**
- **Shipping Costs:** Based on user location and shipping method.
- **Taxes:** Estimated tax amount based on location.
- **Total Cost Calculation:** Sum of product prices, discounts, taxes, and shipping fees.

5. PAYMENT INFORMATION

- **Payment Method:** Selected payment option (Credit Card, PayPal, etc.).
- **Billing Address:** Saved address or input for the transaction.
- **Security Tokens:** Ensures secure transactions without storing sensitive data directly.

6. SHIPPING INFORMATION

- **Shipping Address:** Complete user address details.
- **Shipping Method:** User-selected delivery option.
- **Estimated Delivery Date:** Based on shipping and location.
- **Real-Time Tracking Data:** Integration link for tracking updates.

7. WISHLIST INTEGRATION

- **Wishlist Items:** Option to move items between cart and wishlist.
- **Item Availability Alerts:** Notify when wishlist items become available.

8. REAL-TIME UPDATES

- **Stock Availability:** Real-time updates on stock levels for items in the cart.
- **Price Changes:** Notifications if prices change while the user shops.

9. SECURITY AND PRIVACY

- **Session Management:** Validate and monitor session expiration.
- **Data Encryption:** Encrypt sensitive data like session IDs.
- **Compliance Data:** Ensure GDPR and privacy regulation compliance.
- **User Preferences:** Manage opt-in/opt-out settings for cart retention.

10. EFFECTIVE VISUAL DESIGN FOR DATA

- **Icons/Diagrams:** Simplify complex data with visual representation.
- **Flowchart:** Illustrate data flow from selection to checkout.
- **Layout:** Organize slide into sections (Product Info, User Info, etc.).
- **Key Takeaway:** Summarize to reinforce the main message.

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