

- Let's use the Strategy Pattern to create a system that calculates discounts in a shopping cart. Different discount algorithms (e.g., percentage discount, fixed amount discount, or no discount) will act as interchangeable strategies. The steps follow your instructions.

Step 1: Identify the Algorithm Prone to Change

ShoppingCart
-totalAmount : number -discountAlgorithm : DiscountStrategy
+setDiscountAlgorithm(discountAlgorithm : DiscountStrategy) +calculateTotal() : number +addItem(price : number)

- In the context of a shopping cart, the discount calculation algorithm is prone to frequent changes.
- We'll extract this algorithm into its own set of strategies.