

Lab Work 3: Interactive Shopping Cart System

Objective

Add e-commerce cart functionality including product selection, cart management, and pricing calculations.

Steps:

1. Add to Cart Feature

Enabled users to add products to a session-based cart from the product page.

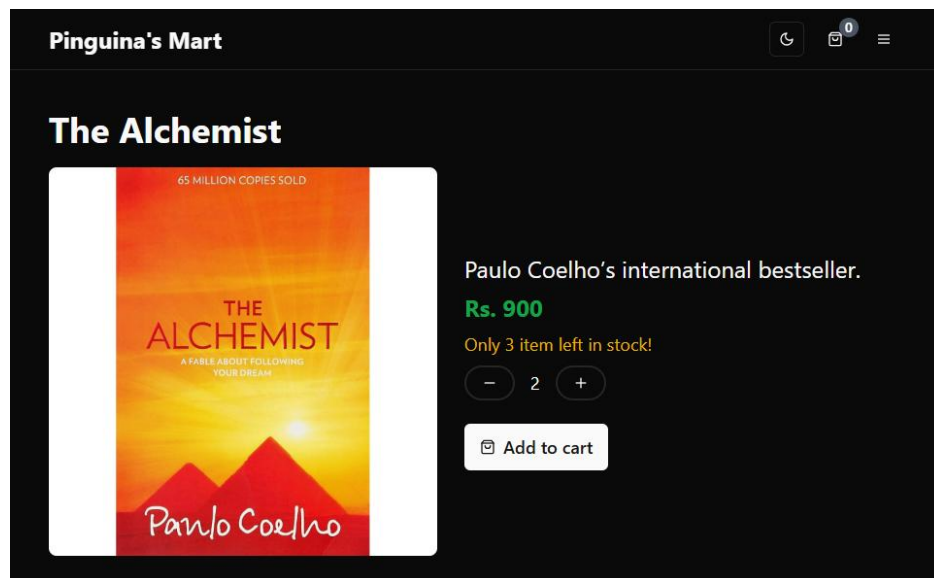


Figure 1: Add to Cart Feature

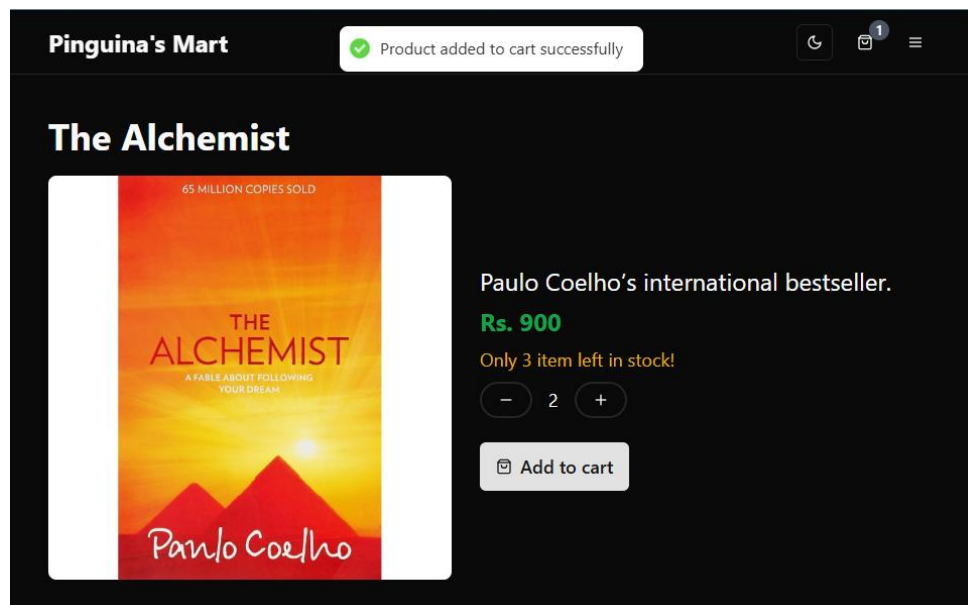


Figure 2: Successful Adding of Product to Cart

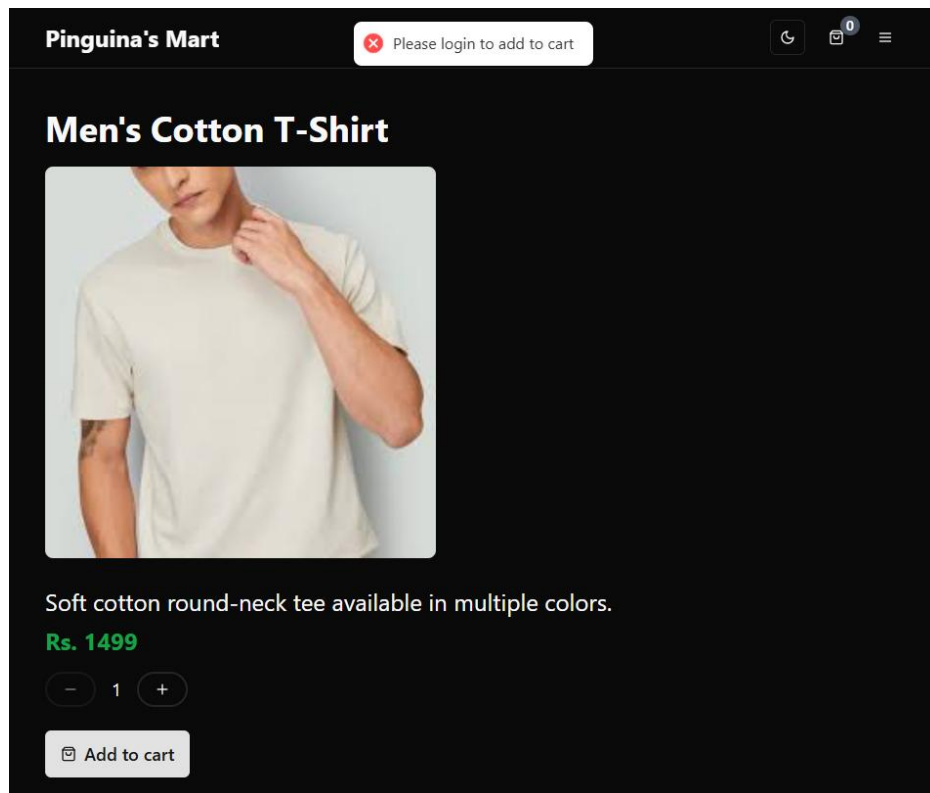


Figure 3: Error while adding to cart without login

2. Shopping Cart View

Created a cart display page showing product names, quantities, prices, and subtotals.

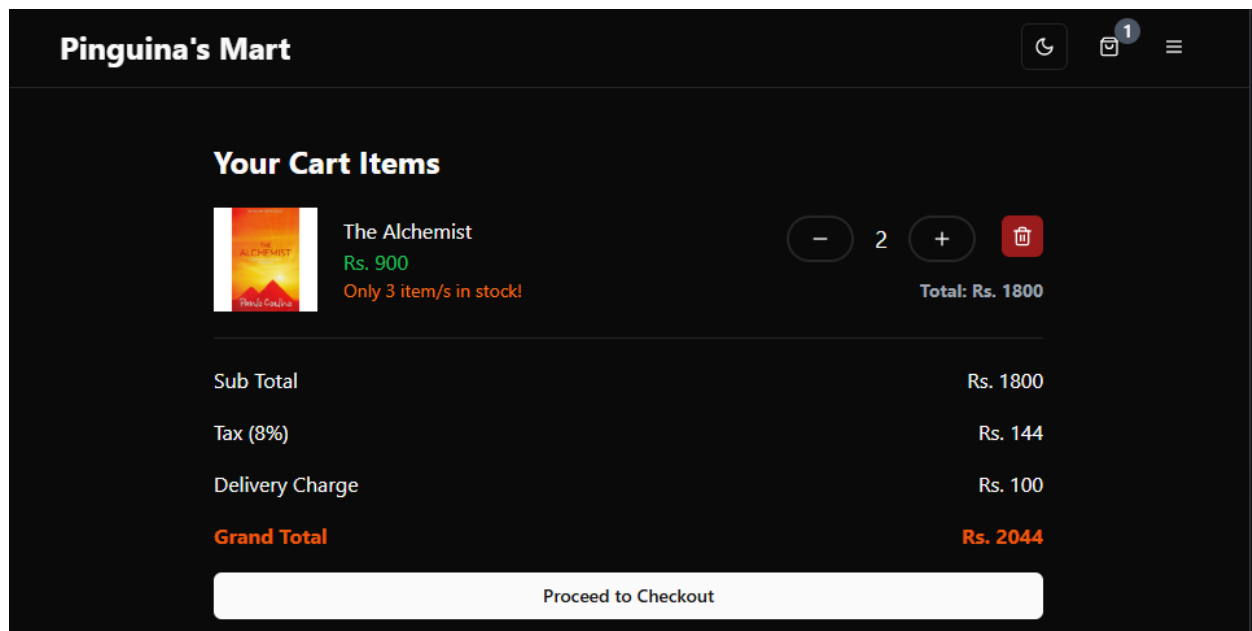


Figure 4: Shopping Cart View with Pricing

3. Price Calculations

As in the image above the total price, tax, and grand total are calculated and displayed.

Source Code:

```
const PriceCalculation = ({ cartItems }: { cartItems: CartItem[]
}) => {
  const [subTotal, setSubTotal] = useState<number>(0);

  useEffect(() => {
    const subtotal = cartItems.reduce((total, item) => {
      return total + item.quantity * item.product.price;
    }, 0);
    setSubTotal(subtotal);
  }, [cartItems]);

  return (
    <section className="flex flex-col gap-4">
      <article className="flex justify-between">
        <span>Sub Total</span>
        <span>Rs. {subTotal}</span>
      </article>

      <article className="flex justify-between">
        <span>Tax (8%)</span>
        <span>Rs. {(subTotal * 8) / 100}</span>
      </article>

      <article className="flex justify-between">
        <span>Delivery Charge</span>
        <span>Rs. 100</span>
      </article>

      <article className="flex justify-between font-bold text-
orange-600">
        <span>Grand Total</span>
        <span>Rs. {subTotal + 100 + (subTotal * 8) / 100}</span>
      </article>

      <Link href="/user/checkout">
        <Button className="w-full">Proceed to Checkout</Button>
      </Link>
    </section>
  );
}
```

```

    </section>
  );
};
export default PriceCalculation;

```

4. Update & Remove Items

Users can change quantities or remove items from the cart.

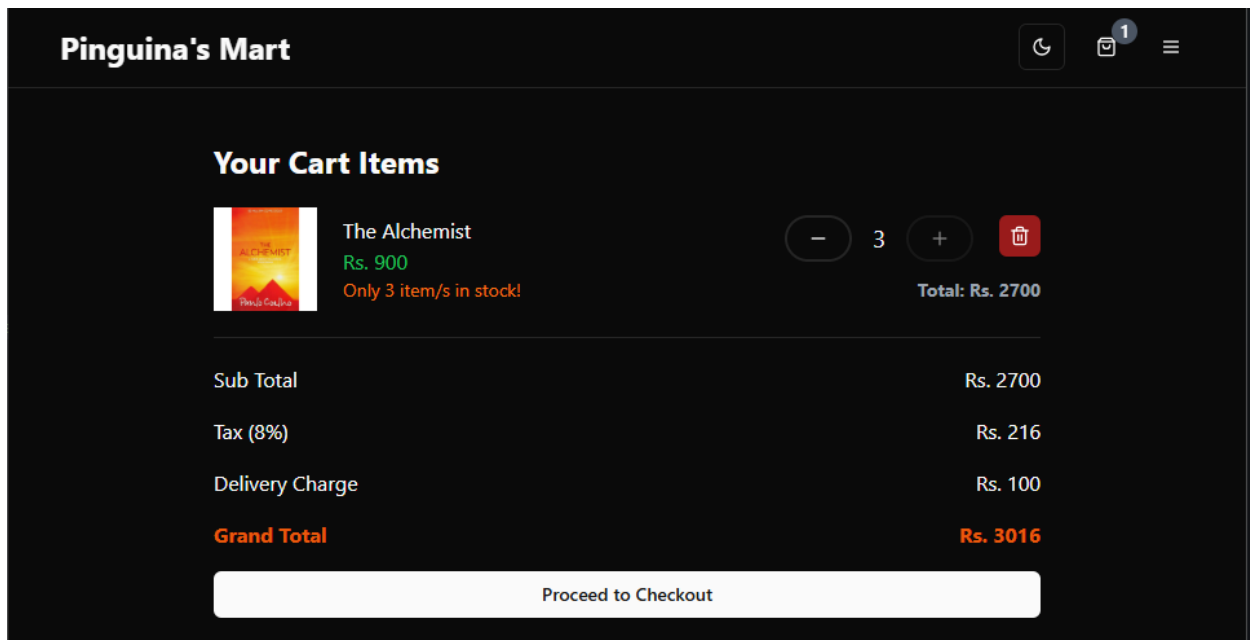


Figure 5: Updating the quantity from 2 to 3

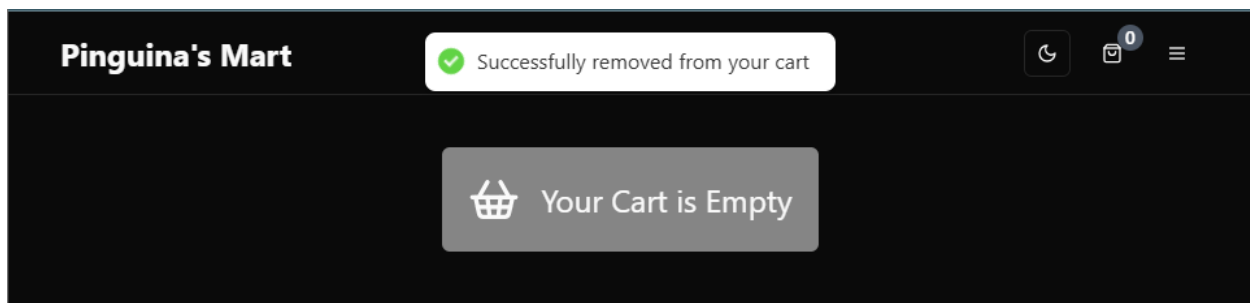


Figure 6: Removing Item from Cart

Result

Created a functional shopping cart that dynamically updates pricing and stores selections using sessions.