

Shopping management system

Beginner Level:

1. **List All Products:**
 - Ek list of products banaein jisme har product ka **name**, **price**, aur **stock** ho. Loop ka use karte hue un sab products ko print karein.
 2. **Add Product to Cart:**
 - Ek empty shopping cart list banayein. Loop ka use karte hue user ko product add karne ka option dein. Har product mein **name**, **price**, aur **quantity** ho.
 3. **Calculate Total Cart Value:**
 - Ek shopping cart list banaein jisme products hain. Loop ka use karte hue total price calculate karein. Har product ki **price** aur **quantity** ka multiplication karke sum karein.
 4. **Display Cart Items:**
 - Ek shopping cart list banaein aur loop ka use karte hue cart mein sab products ko display karein, jisme product ka **name**, **price**, aur **quantity** ho.
 5. **Remove Product from Cart:**
 - Ek shopping cart list banayein. Loop ka use karte hue user ko product remove karne ka option dein aur us product ko cart se hata dein.
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Intermediate Level:

6. **Apply Discount Based on Total Cart Value:**
 - Agar shopping cart mein total value Rs. 5000 se zyada ho, toh 10% discount apply karne ka logic likhein. Discount apply karne ke baad new total value print karein.
 7. **Update Product Stock:**
 - Ek map (dictionary) banayein jisme products ka naam (key) aur stock (value) ho. Loop ka use karte hue user ko kisi product ka stock update karne ka option dein.
 8. **Check Product Availability in Cart:**
 - Ek shopping cart list banaein jisme products hain. Loop ka use karte hue check karein ke kya cart mein koi product out-of-stock hai ya nahi.
 9. **Find Most Expensive Product in Cart:**
 - Ek shopping cart list banaein. Loop ka use karte hue sabse mehenga product dhoondhein (jo cart mein ho).
 10. **Group Products by Price Range:**
 - Ek shopping cart list banayein. Loop ka use karte hue products ko **cheap**, **medium**, aur **expensive** categories mein divide karne ke liye map (dictionary) ka use karein.
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Advanced Level:

11. Checkout System with Item Quantities:

- Ek shopping cart list banayein jisme products ki **name**, **price**, aur **quantity** ho. Checkout karte waqt total amount calculate karein aur uske baad shopping cart ko clear kar de.

12. Track Sales of Each Product:

- Ek map (dictionary) banayein jisme har product ka **name** (key) aur **sales count** (value) ho. Jab koi product sell ho, toh sales count update ho.

13. Find Out-Of-Stock Products:

- Ek map (dictionary) banaein jisme products ka naam (key) aur stock (value) ho. Loop ka use karte hue out-of-stock products ko find karein aur unhe display karein.

14. Generate Receipt for Checkout:

- Ek shopping cart list banaein jisme products hain. Loop ka use karte hue ek receipt generate karein jisme product ka **name**, **price**, **quantity**, aur **total price** ho.

15. Search for Product by Name in Cart:

- Ek shopping cart list banaein. Loop ka use karte hue user se product ka naam lein aur check karein ke kya wo cart mein available hai ya nahi. Agar product mile toh uski quantity aur price show karein.

16. Sort Products by Price:

- Ek shopping cart list banaein. Loop ka use karte hue products ko price ke hisaab se ascending ya descending order mein sort karein.

17. Track Discounts and Apply During Checkout:

- Ek map (dictionary) banaein jisme products ka naam (key) aur unke discounts (value) ho. Checkout ke waqt discount ko apply kar ke total amount calculate karein.

18. Generate Sales Report:

- Ek report generate karne ka logic likhein jisme shopping cart ke products ke naam, price, quantity, aur total sales value ho. Ye report ek dictionary mein store karte hue generate karein.

19. Implement Loyalty Points System:

- Ek loyalty points system implement karein jisme user ko har purchase par points milte hain. Points ko ek map (dictionary) mein store karna ho. Jab customer checkout kare, toh uske points update ho.

20. Handle Multiple Customers:

- Ek system design karein jisme multiple customers ka data store ho. Har customer ka shopping cart ek map (dictionary) mein ho jisme **customer_id** (key) aur **cart details** (value) ho.
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