

# Shopping Cart

This assignment is to build a Shopping Cart class analogous to your online shopping.

The **item** class

Each item will have the information like product name, quantity and unit price.

The **ShoppingCart** class

User should be able to do the following operations on the cart:

**addToCatalog(Item item)**

Add the item to the catalog.

**addToCart(Item item):**

Add the item to the cart.

**removeFromCart(Item item):**

Remove the item from the cart.

**showCart():**

Display all the items in the cart with item name and quantity.

**showCatalog():**

Display all the items in the catalog with item name, quantity and price.

**getTotalAmount():**

Calculate the total amount for the items in the cart.

**getPayableAmount():**

Gets the payable amount, by deducting discount (if any) and add tax(15%) to the total amount of items in cart.

Following are the discount percentages which need to be deducted from the total amount:

**Valid Coupons:**

IND10-10% Discount

IND20-20% Discount

IND30-30% Discount

IND50-50% Discount

**applyCoupon():**

Apply a coupon code.

**printInvoice():**

Display all the items with the quantity, unit price, total amount and payable amount.

\* apply coupon if valid

**Instructions:**

First line contains number of lines.

**Following are the different options:**

**Item:-** Add the item to the catalog(Hint: Catalog array )

**catalog:**Display all the items in the catalog.

**Add:** add the item to the cart.(Hint : cart array)

**Show:** Display all the items in the cart.

**totalAmount:** Display the total amount.

**payableAmount:**Display the payable amount.

**Remove:**remove the item from the cart.

**Coupon:**apply coupon code

**Print:** print the invoice in the following format.

ItemName Itemquantity Itemprice

Xyz                1            100

totalAmount:100

Disc:0.0(applied,if coupon is valid)

Tax:15

Payable amount:115

**Sample Input:**

18

Item greentea,128,120

Item Eggs,65,5

Item rice5kg,109,300

Item curd,22,30

Item cofee,81,300

catalog

add curd,19

add cofee,16

show

totalAmount

remove curd,5

show

totalAmount

remove cofee,1

show

totalAmount

payableAmount

print

**Sample Output:**

greentea 128 120.0

Eggs 65 5.0

rice5kg 109 300.0

curd 22 30.0

cofee 81 300.0

curd 19

cofee 16

totalAmount: 5370.0

curd 14

cofee 16

totalAmount: 5220.0

curd 14

cofee 15

totalAmount: 4920.0

Payable amount: 5658.0

Name quantity Price

curd 14 30.0

cofee 15 300.0

totalAmount: 4920.0

Disc%:0.0

Tax:738.0

Payable amount: 5658.0