

### Problem Statement:

You are required to write a Java program that calculates the total price of a shopping cart, which contains a collection of items. Each item has a name, a price, and a quantity. The program should implement the following requirements:

1. The program should prompt the user to enter the number of items in the shopping cart.
2. For each item, the program should prompt the user to enter the name, price, and quantity of the item.
3. The program should calculate the total price of the shopping cart by multiplying the price of each item by its quantity and summing the results.
4. The program should apply a discount to the total price based on the following rules:
  - If the total price is greater than or equal to \$1000, apply a discount of 10%.
  - If the total price is greater than or equal to \$500, apply a discount of 5%.
  - If the total price is less than \$500, do not apply any discount.
5. The program should display the total price of the shopping cart, including any applicable discounts.

You need to implement the following methods:

1. **calculateTotalPrice(int numItems)** - This method should take the number of items in the shopping cart as input and return the total price of the shopping cart.
2. **applyDiscount(double totalPrice)** - This method should take the total price of the shopping cart as input and apply the applicable discount based on the rules mentioned above.

You can use any data structure to store the items in the shopping cart, but it should be able to efficiently perform the required calculations.

Your Java program should have a main method that takes user input and calls the above methods to calculate the total price of the shopping cart and apply any applicable discounts. The program should display the final price of the shopping cart, including any discounts.