1. The program must record the following transaction details when a customer buys items:  
a. Product ID  
b. Product Description  
c. Quantity  
d. Item Price  
e. Transaction ID  
f. Transaction Date  
2. Use the two classes (PRODUCT and TRANSACT) that you have defined in the last  
practice activity (PA1.CPP). You may modify the classes according to the  
requirements of this task.  
3. The program should compute for the amount of item purchased. If the total amount is  
more than Php1,000.00, the customer is entitled to a 12% discount.  
4. The program should output the total amount of the item, the discount price, and the  
amount due to the customer.  
5. The program should be able to display the transaction. See sample output below.  
6. There should be an option to run the program again or exit the program.

7. You MUST implement abstraction, encapsulation and inheritance in your source  
code.  
8. Create a class diagram that will show the blueprint of your new program for the  
version 2 of the POS application you will develop.  
9. For every sales transaction, a transaction number should be generated.  
10. The program should ask for the following additional information:  
a. Customer Name  
b. Address  
c. Contract Number  
d. Type of Customer  
e. Type of Payment  
f. Transaction Date

9. The customer can be a regular customer or a retail customer. If the customer is a regular  
customer, he can pay as cash or installment. If he pays cash, he is entitled to an  
additional discount of 5%. Otherwise, for installment mode of payment, he is required to  
pay 25% of the total purchase price and pay the remaining balance based on the terms  
of payment that he will choose.  
10. The terms of payment are three months, six months, and nine months.  
11. If the customer is a retail customer, he can also pay in an installment basis. He is  
required to pay 30% of the total purchase price and pay the remaining balance based on  
the terms of payment that he will choose. However, there is a 2.5% interest charge per  
month when he pays the remaining balance.  
12. The program should be able to handle multiple items and multiple transactions.  
13. The program should compute for the subtotal of each item, the total purchase price, the  
discounts, interests, payment per month if installment and the amount to be paid if the  
payment mode is cash.  
14. Provide a summary of every transaction.