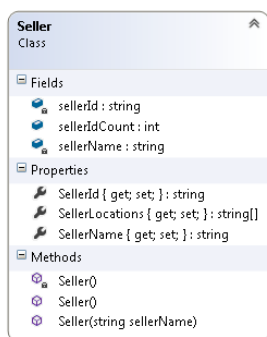
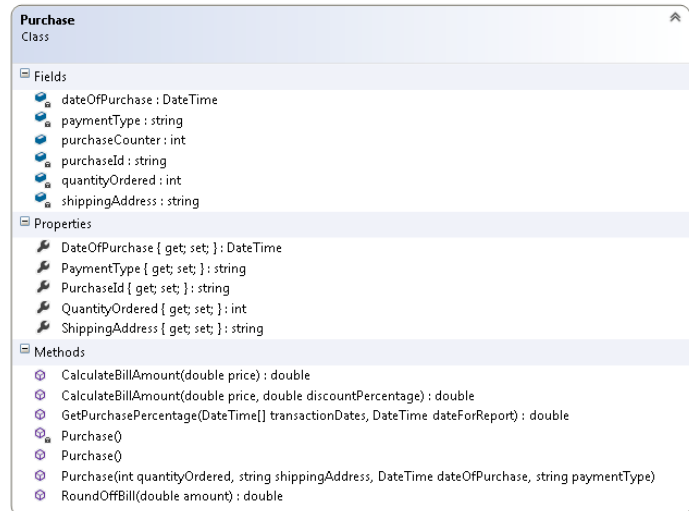
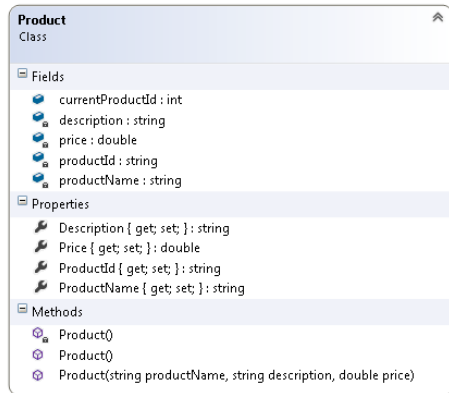
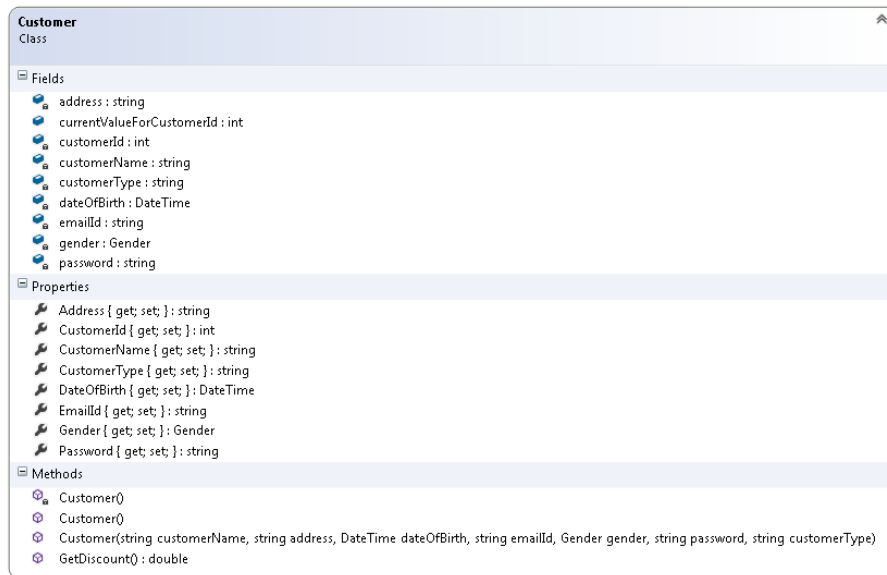


MyCart has given a new requirements. You are a developer who is required to implement the following features.

1. It wants that the 'sellerId', 'productId', 'customerId' and 'purchaseId' should be auto-generated for each new object created for the respective class.

The class diagram of the project is as follows:



Add the new requirements as mentioned below to the classes implemented in

Seller Class

- Static constructor-Seller()
 - The static variable 'sellerIdCount' should be initialized to 1001.
- Default constructor-Seller()
 - The 'sellerId' should start with 'S1001' and should be incremented by 1 when a new object is created with the help of 'sellerIdCount'. Eg: For the first seller the 'SellerId' should be S1001, for the second seller the 'SellerId' should be S1002 and so on.

Product Class

- Static constructor-Product()
 - The static variable 'currentProductId' should be initialized to 100.
- Default constructor-Product()
 - The 'productId' should start with 'P100' and should be incremented by 1 when a new object is created with the help of 'currentProductId'.

Customer Class

- Static constructor-Customer()
 - The static variable 'currentValueForCustomerId' should be initialized to 1000.
- Default constructor-Customer()
 - The 'customerId' should start with 1000 and should be incremented by 1 when a new object is created with the help of 'currentValueForCustomerId'.

Purchase Class

- Static constructor-Purchase()
 - The static variable 'purchaseCounter' should be initialized 1001.
- Default constructor-Purchase()
 - The 'purchaseId' should start with 'B1001' and should be incremented by 1 when a new object is created with the help of 'purchaseCounter'.
- Static method- RoundOffBill(double amount)
 - This method returns the amount rounded up to two decimal places.
- Static method- GetPurchasePercentage(DateTime[] transactionDates, DateTime dateForReport)

- 'transactionDates' is an array of all those dates on which purchases have been made.
- There can be multiple transactions on a single day.
- Calculate the purchase percentage for the 'dateForReport' passed as a parameter using the formula: $\text{Purchase percentage} = \frac{\text{No. of purchases made on the particular date}}{\text{Total no. of purchases}} * 100$
- Return the purchase percentage.

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