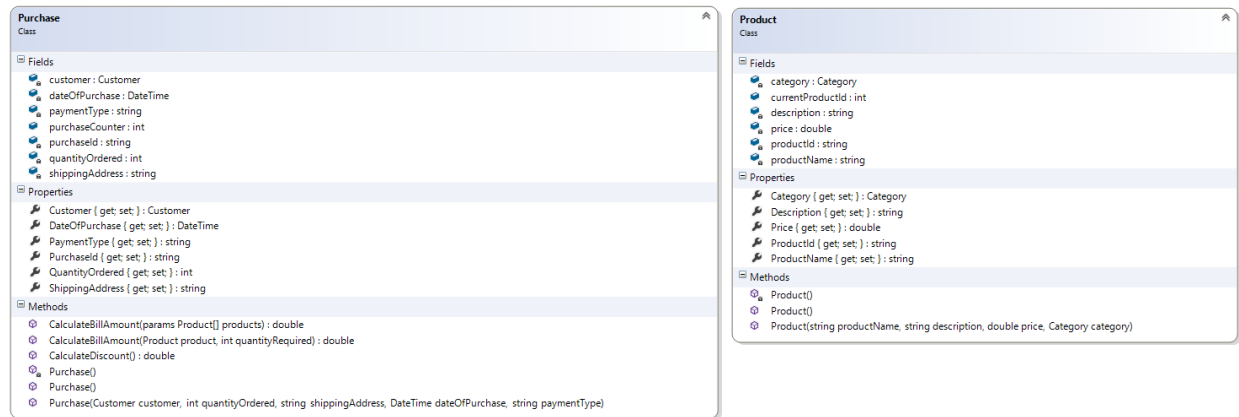MyCart application wants to compute the bill amount of the customer. Every customer is provided with a discount. Refer the below shown class diagram and modify the classes to implement the relationships wherever required.

Purchase class

- **CalculateBillAmount(params Product[] products) method**

  - The total price of all the products should be calculated.

  - Service tax is calculated as: Service tax = 0.07 * total price

  - Get the discount percentage by invoking CalculateDiscount().

  - The total bill is calculated as: Total bill amount = (total price + service tax) * (1 - discount percentage)

  - Return the total bill amount.

- **CalculateBillAmount(Product product, int quantityRequired) method**

  - The total price of the product should be calculated as Total price = price * quantityRequired

  - Service tax is calculated as Service tax = 0.07 * Total price

  - Get the discount percentage by invoking CalculateDiscount().

  - The total bill amount would be Total bill amount = (Total price + service tax) * (1 - discount percentage)

  - Return the total bill amount.

- **CalculateDiscount() method**

  - This method should return the discount value as 0.05.

Note: Use this method to calculate the discount in CalculateBillAmount() methods.