OBJECTIVE: Static and Final Members

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Q1. Create the following **RestaurantBill** class structure with the given data members and a static data member **countOfBills**, also write a no-arg constructor, necessary getters & setters and a **toString()** method;

```
                RestaurantBill
- tableNo: int
- menuItem: String
- size: double
- price: double
- countOfBills = 0: int
- CHICKEN = 200: double
- BEEF = 310: double

+ RestaurantBill()
+ getCountOfBills(): int
+ getPrice(): double
+ getInput(): void
+ calculateBill(): void
+ toString(): String
```

```
                RestaurantBillMain

+ main(String args[]): void
```

- Increment the **countOfBills** when an object is created.
- Write a member method **getInput**() that gets the data members from the user.
- Override the member method toString(), so that it will returns the String representation of RestaurantBill objects.
- Write a member method **calculateBill()** that will calculate the bill according to the menu item and the size as grams. It will set the price according to the conditions below:

Menu Item	Base Price	Size (gr.)	Increase
Chicken Wrap	200 TL	90	-
		120	40%
		180	70%
Beef Wrap	310 TL	90	-
		120	40%
		180	80%

- Write a static member method **getCountOfBills**() that returns the total count of RestaurantBill objects.

Create another class as **RestaurantBillMain**;
- In main method;
  - The program gets several number of RestaurantBill objects from the user until **'NO'** is entered.
  - Calculate the price for each RestaurantBill object by invoking the **calculateBill()** method.
  - Finally, display number of RestaurantBill objects by invoking **getCountOfBills**() method.

```
Output:
Do you want to check the bill (Yes/No): yes

Enter the table number: 3

Enter the menu items's name: Chicken Wrap
Enter the size in grams: 90

The bill is 200.0 TL

Do you want to check the bill (Yes/No): yes

Enter the table number: 11
```

```
Enter the menu items's name: Chicken Wrap
Enter the size in grams: 180

The bill is 340.0 TL

Do you want to check the bill (Yes/No): yes

Enter the table number: 8

Enter the menu items's name: Beef Wrap
Enter the size in grams: 120

The bill is 434.0 TL

Do you want to check the bill (Yes/No): no

There are 3 bills.
```
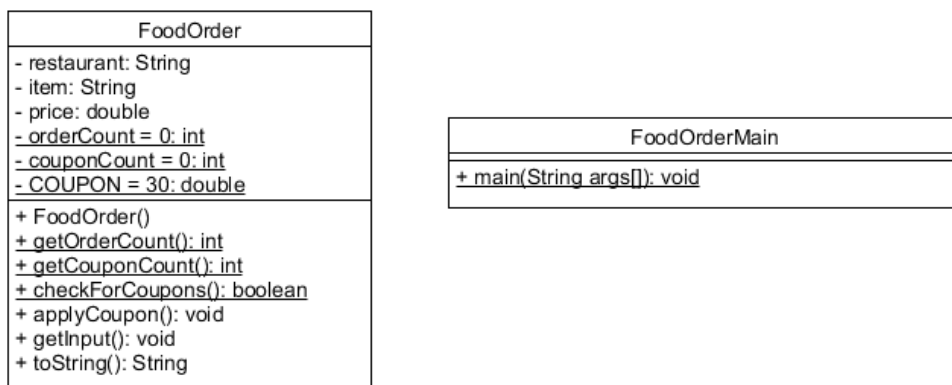
Q2. Create the following **FoodOrder** class structure with the given data members and a static data member **orderCount,** also write a no-arg constructor, necessary getters & setters and a **toString()** method;

FoodOrder
- restaurant: String
- item: String
- price: double
- orderCount = 0: int
- couponCount = 0: int
- COUPON = 30: double
+ FoodOrder()
+ getOrderCount(): int
+ getCouponCount(): int
+ checkForCoupons(): boolean
+ applyCoupon(): void
+ getInput(): void
+ toString(): String

FoodOrderMain
+ main(String args[]): void

- Increment the **orderCount** when an object is created.
- Write a member method **getInput()** that gets the necessary data member values from the user.
- Override the member method **toString**(), so that it will returns the String representation of FoodOrder objects.
- Write a member method **applyCoupon()** that decreases the order price and decrements **couponCount** by 1.
- Write a static member method **checkForCoupons()** that checks whether the order count is a multiple of 2. If it is, the method increments **couponCount** by 1 and returns true. Otherwise, returns false.
- Write a static member method **getOrderCount**() that returns the total count of order objects.

Create another class as **FoodOrderMain**;
- In main method;
  - The program gets several number of FoodOrder objects from the user until **'NO'** is entered.
  - After a FoodOrder object has been created, call the **checkForCoupons()** method. If any coupons are available, ask the user if they want to use a coupon. If the user enters **"YES"**, apply the coupon by calling the **applyCoupon()** method. After a coupon is applied, display the FoodOrder object data by calling the toString method.
  - Finally, display number of FoodOrder objects by invoking **getOrderCount**() method.

Output:

```
Do you want to place an order? (Yes/No): yes

Enter restaurant: York
Enter the ordered item: Bento 4
Enter the price of the item: 230

Do you want to place an order? (Yes/No): yes

Enter restaurant: York
Enter the ordered item: Bento 2
Enter the price of the item: 245

Congratulations! You won a coupon!
```

```
Do you want to use a coupon? (Yes/No):
no

Do you want to place an order? (Yes/No): yes

Enter restaurant: Dominos
Enter the ordered item: Some Pizza
Enter the price of the item: 290

Do you want to use a coupon? (Yes/No):
yes
New price after applying coupon is 260.0 TL

Do you want to place an order? (Yes/No): yes

Enter restaurant: Subway
Enter the ordered item: Chicken Sandwich
Enter the price of the item: 215.90

Congratulations! You won a coupon!

Do you want to use a coupon? (Yes/No):
no

Do you want to place an order? (Yes/No): no

You have made 4 orders.
You have 1 coupons left.
```