[Exercise 1]

A Burger Shop sells a chicken burger for SR 10.5, Beef Burger for SR 6.0 and Cheese Buger for SR 2.5. Write a Java program to compute a customer's bill. Declare a class **BurgerShop** and use appropriate data types for declaring the following attributes *chickenBurger*, *beefBurger*, *cheeseBurger*, *discount*, *subTotal* and *total*. Discount is a number between 0-100 and it represents a percentage. *chickenBurger*, *beefBurger*, *cheeseburger* represent number of items ordered. *subTotal* and *total* represents the amount of the bill before and after discount respectively. See UML for class BurgerShop

```
┌─────────────────────────────┐
│         BurgerShop          │
├─────────────────────────────┤
│ - double discount           │
│ - double subtotal           │
│ - double total              │
│ - int beefBurger            │
│ - int cheeseBurger          │
│ - int chickenBurger         │
├─────────────────────────────┤
│ + double getDiscount()      │
│ + int getBeefBurger()       │
│ + int getCheeseBurger()     │
│ + int getChickenBurger()    │
│ + void Display()            │
│ + void calculateSubtotal()  │
│ + void calculateTotal()     │
│ + void setBeefBurger(int)   │
│ + void setCheeseBurger(int) │
│ + void setChickenBurger(int)│
│ + void setDiscount(double)  │
└─────────────────────────────┘
```
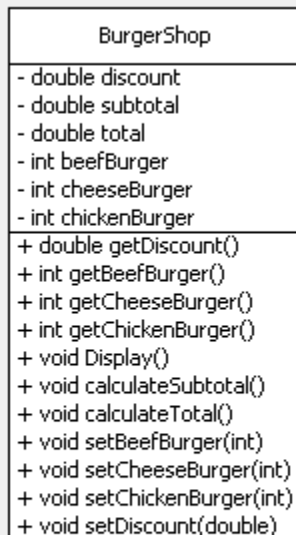
Class **BurgerShop** should have the following operations:

1. *Constructor* to initialize the quantities, discount, subtotal and total to 0.
2. *setters()* Methods for the first four attributes.
3. *getters()* Methods for the first four attributes.
4. *calculateSubTotal()* to calculate the subtotal of the bill . It can be done with the following formula: subtotal=chickenBurger*10.5+beefBurger*6.0+cheeseBurger*2.5. Result would be stored in *subtotal* .

5. *calculateTotal()* to calculate the total cost of the bill, including the discount. Result should be stored in *total.*
6. *display()* to display an itemized bill as follows: (assume discount is 20%)

```
----------------------------------------------------------------
Item                Quantity                    Price
Chicken Burger      8                           SR84.0
Beef Burger         4                           SR24.0
Cheese Burger       4                           SR10.0
----------------------------------------------------------------
Sub total                                       SR    118.0
Discount (%20.0)                                SR    23.6
----------------------------------------------------------------
Total                                           SR    94.4
```

Create a class TestBurgerShop, create an object of the BurgerShop. Use setters to assign some appropriate values to first 4 attributes. Calculate subtotal, total bill and display it.

[Exercise 2]

Modify following in BurgerShop class. All the remaining functionality is same as in Excercie1. See UML

```
┌─────────────────────────────┐
│         BurgerShop          │
├─────────────────────────────┤
│ - double discount           │
│ - double subtotal           │
│ - double total              │
│ - int beefBurger            │
│ - int cheeseBurger          │
│ - int chickenBurger         │
├─────────────────────────────┤
│ + int getBeefBurger()       │
│ + int getCheeseBurger()     │
│ + int getChickenBurger()    │
│ + void Display()            │
│ + void calculateDiscount()  │
│ + void calculateSubtotal()  │
│ + void calculateTotal()     │
│ + void setBeefBurger(int)   │
│ + void setCheeseBurger(int) │
│ + void setChickenBurger(int)│
└─────────────────────────────┘
```

1. *setters()* Methods for the first three attributes*.*
2. *getters()* Methods for the first three attributes*.*
3. Add a new method *calculateDiscount()* which calculates the discount according to following table and stores the result in *discount*

Condition	discount
subtotal greater than 100 SR but less than or equal to 150SR	15%
subtotal greater than 150 SR but less than or equal to 200SR	18%
subtotal greater than 200 SR	20%

Create a class TestBurgerShop, create an object of the BurgerShop. Use setters to assign some appropriate values to first 3 attributes. Calculate subtotal, discount, total bill and display it.