

3 Exercises

1. Design a class named **CandyBar** to represent candybars. The class contains:
 - **three** data member variables. The first member holds the brand **name** of a candy bar. The second member holds the **weight** (which may have a fractional part) of the candy bar, and the third member holds **the number of calories** (an integer value) in the candy bar.
 - A method named **setCandyBar()** that should prompt the user to enter each of the items to set the corresponding member variables of the candybar.
 - A method named **showCandyBar()** that display the information of candybar.
- Write a test program that creates one CandyBar objects and display its information.

A sample runs might look like this:

Enter brand name of a candy bar: *Bulle Marphi*

Enter weight of the candy bar: *4.5*

Enter calories(an integer value) in the candy bar: *230*

Brand: Bulle Marphi

Weight: 4.5

Calories: 230

2. Design a class named **Rectangle** to represent a rectangle. The class contains:

- **Two double data fields** named **width** and **height** that specify the width and height of the rectangle. The default values are 1 for both width and height.
- **A no-arg constructor** that creates a default rectangle.
- **A constructor** that creates a rectangle with the specified width and height.
- A method named **getArea()** that returns the area of this rectangle.
- A method named **getPerimeter()** that returns the perimeter.
- A method named **display()** that print out the information of rectangle.

Write a test program that creates two Rectangle objects, one with width 4 and height 40, and the other with width 3.5 and height 35.9. Display the width, height, area and perimeter of each rectangle in this order.

A sample runs might look like this:

```
Rectangle 1
-----
Width:      4
Height:     40
Area:       160
Perimeter:  88
Rectangle 2
-----
Width:      3.5
Height:     35.9
Area:       125
Perimeter:  78
```