

3 Exercises

1. Write a C++ program that asks the user to input the information, as shown in the following example of output:

```
What is your first name? Betty Sue  
What is your last name? Yewe  
What letter grade do you deserve? B  
What is your age? 20  
The information you entered is:  
Name: Betty Sue, Yewe  
Grade: B  
Age: 20
```

Note that the program should be able to accept first name that comprise more than one word.

2. The **CandyBar** structure contains **three** members. The first member holds the brand **name** of 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.

Write a program that uses a structure variable of that type. The program should ask the user to enter each of the preceding items of information, and then the program should display that information. Use **cin**(or its methods) and **cout**.

Sample output:

```
Enter brand name of a Candy bar: Mocha Munch
Enter weight of he Candy bar: 2.3
Enter calories (an integer value) in the Candy bar: 350
Brand: Mocha Munch
Weight: 2.3
Calories: 350
```

3. The **CandyBar** structure contains three members, as described in **Exercise 2**. Write a program that creates an array of **three CandyBar** structures, initializes them to value of your input, and then displays the contents of each structure. Find the greatest calories per weight, display the name and calories per weight of which satisfies the condition.

Sample output:

```
Please input three CandyBar's information:
Enter the brand name of candy bar: Ferro Rocher
Enter the weight: 23.6
Enter the calories: 893
Enter the brand name of candy bar: Hershey's
Enter the weight: 13.2
Enter the calories: 658
Enter the brand name of candy bar: Mars Wrigley
Enter the weight: 3.2
Enter the calories: 127
```

```
Displaying the CandyBar array contents
```

```
Brand name: Ferro Rocher
```

```
Weight: 23.6
```

```
Calories: 893
```

```
Brand name: Hershey's
```

```
Weight: 13.2
```

```
Calories: 658
```

```
Brand name: Mars Wrigley
```

```
Weight: 3.2
```

```
Calories: 127
```

```
The greatest calories per weight is:
```

```
Brand name: Hershey's
```

```
Calories per weight:49.8485
```