Scanner as a Parameter

Scanner as Parameter

- You should only have **one Scanner** for console input.

- If you need to use the console Scanner in multiple methods, it should be passed as a parameter.
  - The parameter is passed by reference.

Code Example

```java
import java.util.Scanner;

public class CourseInfo {
    public static void main(String[] args) {

        Scanner input = new Scanner(System.in);

        System.out.print("Enter course: ");
        String course = input.next();

        System.out.print("Enter credit hours: ");
        int creditInt = input.nextInt();

        System.out.println("[" + course + "] "
                           + creditInt + " credit hours");
    }
}
```

NOTE:
When passed as a parameter, though it's the SAME Scanner, it could be named differently in each method.

```java
import java.util.Scanner;

public class CourseInfoMethod {
    public static void main(String[] args) {

        Scanner input = new Scanner(System.in);

        String course = getCourse(input);

        int creditInt = getHours(input);

        System.out.println("[" + course + "] "
                           + creditInt + " credit hours");
    }

    /**
     * Reads in and returns the course name entered by the user
     * @param console input scanner
     * @return course name
     */
    public static String getCourse(Scanner console) {
        System.out.print("Enter Course: ");
        return console.next();
    }

    /**
     * Reads in and returns the number of credit hours entered by the user
     * @param scnr input scanner
     * @return credit hours
     */
    public static int getHours(Scanner scnr) {
        System.out.print("Enter credit hours: ");
        return scnr.nextInt();
    }
}
```

Coding Practice

Starter Code →

preLec9
PDF document

Eggs
JAVA File

A farm sells organic brown eggs to local customers. They charge $3.25 for a dozen eggs, or 45 cents for individual eggs that are not part of a dozen.

Write a class called **Eggs** that

1. prompts the user for the number of eggs in the order, and then
2. Displays the amount owed with a full explanation in the following format (NOTE: keep 2 decimal places for total):

```
$ javac Eggs.java
$ java Eggs
How many eggs would you like to buy? 27
You ordered 27 eggs. That is 2 dozen at $3.25 per dozen
and 3 loose eggs at 45 cents each for a total of $7.85.
```

Sample Solution

```java
import java.util.Scanner;

public class Eggs {

    public static final double DOZEN_PRICE = 3.25;
    public static final double LOOSE_PRICE = 0.45;

    public static void main(String[] args) {
        Scanner input = new Scanner(System.in);
        int numEggs = getNumEggs(input);
        calcPrice(numEggs);
    }

    public static int getNumEggs(Scanner input) {
        System.out.print("How many eggs would you like to buy? ");
        return input.nextInt();
    }

    public static void calcPrice(int numEggs) {
        int numDozenEggs = numEggs / 12;
        int numLooseEggs = numEggs % 12;
        double totalPrice = numDozenEggs * DOZEN_PRICE + numLooseEggs * LOOSE_PRICE;

        System.out.printf("You ordered %d eggs. That is %d dozen at $%.2f per dozen\n",
                          numEggs, numDozenEggs, DOZEN_PRICE);
        System.out.printf("and %d loose eggs at %.0f cents each for a total of $%.2f.\n",
                          numLooseEggs, LOOSE_PRICE * 100, totalPrice);
    }
}
```