Assignment 1: Fundamental Java Question

Requirements:

- Create a Java project named yourStudentId_HW1 ,i.e. 109356001_HW1.
- For each question below, write your code in the main method.
- Your code must be properly formatted with sensible variable names!

1. Write a program that does the following in ***Area*** class:
   a. Declare and initialize ***pi*** as 3.14.
   b. Declare the radius and area variables as ***r, area.***
   c. Display ***"Please input the radius:"*** on the console to remind the user to enter the radius.
   d. Use the ***Scanner*** object to read the input content and assign the object to ***rInput.***
   e. Use the ***nextDouble()*** method to initialize the variable ***r*** with the radius entered by the user.
   f. Use the circular area formula to give the initial value of ***area***:

   radius* radius * pi

   g. Finally print out the calculated area on the Console (round off to the 2nd decimal place).

   Sample output:

```
Please input the radius:5
Area:78.50
```

2. Please create a class as ***cashier***. Assuming that the store only has following items: apple ($NT 10 per unit), banana ($NT 15 per unit), orange ($NT 13 per unit), and kiwifruit ($NT 17 per unit), the system will displayed the unit price of each product in sequence, and the purchase quantity requires user input. After the input is completed, the system displays the total amount. Then the system asks to enter the amount paid by the customer (in $NT hundred dollars), and then calculate how much change ($NT 100, 50, 10, 5, 1 amount) should be made. The expected system operation interface as sample output.
   a. Declare ***qtyApple, qtyBanana, qtyOrange, qtyKiwi, total, payment, balance*** as integer variables.
   b. Display the message on the console to remind the user to enter the quantity of each item purchased.
   c. Use the ***Scanner*** object to read the input content and assign it to ***itemScanner.***
   d. Use the ***nextInt()*** method to initialize the variable ***qtyApple, qtyBanana, qtyOrange, qtyKiwi*** with the number entered by the user.
   e. Display the message on the console to remind the user to enter the quantity of each item purchased.
   f. After calculating the total cost, assign it to the ***total*** and print it on the console
   g. Display the message on the console to remind the user to enter the payment amount.
   h. Use the ***itemScanner*** to read the payment amount and assign it as ***payment***.
   i. Calculate the balance and print how much change ($NT 100, 50, 10, 5, 1 amount) should be made.

Sample output:

```
***cashier***

Please enter the quantity of apple ($NT 10 per unit) you
purchased:1
Please enter the quantity of banana ($NT 15 per unit) you
purchased:2
Please enter the quantity of orange ($NT 13 per unit) you
purchased:3
Please enter the quantity of kiwifruit ($NT 17 per unit) you
purchased:4
The total cost: 147
Please enter payment amount(must above total cost):200
Amount to be change: 53
The amount of each change is as follows:
$NT 100: 0
$NT 50: 1
$NT 10: 0
$NT 5: 0
$NT 1: 3
```

Submission: Submit your project as "zip (or rar) file" via Moodle. No other submissions will be graded.

Reminder: Please zip the whole project

Deadline: 2020/10/06 (for both Mon56 and Tue23)