

Assignment 2

Collect café NU coupons.

1. Assignment Explanation



Imagine that you go to the café NU with your friends. After you order, the café manager will give you coupons for each drink. Next time you visit the café, then you can get 1 free drink per 10 coupons. Let's make a coupon management program.

Step 1) Every visit, print hello and coupons you have at the first line. You have to get an integer **input, the number of drinks**.

- If the input is **positive number**, go to the next step.
- If the input is **0**, exit the program.
- If the input is **negative number**, receive another input until it is correct.

Step 2) If you have more than 10 coupons, manager will ask you how many free drinks you want to change with your coupons. If you have less than 10 coupons manager will not ask to you.

- If the input is **positive number**, check whether there are enough coupons or not. If enough, continue the next step. If not, receive another input until it is in range from 0 to the number of coupons.
- If the input is **0**, it means you save your coupons then continue the next step.
- If the input is **negative number**, receive another input until it is in range.

Step 3) Print total price of your drinks except free drinks. The price of 1 drink is ₩2000. Also, **print how many coupons you received.** You received 1 coupon for each paid drink. (Except for free drinks with coupons)

Step 4) Repeat Step 1 – 3, until program is exited.

2. Example & Results (Please read carefully)

Example 1.

```
=====
Welcome! This is Cafe NU!
=====
Hello~, You have 0 coupons.
How many drinks do you want? 7
You have to pay 14000 won and get 7 coupons! See you later~
=====

=====
Hello~, You have 7 coupons.
How many drinks do you want? 4
You have to pay 8000 won and get 4 coupons! See you later~
=====

=====
Hello~, You have 11 coupons.
How many drinks do you want? 9
<<< 10 coupons -> 1 Free drink >>>
How many free drinks do you want? 0
Okay, you use 0 coupons. Then You get 0 free drink(s)
You have to pay 18000 won and get 9 coupons! See you later~
=====

=====
Hello~, You have 20 coupons.
How many drinks do you want? 4
<<< 10 coupons -> 1 Free drink >>>
How many free drinks do you want? 2
Okay, you use 20 coupons. Then You get 2 free drink(s)
You have to pay 4000 won and get 2 coupons! See you later~
=====

=====
Hello~, You have 2 coupons.
How many drinks do you want? 0
Good bye~
>>>
```

You have less than 10 coupons, manager **will not ask** to you.

You have more or equal than 10 coupons, manager **will ask to you** how many free drinks you change with coupons.

0 means you don't want to use coupon. Then, print the result and continue next step.

At this time, you use **20** coupons. Then, you can get **2** free drinks.

You get **2 free drink**, you have to pay for just **2 (4-2)** drinks and you can get **2** new coupons.

You order **0** drinks. It means you exit this program.

Example 2.

```
=====
Welcome! This is Cafe NU!
=====
```

```
Hello~, You have 0 coupons.
How many drinks do you want? 24
You have to pay 48000 won and get 24 coupons! See you later~
=====
```

```
=====
Hello~, You have 24 coupons.
How many drinks do you want? 2
<<< 10 coupons -> 1 Free drink >>>
How many free drinks do you want? 2
Okay, you use 20 coupons. Then You get 2 free drink(s)
You have to pay 0 won and get 0 coupons! See you later~
=====
```

At this time, you order 2 drinks.
But you use 20 coupons, then,
you don't have to pay for drinks.

```
=====
Hello~, You have 4 coupons.
How many drinks do you want? 0
Good bye~
>>> |
```

Example 3. for error cases

3-1. Ordering a negative number of drinks is impossible.

```
=====
Welcome! This is Cafe NU!
=====
```

```
Hello~, You have 0 coupons.
How many drinks do you want? -2
Worng input!
How many drinks do you want? 4
You have to pay 8000 won and get 4 coupons! See you later~
=====
```

```
=====
Hello~, You have 4 coupons.
How many drinks do you want? 0
Good bye~
```

3-2. You can't input a negative number for number of free drinks. Also, you can't discount drinks with not enough coupons. In below case, you have only 11 coupons, you can't discount two drinks, just one.

(Assume that the number of free drinks is smaller or equal than the number of ordered drinks.)

```
=====
Welcome! This is Cafe NU!
=====
Hello~, You have 0 coupons.
How many drinks do you want? 10
You have to pay 20000 won and get 10 coupons! See you later~
=====

=====
Hello~, You have 10 coupons.
How many drinks do you want? 1

<<< 10 coupons -> 1 Free drink >>>
How many free drinks do you want? 0
Okay, you use 0 coupons. Then You get 0 free drink(s)

You have to pay 2000 won and get 1 coupons! See you later~
=====

=====
Hello~, You have 11 coupons.
How many drinks do you want? 4

<<< 10 coupons -> 1 Free drink >>>
How many free drinks do you want? -4
Worng input!
How many free drinks do you want? 2
You don't have enough coupons!
How many free drinks do you want? 1
Okay, you use 10 coupons. Then You get 1 free drink(s)

You have to pay 6000 won and get 3 coupons! See you later~
=====
```

3. Submission Form

- A Python file that implements the assignment.
- The file name is [student-id].py
- Submit on the i-campus assignment board.
- Submission due date: 4/17, 23:59
- Late submission: -15 points per one day, maximum -45 points (3 days)

After 3days, you cannot get points for this assignment.

4. Scoring Criteria (Maximum 100 points)

- Print "Welcome! This is Café NU!" and receive input, number of drinks : 10%
- Receive input and print result repeatedly (Loop) : 20%
- Check Input is correct or not : 50%
 - Number of drinks : 25%
 - Number of free drinks : 25%
- Calculate total price correctly : 10%
- Calculate number of coupons correctly : 10%