JIUE3108 Introduction to Computing Using Python

Homework 6

Deadline: 2023.10.1 Midnight (SUN)

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HandWritten Notes

- Read and summarize the textbook, not write down what is in the Slides.

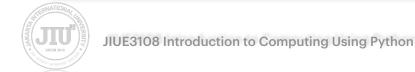- Avoid summarizing or copying content directly from the Slides.

! DO NOT BE LATE ! ♨️🫡

		Imperative Programming 3.2 Execution Control Structures (Iteration~) **Execution Control Structures** 5.2 For Loop and Iteration Patterns 5.3 More on Lists: Two-Dimensional Lists 5.4 while Loop 5.5 More Loop Patterns 5.6 Additional Iteration Control Statements	
Week6	~ 10/1		**4. Code Structures** - while - for

[Q1] Local Variables Practice 1

```python
```

• Create a program that takes inputs for account balance, deposit amount, and withdrawal amount and performs calculations.

• Program Requirements:

  • Develop two functions for this program:

    `withdraw(money), deposit(money)`

  • Utilize a global variable '`balance`' to perform the calculations.

```
Enter the initial balance: 10000
Enter the deposit amount: 20000
Current balance is 30000
Enter the withdrawal amount: 15000
Current balance is 15000
```

[Q2] Swapping Practice 1

```
python
```

- Suppose a nonempty list team has been assigned.

- Write a Python statement or statements that swap the first and last value of the list.

- So, if the original list is:

```
>>> team = ['Ava', 'Eleanor', 'Clare', 'Sarah']
```
- Then the resulting list should be:

```
>>> team = ['Sarah', 'Eleanor', 'Clare', 'Ava']
```

[Q3] Mutable Parameter Passing Practice 1

```python
python

• Implement function swapFL() that takes a list as input and swaps the first
  and last elements of the list.

• You may assume the list will be nonempty.

• The function should not return anything.

>>> ingredients = ['flour', 'sugar', 'butter', 'apples']
>>> swapFL(ingredients)
>>> ingredients
   ['apples', 'sugar', 'butter', 'flour']
```

[Q4] While Loop Practice 1

```python
```

- Print multiples of 7 that are between 1 and less than 1000.
- Use a while loop.

[Q5] While Loop Practice 2

```python
```

- Print the multiples of 5 between 1 and 100.

- Use a while loop.

[Q6] While Loop Practice 3

```python
```

- Using a while loop:

- Execute the block inside the loop as long as the input value is not 99999.

- Inside the block, repeatedly print the input number as many times as specified.

```
Enter the number: 3
3
3
3
num = 3
```

```
Enter the number: 99999
num = 99999
```

While Loop Example 7

- To receive a desired value from the user

```python
message = "n"


while message != "y":
    message = input("Do you want to quit? [y/n]: ")
```

While Loop Example 8

◉ **To receive a desired value from the user**

```python
pwd = "????"

while pwd != "1234":
    pwd = input("Enter the password: ")
```

[Q7] While Loop Practice 4

python

- Using a while loop:
    - (*Hint: While Loop Example 7 & 8)
- Keeps asking the user to input a password.
- Exits the loop if the entered password is '1111'.
- Exits the loop if the number of attempts reaches 5 or more.
- After exiting the loop, the program should print 'Program terminated⋯'."

```
Enter the password: 1
Enter the password: 1
Enter the password: 2
Enter the password: 123
Enter the password: 111
Program terminated...
```

[Q8] While Loop Practice 5

- Using a while loop:

- Receive the number of integers to be input from the user.

- If a negative number is entered, continue prompting until a positive number is entered.

- For example, if 5 is entered, receive 5 integers and calculate the average of those values, then display the average.

```
How many values to enter?: 5
Enter the number: 12
Enter the number: 10.2
Enter the number: 3.75
Enter the number: 3
Enter the number: 124
The average of the input values are = 30.589999999999996
```

[Q9] While Loop Practice 6

- Using a while loop:

- Input the amount of money for the items to be purchased.

- Execute the loop only if the amount is equal to or less than 10000 Rupiah.

- When the loop ends, display the number of items to be purchased and the total sum of all the amounts.

```
Enter the price: 2000
Enter the price: 1000
Enter the price: 5200
Enter the price: 12000
The total price of 3 items are 8200.0 Rupiah
```