JIUE3108 Introduction to Computing Using Python

Homework 5

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Minjoo Park
minjoo@jiu.ac

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Jakarta International University

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 ! ♨️🫵

Week5	~ 9/24	**Imperative Programming** 3.3 User-Defined Functions 3.4 Python Variables and Assignments 3.5 Parameter Passing	**4. Code Structures** - Comment # - Continue Lines \ - Comprehensions - Functions - Generators and Decorators

[Q1] `elif` Practice 1

python

- Take as input a person's height (in meter) and weight (in kilograms) and computes the person's Body Mass Index (BMI). The BMI formula is:
  - `bmi = weight /  height^2`
- You should print the string `'Underweight'` if `bmi` < 18.5, `'Normal'` if 18.5 <= bmi < 25, and `Overweight` if `bmi` >= 25.

[Q2] `elif` Practice 2

python

- Receive **age** as input and store it in the variable 'age'
- If the age is less than 18, it prints "You are a minor."
- If the age is 18 or older but less than 60, it prints "You are in middle age."
- If the age is 60 or older, it prints "You are a senior citizen."

[Q3] Nested Condition Practice 3

python

- After receiving body temperature as input:
  - If the body temperature is 37.5 or higher, display 'High fever.'
  - If the body temperature is 35.5 or higher but less than 37.5, display 'Normal temperature.'
  - If the body temperature is less than 35.5:
    - If it's 34 or higher, display 'Low temperature.'
    - If it's less than 34, display 'Very low temperature.'
- Use 'if', 'elif', and 'else' statements.

[Q4] Nested Condition Practice 4

```python
```

- After receiving a score and an evaluation method as input:
- If the evaluation method is 'PF':
    - If the score is 70 or higher, display 'Pass.'
    - Otherwise, display 'Fail.'
- If the evaluation method is 'grade':
    - If the score is 90 or higher, display 'A.'
    - If the score is 80 or higher, display 'B.'
    - If the score is 70 or higher, display 'C.'
    - Otherwise, display 'F.'
- Use 'if', 'elif', and 'else' statements."

[Q5] Built-in Functions Practice 1

python

- Using built-in functions, perform the following tasks:
  - Take the list n = [1, 3, 5, 7, 99, 97, 95, 93, 91]
  - Print the number of items and the sum of all items in the list.
  - Print the list n in reverse order.

[Q6] User-Defined Functions Practice 1

python

- Implement function `average()` that takes two numbers as input and returns the average of the numbers.

- A sample usage is:

```
>>> average(1,3)
    2.0
>>> average(2, 3.5)
    2.75
```

[Q7] User-Defined Functions Practice 2

python

- Implement function `noVowel()` that takes a string `s` as input and returns `True` if no character in s is a vowel, and `False` otherwise (i.e., some character in s is a vowel).

```
>>> noVowel('crypt')
      True
>>> noVowel('cwm')
      True
>>> noVowel('car')
      False
```

[Q8] User-Defined Functions Practice 3

python

- Specify 3 parameters.
- Write a function that compares the sizes of these three specified parameters and returns the largest number.

- Before calling this function:
  - Prompt the user to input 3 numbers.
  - Call the function you created.
  - Receive the result and display it.

[Q9] User-Defined Functions Practice 4

python

- After receiving a positive integer as input, create a function called `lennum(n1)`
- This function checks how many digits it has and returns both the number of digits and the last digit.
- Execute the function once.