LAB 2

2017. 06. 22

REVIEW

The second largest number (only use if statement).

- Input: three numbers.
- Output: the second largest number

e.g.)

20 20 20 => 20

20 30 40 => 30

20 30 10 => 20

LIST

리스트명 = [요소1, 요소2, 요소3, …]

```
>>> a = [1,2,3]
>>> print a
[1, 2, 3]
>>> b = ['Big', 'Bang']
>>> print b
['Big', 'Bang']
```

```
>>> c = [2, 'NE', 1]
>>> print c
[2, 'NE', 1]
>>> d = [1, 2, ['Three', 'Four']]
>>> print d
[1, 2, ['Three', 'Four']]
```

INDEXING & SLICING

```
>>> d = [1, 2, ['Three', 'Four']]
>>> d[0]
1
>>> d[2]
['Three', 'Four']
>>> d[-1]
['Three', 'Four']
>>> d[-1][0]
'Three'
```

```
>>> a = [1, 2, 3, 4]
>>> a[0:2]
[1, 2]
>>> str = "ab123"
>>> str[0:2]
'ab'
>>> str[2:]
'123'
>>> str[:2]
'ab'
```

LIST OPERATORS

```
>>> a = [1,2,3]
>>> b = [4,5,6]
>>> a + b
[1, 2, 3, 4, 5, 6]
>>> a * 3
[1, 2, 3, 1, 2, 3, 1, 2, 3]
```

```
>>> a[2] = 10
>>> a
[1, 2, 10]
>>> a[2:] = [3,4,5,6,7]
>>> a
[1, 2, 3, 4, 5, 6, 7]
>>> a[1:5] = [ ]
>>> a
[1, 6 ,7]
```

FOR LOOP

for 변수 in 리스트(또는 튜플, 문자열):

    문장1

    문장2

    ...

```
>>> count = ['one', 'two', 'three']
>>> for i in count:
...         print i
one
two
three
```

EXAMPLE

- 홀수면 odd 출력하고 짝수면 even 출력
- numbers = [1,2,3,4,5]
- for number in numbers:

```
    if number%2 == 0:
        print “even”
    else:
        print “odd”
```

FOR LOOP AND CONTINUE

- 홀수만 출력
- numbers = [1,2,3,4,5]
- for number in numbers:

```
    if number%2 == 0:
        continue
    print number
```

RANGE FUNCTION

- 숫자 리스트를 자동으로 만들어 준다

```
>>> sum = 0
>>> for i in range(1, 11):
        sum = sum + i
>>> print sum
55
```

WHAT WE COVERED TODAY

- list
- for loop
- range function

EXERCISE

1. Define forecast function

Input:

```
>>> forecast(“20170622sunny”)
```

Output:

year is 2017, day is 0622, weather is sunny

EXERCISE

2. for문을 사용하여 구구단 출력

Output:

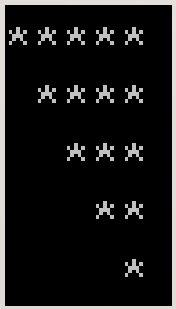
EXERCISE

3. 별 찍기

```
def star(s):
    …
```

Input: star(5)

Output:



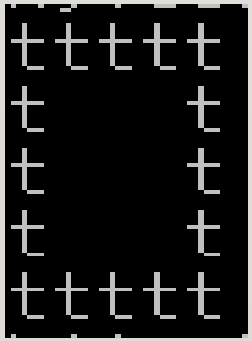
EXERCISE

4. Define textsquare function (a is char, b is size where b >= 2)

```
def textsquare(a ,b):
    ...
```

Input: textsquare(“t”, 5)

Output:



CHALLENGE: PARENTHESIS

5. Define vps function

- Input: Parenthesis string (e.g. vps(“()()”))
- Output: If it is correct, print Yes otherwise No.

[Test case]

vps(“(())”) -> Yes

vps(“))((“) -> No

vps(“(())())”) -> No

CHALLENGE: 2017

6. January 1, 2017 is Sunday. If so, what day is 2017.xx.yy?

Write a program to find out.

```
>>> getday(6,22)
THU
```