제6강 String

학습 목차

- 다양한 문자열 처리 함수
- 클립보드 처리
- 핫키 처리

Double quote / Escape character

```
spam = "That is Alice's cat."

spam = 'Say hi to Bob\'s mother.'
```

Escape character	Prints as
\'	Single quote
\"	Double quote
\t	Tab
\n	Newline (line break)
\\	Backslash

Raw String

- escape 캐릭터를 무시

```
print(r'That is Carol\'s cat.')
```

Multiple Lines

```
def print_lines():
    print('''
애국가
    동해물과 백두산이 ....
    우리나라 만세....
끝.
''')
```

Multiline Comments

```
"""This is a test Python program.
Written by Al Sweigart al@inventwithpython.com

This program was designed for Python 3, not Python 2.
"""


def spam():
    """This is a multiline comment to help
    explain what the spam() function does."""
    print('Hello!')
```

Slicing

- List 슬라이스와 동일한 기능

```
message = 'hello, world'
even_message = message[::2]
```

문자열 포함 여부

```
>>> 'Hello' in 'Hello World'
True
>>> 'Hello' in 'Hello'
True
>>> 'HELLO' in 'Hello World'
False
>>> '' in 'spam'
True
>>> 'cats' not in 'cats and dogs'
False
```

isX

```
>>> 'hello'.isalpha()
True
>>> 'hello123'.isalpha()
False
>>> 'hello123'.isalnum()
True
>>> 'hello'.isalnum()
True
>>> '123'.isdecimal()
True
>>> '    '.isspace()
True
>>> 'This Is Title Case'.istitle()
True
>>> 'This Is Title Case 123'.istitle()
True
>>> 'This Is not Title Case'.istitle()
False
>>> 'This Is NOT Title Case Either'.istitle()
False
```

upper, lower, isupper, islower

```
>>> spam = 'Hello world!'
>>> spam = spam.upper()
>>> spam
'HELLO WORLD!'
>>> spam = spam.lower()
>>> spam
'hello world!'
```

```
>>> spam = 'Hello world!'
>>> spam.islower()
False
>>> spam.isupper()
False
>>> 'HELLO'.isupper()
True
>>> 'abc12345'.islower()
True
>>> '12345'.islower()
False
>>> '12345'.isupper()
False
```

startswith, endswith

```
>>> 'Hello world!'.startswith('Hello')
True
>>> 'Hello world!'.endswith('world!')
True
>>> 'abc123'.startswith('abcdef')
False
>>> 'abc123'.endswith('12')
False
>>> 'Hello world!'.startswith('Hello world!')
True
>>> 'Hello world!'.endswith('Hello world!')
True
```

join

```
>>> ', '.join(['cats', 'rats', 'bats'])
'cats, rats, bats'
>>> ' '.join(['My', 'name', 'is', 'Simon'])
'My name is Simon'
>>> 'ABC'.join(['My', 'name', 'is', 'Simon'])
'MyABCnameABCisABCSimon'
```

split

```
'my name is hyun'.split()                # 모든 공백 space, \n \t \v \f \r
'my name is hyun\ni love you'.split()
'my name is hyun\ti love you'.split()

'my name is   hyun'.split()
'my name is   hyun'.split(' ')
'my name is  hyun'.split('m')
'my namme is hyun'.split('m')

'my name is hyun'.split('is')
'my name isis hyun'.split('is')
```

줄 단위로 분리

```
>>> spam = '''Dear Alice,
How have you been? I am fine.
There is a container in the fridge
that is labeled "Milk Experiment".

Please do not drink it.
Sincerely,
Bob'''
>>> spam.split('\n')
['Dear Alice,', 'How have you been? I am fine.', 'There is a container in the
fridge', 'that is labeled "Milk Experiment".', '', 'Please do not drink it.',
'Sincerely,', 'Bob']
```

partition

- 문자열을 separator 문자열을 기준 삼아 세개의 문자열로 분리
  - before, sperator, after

```
>>> 'Hello, world!'.partition('w')
('Hello, ', 'w', 'orld!')

>>> 'Hello, world!'.partition('world')
('Hello, ', 'world', '!')

>>> 'Hello, world!'.partition('XYZ')
('Hello, world!', '', '')
```

center, rjust, ljust

```
'hello'.rjust(10)
'hello'.ljust(10)
'hello'.rjust(20, '*')
'hello'.center(20, '=')
```

```
def print_picnic(food, lwidth, rwidth):
    print('PICNIC FOOD'.center(lwidth + rwidth, '='))
    for k, v in food.items():
        print(k.ljust(lwidth, '.') + str(v).rjust(rwidth))

food = {'sandwiches': 4, 'apples': 12, 'cups': 4, 'cookies': 8000}
print_picnic(food, 12, 5)
print_picnic(food, 20, 6)
```

strip, rstrip, lstrip

```
spam = '   hello   world     '
spam.strip()
spam.lstrip()
spam.rstrip()

spam = 'SpamSpamBaconSpamEggsSpamSpam'
spam.strip('ampS')
```

ord() 와 chr()

```
>>> ord('A')
65
>>> ord('4')
52
>>> ord('!')
33
>>> chr(65)
'A'
```

clipboard text - pyperclip

Hello from python 문자열를 클립보드에 저장

```
import pyperclip

pyperclip.copy('Hello from Python’)

pyperclip.paste()
```

클립보드에 있는 내용을 가져옴.

키입력 캐칭 - keyboard

```
import keyboard
import winsound

def play_start_sound():
    winsound.Beep(440, 200)
    winsound.Beep(440, 200)

def play_end_sound():
    winsound.Beep(440, 200)
    winsound.Beep(440, 200)
    winsound.Beep(440, 200)

def report():
    winsound.Beep(400, 500)
    keyboard.write('shift+windows+w is pressed')

keyboard.add_hotkey('shift+windows+w', report)
play_start_sound()
keyboard.wait('esc')
play_end_sound()
keyboard.remove_all_hotkeys()
```