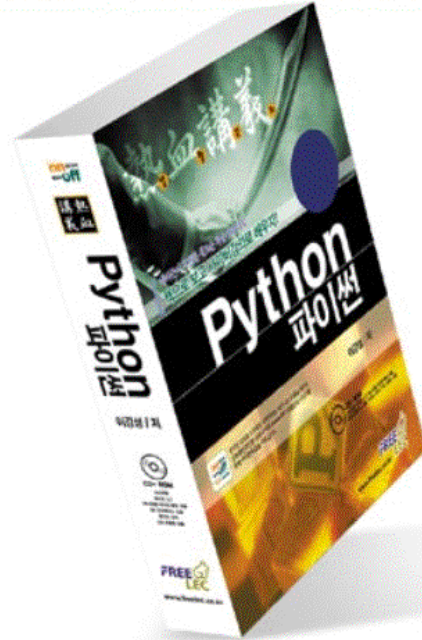프리렉의 열혈강의 시리즈

Python 파이썬

1

파이썬 (Python)

Python

❖ 5

:

(gslee@mail.gwu.ac.kr)

2

❖

1.
2.   (nested lists)
3.
4.
5.
6.   (listcomprehension)
7.
8. range
9.

5-1

●

>   ,   ,   ,   ,   ...

●

●

L[1:3] = [1, 2, 3]
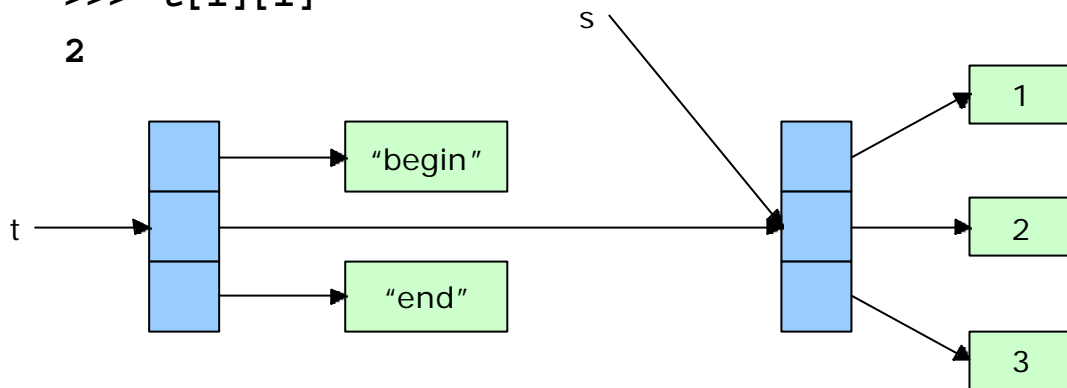
●

> **L[1:3] = [ ]**

> **del L[1:3]**

●

> **L[1:1] = [1, 2, 3]**

5-2

●

```
>>> s = [1,2,3]
>>> t = ['begin', s, 'end']
>>> t
['begin', [1, 2, 3], 'end']
>>> t[1][1]
2
```

5-3

append	(push)
insert	
index	(Search)
count	
sort	
reverse	
remove	
pop	(pop)
extend	

5-3

- **(stack)**
  - ➤ **append(s), pop()**
- **(queue)**
  - ➤ **append(s), pop(0)**

7

5-4

```
>>> lt = [('one', 1), ('two', 2)]
>>> for t in lt:
    print 'name=', t[0], 'num=', t[1]

>>> for t in lt:
    print 'name=%s, num=%s' % t

>>> for name, num in lt:
    print name, num
```

8

5-5

- **cmp(a, b)**
  - a < b   -1
  - a == b   0
  - a > b   1

-

```
>>> def mycmp(a1, a2):
     return cmp(a2, a1)
>>> L = [1,5,3,2,4,6]
>>> L.sort(mycmp)
>>> print L
[6, 5, 4, 3, 2, 1]
```

9

5-6

- **?**

  -
```
>>> L = [k * k for k in range(10)]
>>> L
[0, 1, 4, 9, 16, 25, 36, 49, 64, 81]

>>> L = []
>>> for k in range(10):
   L.append(k*k)


>>> L
[0, 1, 4, 9, 16, 25, 36, 49, 64, 81]
```

10

5-6

-

```
[ expression for expr in sequence1
              for expr2 in sequence2 ...
              for exprN in sequenceN
              if condition ]
```

- **:2**   **3**   **7**

```
>>> [(i, j, i*j) for i in range(2, 100, 2)
        for j in range(3, 100, 3)
        if (i + j) % 7 == 0]
```

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5-7

- ,

```
>>> GNU = ['is not Unix']
>>> GNU.insert(0, GNU)
>>> GNU
[[...], 'is not Unix']
```

- **15**

  .

  ➢

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5-8 range

- **range(10)**
- **range(1, 10)**
- **range(1, 10, 2)**
- **range(0, -10, -1)**

- **sun, mon, tue, wed, thu, fri, sat = range(7)**

-

  – dir()
  - **dir() –**
  - **dir(sys) –   ,**

●

> **sys.argv**

●

> **getopt.getopt(,   )**
> **   :   ,**

15

●

> **1**
>   - **A = [1,2,3,4,5]**
>   - **A = range(10)**
>   - **A = [0] * 10**
>   - **A = [None] * 10**
> **2**
>   - **mat = [[1,2,3],
> [4,5,6],
> [7,8,9]]**
>   - **mat[1][2] # 6**

16

-
  -
    - mat = [[0] * 4] * 3
    - mat = [[0] * 4 for x in range(3)]

17
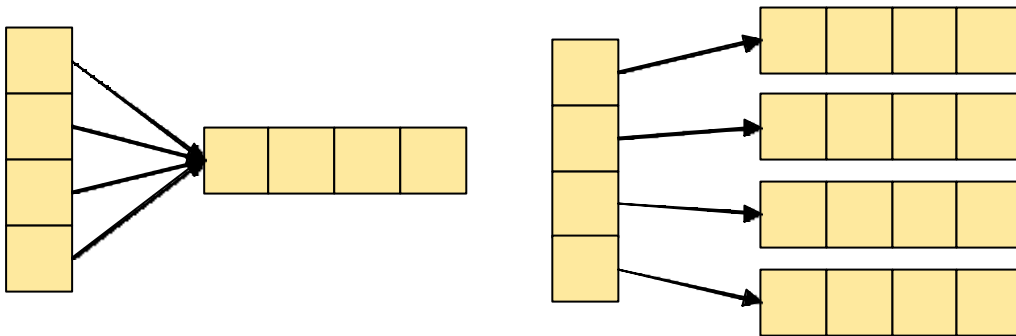
-
  - array
    - 1
    - ,
    - >>> from array import *
    - >>> a = array('i', range(10))   #
    -
    - Library Reference pp175

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- **Numeric Python**
  - (, FFT)
  - **CD-ROM packages/Etc/NumericPython**
  ...
  - **http://pfdubois.com/numpy/**

```
>>> from Numeric import *
>>> a = array ( ((1,2,3),
      (4,5,6),
      (7,8,9)) )
>>> b = zeros((3, 3))
>>> c = ones((3, 3))
>>> a + c
array([[ 2,  3,  4],
       [ 5,  6,  7],
       [ 8,  9, 10]])
```

-

  - **glob.glob()**
  -
    - **?, *, [...]**

-

  - **os.path**
    - **isfile(), isdir(), islink(), ismount(), …**