```
v 001
   1 #1
   2 import textwrap
   3 textwrap.shorten("Life is too short, you need python. ",width=15)
       'Life is [...]'
   1 textwrap.shorten("인생은 짧으니, 파이썬이 필요해.",width=15)
       '인생은 짧으니, [...]'
   1 textwrap.shorten("Life is too short, you need python. ",width=15,placeholder="...")
       'Life is too...'
   1 text='인생은 짧으니 파이썬이 필요해'*10
   2 text
       '인생은 짧으니 파이썬이 필요해인생은 짧으니 파이썬이 필요해인생은 짧으니 파이썬이 필요해인생은 짧으니
       파이썬이 필요해인생은 짧으니 파이썬이 필요해인생은 짧으니 파이썬이 필요해인생은 짧으니 파이썬이 필요
       케이새우 짜이!! 피어써이 피스케이새우 짜이!! 피어써이 피스케이새우 짜이!! 피어써이 피스케
   1 textwrap shorten(text 20)
       '인생은 짧으니 파이썬이 [...]'
▼ 002
   1 long_text="Life is too short, you need python. "*10
   2 long_text
       'Life is too short, you need pythonLife is too short, you need pythonLife is too short, you need pyth
      onLife is too short, you need pythonLife is too short, you need pythonLife is too short, you need pyt
```

```
1 import textwrap
2 result=textwrap.wrap(long_text)
3 result
           ['Life is too short, you need pythonLife is too short, you need',
                'pythonLife is too short, you need pythonLife is too short, you need',
               'pythonLife is too short, you need pythonLife is too short, you need',
                'pythonLife is too short, you need pythonLife is too short, you need'
               'pythonLife is too short, you need pythonLife is too short, you need'
               'python']
 1 '\n'.join(result)
             'Life is too short, you need pythonLife is too short, you needWnpythonLife is too short, you need pyt
           honLife is too short, you need\( \text{WnpythonLife} \) is too short, you need \( \text{pythonLife} \) is too short, you need\( \text{WnpythonLife} \) is
                                                                          you need nutbonlife to too short
 1 print('\n',result)
              ['Life is too short, you need pythonLife is too short, you need', 'pythonLife is too short, you need pythonLife is too short, you need', 'pythonLife is too short, you need you
1 result=textwrap.fill(long_text,width=80)
2 result
            'Life is too short, you need pythonLife is too short, you need pythonLife is too\nshort, you need pyt
           honLife is too short, you need pythonLife is too short, youWnneed pythonLife is too short, you need p
                                                                        you need Manythan life is too short
 1 print(result)
           Life is too short, you need pythonLife is too short, you need pythonLife is too
           short, you need pythonLife is too short, you need pythonLife is too short, you
```

need pythonLife is too short, you need pythonLife

is too short, you need python

- 003

```
1 #re_nomal.sample.py
2 data = ""
3 홍길동의 주민번호는 800905-1049118 입니다.
4 그리고 고길동의 주민번호는 700905-1059119 입니다.
5 그렇다면 누가 형님일까요?
6 """
7 print(data)
    홍길동의 주민번호는 800905-1049118 입니다.
    그리고 고길동의 주민번호는 700905-1059119 입니다.
    그렇다면 누가 형님일까요?
1 result = []
2 for line in data.split("\n"):
3
    word_result = []
    for word in line.split(" "):
4
       if len(word) == 14 and word[:6].isdigit() and word[7:].isdigit():
           word = word[:6] + "-" + "******
6
        word_result.append(word)
    result.append(" ".join(word_result))
8
9 print("\n".join(result))
    홍길동의 주민번호는 800905-***** 입니다.
    그리고 고길동의 주민번호는 700905-****** 입니다.
    그렇다면 누가 형님일까요?
1 import re
3 pattern = re.compile("(\d{6})[-]\d{7}")
4 print(pattern.sub("\g<1>-******, data))
    홍길동의 주민번호는 800905-***** 입니다.
    그리고 고길동의 주민번호는 700905-***** 입니다.
    그렇다면 누가 형님일까요?
1 pattern = re.compile("(\d{6})[-]\d{7}")
2 print(pattern.sub("\sug<1>-abcdefg", data))
    홍길동의 주민번호는 800905-abcdefg 입니다.
    그리고 고길동의 주민번호는 700905-abcdefg 입니다.
그렇다면 누가 형님일까요?
```

▼ 004

```
1 %%writefile struct_sample.c
2
3 #include <stdio.h>
4 typedef struct {
5 double v;
6
     int t;
     char c;
8 } save_type;
9
10 int main() {
     save_type s = {7.5f, 15, 'A'};
11
12
     FILE *fp = fopen("output", "w");
13
      fwrite(&s, sizeof(save_type), 1, fp);
      printf("%d\n",struct_sample)
14
15
      fclose(fp);
16
      return 0;
17 }
```

Overwriting struct_sample.c

```
1 # 느낌표를 입력하면 리눅스 명령어 쓸 수 있게 해줌
```

```
1 !ls -al
     total 20
     drwxr-xr-x 1 root root 4096 Mar 14 01:22 .
     drwxr-xr-x 1 root root 4096 Mar 14 00:13 ...
     drwxr-xr-x 4 root root 4096 Mar 10 20:50 .config
     drwxr-xr-x 1 root root 4096 Mar 10 20:51 sample_data
     -rw-r--r- 1 root root 247 Mar 14 01:22 struct_sample.c
1 !cat struct_sample.c
     #include <stdio.h>
     typedef struct {
         double v;
         int t;
         char c;
     } save_type;
     int main() {
         save_type s = \{7.5f, 15, 'A'\};
         FILE *fp = fopen("output", "w");
         fwrite(&s, sizeof(save_type), 1, fp);
         fclose(fp);
         return 0;
1 !pwd
     /content
 1 !gcc struct_sample.c -o struct_sample
     struct_sample.c: In function 'main':
     struct_sample.c:13:19: error: 'struct_sample' undeclared (first use in this function)
        13 |
                printf("%d₩n",struct_sample)
     struct_sample.c:13:19: note: each undeclared identifier is reported only once for each function it appears in
     struct_sample.c:13:33: error: expected ';' before 'fclose'
        13
                printf("%d\n",struct_sample)
        14
                 fclose(fp);
 1 !struct_sample
     /bin/bash: struct_sample: command not found
1!./struct_sample
1 import struct
3 with open('output', 'rb') as f:
4
   chunk=f.read(16)
5 result=struct.unpack('dicccc',chunk)
6 print(result)
     (7.5, 15, b'A', b'U', b'₩x00', b'₩x00')
```

v 005

```
1 import datetime
2
3 day1=datetime.date(2019,12,14)
4 day2=datetime.date(2021,6,5)

1 type(day1)
    datetime.date

1 diff=day2-day1
2 diff.days
```

```
1 day3=datetime.datetime(2020, 12, 14, 14, 10, 50)
1 day3.day
    14
1 day3.year
    2020
1 day3.minute
     10
1 date=datetime.date(2019,12,14)
2 time=datetime.time(10,43,50)
4 dt=datetime.datetime.combine(date,time)
1 dt
    datetime.datetime(2019, 12, 14, 10, 43, 50)
1 datetime.date(2023,3,14).weekday()
2 # 기준: monday == 0 / 단, weekday일때만! isoweekday는 월욜이 1임. this is standard.
1 datetime.date(2023,3,14).isoweekday()
    2
1 wd=['mon','tue','wed','thu','fri','sat','sun']
1 wd[datetime.date(2023,3,14).weekday()]
    'tue
1 datetime.date.today().weekday()
     1
```

- 006

```
+ 코드 - + 텍스트
1 import datetime
3 datetime.date.today() + datetime.timedelta(days=2,hours=100)
    datetime.date(2023, 3, 20)
1 import calendar
3 calendar.isleap(100)
    False
1 from collections import deque
2 a=[1,2,3,4,5]
3 q=deque(a)
4 q.rotate(2)
5 result=list(q) #deque형태를 함수를 이용해서 다시 list 로 변환.
6 result
    [4, 5, 1, 2, 3]
1 [=[1,2,3,4,5]
2 l.append(6)
1.1
    [1, 2, 3, 4, 5, 6]
```

```
1 (2, 3, 4, 5, 6) (1, pop(3)) 5 (2, 3, 4, 6) (1, pop()) #그냥 pop쓰게 되면 앤 마지막 원소 제거하게 됨. 그리고 이름이 pop인 이유는 스택에서 push&pop named use.
```

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