

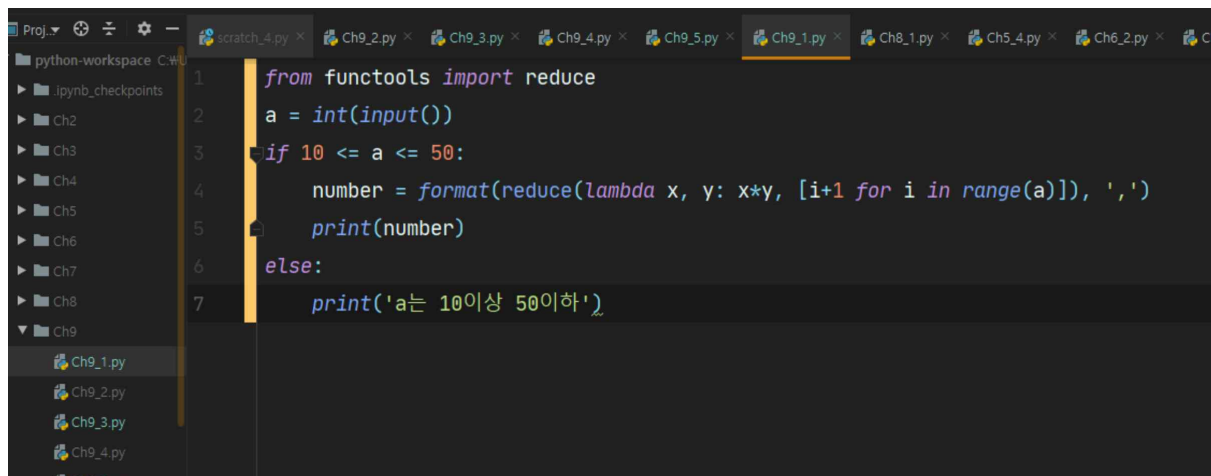
## Ch9 파이썬 스타일코드2

2015110295 일어일문학과 김민식

9\_1.

Code)

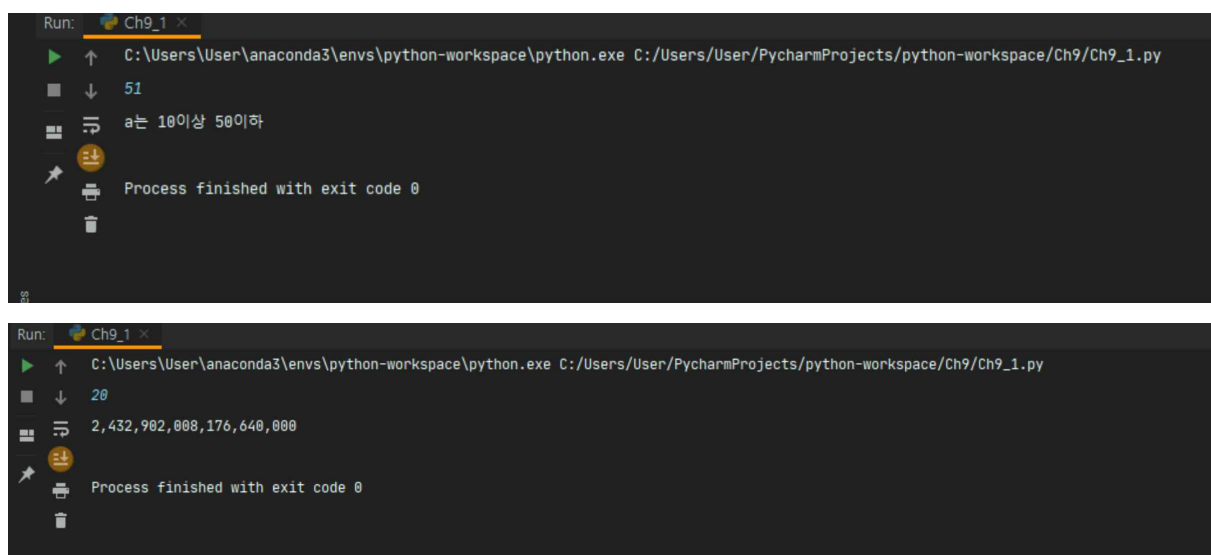
실행코드 캡처



```
1 from functools import reduce
2 a = int(input())
3 if 10 <= a <= 50:
4     number = format(reduce(lambda x, y: x*y, [i+1 for i in range(a)]), ',')
5     print(number)
6 else:
7     print('a는 10이상 50이하')
```

Result)

실행결과 캡처



```
Run: Ch9_1 x
C:\Users\User\anaconda3\envs\python-workspace\python.exe C:/Users/User/PycharmProjects/python-workspace/Ch9/Ch9_1.py
51
a는 10이상 50이하
Process finished with exit code 0

Run: Ch9_1 x
C:\Users\User\anaconda3\envs\python-workspace\python.exe C:/Users/User/PycharmProjects/python-workspace/Ch9/Ch9_1.py
20
2,432,902,008,176,640,000
Process finished with exit code 0
```

```
Run: Ch9_1 x
C:\Users\User\anaconda3\envs\python-workspace\python.exe C:/Users/User/PycharmProjects/python-workspace/Ch9/Ch9_1.py
18
6,402,373,705,728,000
Process finished with exit code 0
```

9\_2.

Code)

실행코드 캡처

```
python-workspace > Ch9 > Ch9_2.py
def scalar_vector_product(scalar, vector):
    print([scalar * i for i in vector])

scalar_v = 5
vector_list = [1, 3, 5, 7, 11, 13]
scalar_vector_product(scalar_v, vector_list)
```

Result)

실행결과 캡처

```
Run: Ch9_2 x
C:\Users\User\anaconda3\envs\python-workspace\python.exe C:/Users/User/PycharmProjects/python-workspace/Ch9/Ch9_2.py
[5, 15, 25, 35, 55, 65]
Process finished with exit code 0
```

9\_3.

Code)

실행코드 캡처

```
python-workspace > Ch9 > Ch9_3.py >
1 def matrix_add(*args):
2     result = [[sum(row) for row in zip(*t)] for t in zip(*args)]
3     print(result)
4
5
6 matrix_x = [[2, 5], [2, 1], [3, 5]]
7 matrix_y = [[3, 4], [5, 6], [7, 8]]
8
9 matrix_add(matrix_x, matrix_y)
10
11
```

Result)

실행결과 캡처

```
Run: Ch9_3.py
C:\Users\User\anaconda3\envs\python-workspace\python.exe C:/Users/User/PycharmProjects/python-workspace/Ch9/Ch9_3.py
[[5, 9], [7, 7], [10, 13]]
Process finished with exit code 0
```

9\_4.

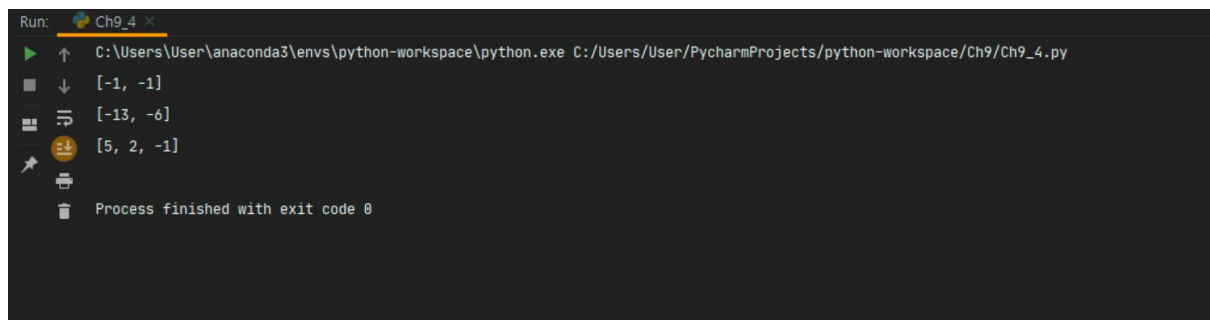
Code)

실행코드 캡처

```
python-workspace > Ch9 > Ch9_4.py >
1 import operator
2
3
4 def vector_sub(a, *args):
5     result = [sum(t) for t in zip(*args)]
6     print(list(map(operator.sub, a, result)))
7
8
9 vector_sub([1, 3], [2, 4])
10 vector_sub([1, 5], [10, 4], [4, 7])
11 vector_sub([10, 9, 8], [1, 2, 3], [3, 4, 5], [1, 1, 1])
```

Result)

실행결과 캡처

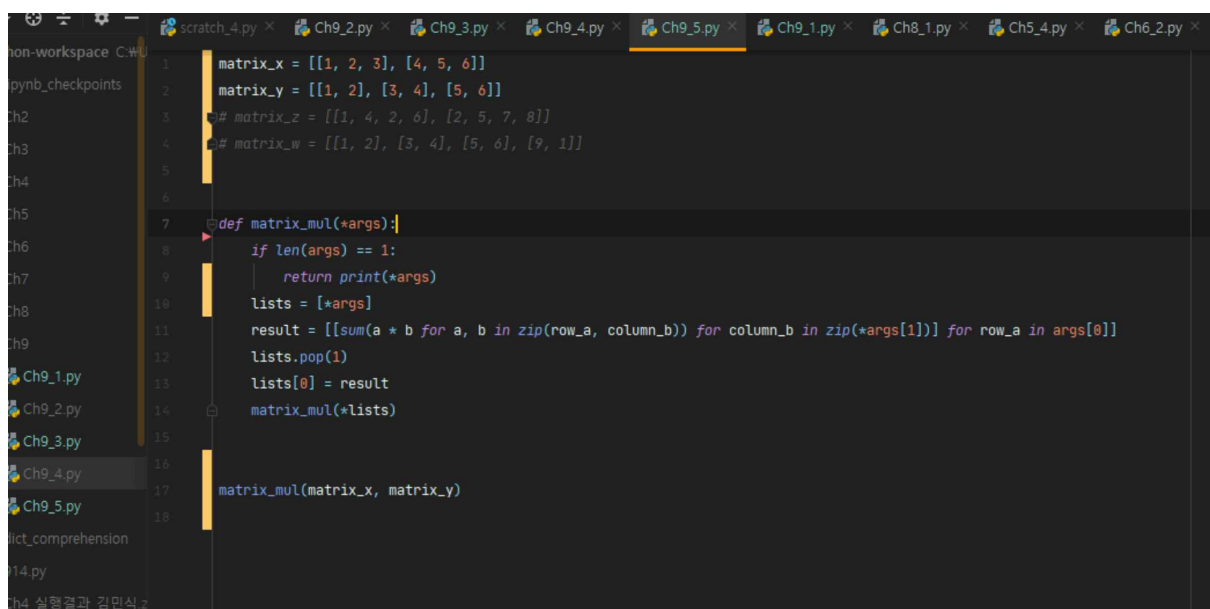


```
Run: Ch9_4 ×
C:\Users\User\anaconda3\envs\python-workspace\python.exe C:/Users/User/PycharmProjects/python-workspace/Ch9/Ch9_4.py
[-1, -1]
[-13, -6]
[5, 2, -1]
Process finished with exit code 0
```

9\_5.

Code)

실행코드 캡처



```
scratch_4.py × Ch9_2.py × Ch9_3.py × Ch9_4.py × Ch9_5.py × Ch9_1.py × Ch8_1.py × Ch5_4.py × Ch6_2.py ×
non-workspace C:\U
pynb_checkpoints
Ch2
Ch3
Ch4
Ch5
Ch6
Ch7
Ch8
Ch9
Ch9_1.py
Ch9_2.py
Ch9_3.py
Ch9_4.py
Ch9_5.py
dict_comprehension
14.py
Ch4_실행결과_김민식 z

1 matrix_x = [[1, 2, 3], [4, 5, 6]]
2 matrix_y = [[1, 2], [3, 4], [5, 6]]
3 # matrix_z = [[1, 4, 2, 6], [2, 5, 7, 8]]
4 # matrix_w = [[1, 2], [3, 4], [5, 6], [9, 1]]
5
6
7 def matrix_mul(*args):
8     if len(args) == 1:
9         return print(*args)
10    lists = [*args]
11    result = [[sum(a * b for a, b in zip(row_a, column_b)) for column_b in zip(*args[1])] for row_a in args[0]]
12    lists.pop(1)
13    lists[0] = result
14    matrix_mul(*lists)
15
16
17 matrix_mul(matrix_x, matrix_y)
18
```

Result)

실행결과 캡처

```
matrix_mult.py: in func(args) == 1
Run: Ch9_5
C:\Users\User\anaconda3\envs\python-workspace\python.exe C:/Users/User/PycharmProjects/python-workspace/Ch9/Ch9_5.py
[[22, 28], [49, 64]]
Process finished with exit code 0
```