2018 Fall Python Study

6. Module

Module

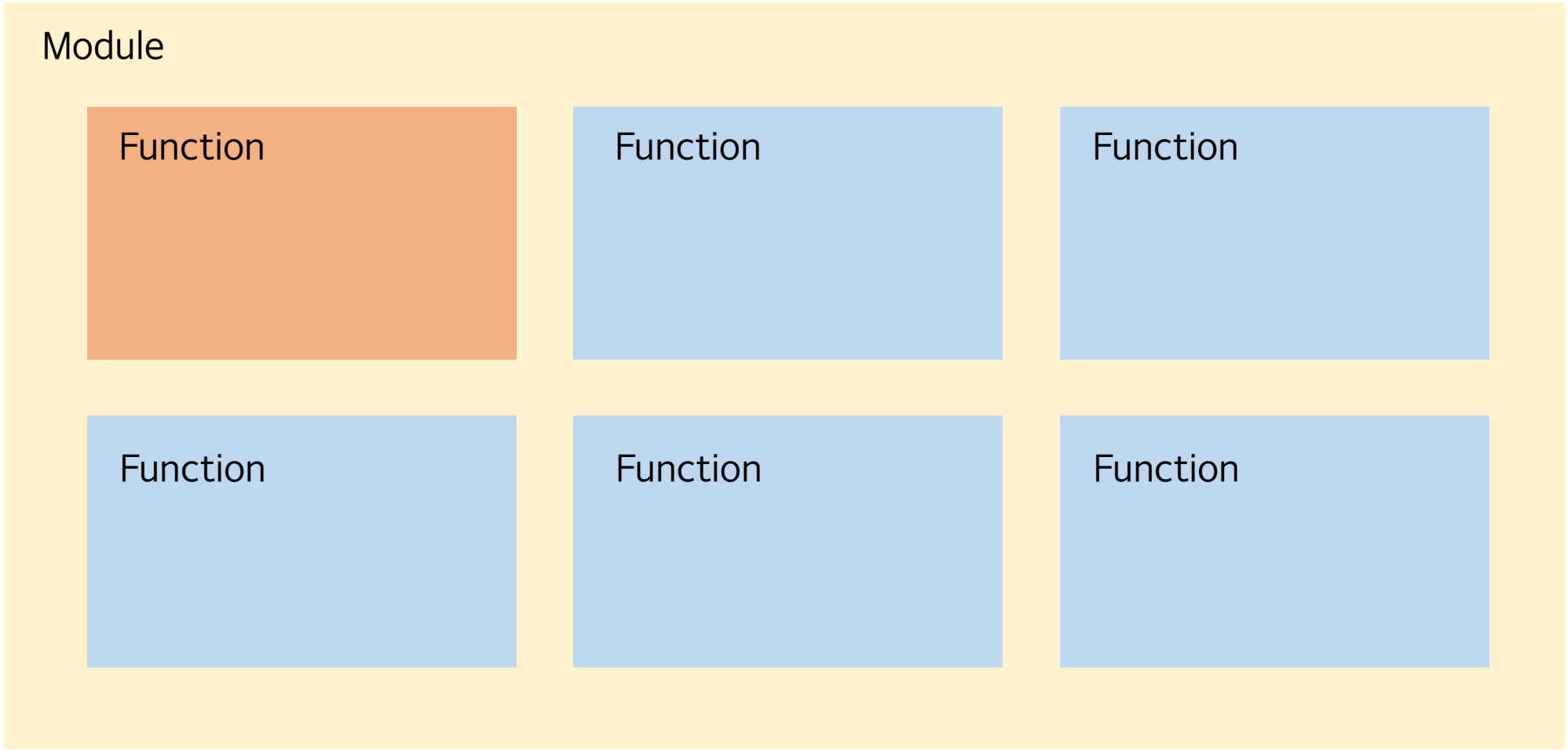
프로그램 내부를 기능별 단위로 분할한 부분

```
import sys

print('The command line arguments are:')
for i in sys.argv:
        print(i)

print('\n\nThe PYTHONPATH is', sys.path, '\n')
```

Import

```
import sys

print('The command line arguments are:')
for i in sys.argv:
        print(i)

print('\n\nThe PYTHONPATH is', sys.path, '\n')
```

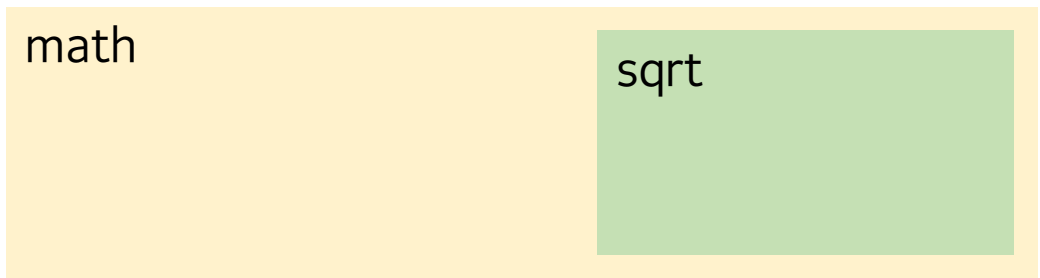
```
[Running] python -u "c:\Users\gunwo\Desktop\tmp.py"
The command line arguments are:
c:\Users\gunwo\Desktop\tmp.py


The PYTHONPATH is ['c:\\Users\\gunwo\\Desktop', 'C:\\Program Files
(x86)\\PerkinElmerInformatics\\ChemOffice2016\\ChemScript\\Lib',
'C:\\Users\\gunwo\\AppData\\Local\\Programs\\Python\\Python36-32\\python36.zip',
'C:\\Users\\gunwo\\AppData\\Local\\Programs\\Python\\Python36-32\\DLLs',
'C:\\Users\\gunwo\\AppData\\Local\\Programs\\Python\\Python36-32\\lib',
'C:\\Users\\gunwo\\AppData\\Local\\Programs\\Python\\Python36-32',
'C:\\Users\\gunwo\\AppData\\Local\\Programs\\Python\\Python36-32\\lib\\site-packages']


[Done] exited with code=0 in 0.103 seconds
```


Module
Function
Function
Function
Function
Function
Function

```
from math import sqrt
print "Square root of 16 is", sqrt(16)
```

from A import B

```
from math import sqrt
print "Square root of 16 is", sqrt(16)
```



Native vs Imported

name

```
if __name__ == '__main__’:
        print 'This program is being run by itself'
else:
        print 'I am being imported from another module'
```

```
[Running] python -u
"c:\Users\gunwo\Desktop\tmp.py"
This program is being run by itself

[Done] exited with code=0 in 0.103 seconds
```

```
[Running] python -u
"c:\Users\gunwo\Desktop\tmp2.py"
I am being imported from another module

[Done] exited with code=0 in 0.107 seconds
```

버전 관리

version

```python
def say_hi():
    print('Hi, this is mymodule speaking.')

__version__ = '0.1'
```

```python
import tmp

tmp.say_hi()
print('Version', tmp.__version__)
```

```
[Running] python -u
"c:\Users\gunwo\Desktop\tempCodeRunnerFile.py"
Hi, this is mymodule speaking.
Version 0.1

[Done] exited with code=0 in 0.111 seconds
```

dir()

Returns the list of names defined by an object.

```
import sys

print(dir(sys))
```

```
[Running] python -u "c:\Users\gunwo\Desktop\tmp.py"
['__displayhook__', '__doc__', '__excepthook__', '__interactivehook__', '__loader__',
'__name__', '__package__', '__spec__', '__stderr__', '__stdin__', '__stdout__',
'_clear_type_cache', '_current_frames', '_debugmallocstats',
'_enablelegacywindowsfsencoding', '_getframe', '_git', '_home', '_xoptions', 'api_version',
'argv', 'base_exec_prefix', 'base_prefix', 'builtin_module_names', 'byteorder',
'call_tracing', 'callstats', 'copyright', 'displayhook', 'dllhandle',
'dont_write_bytecode', 'exc_info', 'excepthook', 'exec_prefix', 'executable', 'exit',
'flags', 'float_info', 'float_repr_style', 'get_asyncgen_hooks', 'get_coroutine_wrapper',
'getallocatedblocks', 'getcheckinterval', 'getdefaultencoding',
'getfilesystemencodeerrors', 'getfilesystemencoding', 'getprofile', 'getrecursionlimit',
'getrefcount', 'getsizeof', 'getswitchinterval', 'gettrace', 'getwindowsversion',
'hash_info', 'hexversion', 'implementation', 'int_info', 'intern', 'is_finalizing',
'maxsize', 'maxunicode', 'meta_path', 'modules', 'path', 'path_hooks',
'path_importer_cache', 'platform', 'prefix', 'set_asyncgen_hooks', 'set_coroutine_wrapper',
'setcheckinterval', 'setprofile', 'setrecursionlimit', 'setswitchinterval', 'settrace',
'stderr', 'stdin', 'stdout', 'thread_info', 'version', 'version_info', 'warnoptions',
'winver']

[Done] exited with code=0 in 0.097 seconds
```

Packages

init.py