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모듈이 설치되어 있는 경우

```
(tensorflow2) C:\Users\MOPA1>python
Python 3.7.3 (default, Apr 24 2019, 15:29:51) [MSC v.1915 64 bit (AMD64)] :: Anaconda, Inc. on win32
Type "help", "copyright", "credits" or "license" for more information.
>>> import numpy as np
>>>
```

모듈이 설치되어 있지 않은 경우 → 'ModuleNotFoundError' 에러 발생

```
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Python 3.7.3 (default, Apr 24 2019, 15:29:51) [MSC v.1915 64 bit (AMD64)] :: Anaconda, Inc. on win32
Type "help", "copyright", "credits" or "license" for more information.
>>> import matplotlib
Traceback (most recent call last):
__File "<stdip>"__Line 1__in < module>
ModuleNotFoundFrror: No module named 'matplotlib'
>>>
```

모듈 설치

```
(tensorflow2) C:#Users#MOPA1pip install matplotlib pip install 'module 이름
Collecting matplotlib
 Downloading https://files.pythonhosted.org/packages/1a/c0/69e3f695d7384012e90be1e16570c08953baae00fd98094179ef87c7d5a2
/matplotlib-3.1.1-cp37-cp37m-win_amd64.whl (9.1MB)
                                       L 9.1MB 939kB/s
Collecting kiwisolver>=1.0.1 (from matplotlib)
 Downloading https://files.pythonhosted.org/packages/c6/ea/e5474014a13ab2dcb5056608e0716c600c3d8a8bcffb10ed55ccd6a42eb0
/kiwisolver-1.1.0-cp37-none-win amd64.whl (57kB)
                                       l 61kB 3.8MB/s
Collecting cycler>=0.10 (from matplotlib)
 Downloading https://files.pythonhosted.org/packages/f7/d2/e07d3ebb2bd7af696440ce7e754c59dd546ffe1bbe732c8ab68b9c834e6
/cycler-0.10.0-py2.py3-none-any.whl
Requirement already satisfied: numpy>=1.11 in c:₩users₩mopa1₩.condaWenvsWtensorflow2WlibWsite-packages (from matplotlib
Requirement already satisfied: python-dateutil>=2.1 in c:\users\mopal\.conda\envs\tensorflow2\lib\site-packages (from ma
tplotlib) (2.8.0)
Requirement already satisfied: pyparsing!=2.0.4,!=2.1.2,!=2.1.6,>=2.0.1 in c:\users\mopa1\u00fc.conda\u00fcenvs\u00fctensorflow2\u00fclib\u00fcs
te-packages (from matplotlib) (2.4.0)
Requirement already satisfied: setuptools in c:₩users₩mopa1₩.conda₩envs₩tensorflow2₩lib₩site-packages (from kiwisolver>=
.0.1->matplotlib) (41.0.1)
Requirement already satisfied: six in c:\users\mopa1\,conda\envs\tensorflow2\lib\site-packages (from cycler>=0.10->matp
otlib) (1.12.0)
Installing collected packages: kiwisolver, cycler, matplotlib
Successfully installed cycler-0.10.0 kiwisolver-1.1.0 matplotlib-3.1.1
```

```
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Type "help", "copyright", "credits" or "license" for more information.
>>> import matplotlib
>>> matplotlib.__version__
'3.1.1'
>>>
```

모듈 설치 이후, 정상적으로 모듈을 사용할 수 있는 것을 확인할 수 있음

Recommend Package, Library

- 1. numpy: 파이썬을 통한 과학 계산을 위한 패키지
- 2. scipy: 과학 계산용 함수를 모아놓은 파이썬 패키지
- 3. matplotlib : 과학 계산용 그래프 라이브러리
- 4. pandas : 데이터 처리와 분석을 위한 파이썬 라이브러리

End