```
PS C:\Users\lgsc0\OneDrive\바탕 화면\3-2-Python(2)> & "c:/Users/lgsc0/OneDrive/바탕 화면/3-2-Python(2)/py2/Scripts/python.exe" "c:
/Users/lgsc0/OneDrive/바탕 화면/3-2-Python(2)/assignment/1-virtual-env.py
dict:
3.12.4 (tags/v3.12.4:8e8a4ba, Jun 6 2024, 19:30:16) [MSC v.1940 64 bit (AMD64)]
- c:\Users\lgsc@\OneDrive\바탕 화면\3-2-Python(2)\assignment
    - C:\Users\lgsc0\AppData\Local\Programs\Python\Python312\python312.zip
    - C:\Users\lgsc0\AppData\Local\Programs\Python\Python312\DLLs
    - C:\Users\lgsc0\AppData\Local\Programs\Python\Python312\Lib
    - C:\Users\lgsc0\AppData\Local\Programs\Python\Python312
     - C:\Users\lgsc0\OneDrive\바탕 화면\3-2-Python(2)\py2
     - C:\Users\lgsc0\OneDrive\바탕 화면\3-2-Python(2)\py2\Lib\site-packages
PS C:\Users\lgsc0\OneDrive\바탕 화면\3-2-Python(2)> deactivate
PS C:\Users\lgsc0\OneDrive\바탕 화면\3-2-Python(2)> & "c:/Users/lgsc0/OneDrive/바탕 화면/3-2-Python(2)/py2/Scripts/python.exe" "c:
/Users/lgsc0/OneDrive/바탕 화면/3-2-Python(2)/assignment/1-virtual-env.py"
current: 1
dict:
3.12.4 (tags/v3.12.4:8e8a4ba, Jun 6 2024, 19:30:16) [MSC v.1940 64 bit (AMD64)] - c:\Users\lgsc@\OneDrive\바탕 화면\3-2-Python(2)\assignment
    - C:\Users\lgsc0\AppData\Local\Programs\Python\Python312\python312.zip
    - C:\Users\lgsc0\AppData\Local\Programs\Python\Python312\DLLs
    - C:\Users\lgsc0\AppData\Local\Programs\Python\Python312\Lib
    - C:\Users\lgsc0\AppData\Local\Programs\Python\Python312
    - C:\Users\lgscO\OneDrive\바탕 화면\3-2-Python(2)\py2
- C:\Users\lgscO\OneDrive\바탕 하며\3-2-Python(2)\nv2\Lib\site-nackages
PS C:\Users\lgsc0\oneDrive\바탕 화면\3-2-Python(2)> & C:/Users/lgsc0/anaconda3/python.exe "c:/Users/lgsc0/OneDrive/바탕 화면\3-2-P
ython(2)/assignment/1-virtual-env.py"
 current: 2
dict:
3.12.4 (tags/v3.12.4:8e8a4ba, Jun 6 2024, 19:30:16) [MSC v.1940 64 bit (AMD64)] - c:\Users\lgsc0\OneDrive\바탕 화면\3-2-Python(2)\assignment
     - C:\Users\lgsc0\AppData\Local\Programs\Python\Python312\zip
     - C:\Users\lgsc0\AppData\Local\Programs\Python\Python312\DLLs
     - C:\Users\lgsc0\AppData\Local\Programs\Python\Python312\Lib
     - C:\Users\lgsc0\AppData\Local\Programs\Python\Python312
     - C:\Users\lgsc0\OneDrive\바탕 화면\3-2-Python(2)\py3
- C:\Users\lgsc0\OneDrive\바탕 화면\3-2-Python(2)\py3\Lib\site-packages
3.11.4 | packaged by Anaconda, Inc. | (main, Jul 5 2023, 13:38:37) [MSC v.1916 64 bit (AMD64)] - c:\Users\lgsc@\OneDrive\바탕 화면\3-2-Python(2)\assignment
     - C:\Users\lgsc0\anaconda3\python311.zip
     - C:\Users\lgsc0\anaconda3\DLLs
     - C:\Users\lgsc0\anaconda3\Lib
     - C:\Users\lgsc0\anaconda3
     - C:\Users\lgsc0\AppData\Roaming\Python\Python311\site-packages
     - C:\Users\lgsc0\AppData\Roaming\Python\Python311\site-packages\win32
     - C:\Users\lgsc0\AppData\Roaming\Python\Python311\site-packages\win32\lib
     - C:\Users\lgsc0\AppData\Roaming\Python\Python311\site-packages\Pythonwin
     - C:\Users\lgsc0\anaconda3\Lib\site-packages
     - C:\Users\lgsc0\anaconda3\Lib\site-packages\win32
     - C:\Users\lgsc0\anaconda3\Lib\site-packages\win32\lib
     - C:\Users\lgsc0\anaconda3\Lib\site-packages\Pythonwin
```

```
PS C:\Users\lgsc0\OneDrive\바탕 화면\3-2-Python(2)> & "c:/Users/lgsc0/OneDrive/
바탕 화면/3-2-Python(2)/.venv/Scripts/python.exe" "c:/Users/lgsc0/OneDrive/바탕
화면/3-2-Python(2)/assignment/1-virtual-env.py"
current: 3
dict:
3.12.4 (tags/v3.12.4:8e8a4ba, Jun 6 2024, 19:30:16) [MSC v.1940 64 bit (AMD64)
    - c:\Users\lgsc0\OneDrive\바탕 화면\3-2-Python(2)\assignment
    - C:\Users\lgsc0\AppData\Local\Programs\Python\Python312\python312.zip
    - C:\Users\lgsc0\AppData\Local\Programs\Python\Python312\DLLs
    - C:\Users\lgsc0\AppData\Local\Programs\Python\Python312\Lib
    - C:\Users\lgsc0\AppData\Local\Programs\Python\Python312
    - C:\Users\lgsc0\OneDrive\바탕 화면\3-2-Python(2)\py5
    - C:\Users\lgsc0\OneDrive\바탕 화면\3-2-Python(2)\py5\Lib\site-packages
3.11.4 | packaged by Anaconda, Inc. | (main, Jul 5 2023, 13:38:37) [MSC v.1916
64 bit (AMD64)]
    - c:\Users\lgsc0\OneDrive\바탕 화면\3-2-Python(2)\assignment
    - C:\Users\lgsc0\anaconda3\python311.zip
   - C:\Users\lgsc0\anaconda3\DLLs
    - C:\Users\lgsc0\anaconda3\Lib
    - C:\Users\lgsc0\anaconda3
   - C:\Users\lgsc0\AppData\Roaming\Python\Python311\site-packages

    C:\Users\lgsc0\AppData\Roaming\Python\Python311\site-packages\win32

    - C:\Users\lgsc0\AppData\Roaming\Python\Python311\site-packages\win32\lib
    - C:\Users\lgsc0\AppData\Roaming\Python\Python311\site-packages\Pythonwin
   - C:\Users\lgsc0\anaconda3\Lib\site-packages
   - C:\Users\lgsc0\anaconda3\Lib\site-packages\win32
    - C:\Users\lgsc0\anaconda3\Lib\site-packages\win32\lib
    - C:\Users\lgsc0\anaconda3\Lib\site-packages\Pythonwin
3.11.5 (tags/v3.11.5:cce6ba9, Aug 24 2023, 14:38:34) [MSC v.1936 64 bit (AMD64)
    - c:\Users\lgsc0\OneDrive\바탕 화면\3-2-Python(2)\assignment
    - C:\Users\lgsc0\AppData\Local\Programs\Python\Python311\python311.zip
   - C:\Users\lgsc0\AppData\Local\Programs\Python\Python311\DLLs
   - C:\Users\lgsc0\AppData\Local\Programs\Python\Python311\Lib
    - C:\Users\lgsc0\AppData\Local\Programs\Python\Python311
    - C:\Users\lgsc0\OneDrive\바탕 화면\3-2-Python(2)\.venv
    - C:\Users\lgsc0\OneDrive\바탕 화면\3-2-Python(2)\.venv\Lib\site-packages
```

터미널에서 python -m venv 가상환경이름(여러번 시도해서 py2,3,4,5 까지 함)을 생성한 뒤 메뉴에서 Select Interpreter을 통해서 생성된 가상환경을 선택하여 구동했으나... 사실 이렇게 하고도 current가 변동되지 않은 적이 많아서 이걸 제대로 했는지는 모르겠습니다...

PS C:\Users\lgsc0\OneDrive\바탕 화면\3-2-Python(2)>

```
def create_parser() -> argparse.ArgumentParser:
    parser = argparse.ArgumentParser()
    parser.add_argument('--start', type=int, required=True, help='The start value (integer)')
    parser.add_argument('--end', type=int, required=True, help='The end value (integer)')
    parser.add_argument('--verbose', action='store_true', help='Enable verbose output')
```

parser = argument parser를 가동

return parser

parser.add\_argument = type이 int인 --start, --end 이름의 필수 인자 추가, type이 bool인 - verbose는 추가 옵션을 받지 않고 유/무만 필요하기에 action ="store\_true"

Init → 딕셔너리 초기화, 누락된 키의 기본값을 반환하는 default\_factory 저장

Getitem → 딕셔너리에 키가 있는지 확인하여 있으면 값을 반환. 키가 없고 default\_factory가 None이면 KeyError. 키가 없고 default\_factory가 있으면 값을 생성, 딕셔너리에 저장, 그리고 반환.