

3회차 과제 - Python (2/2)

문제 1 번

Python3.8 ~ 3.11 기본 가상환경 생성 방식으로 env를 만들어주고, 1번 코드를 돌렸다. 3.8 버전은 typing에서 list와 dict를 지원하지 않아서 제대로 작동하지 않았고, 나머지 코드는 다 작동을 했다. 파이썬 버전을 다르게 사용할 수 있는 가상환경 세팅을 경험할 수 있었음.

문제 2번

```
> python3.8 -m venv env38
> source env38/bin/activate
> python 1-virtual-env.py
Traceback (most recent call last):
  File "1-virtual-env.py", line 8, in <module>
    def load() -> dict[str, list[str]]:
TypeError: 'type' object is not subscriptable
> python3 1-virtual-env.py
Traceback (most recent call last):
  File "1-virtual-env.py", line 8, in <module>
    def load() -> dict[str, list[str]]:
TypeError: 'type' object is not subscriptable
> python3.10 -m venv env310
> env310\Scripts\activate
zsh: command not found: env310Scriptsactivate
> source env310/bin/activate
> python 1-virtual-env.py
current: 1
dict:
3.10.14 (main, Mar 19 2024, 21:46:16) [Clang 15.0.0 (clang-1500.3.9.4)]
- /Users/baekjunho/Desktop/YBIGTA25JUNHO-BAEK/3-2-Python(2)
- /opt/homebrew/Cellar/python@3.10/3.10.14/Frameworks/Python.framework/Versions/3.10/lib/python310.zip
- /opt/homebrew/Cellar/python@3.10/3.10.14/Frameworks/Python.framework/Versions/3.10/lib/python3.10
- /opt/homebrew/Cellar/python@3.10/3.10.14/Frameworks/Python.framework/Versions/3.10/lib/python3.10/lib-dynload
- /Users/baekjunho/Desktop/YBIGTA25JUNHO-BAEK/3-2-Python(2)/env310/lib/python3.10/site-packages
> deactivate
> python3.9 -m venv env39
> source env39/bin/activate
> python 1-virtual-env.py
current: 2
dict:
3.10.14 (main, Mar 19 2024, 21:46:16) [Clang 15.0.0 (clang-1500.3.9.4)]
- /Users/baekjunho/Desktop/YBIGTA25JUNHO-BAEK/3-2-Python(2)
- /opt/homebrew/Cellar/python@3.10/3.10.14/Frameworks/Python.framework/Versions/3.10/lib/python310.zip
- /opt/homebrew/Cellar/python@3.10/3.10.14/Frameworks/Python.framework/Versions/3.10/lib/python3.10
- /opt/homebrew/Cellar/python@3.10/3.10.14/Frameworks/Python.framework/Versions/3.10/lib/python3.10/lib-dynload
- /Users/baekjunho/Desktop/YBIGTA25JUNHO-BAEK/3-2-Python(2)/env310/lib/python3.10/site-packages
3.9.19 (main, Mar 19 2024, 16:08:27)
[Clang 15.0.0 (clang-1500.3.9.4)]
- /Users/baekjunho/Desktop/YBIGTA25JUNHO-BAEK/3-2-Python(2)
- /opt/homebrew/Cellar/python@3.9/3.9.19/Frameworks/Python.framework/Versions/3.9/lib/python39.zip
- /opt/homebrew/Cellar/python@3.9/3.9.19/Frameworks/Python.framework/Versions/3.9/lib/python3.9
- /opt/homebrew/Cellar/python@3.9/3.9.19/Frameworks/Python.framework/Versions/3.9/lib/python3.9/lib-dynload
- /Users/baekjunho/Desktop/YBIGTA25JUNHO-BAEK/3-2-Python(2)/env39/lib/python3.9/site-packages
> python 1-virtual-env.py
current: 3
dict:
3.10.14 (main, Mar 19 2024, 21:46:16) [Clang 15.0.0 (clang-1500.3.9.4)]
- /Users/baekjunho/Desktop/YBIGTA25JUNHO-BAEK/3-2-Python(2)
- /opt/homebrew/Cellar/python@3.10/3.10.14/Frameworks/Python.framework/Versions/3.10/lib/python310.zip
- /opt/homebrew/Cellar/python@3.10/3.10.14/Frameworks/Python.framework/Versions/3.10/lib/python3.10
- /opt/homebrew/Cellar/python@3.10/3.10.14/Frameworks/Python.framework/Versions/3.10/lib/python3.10/lib-dynload
- /Users/baekjunho/Desktop/YBIGTA25JUNHO-BAEK/3-2-Python(2)/env310/lib/python3.10/site-packages
3.9.19 (main, Mar 19 2024, 16:08:27)
[Clang 15.0.0 (clang-1500.3.9.4)]
- /Users/baekjunho/Desktop/YBIGTA25JUNHO-BAEK/3-2-Python(2)
- /opt/homebrew/Cellar/python@3.9/3.9.19/Frameworks/Python.framework/Versions/3.9/lib/python39.zip
- /opt/homebrew/Cellar/python@3.9/3.9.19/Frameworks/Python.framework/Versions/3.9/lib/python3.9
- /opt/homebrew/Cellar/python@3.9/3.9.19/Frameworks/Python.framework/Versions/3.9/lib/python3.9/lib-dynload
- /Users/baekjunho/Desktop/YBIGTA25JUNHO-BAEK/3-2-Python(2)/env39/lib/python3.9/site-packages
3.11.9 (main, Apr 2 2024, 08:25:04) [Clang 15.0.0 (clang-1500.3.9.4)]
- /Users/baekjunho/Desktop/YBIGTA25JUNHO-BAEK/3-2-Python(2)
- /opt/homebrew/Cellar/python@3.11/3.11.9_1/Frameworks/Python.framework/Versions/3.11/lib/python311.zip
- /opt/homebrew/Cellar/python@3.11/3.11.9_1/Frameworks/Python.framework/Versions/3.11/lib/python3.11
- /opt/homebrew/Cellar/python@3.11/3.11.9_1/Frameworks/Python.framework/Versions/3.11/lib/python3.11/lib-dynload
- /Users/baekjunho/Desktop/YBIGTA25JUNHO-BAEK/3-2-Python(2)/env311/lib/python3.11/site-packages
good!
```

```
def create_parser() -> argparse.ArgumentParser:
    # 구현하세요!
    parser = argparse.ArgumentParser(description="2번 문제 구현 과제")
    parser.add_argument('start', type=int, help='Start value')
    parser.add_argument('end', type=int, help='End value')
    parser.add_argument('--verbose', action='store_true', help='불리언으로 verbose를 받음. if로 나눠서 출력을 바꿀 수 있음.')
    return parser
```

start와 end는 정수형 필수 인자로 추가, --verbose는 선택적 플래그 인자로 추가했다. 이 플래그가 제공되면 True, 제공되지 않으면 False로 설정. 이를 위해서 store_true 를 action Parameter로 추가.

문제 3번

```
def __init__(self, default_factory: Callable[[], V]):
    super().__init__()
    self.default_factory = default_factory

    def __getitem__(self, key: K) -> V:
        if key not in self:
            self[key] = self.default_factory()
        return super().__getitem__(key)
```

키에 값이 없으면 제네릭으로 받은 함수의 인자 타입에 맞는 기본값을 딕셔너리 값으로 갖게 하는 코드이다. setitem이 없어도 되는 이유는 키가 없을 때만 기본값을 자동으로 추가하는 딕셔너리 클래스를 만들었기 때문에 키가 이미 있거나 값을 바꿀 때는 기존 딕셔너리 기능을 쓰면 된다.

