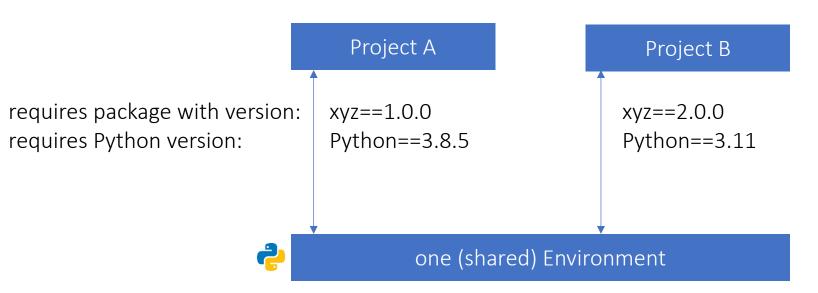


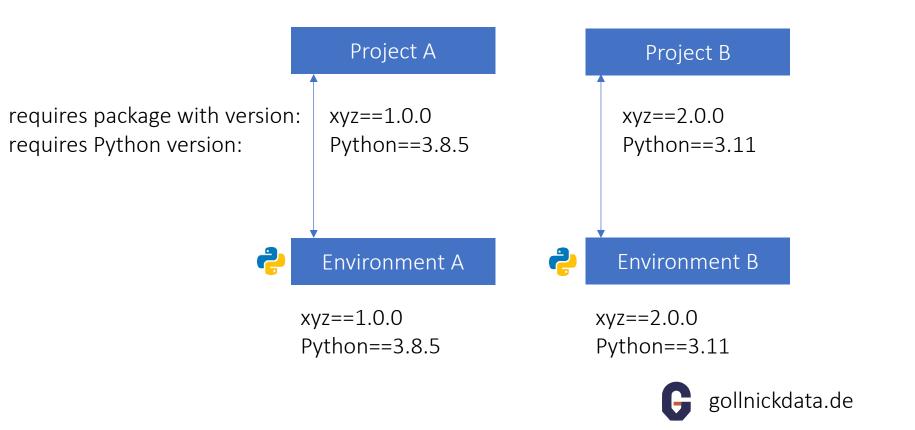
Problem



package xyz can be available only in one version Python only available in one version



Solution



Introduction

An Environment is an isolated bundle of packages and Python versions.

It allows to

- avoid conflicts of packages
- easy setup for a project on another computer
- Available Environments:

Conda (requires Anaconda installation)

venv

Poetry



Create a virtual environment

Setting up a new environment with venv:

```
python -m venv venv
```

- Activate environment
  - Navigate to subfolder Scripts and run activate.bat (windows cmd) or activate.ps1 (Powershell)

```
\venv\Scripts>activate.bat
```

Check that environment is active (environment shown in brackets):

```
(venv) C:\Temp\
```

Install packages with pip install into this new environment, e.g. pip install openpyxl



Save and Restore packages

- Check installed packages: pip freeze
  - Sample output: et-xmlfile==1.1.0 openpyxl==3.0.10
- Write packages to file: pip freeze > requirements.txt
  - Sample:

```
requirements.txt

1 et-xmlfile=1.1.0

2 openpyxl=3.0.10
```

Set up environment on a new computer

Follow the steps on how to "create" an environment

```
python -m venv venv
\venv\Scripts>activate.bat
```

Install packages from requirements.

```
pip install -r requirement.txt
```

