Package Managers and Virtual Environments

— *Paul Boehnke*

Topics

Package Manager

Environments

DEMO

Package Managers

1. What is a Package?

   • Some code providing any kind of functionality
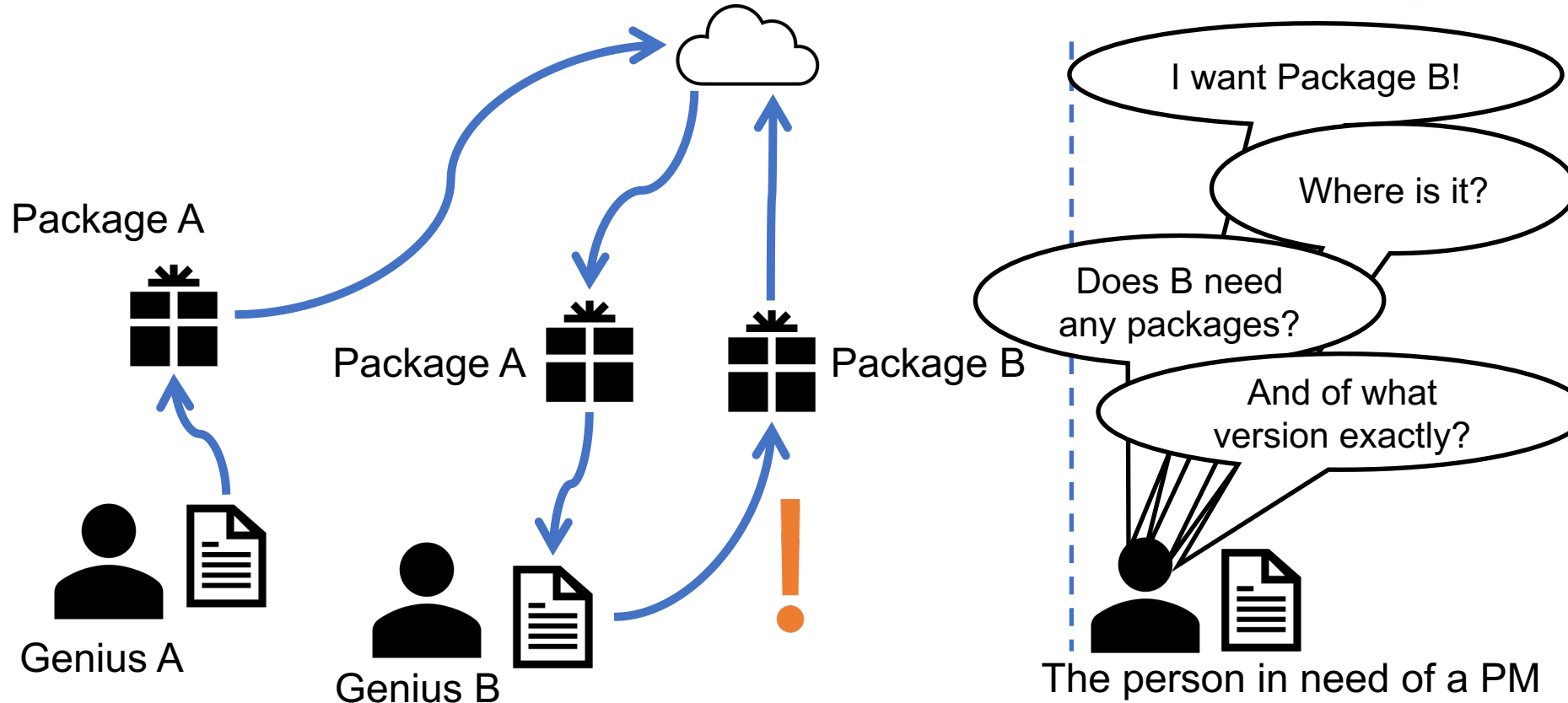   • Reusablity

2. Why do Packages need managing?

many others…

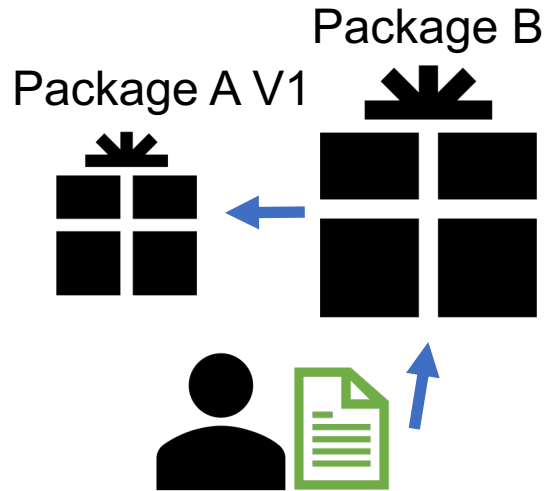# Package Manager Example

Package Managers

1. What is a Package?

- Some code providing any kind of functionality
- Reusablity

2. Why do Packages need managing?

- Downloading packages
- Taking care of dependencies
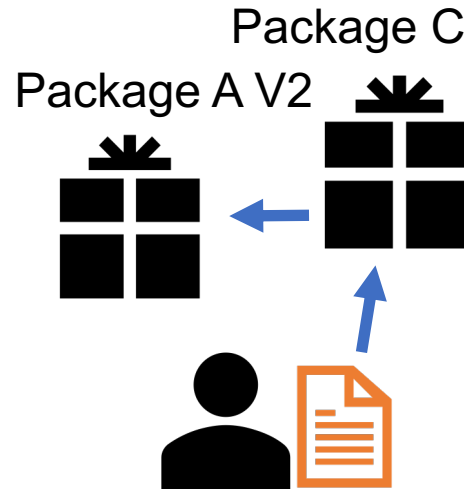- Making sure downloaded code is not corrupted
- Environments …

(Virtual) Environments
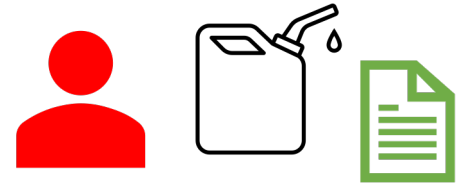

ENVIRONMENT GREEN

Package A V1

Package B

The person in need of a PM

ENVIRONMENT ORANGE

Package C

Package A V2

The person in need of a PM and environments

ENVIRONMENT GREEN

ENVIRONMENT ORANGE

DEMO

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Commands for environment setup

Function	Anaconda (Windows)	Pip / venv (Linux/Mac)
Show existing Environments	conda env list	venv stores environment in the folder where you create it. venv does not know about all environments on your machine
Create Environment	conda create –n *myEnvName*	python3 -m venv *myEnvName*
Enter Environment	conda activate *myEnvName*	source *myEnvName*/bin/activate
List Packages of Environment	conda list (while environment activated)	pip list
Install Package	conda install *packageName*	pip install *packageName*
Exit Environment	conda deactivate	deactivate

Summary − Steps to reproduce

Before you start a new project or download a new tool complete these three

using the commands from the previous slide:

1. Create environment

2. Enter environment

3. Install packages your tool needs (info provided on github page)