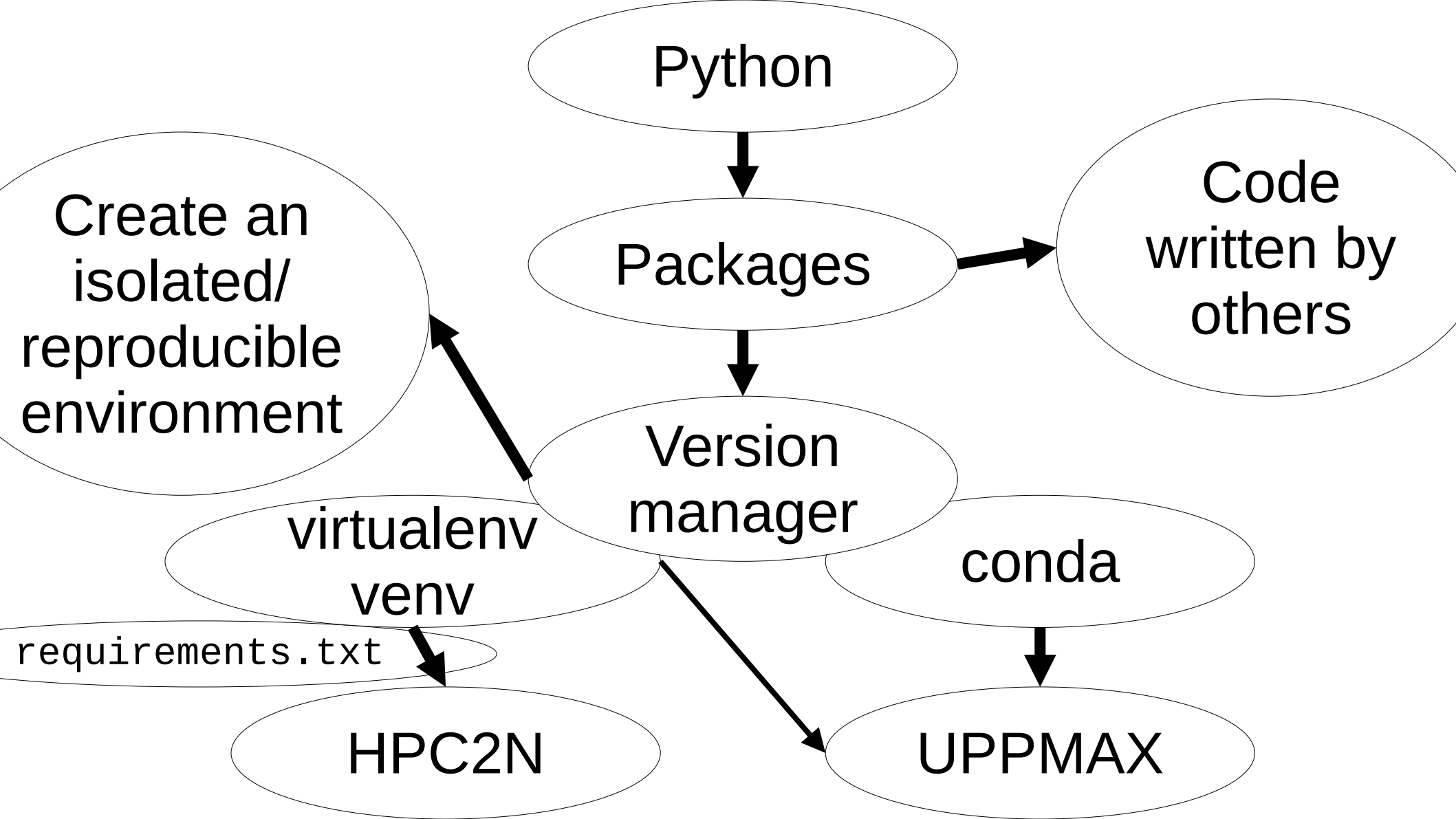


# Working with isolated environments

Using venv/virtualenv

UPPMAX and HPC2N  
Rackham and Kebnekaise



# How to create a new venv

## **Bash:**

```
module load python/3.10.8
```

```
python -m venv
```

```
- -system-site-packages
```

```
/proj/naiss2023-22-914/<user>/python/Example
```

# How to activate a venv?

**Bash:**

**source**

```
/proj/naiss2023-22-914/<user>/python/Example/bin/activate
```

(this is one line, starting with 'source')

# What to do in a venv?

Install the package of your favorite versions!

## **Bash:**

```
pip install numpy==1.15.4
```

```
pip list
```

- You will see the venv in your prompt!

# How to leave a venv?

**Bash:**

deactivate

# Exercise 1

- Create a venv called 'vpyenv'
- Activate it
- Install the packages 'spacy' and 'seaborn' using pip
- Confirm that these are installed
- Deactivate the venv

# Using requirements.txt

Save the packages used by the current environment:

**Bash:**

```
pip freeze > requirements.txt
```



# Using requirements.txt

- Install the packages in 'requirements.txt':

**Bash:**

```
pip install -r requirements.txt
```

# Exercise 2

- Create a venv called 'vpyenv'
- Activate it
- Create a file 'requirements.txt' with content:

```
numpy==1.22.3  
matplotlib==3.5.2  
pandas==1.4.2
```

- Install these requirements
- Confirm that these are installed
- Deactivate the venv