

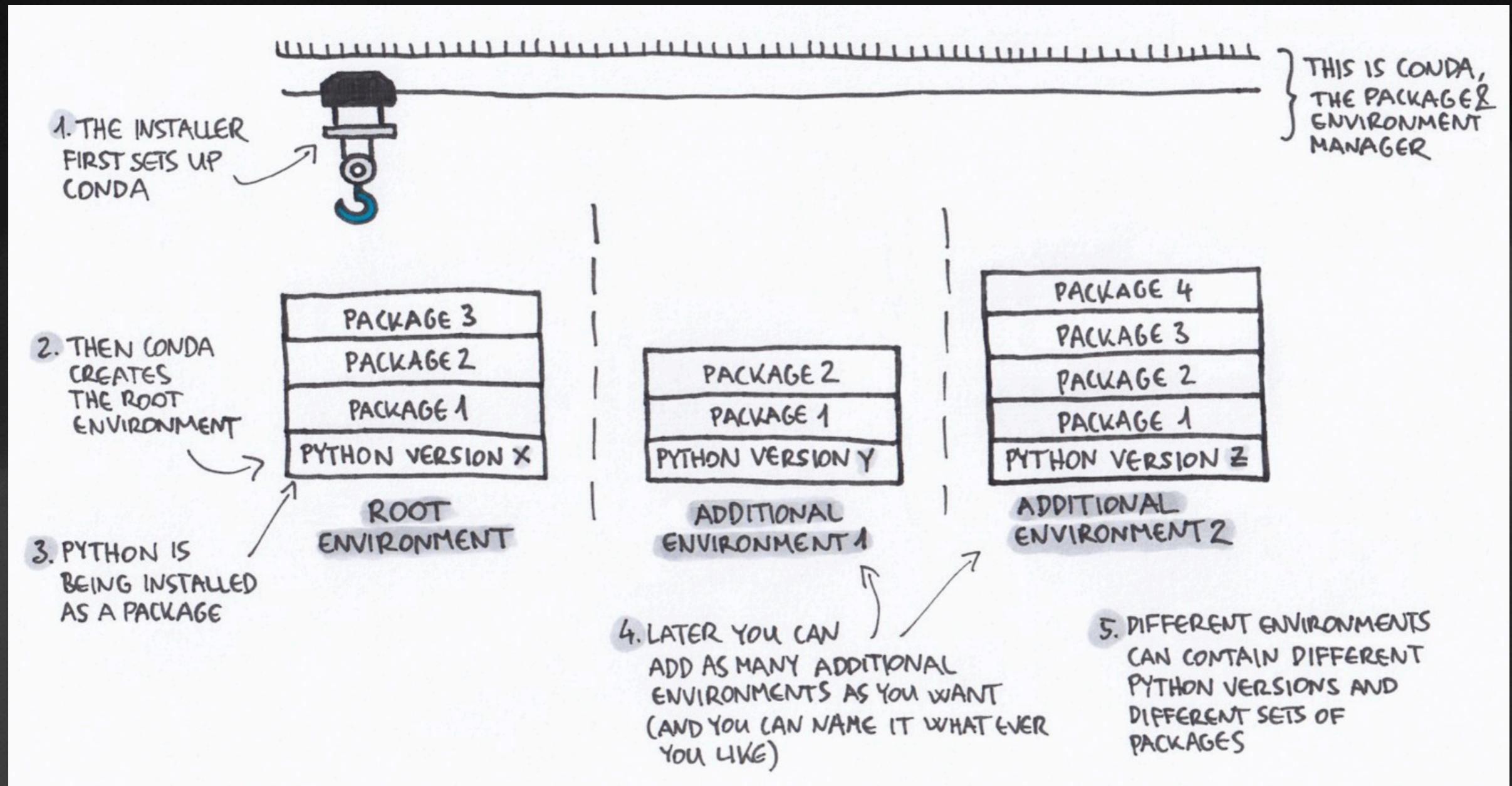
Installing Software Packages

Setting up python environment

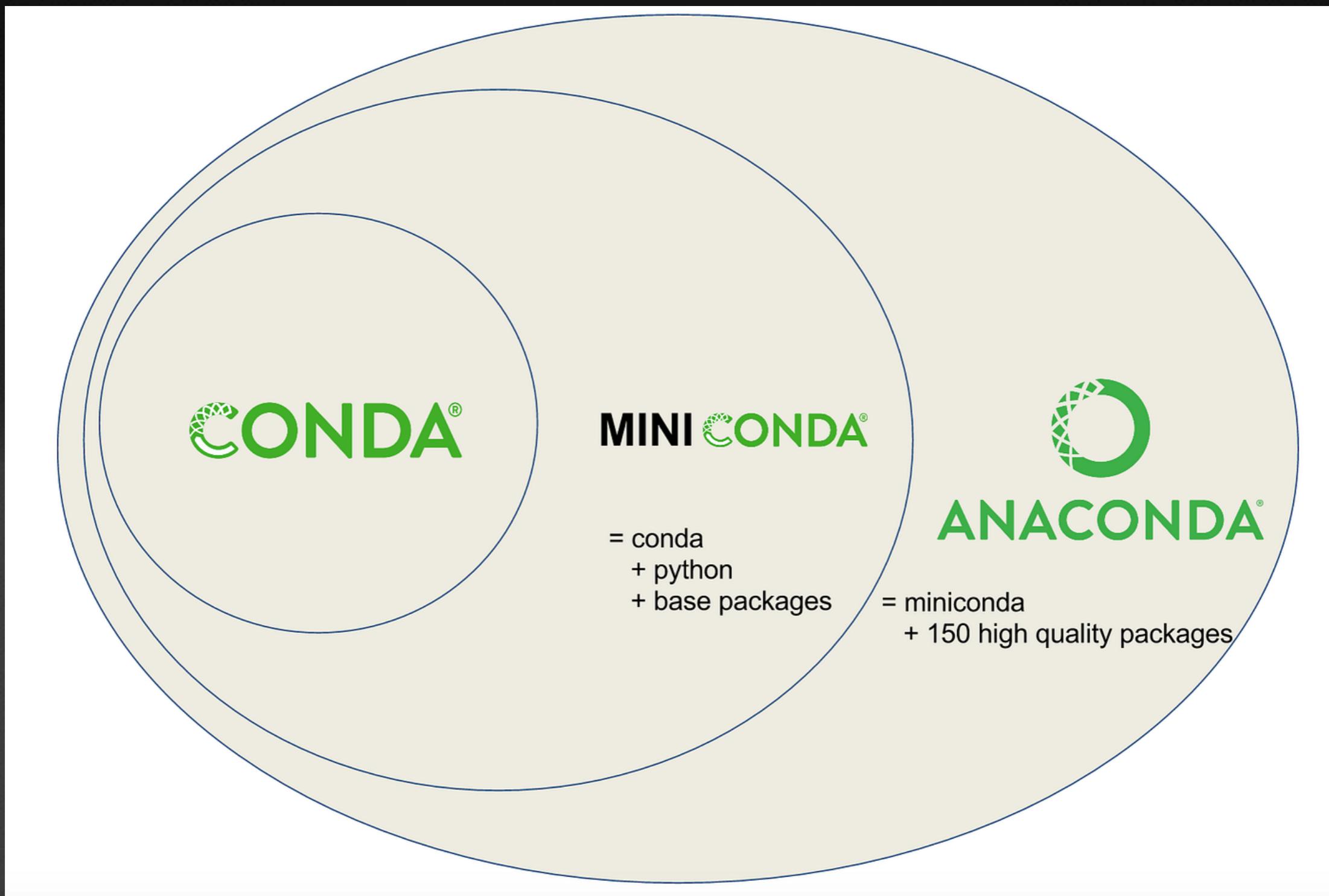
Outline

- Introduction to Conda
- Installation of IGWN packages

Environment Management with Conda



Miniconda V.S. Anaconda



Installing Miniconda

<https://docs.conda.io/en/latest/miniconda.html>



conda
latest

Latest Miniconda Installer Links

Latest - Conda 23.3.1 Python 3.10.10 released April 24, 2023

Platform	Name	SHA256 hash
Windows	Miniconda3 Windows 64-bit	307194e1f12bbeb52b083634e89cc67db4f7980b
	Miniconda3 Windows 32-bit	4fb64e6c9c28b88beab16994bfba4829110ea314
macOS	Miniconda3 macOS Intel x86 64-bit bash	5abc78b664b7da9d14ade330534cc98283bb838c
	Miniconda3 macOS Intel x86 64-bit pkg	cca31a0f1e5394f2b739726dc22551c2a19afdf6
	Miniconda3 macOS Apple M1 64-bit bash	9d1d12573339c49050b0d5a840af0ff6c32d33c3
	Miniconda3 macOS Apple M1 64-bit pkg	6997472c5ff90a772eb77e6397f4e3e227736c83
Linux	Miniconda3 Linux 64-bit	aef279d6baea7f67940f16aad17ebe5f6aac9748
	Miniconda3 Linux-aarch64 64-bit	6950c7b1f4f65ce9b87ee1a2d684837771ae7b2e
	Miniconda3 Linux-ppc64le 64-bit	b3de538cd542bc4f5a2f2d2a79386288d6e04f0e
	Miniconda3 Linux-s390x 64-bit	ed4f51afc967e921ff5721151f567a4c43c4288a



Some Useful Conda Commands

- Create environment

```
conda create --name abc
```

- Activate the environment

```
conda activate abc
```

- Back to the root environment

```
conda deactivate
```

- List all environments on this computer

```
conda env list
```

IGWN Software Packages

- Contains all the necessary packages for GW data analysis
 - See <https://computing.docs.ligo.org/conda/environments/igwn-py39/> for details

General Packages

- Numpy
- Scipy
- Pandas
- ipython
- ... etc.

GW Packages

- PyCBC
- GstLAL
- GWPY
- Bilby
- ... etc.

Installing IGWN Packages

- Add the conda-forge channel

```
Conda config --add channels conda-forge
```

- Download the YAML file from <https://computing.docs.ligo.org/conda/environments/igwn-py39/>

- Create conda environment

```
conda create --file igwn-py310.yaml
```

- Activate the environment

```
conda activate igwn-py310
```

- Setup Jupyter environment

```
Python -m ipykernel install --user --name igwn-py310  
--display-name "Python (igwn-py310)"
```

And you are ready to go!

For Windows Users...

- Some fundamental IGWN packages require a Linux environment
- It is recommended to install **Windows Subsystem for Linux (WSL)** on your laptop
- See <https://learn.microsoft.com/en-us/windows/wsl/install> for more details