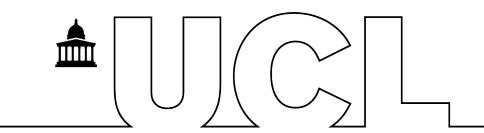# Virtual Environments in Anaconda

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What is anaconda virtual environment good for?

- It allows you to have different versions of Python and/or packages within the same computer

  ➡ allows you to work in different projects with various requirements in the same computer (i.e. different versions needed)

- It can be saved in a file, that is easily shared among computers

  ➡ good if you need to use different computers

  ➡ good for working with different people

  ➡ amazing for reproducibility!

Today we will:

1. Create our own environment

2. Learn how to activate and deactivate it

3. Install packages within it

4. Learn how to create a shareable file

 … all of this from the terminal (Mac) or conda prompt (Windows)

1. Create the environment

Option 1: from an existing environment.yml file

```
conda env create --file environment.yml
```

Option 2:

```
conda create -n [name of the enviornment] [specs]
```

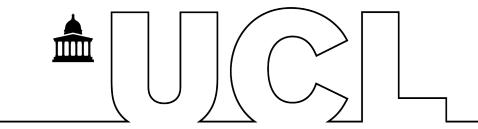To make sure it was properly created:

```
conda env list
```

2. Activate and deactivate the environment

```
conda activate [name of the environment]
```

```
conda deactivate
```

4. Install packages

- If you are not within the environment

`conda activate [name of the environment]`

- Once you are within it

`conda install [name of the package]`

or

`conda install -c r [name of r package]`
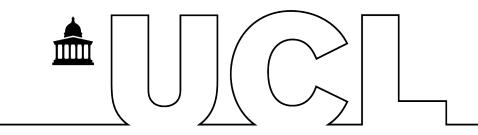
or (if you have pip)

`pip install [name of the package]`

5. Create shareable files

- If you are not within the environment

```
conda activate [name of the environment]
```

- Once you are within it

```
conda env export --file [name of file].yml
```

Other useful stuff

- Go to: https://conda.io/projects/conda/en/latest/user-guide/tasks/manage-environments.html