

# Virtual Environments

We will be using something called **virtualenv**.

## What is it?

It is possible to be working on various projects that uses different versions of Python (e.g. Python 2.6, 2.7, 3.6, 3.7, etc). This is a way to create an isolated environment (like a sandbox) with the version of Python you are using and all the project's associated libraries. This means whenever you want to download and install a Python library specific to that project, it will not affect your computer system or other virtual environments. It's all self contained.

Best thing about it, if the virtual environment has a library or libraries that are broken, you can delete that virtual environment and create another one for that project.

## How to create a virtual environment?

1. Open your terminal.
2. Make sure you have Python 3 installed. You can type the following into your command line, and you should see the version of Python running when the Python interpreter loads (you will see `>>>`):-

```
$ python3
```

3. Type **exit()**, and hit **↵** (Enter/Return key)
4. You are back to command line prompt in your terminal.
5. Navigate to your project folder using **cd** command.
6. Once in your project folder, type the following:

Windows:

```
C:\Users\Name\djangoirls> python -m venv myvenv
```

OSX:

```
$ python3 -m venv myvenv
```

## Working with virtualenv

Now we have created our virtual environment, we need to activate it.

Windows:

```
C:\Users\Name\djangogirls> myenv\Scripts\activate
```

OSX:

```
$ source myenv/bin/activate
```

Once activated, you will see something like the following:

```
(myenv) $
```

Please note (myenv) prefixed, this means you are in the virtual environment and you are ready to install the libraries to use with your project.

## How do I get out of virtual environment?

To get out of virtual environment, type the following and hit ↵ (Enter/Return key):

```
(myenv) $ deactivate
```

You should be back to

```
$
```

## Resources

- Official virtualenv docs: <https://virtualenv.pypa.io/>
- Setting up virtualenv via Django Girls Tutorial: <https://tutorial.djangogirls.org/en/installation/>

## Questions?

✉ [contact@codinggrace.com](mailto:contact@codinggrace.com)

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