IT 403 WMAD - ELECTIVE 5

Creating Virtual Environments

BULACAN STATE UNIVERSITY
COLLEGE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY

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ISO 9001:2015 Certified

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1 What is a Virtual Environment?

Virtual Environment

According to Python's official documentation, a **virtual environment** is…

> **a Python environment such that the Python interpreter, libraries and scripts installed into it are isolated from those installed in other virtual environments, and (by default) any libraries installed in a "system" Python, i.e., one which is installed as part of your operating system.**

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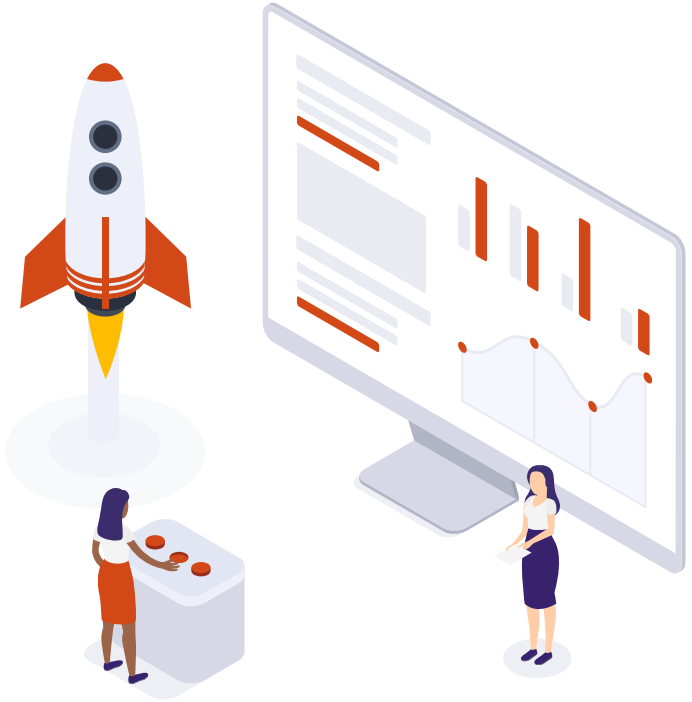
Installing and Updating pip



pip

pip is the package installer for Python.

pip is already installed if you are using Python 2 >= 2.7.9 or Python 3 >= 3.4 downloaded from python.org.

Installing pip

If **pip** is not installed, do the following:

Download **get-pip.py** to a folder on your computer. Open a command prompt window and navigate to the folder containing **get-pip.py**. Then run **python get-pip.py**.

Updating pip

To update your **pip**, use the following command in a command prompt:

```
python -m pip install --upgrade pip
```

You may check your **pip** version using the command:

```
pip --version
```

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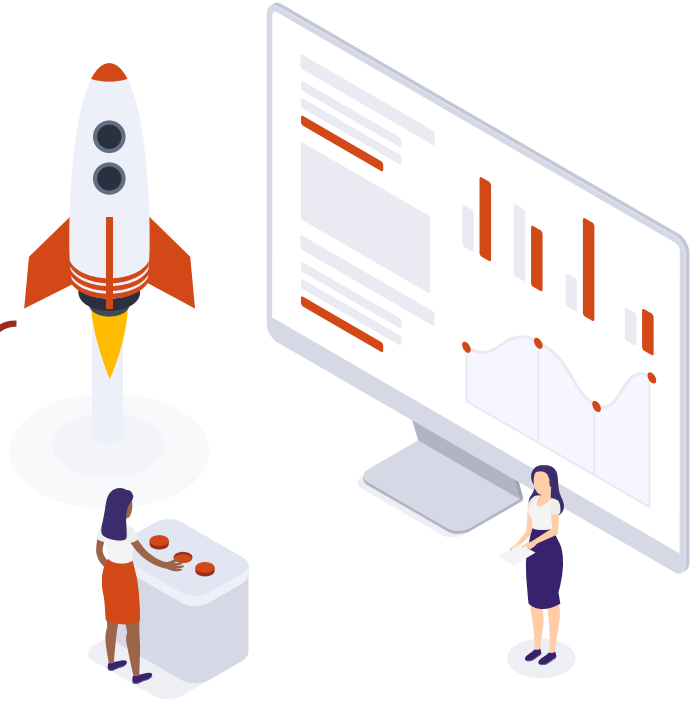
Creating a Virtual Environment for a Django Project



Installing and Creating Virtual Environments

Use this command to install virtualenv:

```
pip install virtualenv
```

Then, use this command to create your virtual environment:

```
virtualenv env_name
```

NOTE: Replace **env_name** with your virtual environment's name.

Installing and Creating Virtual Environments

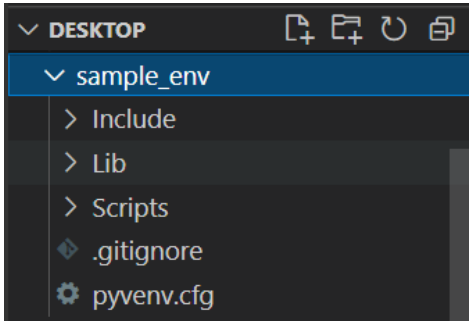
Here's an example virtual environment:

```
virtualenv sample_env
```

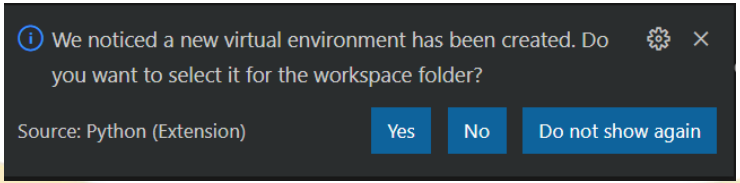
NOTE: In this example, I created the virtualenv on the Desktop.

Installing and Creating Virtual Environments

After running this command, a new directory (having the same name of your virtualenv) will be created.



In VS Code, it will recognize that you created a new virtual environment and would suggest to have it as your workspace.



Running Virtual Environments

To run your virtual environment, use the following command in a command prompt:

env_name/Scripts/activate

NOTE: *Replace the env_name with your environment's actual name.*

WARNING: *Exit from the env directory before executing* ***startproject.*** *Do not save the project inside the env directory.*

Running Virtual Environments

```
PS C:\Users\Paul Aaron\Desktop> sample_env/Scripts/activate
(sample_env) PS C:\Users\Paul Aaron\Desktop>
```

As you can see, after running the virtualenv, your command prompt will display the name of your virutalenv before the directory.

That shows that you are within your virtual environment. After this, follow the instructions provided by the Django official website in creating a sample project.

Exiting Virtual Environments

To exit your virtual environment, use the following command in a command prompt:

deactivate

```
PS C:\Users\Paul Aaron\Desktop> sample_env/Scripts/activate
(sample_env) PS C:\Users\Paul Aaron\Desktop> deactivate
PS C:\Users\Paul Aaron\Desktop>
```

Legends:

- Within the Virtual Environment
- Normal Environment