**USING PHYTON VIRUTAL ENVIRONMENT IN DJANGO**

The reason for Python Virtual Environment is that if we have multiple projects which are using MySQL client or library or package, then we have to install using pip instal mysqlclient.

If we want to have one version of mysqlclient and another having different version, then we have a problem. Because pip installs the mysqlclient globally, one version gets overridden and another will have all the conflicts and all that issues. That is where Python Virtual environment comes in. It allows us to have separate virtual environment for different projects or for a group of project.

We can have virtual environment for each of the project we create or we can have a virtual environment for all the projects in one place. This is how we organize it.

We can separate out the dependencies for a particular project and it will not conflict with the global dependencies of other projects.

**Steps for Python Virtual Environment**

[Install packages in a virtual environment using pip and venv - Python Packaging User Guide](https://packaging.python.org/en/latest/guides/installing-using-pip-and-virtual-environments/)

**MacOs Installation Steps**

pip3 install virtualenv

which virtualenv

python3 -m venv env

source env/bin/activate

which python3

pip3 install Django

pip3 install mysqlclient

env/bin/django-admin.py startproject <projectname>

python3 manage.py migrate

python3 manage.py runserver

django

deactivate

rm -rf venv

**Windows Installation Steps**

PS C:\Users\kamal\django\_projects> py -m venv .venv

PS C:\Users\kamal\django\_projects> .venv\Scripts\activate

Do you want to run software from this untrusted publisher?

File C:\Users\kamal\django\_projects\.venv\Scripts\Activate.ps1 is published by CN=Python Software

Foundation, O=Python Software Foundation, L=Beaverton, S=Oregon, C=US and is not trusted on your

system. Only run scripts from trusted publishers.

[V] Never run [D] Do not run [R] Run once [A] Always run [?] Help (default is "D"): D

.venv\Scripts\activate : File C:\Users\kamal\django\_projects\.venv\Scripts\Activate.ps1 cannot be

loaded because you opted not to run this software now.

At line:1 char:1

+ .venv\Scripts\activate

+ ~~~~~~~~~~~~~~~~~~~~~~

+ CategoryInfo : SecurityError: (:) [], PSSecurityException

+ FullyQualifiedErrorId : UnauthorizedAccess

PS C:\Users\kamal\django\_projects> .venv\Scripts\activate

Do you want to run software from this untrusted publisher?

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[V] Never run [D] Do not run [R] Run once [A] Always run [?] Help (default is "D"): A

(.venv) PS C:\Users\kamal\django\_projects> where python

(.venv) PS C:\Users\kamal\django\_projects> cd .\.venv\

(.venv) PS C:\Users\kamal\django\_projects\.venv> .venv\Scripts\activate

(.venv) PS C:\Users\kamal\django\_projects\.venv> cd ..

(.venv) PS C:\Users\kamal\django\_projects> .venv\Scripts\activate

(.venv) PS C:\Users\kamal\django\_projects> .venv\Scripts\python

Python 3.12.3 (tags/v3.12.3:f6650f9, Apr 9 2024, 14:05:25) [MSC v.1938 64 bit (AMD64)] on win32

Type "help", "copyright", "credits" or "license" for more information.

>>>exit()

(.venv) PS C:\Users\kamal\django\_projects> where python

(.venv) PS C:\Users\kamal\django\_projects> deactivate

PS C:\Users\kamal\django\_projects> where python

PS C:\Users\kamal\django\_projects>

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