

## Lesson 06 Demo 01

### Setting up Jinja2

**Objective:** To install and configure Jinja2 to enable the creation of dynamic HTML templates, thereby separating the presentation layer from the business logic in web applications. This facilitates the development of scalable, maintainable, and reusable web projects.

### Tools required: Linux terminal

**Prerequisites:** None

Steps to be followed:

1. Install Jinja2
2. Verify the installation of Jinja2

## Step 1: Install Jinja2

### 1.1 Run the following command to update the package list:

```
sudo apt-get update -y
```

```
poojahksimplile@ip-172-31-29-173: ~
File Edit View Search Terminal Help
poojahksimplile@ip-172-31-29-173:~$ sudo apt-get update -y
Hit:1 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy InRelease
Get:2 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates InRelease [12
8 kB]
Hit:3 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-backports InRelease
Get:4 https://download.docker.com/linux/ubuntu jammy InRelease [48.8 kB]
Ign:5 https://pkg.jenkins.io/debian-stable binary/ InRelease
Hit:6 https://pkg.jenkins.io/debian-stable binary/ Release
Hit:7 https://prod-cdn.packages.k8s.io/repositories/isv:/kubernetes:/core:/stabl
e:/v1.28/deb InRelease
Get:8 http://security.ubuntu.com/ubuntu jammy-security InRelease [129 kB]
Get:9 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/main amd64 Pa
ckages [1769 kB]
Get:10 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/main Transla
tion-en [322 kB]
Get:11 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/restricted a
md64 Packages [2057 kB]
Get:12 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/restricted T
ranslation-en [350 kB]
Get:13 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/universe amd
```

- 1.2 Run the following command to install Python 3, ensuring that the latest version of Python is available:

**sudo apt-get install -y python3**

```
poojahksimplile@ip-172-31-29-173:~$ sudo apt-get install -y python3
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
python3 is already the newest version (3.10.6-1~22.04).
python3 set to manually installed.
0 upgraded, 0 newly installed, 0 to remove and 77 not upgraded.
```

- 1.3 Run the following command to install Jinja2 for Python 3, ensuring the template engine is available for use in Python projects:

**sudo apt-get install -y python3-jinja2**

```
poojahksimplile@ip-172-31-29-173:~$ sudo apt-get install -y python3-jinja2
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
python3-jinja2 is already the newest version (3.0.3-1ubuntu0.2).
0 upgraded, 0 newly installed, 0 to remove and 77 not upgraded.
```

## Step 2: Verify the installation of Jinja2

- 2.1 Run the following command to verify the installation of Jinja2 in a Python environment and display its version:

**python3 -c "import jinja2; print(jinja2.\_\_version\_\_)"**

```
poojahksimplile@ip-172-31-29-173:~$ python3 -c "import jinja2; print(jinja2.__version__)"
3.0.3
```

- 2.2 Run the following command to check if the **python3-jinja2** package is installed on the system:

**dpkg-query -f='\${Package} \${Version} \${Architecture}\n'**

```
poojahksimplile@ip-172-31-29-173:~$ dpkg-query -f='${Package} ${Version} ${Architecture}\n' | grep python3-jinja2
ii python3-jinja2 3.0.3-1ubuntu0.2
all small but fast and easy to use stand-alone template engine
```

By following these steps, you have successfully installed Jinja2 for Python 3 and confirmed its installation and version. This ensures that the Jinja2 template engine is ready for use in Python projects.