

Docker and Python

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ilara@LPI: ~/docker1
Archivo Editar Ver Buscar Terminal Ayuda
ilara@LPI:~$ mkdir docker1
ilara@LPI:~$ cd docker1/
ilara@LPI:~/docker1$ python3 -m venv .venv
The virtual environment was not created successfully because ensurepip is not
available. On Debian/Ubuntu systems, you need to install the python3-venv
package using the following command.

    apt install python3.10-venv

You may need to use sudo with that command. After installing the python3-venv
package, recreate your virtual environment.

Failing command: ['/home/ilara/docker1/.venv/bin/python3', '-Im', 'ensurepip', '--upgrade', '--default-pip']

ilara@LPI:~/docker1$ python3.10 -m venv .venv
The virtual environment was not created successfully because ensurepip is not
available. On Debian/Ubuntu systems, you need to install the python3-venv
package using the following command.

    apt install python3.10-venv

You may need to use sudo with that command. After installing the python3-venv
package, recreate your virtual environment.

Failing command: ['/home/ilara/docker1/.venv/bin/python3.10', '-Im', 'ensurepip', '--upgrade', '--default-pip']

ilara@LPI:~/docker1$ apt install python3.10-venv
[sudo] password for ilara:
Leyendo lista de paquetes... Hecho
Creando árbol de dependencias... Hecho
Leyendo la información de estado... Hecho
Se instalarán los siguientes paquetes adicionales:
  python3-pip-whl python3-setuptools-whl
Se instalarán los siguientes paquetes NUEVOS:
  python3-pip-whl python3-setuptools-whl python3.10-venv
0 actualizados, 3 nuevos se instalarán, 0 para eliminar y 98 no actualizados.
Se necesita descargar 2 473 kB de archivos.
Se utilizarán 2 882 kB de espacio de disco adicional después de esta operación.
¿Desea continuar? [S/n] s
Get:1 http://archive.ubuntu.com/ubuntu jammy/universe amd64 python3-pip-whl all 22.0.2-0ubuntu1 [1 670 kB]
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Archivo Editar Ver Buscar Terminal Ayuda
ilara@LPI:~/docker1$ python3 -m venv .venv
ilara@LPI:~/docker1$ source .venv/bin/activate
(.venv) ilara@LPI:~/docker1$ python3 -m pip install Flask
Collecting Flask
  Downloading Flask-2.2.2-py3-none-any.whl (101 kB)
    101.5/101.5 KB 640.0 KB/s eta 0:00:00
Collecting itsdangerous>=2.0
  Downloading itsdangerous-2.1.2-py3-none-any.whl (15 kB)
Collecting Werkzeug>=2.2.2
  Downloading Werkzeug-2.2.2-py3-none-any.whl (232 kB)
    232.7/232.7 KB 901.4 KB/s eta 0:00:00
Collecting click>=8.0
  Downloading click-8.1.3-py3-none-any.whl (96 kB)
    96.6/96.6 KB 900.0 KB/s eta 0:00:00
Collecting Jinja2>=3.0
  Downloading Jinja2-3.1.2-py3-none-any.whl (133 kB)
    133.1/133.1 KB 1.3 MB/s eta 0:00:00
Collecting MarkupSafe>=2.0
  Downloading MarkupSafe-2.1.1-cp310-cp310-manylinux_2_17_x86_64.manylinux2014_x86_64.whl (25 kB)
Installing collected packages: MarkupSafe, itsdangerous, click, Werkzeug, Jinja2, Flask
Successfully installed Flask-2.2.2 Jinja2-3.1.2 MarkupSafe-2.1.1 Werkzeug-2.2.2 click-8.1.3 itsdangerous-2.1.2
(.venv) ilara@LPI:~/docker1$ python3 -m pip freeze > requirements.txt
(.venv) ilara@LPI:~/docker1$ cat requirements.txt
click==8.1.3
Flask==2.2.2
itsdangerous==2.1.2
Jinja2==3.1.2
MarkupSafe==2.1.1
Werkzeug==2.2.2
(.venv) ilara@LPI:~/docker1$ touch app.py
(.venv) ilara@LPI:~/docker1$ ls
app.py  requirements.txt
(.venv) ilara@LPI:~/docker1$ nano app.py
(.venv) ilara@LPI:~/docker1$ python3 -m flask run
 * Debug mode: off
WARNING: This is a development server. Do not use it in a production deployment. Use a production WSGI server instead.
 * Running on http://127.0.0.1:5000
Press CTRL+C to quit
^C(.venv) ilara@LPI:~/docker1$ python3 -m flask run
```

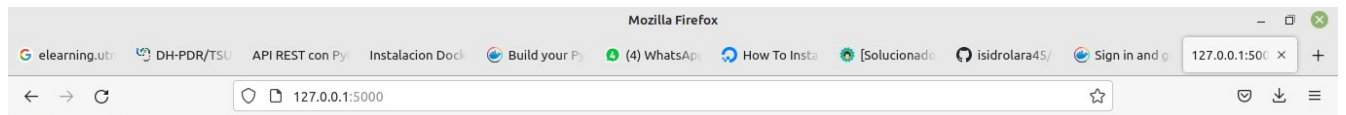
```
ilara@LPI: ~/docker1
Archivo  Editor  Ver  Buscar  Terminal  Ayuda
Downloading itsdangerous-2.1.2-py3-none-any.whl (15 kB)
Collecting Werkzeug>=2.2.2
  Downloading Werkzeug-2.2.2-py3-none-any.whl (232 kB)
    232.7/232.7 KB 881.4 KB/s eta 0:00:00
Collecting click==8.0
  Downloading click-8.1.3-py3-none-any.whl (96 kB)
    96.0/96.0 KB 989.0 KB/s eta 0:00:00
Collecting Jinja2>=3.0
  Downloading Jinja2-3.1.2-py3-none-any.whl (133 kB)
    133.1/133.1 KB 1.5 MB/s eta 0:00:00
Collecting MarkupSafe>=2.0
  Downloading MarkupSafe-2.1.1-cp310-cp310-manylinux_2_17_x86_64.manylinux2014_x86_64.whl (25 kB)
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Press CTRL+C to quit
127.0.0.1 - - [27/Oct/2022 09:55:05] "GET / HTTP/1.1" 200 -
127.0.0.1 - - [27/Oct/2022 09:55:05] "GET /favicon.ico HTTP/1.1" 404 -
[
```

```
ilara@LPI: ~/docker1
GNU nano 6.2 app.py *
# Programa de Isidro Lara Lopez
# Programacion de redes

from flask import Flask
app = Flask(__name__)

@app.route('/')
def hello_world():
    return 'Hello, Docker!'

^C Help      ^O Write Out  ^W Where Is   ^K Cut        ^T Execute   ^G Location  ^U Undo      ^A Set Mark   ^_] To Bracket ^O Previous
^X Exit      ^R Read File  ^N Replace    ^U Paste      ^J Justify   ^_ Go To Line ^E Redo      ^M Copy       ^_ Where Was  ^W Next
[
```



Hello, Docker!



Run your image as a container: