

# Programming Environment Set Up

## Requirements

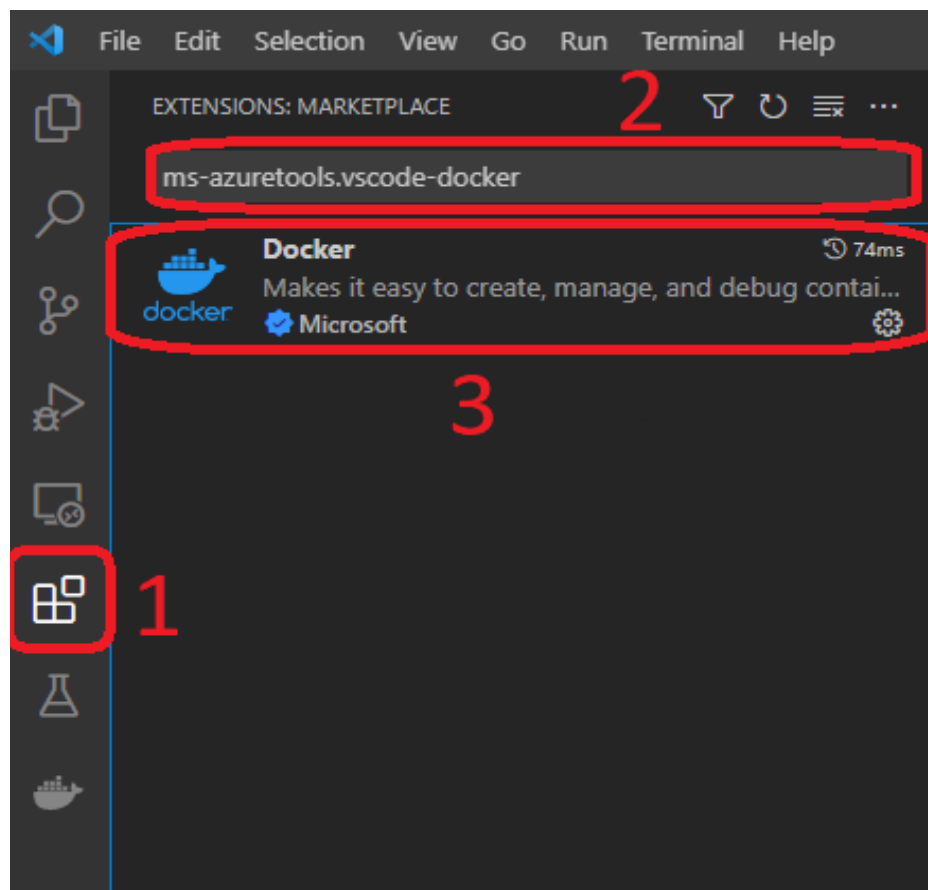
Docker: <https://docs.docker.com/get-docker/>

Docker Compose: <https://docs.docker.com/compose/install/>

Visual Studio Code: <https://code.visualstudio.com/>

Docker Extension for Visual Studio Code: ms-azuretools.vscode-docker

To install the docker extension for VSC you will need to press the Extensions button (1 on the image) copy paste the ID of the extension given: ms-azuretools.vscode-docker and install it.



Docker extension installation

# Docker Set Up

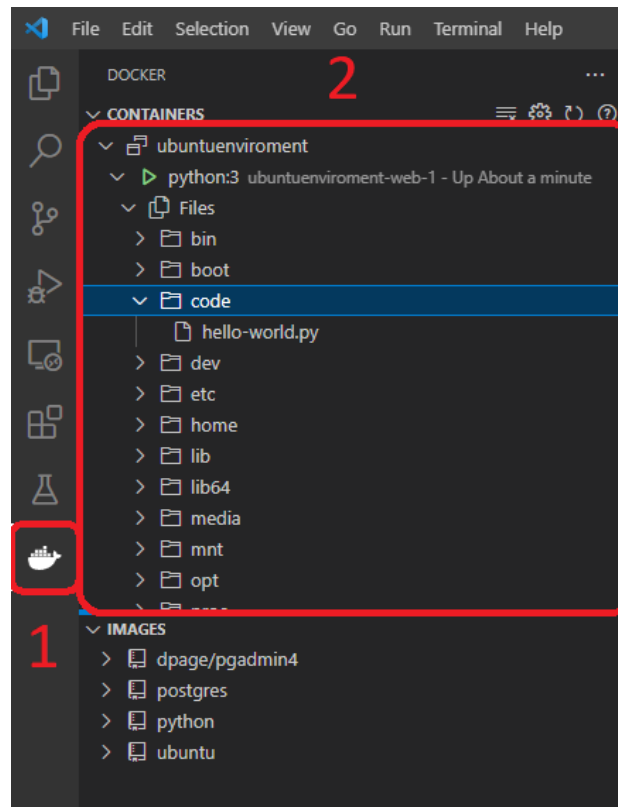
To use the docker environment with python we need to use the given docker compose, this docker compose will create a docker container with python. It will also contain a “code” folder, this folder is linked with the container, all the python code inside that folder will be accessible inside the docker container. As an example there is a hello-world.py to execute inside the container as a test.

## Steps

1. Create the docker container or raise it if it is already created, for this we only need to execute the following command in a terminal inside the folder.

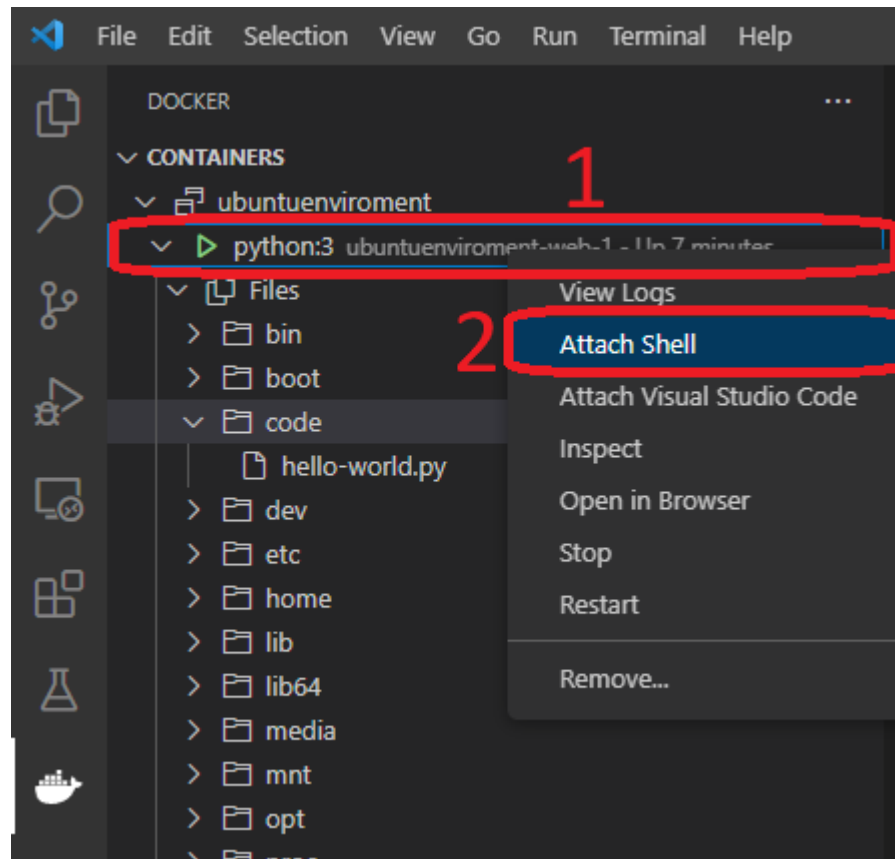
- `docker-compose up -d`

If we have installed the extension properly we should be able to see the following in our VSC.



Docker container environment

2. Open a shell to execute our python programs. To do this we need to access our environment inside our VSC, then right click on “python:3” and then on the menu, “Attach Shell”, at the bottom of our VSC it will appear a console which can be used to move and execute commands on our environment.



Container console connection

3. To execute a python program we can go to the “code” folder and execute it with the following commands.
  - a. `cd /code`
  - b. `python hello-world.py`
4. Remember to stop docker to avoid consuming resources