# Install guide for WSL2 & Docker

## Table of Contents

## 1    Introduction – read this first

We need to set our PC's up so that we can run containers locally on our own computers. To do so we to install two packages on our PC:

1. **WSL2** – Windows subsystem for Linux. Docker for Windows needs WSL2 to function, so we'll install that first.
   ***NOTE:*** *If you are using a Mac, you should skip this step, it's not needed for a Mac and it won't run a Mac anyway.*
2. **Docker Desktop** for Windows (or **Docker Desktop** for Mac). This is the actual "container engine," combined with a nice GUI frontend to simplify things.

Just follow the steps below to install the two packages. If you run into technical issues, we'll try to sort them out during the upcoming session.

## 2    Install WSL2

As noted above, you should skip this step if you are using a Mac.

If you are using Windows, you may need to enable virtualization in the BIOS for your machine – you will know if this is case because the installation process will produce errors to that effect. To find out how to enable the virtualization feature in your BIOS, you will have to Google for the way to do that for your specific PC, there's no standardized way to do it except for the very general recipe:

- Enter the BIOS by pressing and holding some magical key(s) immediately after you power the PC up.
- Find the spot in the BIOS menu where you can enable virtualization.

But if you Google "<your pc brand and model here> BIOS enable virtualization" you can in most cases find the info you need.

There are two substeps in the WSL2 installation process:

    A.  Install WSL2 itself

    B.  Installing some extra stuff that makes life easier.

## 2.1   Sub step A – install WSL2

Click on the link https://learn.microsoft.com/en-us/windows/wsl/install (link 1) and follow the instructions there. Just use the default settings, there's no need to install anything else than an Ubuntu distribution which is the default.

As part of the WSL2 installation you will be asked to create a username and password for your new "Linux login". Choose easy-to-remember stuff here.

*Be aware that when you enter your password, the keys you press ARE NOT ECHOED to the screen, but that's by design. Just type in what you want and finish by pressing ENTER.*

After having created your Linux credentials (username/password), the Microsoft guide comes to a section called *Set up and best practices*. In this section, press the link *Set up and best practices* (link 2, which takes you to a different page) and continue to sub step B below.

## 2.2   Sub step B – update Linux packages and install Windows Terminal

When you have clicked link 2 to get to the *Set up a WSL development environment* page at Microsoft, you end on a page that looks a lot like the one from link 1. We'll skip the first two steps (*Get started* and *Set up your Linux username and password*) because been there done that.

The two steps we need to do here are:

-   Update and upgrade packages – this updates the Linux software packages. Each time you need or just want to update your Linux, just do it like described there (`sudo apt update && sudo apt upgrade`)
-   Set up Windows Terminal – Windows Terminal is a much better "command line" terminal than the default Windows terminal application and we'll need it.

Just follow the instructions for these two steps.

# 3   Install Docker Desktop

Click on this link https://www.docker.com/products/docker-desktop/ and choose the appropriate download for your PC (Windows, Mac/Intel, Mac/Apple).

Just run the installer, it's normally a fairly painless process.

That's it – we should now be ready to go crazy with containers.