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Full Stack Web Development

Docker Desktop and WSL Setup

System Requirement

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Your Windows machine must meet the following requirements to successfully install Docker Desktop.

- Windows 11 64-bit: Home or Pro version 21H2 or higher, or Enterprise or Education version 21H2 or higher.
- Windows 10 64-bit: Home or Pro 21H1 (build 19043) or higher, or Enterprise or Education 20H2 (build 19042) or higher.
- Enable the WSL 2 feature on Windows. For detailed instructions, refer to the Microsoft documentation.
- The following hardware prerequisites are required to successfully run WSL 2 on Windows 10 or Windows 11:
  - 64-bit processor with Second Level Address Translation (SLAT)
  - 4GB system RAM
  - BIOS-level hardware virtualization support must be enabled in the BIOS settings. For more information, see Virtualization.
- Download and install the Linux kernel update package.

Enable HyperV through BIOS

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1. Restart your PC and press F2 in some cases F12, this is based on you pr provider (check how to get in bios based on your pc). You will be open the bios setup
2. Go to security tab and go to system security. Make sure the virtualization technology is enabled

Enable HyperV through PowerShell

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1. Open a PowerShell console as Administrator.
2. Run the following command:

   ```
   Enable-WindowsOptionalFeature -Online -FeatureName Microsoft-Hyper-V -All
   ```

If the command couldn't be found, make sure you're running PowerShell as Administrator.

When the installation has completed, reboot.

Enable Hyper-V through Settings

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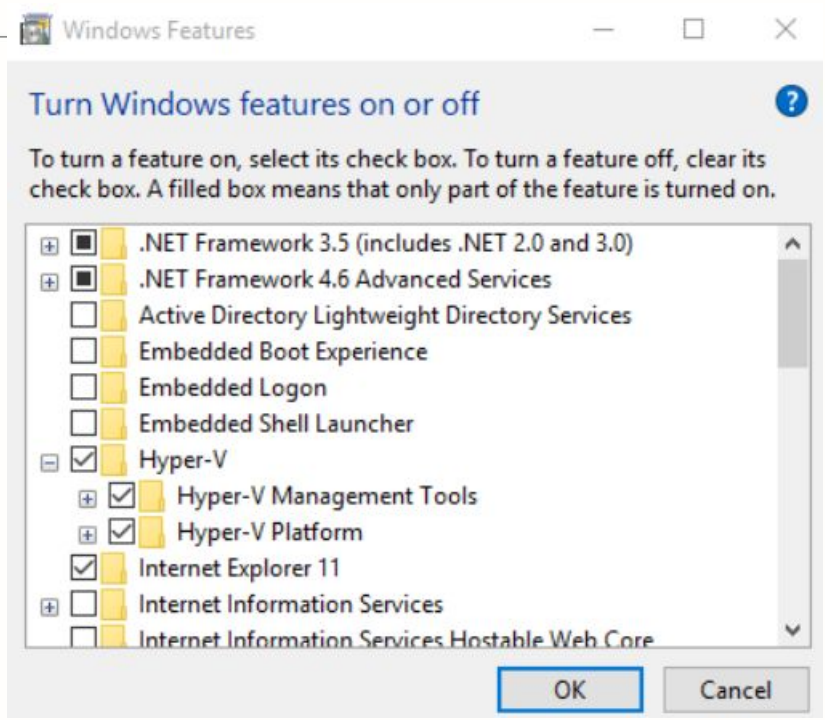
1. Right click on the Windows button and select ‘Apps and Features’.
2. Select Programs and Features on the right under related settings.
3. Select Turn Windows Features on or off.
4. Select Hyper-V and click OK.

When the installation has completed you are prompted to restart your computer.



Install WSL

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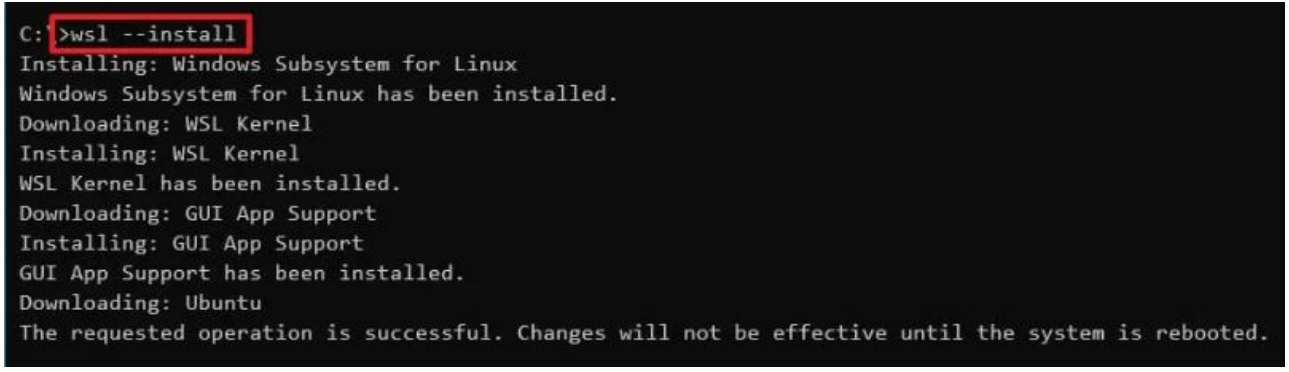
Prerequisites:

You must be running Windows 10 version 2004 and higher (Build 19041 and higher) or Windows 11.

Install WSL command: **wsl --install**

Restart your computer to finish the WSL installation



Install WSL with Specific Distro on Windows

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1. Open Start, Search for Command Prompt, right-click the top result, and select the Run as administrator option.
2. Type the following command to view a list of available WSL distros you can install on Windows 11 and press Enter: wsl --list --online
3. Type the following command to install the WSL with a specific distro on Windows 11 and press Enter: wsl --install -d DISTRO-NAME

   In the command, remember to replace “DISTRO-NAME” with the name of the distro you want to install, such as Debian.

4. Restart your computer to finish the WSL installation on Windows 11. Continue with the Linux distro setup as necessary (create user with username and password)

```
C:\>wsl --list --online
The following is a list of valid distributions that can be installed.
The default distribution is denoted by '*'.
Install using 'wsl --install -d <Distro>'.

  NAME            FRIENDLY NAME
* Ubuntu          Ubuntu
  Debian          Debian GNU/Linux
  kali-linux      Kali Linux Rolling
  openSUSE-42     openSUSE Leap 42
  SLES-12         SUSE Linux Enterprise Server v12
  Ubuntu-16.04    Ubuntu 16.04 LTS
  Ubuntu-18.04    Ubuntu 18.04 LTS
  Ubuntu-20.04    Ubuntu 20.04 LTS

C:\>wsl --install -d Debian
Installing: Windows Subsystem for Linux
Windows Subsystem for Linux has been installed.
Downloading: WSL Kernel
Installing: WSL Kernel
WSL Kernel has been installed.
Downloading: GUI App Support
Installing: GUI App Support
```

Install WSL with Specific Distro on Windows

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   In the command, remember to replace “DISTRO-NAME” with the name of the distro you want to install, such as Debian.

4. Restart your computer to finish the WSL installation on Windows 11. Continue with the Linux distro setup as necessary (create user with username and password)
5. Type the following command to update the WSL kernel and press Enter: wsl --update

Check Version of WSL

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You can list your installed Linux distributions and check the version of WSL each is set to by entering the command: wsl -l -v in PowerShell or Windows Command Prompt.

Install Docker Desktop on Windows

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1. Double-click Docker Desktop Installer.exe to run the installer.
2. If you haven't already downloaded the installer (Docker Desktop Installer.exe), you can get it from Docker Hub. It typically downloads to your Downloads folder, or you can run it from the recent downloads bar at the bottom of your web browser.
3. When prompted, ensure the Use WSL 2 instead of Hyper-V option on the Configuration page is selected or not depending on your choice of backend.
4. If your system only supports one of the two options, you will not be able to select which backend to use.
5. Follow the instructions on the installation wizard to authorize the installer and proceed with the install.
6. When the installation is successful, click Close to complete the installation process.
7. If your admin account is different to your user account, you must add the user to the docker-users group. Run Computer Management as an administrator and navigate to Local Users and Groups > Groups > docker-users. Right-click to add the user to the group. Log out and log back in for the changes to take effect.

Thank You!

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