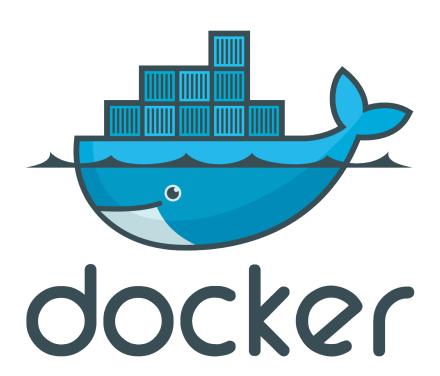
By Wang, Jie 2022-07-02

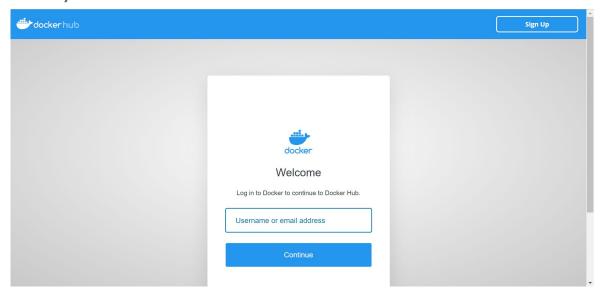
Docker Implementation & Quick Start



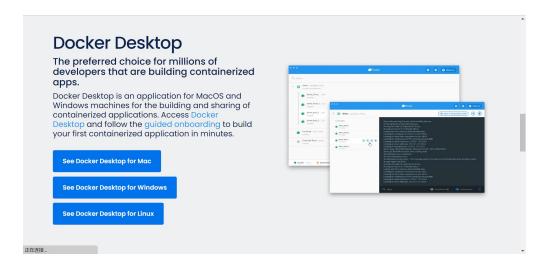
# 1. Sign up dockerhub & download Desktop version

Docker: a tool for packaging, distributing, and deploying applications -> Especially for Linux app!

一键部署, 轻量级虚拟机 -> Fast and convenient Only virtualize the environments software needs



- Here we use windows edition as an example, for more information and other platform, please check these websites:
- Docker 1小时快速上手教程,无废话纯干货\_哔哩哔哩\_bilibili
- https://docker.easydoc.net
- Google / Bing (No Baidu!)
- StackOverflow & CSDN



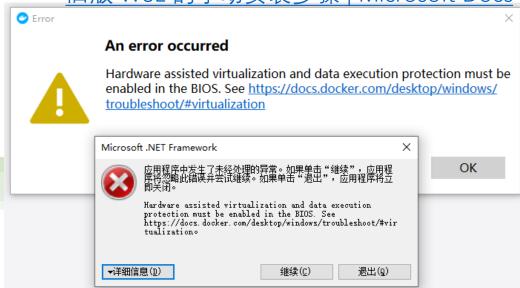
- Supports multiple versions of one application simultaneously
- Quickly get familiar with CLI language 命令行, 更CS的界面
- Prepare for further course: ECE120, ECE220, ECE391, CS225.....



## 2. Environment Configuration

Frequent error: follow the guidance, install/update Ubuntu core.

旧版 WSL 的手动安装步骤 | Microsoft Docs



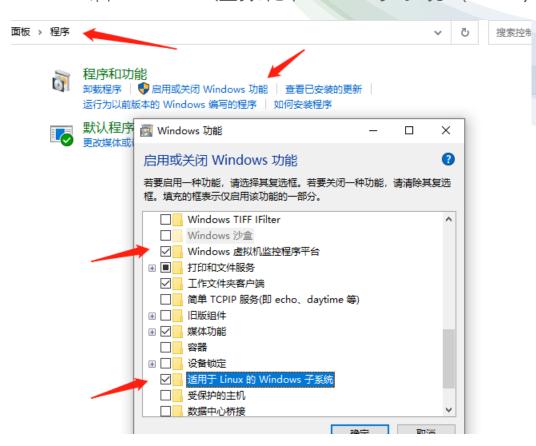
Notice: Ubuntu & Dockerhub can only be installed at Disk#C, prepare enough space for them! (>10GB)

WIN10 edition is preferred

For more details, strongly recommend to follow website guidance & this video:操作系统概述 (为什么要学操作系统) [南京大学2022操作系统-蒋炎岩-P1] 哔哩哔哩 bilibili

#### 解决方法:

控制面板->程序->启用或关闭 windows 功能, 开启 Windows 虚拟化和 Linux 子系统 (WSL2)





=> [internal] load metadata for docker.io/library/nginx:a 5.7s

=> [app-base 1/5] FROM docker.io/library/node:12-alpine@ 10.5s resolve docker.io/library/node:12-alpine@sha256:d4b 0.1s

3. Start, Create

=> [internal] load metadata for docker.io/library/python: => [internal] load metadata for docker.io/library/node:12

PS C:\Users\DELL\getting-started> docker build -t docke\_\_

=> [internal] load build definition from Dockerfile

transferring dockerfile: 1.12kB

PS C:\Users\DELL> cd getting-started

=> [internal] load .dockerignore

transferring context: 52B

[+] Building 17.0s (6/24)

al .



#### Now, build the image



A Docker image is a private file system just for your container.

It provides all the files and code your container needs.

cd getting-started



Important but new concept Question for you:

- 1. What's pull and push?
- How does docker and wsl related to Github?

Search and learn these by yourself!

Skip tutorial

































0.1s

0.0s

0.1s

0.0s

# 4. After "Hello world", try to install some program and use it!

Example: SonarQube, a practical and outstanding tool for java software analysis.



# Coming soon...

Example: SonarQube, a practical and outstanding tool for java software analysis.



### 6. <u>Always</u>: STFW & RTFM

- RTFM: Read The Friendly Manual
- STFW: Search The Friendly Web

这两个字面意思看完其实就结束了,但会被缩成短语即说明其使用的频率之高。也说明了现代人类大部分人经常会问Stupid的问题,而不是先尝试过一些想法后再提问。——Eric Steven Raymond, 2001

English material first: Not only practice reading, but also for better knowledge material!



