In this guide, you will configure your workstation to support the Kubernetes hands-on labs. You will install Windows Services for Linux, Docker Desktop for Windows, and the appropriate tools for the hands-on labs.

PLEASE DO THESE STEPS BEFORE THE WORKSHOP!

Please complete the testing below to ensure you can run containers in your environment and your Kubernetes cluster is set up correctly.

If you have any issues please feel free to email me Anthony Nocentino aen@centinosystems.com

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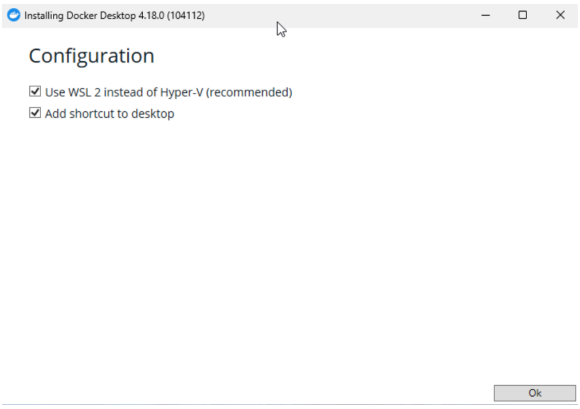
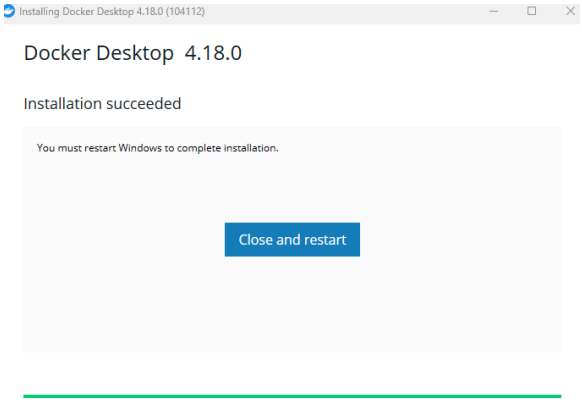
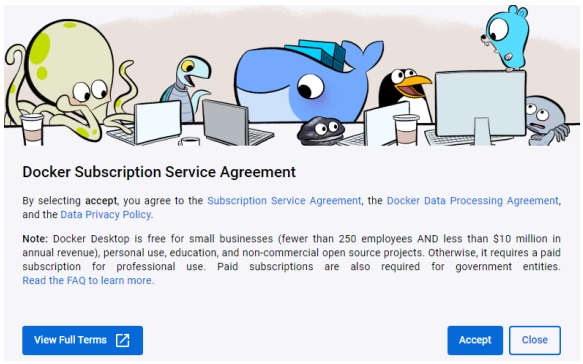
1. **Install Required Software**
    1. **Enable the Windows Subsystem for Linux Feature -** You can find more details about installing WSL at this link https://learn.microsoft.com/en-us/windows/wsl/install I have included a summary of the steps below.
        1. If you're using an Azure VM, ensure the VM Security Type is set to Standard.
        2. Open a command prompt and enter: `wsl --install`
        3. Once completed, reboot your computer.
        4. Log back in and wait for WSL to start automatically. It will finalize the installation and prompt you to enter the appropriate information for a UNIX username and password.
    2. **Install Additional Tools**
        1. Install Chocolatey - https://chocolatey.org/install
        2. Install SQLCMD - `choco install sqlserver-cmdlineutils`
        3. Install VSCode - `choco install vscode`
        4. Install VSCode PowerShell Extension - https://code.visualstudio.com/docs/languages/powershell
    3. **Install Docker Desktop** - **https://docs.docker.com/desktop/install/windows-install/**
        - Please see this **link for system requirements**
        - Download and launch the installer
        - Leave the defaults checked



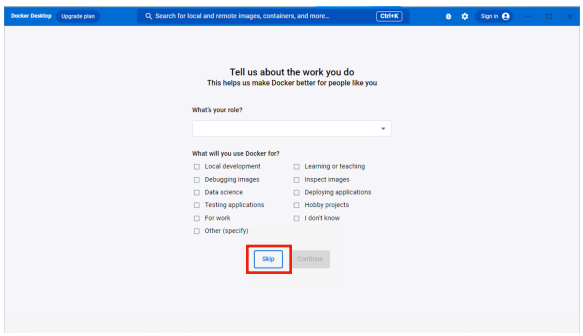
- **Once the installation finishes, click Close and restart to restart your computer.**



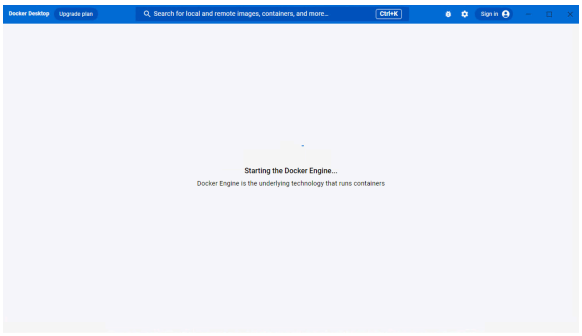
- **After the reboot, log in and wait for Docker Desktop to launch automatically. Accept the license agreement.**



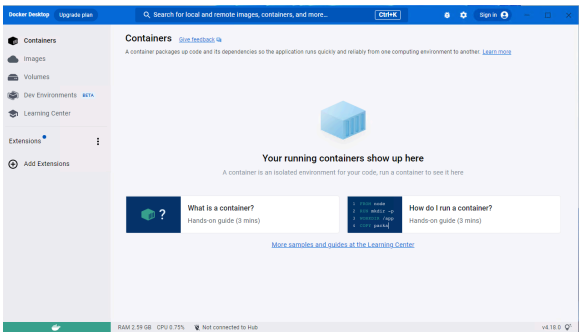
- **Skip the initial setup.**



- **You will see the following screen for a few minutes…**



- **Once initialization is complete, you should see a screen like this and your Docker installation is finished.**

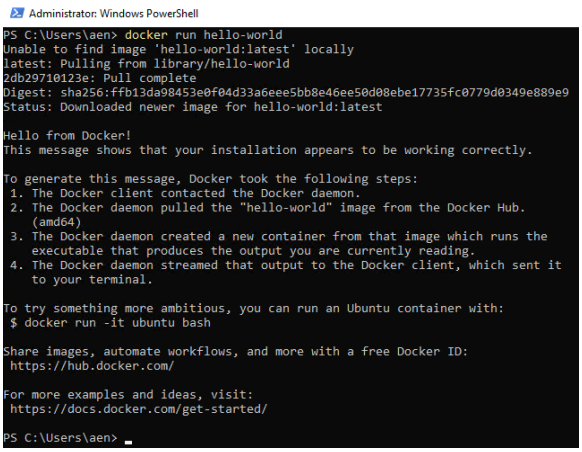


2. Basic Docker Testing

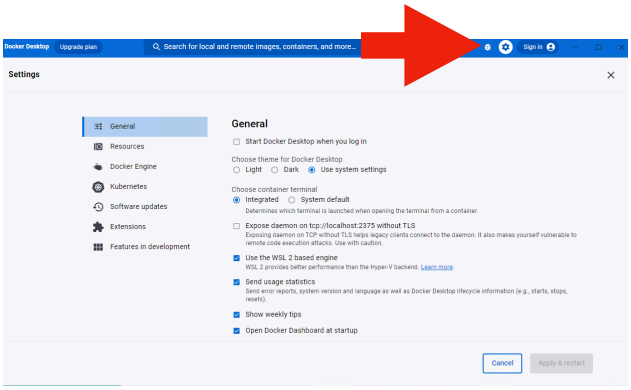
- **Open a command prompt or PowerShell**

```
docker run hello-world
```

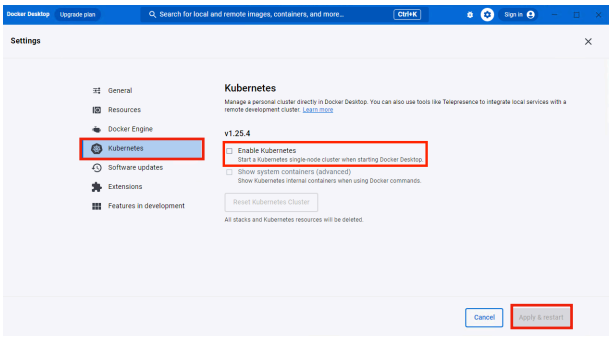
- **You should get output similar to below if not something is not correct in your installation**



4. **Docker Configuration**
   - **Clean the gear icon on the top menu bar**



   - **Enable Kubernetes in Docker for Windows**
     - **Click the Kubernetes menu**
     - **Check the Enable Kubernetes checkbox**
     - **Click Apply & Restart**
     - **Click Install**



   - **Confirm Kubernetes is up and running**
     - **Open PowerShell and run:**

```
kubectl get nodes
```

You should get output similar to below

```
PS C:\Users\aen> kubectl get nodes
NAME             STATUS   ROLES           AGE    VERSION
docker-desktop   Ready    control-plane   114s   v1.25.4
```

Pre Pull some containers to help save time during our labs. Open a command prompt or powershell and execute the following commands:

```
docker pull mcr.microsoft.com/mssql/server:2022-latest
docker pull mcr.microsoft.com/mssql/server:2022-RTM-CU1-ubuntu-20.04
docker pull mcr.microsoft.com/mssql/server:2022-RTM-CU2-ubuntu-20.04
docker pull mcr.microsoft.com/dotnet/sdk:7.0
```