

WebSphere Application Server Troubleshooting and Performance Lab on Docker - Lab Preparation

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1 Lab Preparation

1. Install Docker:

a. Windows ("Requires Microsoft Windows 10 Professional or Enterprise 64-bit.")

- Download: <https://hub.docker.com/editions/community/docker-ce-desktop-windows>
- For details, see <https://docs.docker.com/docker-for-windows/install/>

b. Mac ("Requires Apple Mac OS Sierra 10.12 or above")

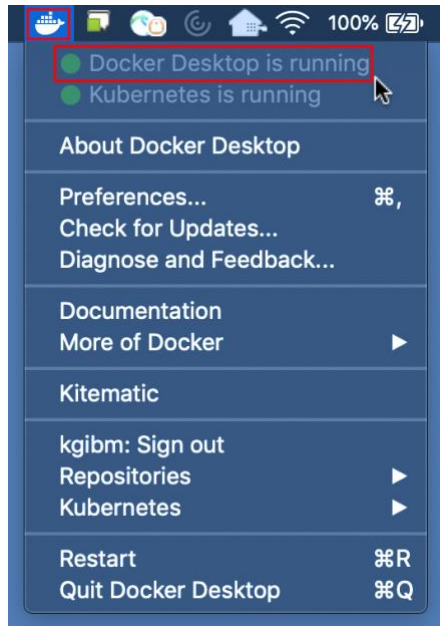
- Download: <https://hub.docker.com/editions/community/docker-ce-desktop-mac>
- For details, see <https://docs.docker.com/docker-for-mac/install/>

c. For a Linux host, simply install and start Docker (sudo systemctl start docker):

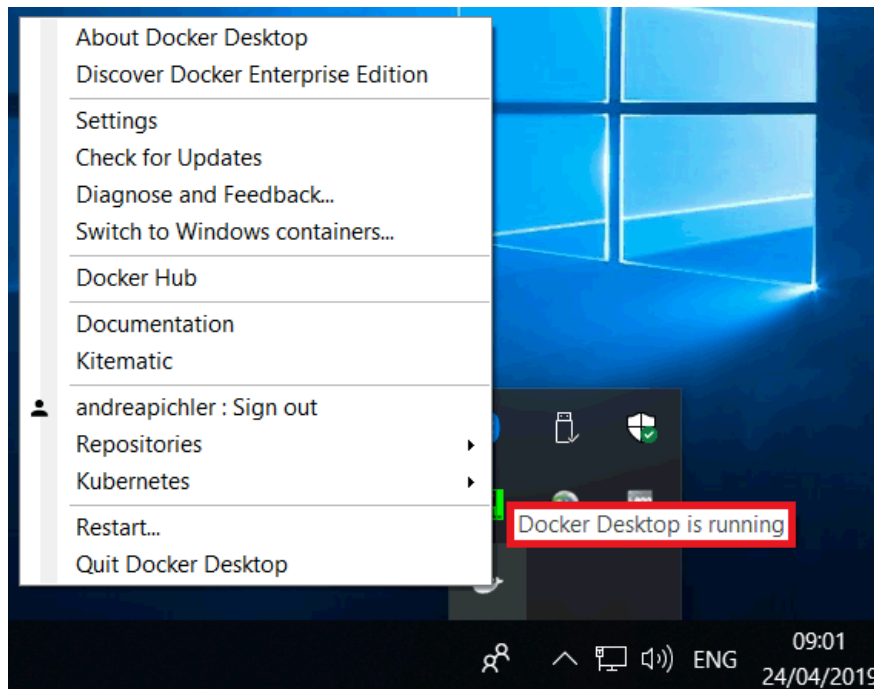
- For an example, see <https://docs.docker.com/install/linux/docker-ce/fedora/>

2. Ensure that Docker is started. For example, start Docker Desktop and ensure it is running:

macOS:

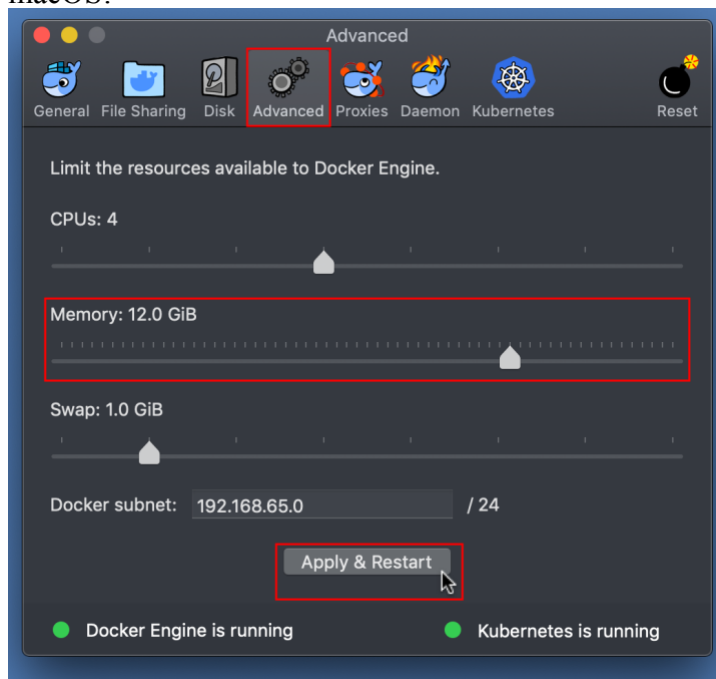


Windows:

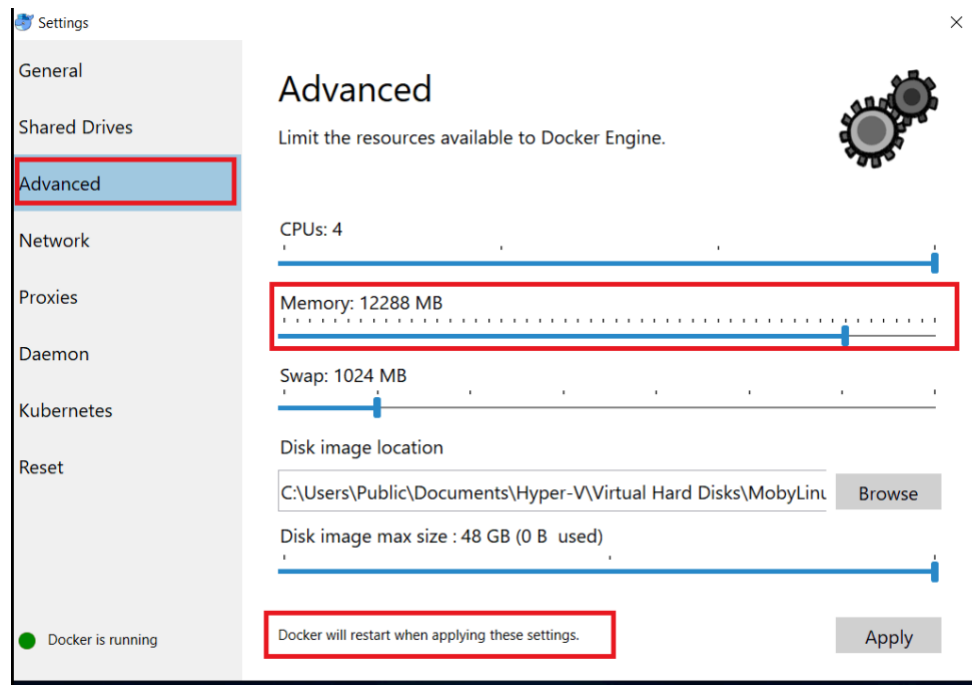


3. Ensure that Docker receives sufficient resources, particularly memory:
 - a. Click the Docker Desktop icon and select “Preferences...” (on macOS) or “Settings” (on Windows)
 - b. Select the Advanced tab.
 - c. Increase Memory, ideally to at least 8GB.
 - d. Click Apply

macOS:

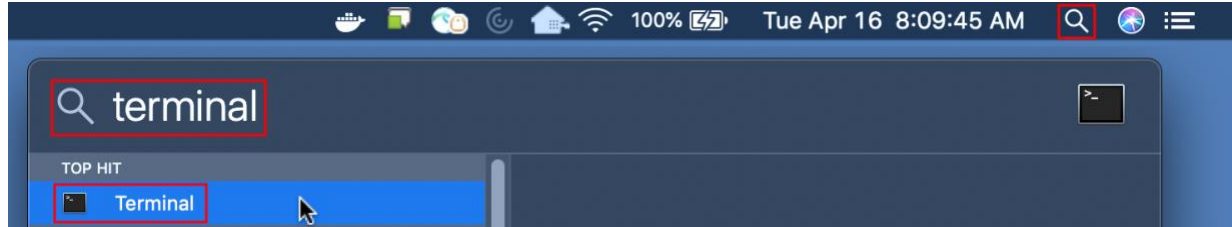


Windows:

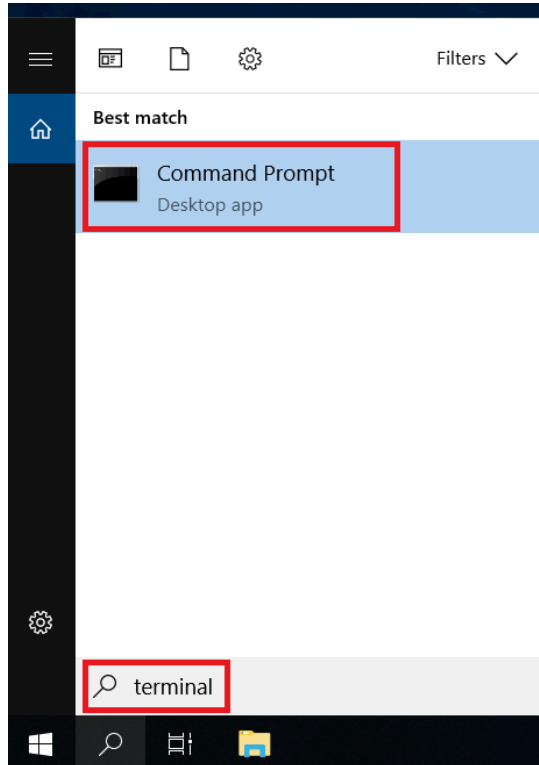


4. Open a terminal or command prompt:

macOS:



Windows:



5. Download the images:

```
docker pull kgibm/fedorawasdebug
```

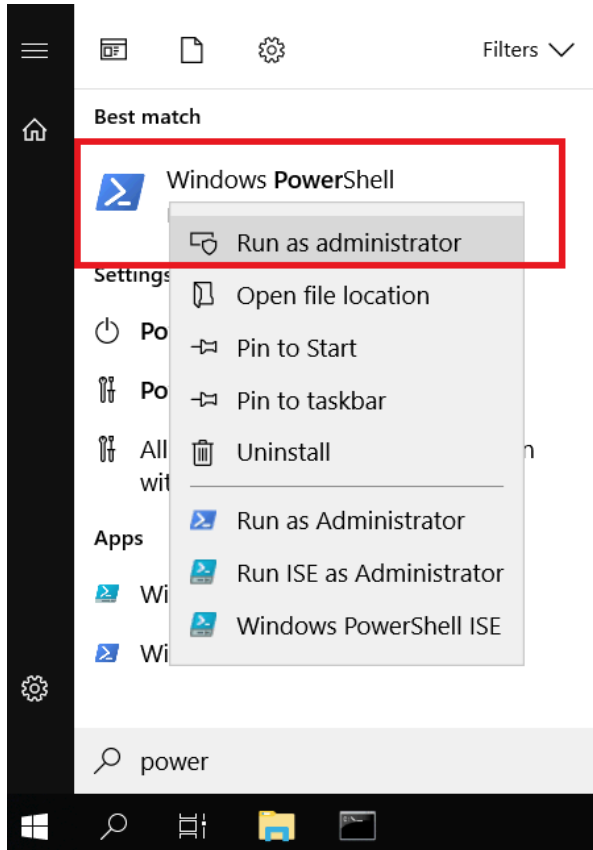
- e. Note that these images are about 20GB. If you plan to run this in a classroom setting, consider performing all the steps up to and including this item before arriving at the classroom.

2 Appendix

2.1 Windows Remote Desktop Client

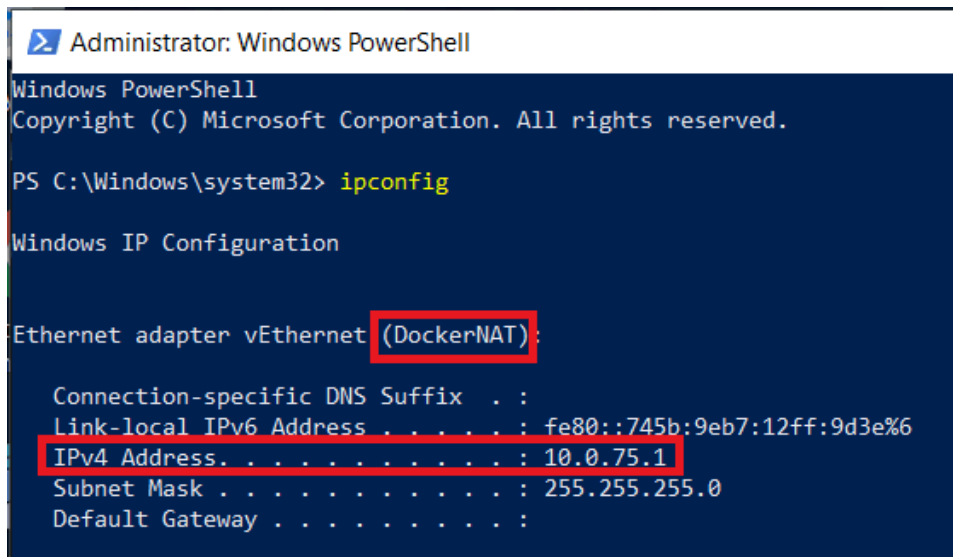
Windows requires extra steps to configure remote desktop to connect to a container¹:

1. Open PowerShell as Administrator:



2. Run ipconfig and copy the IPv4 address of the DockerNAT adapter. For example:

¹ <https://social.msdn.microsoft.com/Forums/en-US/872129e4-07a5-48c3-86f7-996854e7a920/how-to-connect-via-rdp-to-container?forum=windowscontainers>



```
> Administrator: Windows PowerShell
Windows PowerShell
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PS C:\Windows\system32> ipconfig

Windows IP Configuration

Ethernet adapter vEthernet (DockerNAT):

    Connection-specific DNS Suffix  . : 
    Link-local IPv6 Address . . . . . : fe80::745b:9eb7:12ff:9d3e%6
    IPv4 Address. . . . . : 10.0.75.1
    Subnet Mask . . . . . : 255.255.255.0
    Default Gateway . . . . . :
```

3. Run the following command in PowerShell:

```
New-NetFirewallRule -Name "myRDP" -DisplayName "Remote Desktop Protocol" -Protocol
TCP -LocalPort @(3389) -Action Allow
```

4. Run the following command in PowerShell:

```
New-NetFirewallRule -Name "myContainerRDP" -DisplayName "RDP Port for connecting to
Container" -Protocol TCP -LocalPort @(3390) -Action Allow
```