Docker Installation

Installation

Launch AWS windows server 2019 as container instance

- Open PowerShell (Run as Administrator) command prompt, and type the following commands:

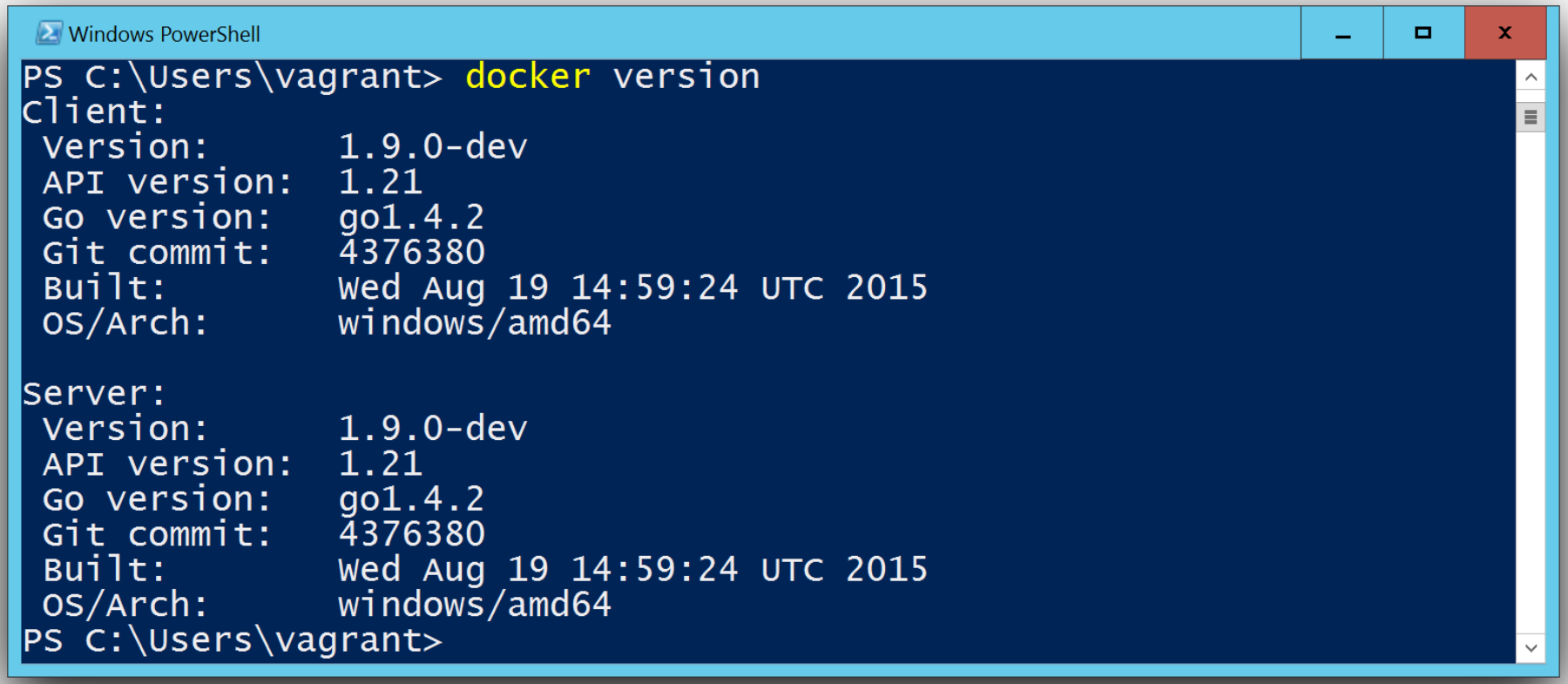
- *Install-Module DockerMsftProvider -Force*
- *Install-Package Docker -ProviderName DockerMsftProvider –Force*

After the Docker is successfully installed, you should restart the server with the **Restart-Computer -Force** command.

Docker Installation Check

Open Power Shell as admin

docker version



Available Packages for Windows

microsoft/dotnet
microsoft/mssql-server-linux
microsoft/aspnet
microsoft/windowsservercore
microsoft/aspnetcore
microsoft/nanoserver
microsoft/iis
microsoft/mssql-server-windows-developer
microsoft/aspnetcore-build
microsoft/azure-cli
microsoft/powershell
microsoft/vsts-agent
microsoft/dynamics-nav
microsoft/dotnet-samples
microsoft/bcsandbox
microsoft/mssql-tools
microsoft/oms
microsoft/cntk
microsoft/wcf
microsoft/dotnet-nightly
microsoft/dotnet-framework-build
microsoft/mmlspark
microsoft/service-fabric-reverse-proxy
microsoft/aspnetcore-build-nightly
microsoft/cntk-nightly

Docker Operation

Downloading image

1) docker pull mcr.microsoft.com/windows/servercore:ltsc2019

2) docker pull mcr.microsoft.com/windows/nanoserver:1809

3) docker pull mcr.microsoft.com/windows/servercore:ltsc2016

4) *docker pull* mcr.microsoft.com/windows/servercore:1903

To check all downloaded images

5) Docker images

To run the container

docker run –it -d mcr.microsoft.com/windows/servercore:ltsc2019

docker ps

docker exec –it cont:id powershell

Running IIS web server in docker container

1) docker run –it -p 82:80 -d mcr.microsoft.com/windows/servercore:ltsc2019

2) docker ps

3) docker exec –it cont:id powershell

Now container will open

Install webserver (IIS)

4) Install-WindowsFeature -name Web-Server –IncludeManagementTools

5) Go to c:\inetpub\wwwroot\ and create one html file here

a) new-item deepak.html :--creating new file

b) set-content deepak.html :---Adding content on this file

c) get-content deepak.html :---To check the added content

d) notepad.exe deepak.html : to edit the file

Now go to AWS console –copy Public IP of Instance and paste in browser(publicip:82) ----------Enjoy the output

Docker Bind mount

1) docker run -it –v d:\storage1:c:\app1 -p 83:80 -d iisimage

4) Docker ps

5) docker exec –it cont:id powershell

Now Container will open

6) ls

7) cd app1

Create some files and folder here

a) new-item deepak.html :--creating new file

b) set-content deepak.html :---Adding content on this file

c) get-content deepak.html :---To check the added content

d) new-item india1 -itemtype directory

Now open one more container and mount same directory and check the data

Docker Volume

1) Docker volume create test1

2) Docker volume ls

3) docker run -it --mount source=test1,target=c:\app1 -p 83:80 -d iisimage

4) Docker ps

5) docker exec –it cont:id powershell

Now Container will open

6) ls

7) cd app1

Create some files and folder here

a) new-item deepak.html :--creating new file

b) set-content deepak.html :---Adding content on this file

c) get-content deepak.html :---To check the added content

d) new-item india1 -itemtype directory

Now open one more container and mount same volume and check the data

Docker File

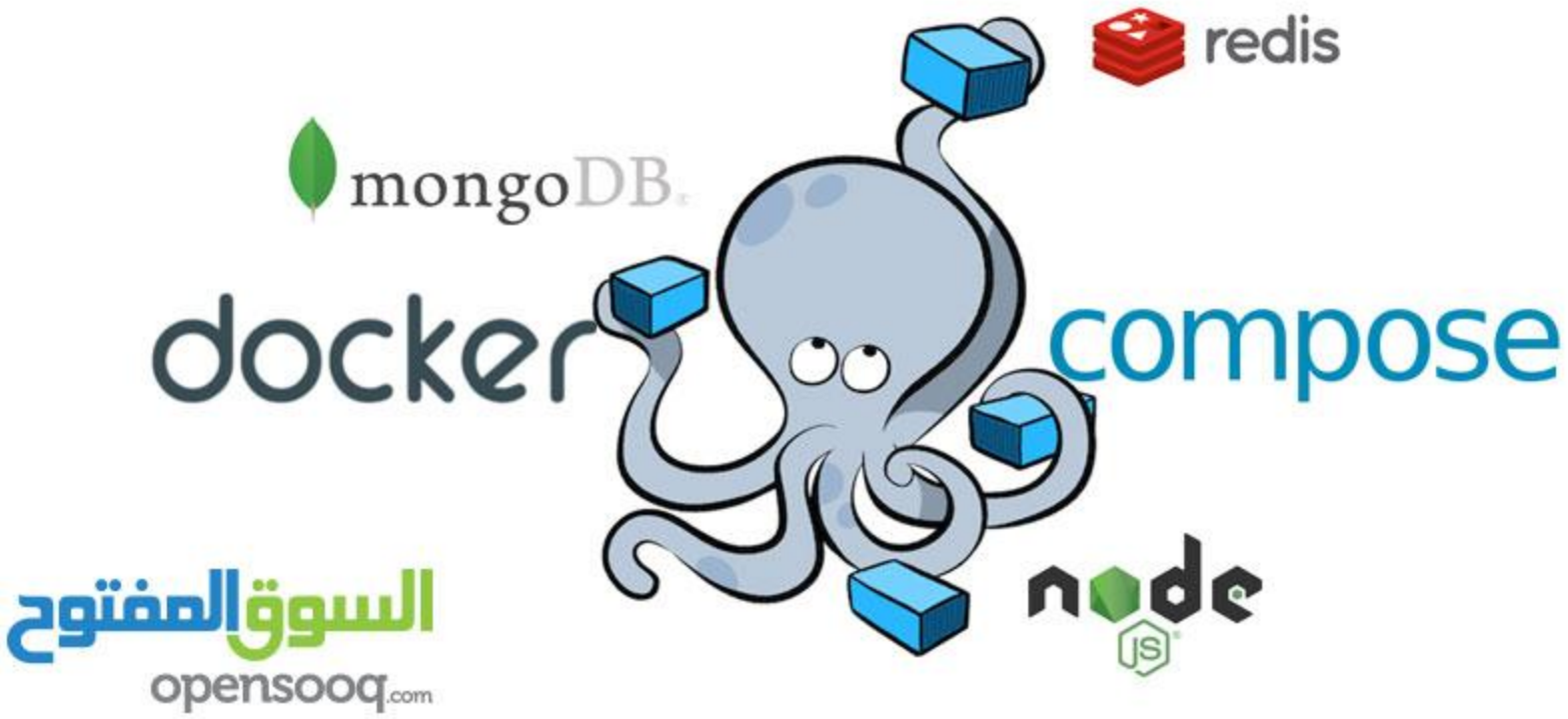
1) New-item dockerdir -itemtype directory
2) Cd dockerdir
3) New-item dockerfile
4) Notepad.exe dockerfile

```
FROM mcr.microsoft.com/windows/servercore:ltsc2019
RUN powershell -Command Add-WindowsFeature Web-Server;
WORKDIR /inetpub/wwwroot
COPY content/ .
EXPOSE 80
```

3) Create one folder (content) and keep all .html file here
4) Docker build . –t iisimage
5) Docker images
6) Docker run –it -p 83:80 -d iisimage

Docker Compose

Same as Linux



Docker Swarm

Same as Linux