MEAN Stack Docker Windows 7 Setup

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# Overview

One of the nice things about docker machine and docker compose is how easy you can put together a somewhat sophisticated development sandbox without the need to download separate point products and cobble everything together. It provides easy startup and shutdown of that environment as well.

# Docker Machine Installation

## Download VirtualBox

Download Oracle VirtualBox for your platform

<https://www.virtualbox.org/wiki/Downloads>

## Download Docker Machine

Download Docker Machine

<https://docs.docker.com/machine/>

You need to setup your environment so the docker machine executable is on your PATH. Since I use Cygwin on Windows I also set an alias since the executable name is actually quite a bit longer than the documentation reference to ***docker-machine***.

## Create Docker Machine

docker-machine create --driver **virtualbox** dev

## VirtualBox Port Forwarding

Highlight "dev" in the host view of VirtualBox

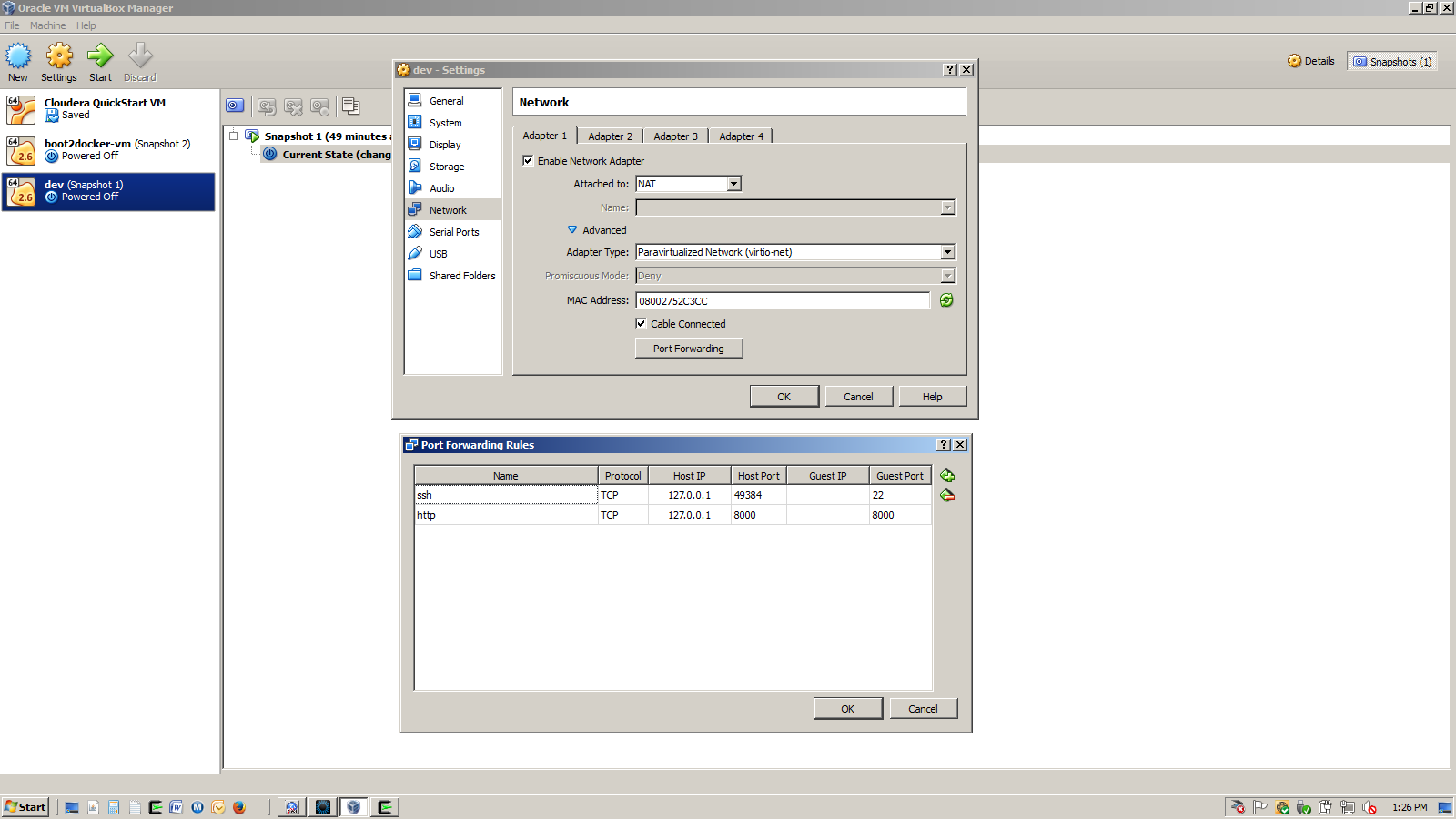
Select Settings/Network

Click on "Port Forwarding"

Click on "Insert New Rule" Icon

**Name Protocol Host IP Host Port Guest IP Guest Port**

http 3000 TCP 127.0.0.1 3000 3000



## VirtualBox Setting Up Shared Local Drive

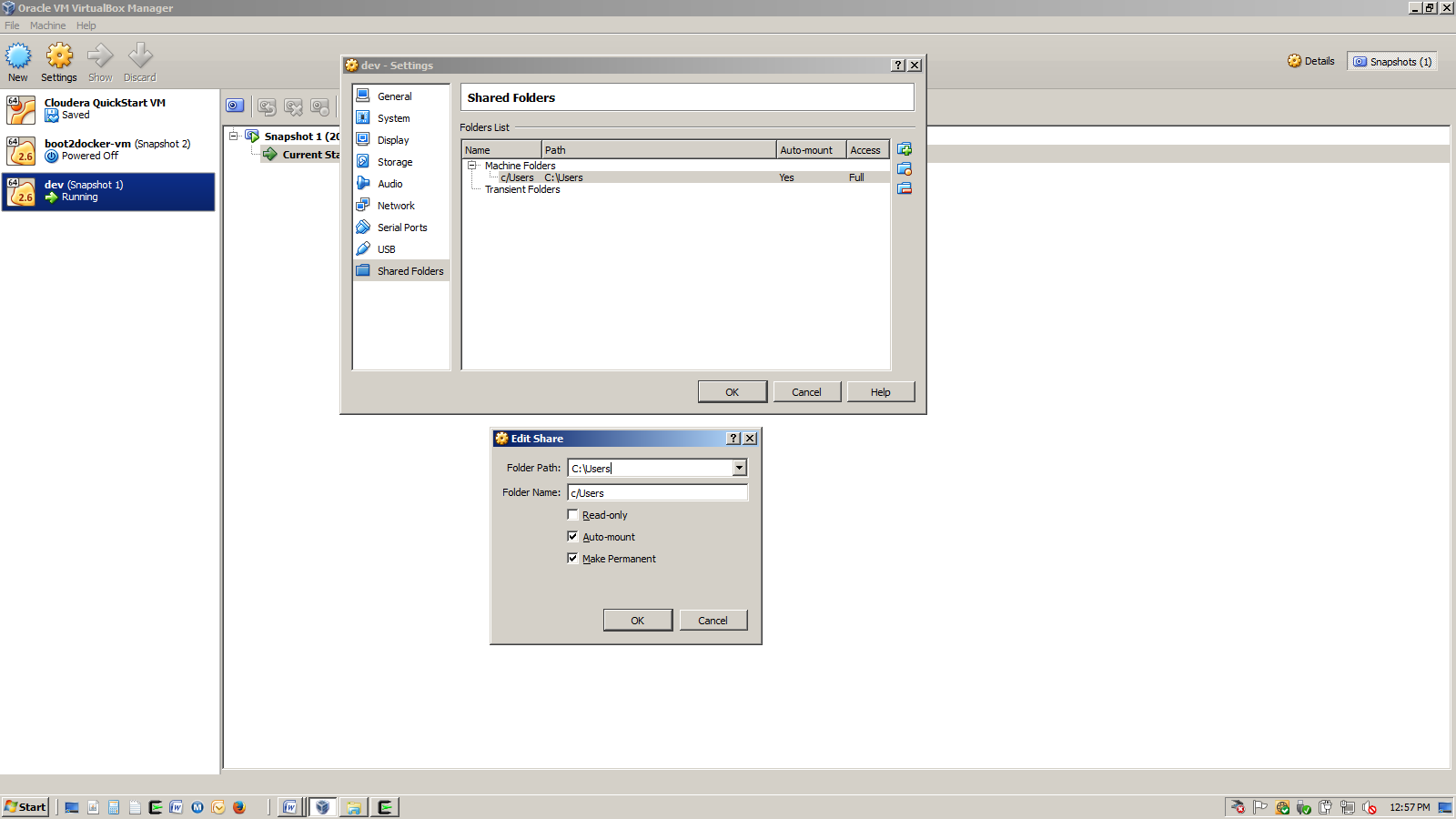
Highlight "dev" in the host view of VirtualBox

Select Settings/Shared Folders

Click on "Add a new shared folder definition" Icon

**Folder Path Folder Name Read-only Auto-mount Make permanent**

C:\Users c/Users x x



## Install Docker Compose

### Setting Up Docker Compose (Windows 7 hack)

**Modify bootlocal.sh to create an alias every time the Docker VM starts. There's no docker-compose available for "tinycore" architecture used by docker-machine when creating a Docker VM in VirtualBox. Someone created a container with docker-compose build in.**

docker-machine ssh dev

sudo touch /var/lib/boot2docker/bootlocal.sh

sudo chmod 777 /var/lib/boot2docker/bootlocal.sh

sudo vi /var/lib/boot2docker/bootlocal.sh

echo 'alias docker-compose='"'"'docker run \

-v \$(pwd):/app \

-v /var/run/docker.sock:/var/run/docker.sock \

-ti dduportal/docker-compose:latest'"'" >> /home/docker/.ashrc

## Poweroff and Restart Docker VM

**This will setup docker-compose as well as enable port forwarding/file sharing with the your client machine**

sudo poweroff

# Building MEAN

**Placed the Dockerfile, docker-compose.yml and the mean directory in your windows home directory. The meanstack is a directory on your client machine where you have checked placed the following from github:**

https://github.com/meanjs/mean

https://github.com/kskalvar/mean-stack.git # Be sure to see README.md

cd /c/Users/kskalvar/git/mean

git checkout 0.4.0

cd /c/Users/kskalvar/git/mean-stack

cp Dockerfile docker-compose.yml ../mean

cd ../mean

docker-compose up -d

# Testing MEAN

**Test from dev directly, and your client machine using curl**

curl http://localhost:30000/

# docker-compose commands

docker-compose stop

docker-compose start

docker-compose restart

docker-compose rm -f

# Attach to Docker Container

docker exec -it app\_web\_1 bash