Setting up learning environment for Puppet

Objectives

“ Objective is to create and launch virtual environment required to start learning puppet “

Tools of the Game

- VirtualBox

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- VirtualBox
- Vagrant

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- Git for Windows

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- VirtualBox
- Vagrant
- Git for Windows
- Sublime Editor

Virtualization

- Isolated environment
- Server vs Desktop
- Virtualbox
- Vagrant

Vagrant

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- Tool to rapidly deploy Virtual Environments
- Text Configuration - Reproducible
- Portable
- Supports various virtualisation and cloud platforms

Installation Steps

- Install Virtualbox
- Install Vagrant
- Install Git for Windows (on windows)
- Import Training box template provided into vagrant
- Create a VM

Vagrant Commands

```
Gouravs-MacBook-Pro:~ gouravshah$ vagrant
Usage: vagrant [-v] [-h] command [<args>]

    -v, --version                    Print the version and exit.
    -h, --help                       Print this help.

Available subcommands:
     box           manages boxes: installation, removal, etc.
     destroy       stops and deletes all traces of the vagrant machine
     halt          stops the vagrant machine
     help          shows the help for a subcommand
     init          initializes a new Vagrant environment by creating a Vagrantfile
     package       packages a running vagrant environment into a box
     plugin        manages plugins: install, uninstall, update, etc.
     provision     provisions the vagrant machine
     reload        restarts vagrant machine, loads new Vagrantfile configuration
     resume        resume a suspended vagrant machine
     ssh           connects to machine via SSH
     ssh-config    outputs OpenSSH valid configuration to connect to the machine
     status        outputs status of the vagrant machine
     suspend       suspends the machine
     up            starts and provisions the vagrant environment

For help on any individual command run `vagrant COMMAND -h`
```

We are going to use

- vagrant box add
- vagrant init
- vagrant up
- vagrant halt
- vagrant destroy

Finding help

$ vagrant <command> -h

e.g.

$ vagrant box -h

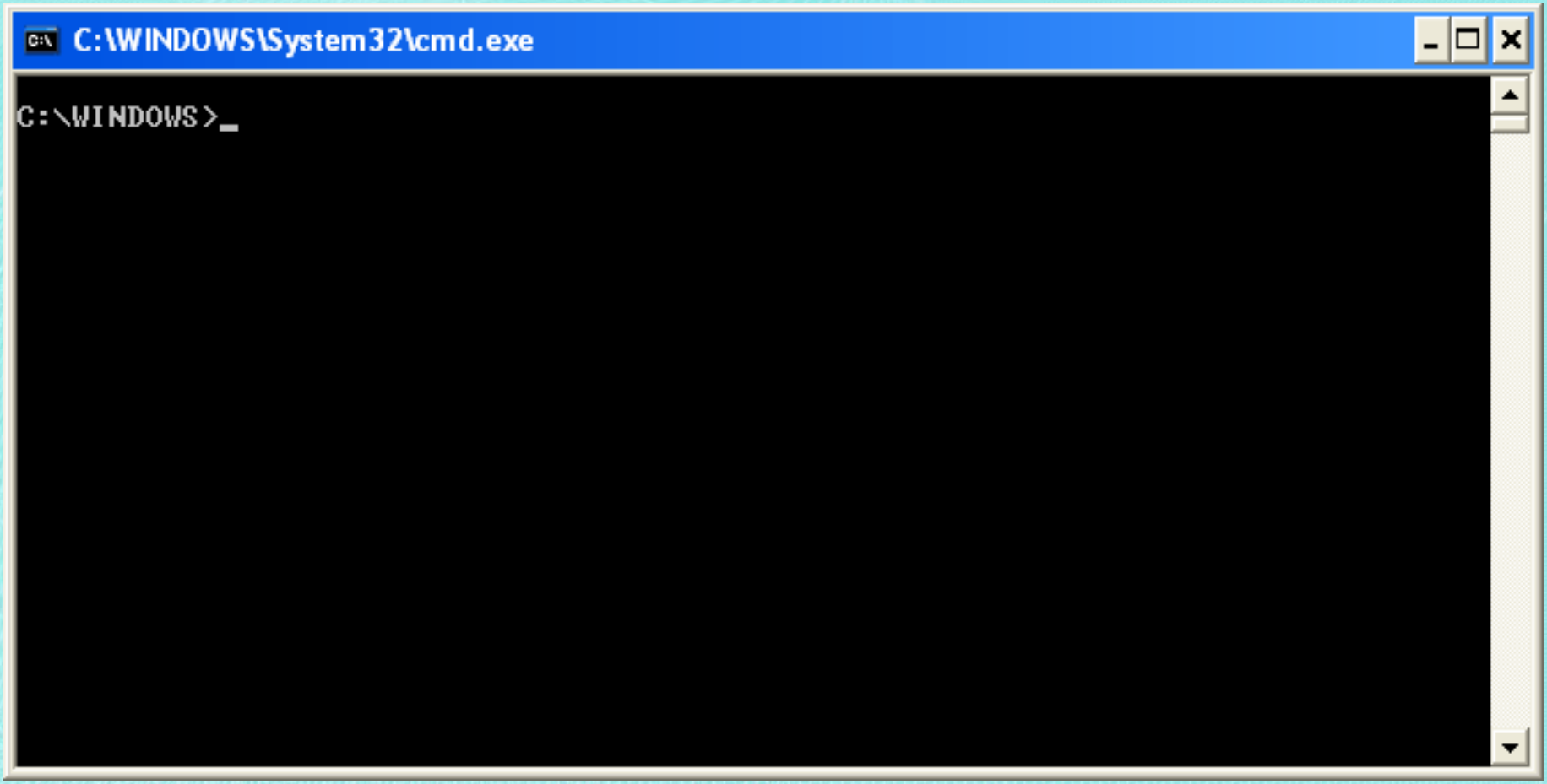
$ vagrant up -h

Training Environment

- OS: CentOS
- Version: 6.5
- Arch: 32 bit

Add box/template to Vagrant

Run the commands from inside cmd prompt or GIT Bash here on ..



Add box to vagrant with name puppet

Open CMD terminal, cd into the directory that contains the box downloaded earlier. Add this box to vagrant as a template using the following command,

```
$ vagrant box add puppet puppet-centos-offline.box
```

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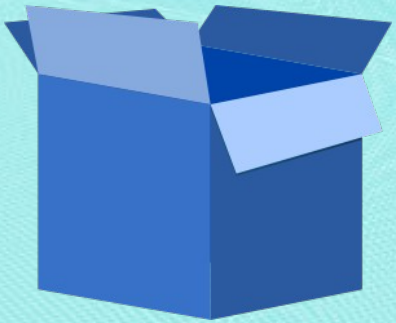
```

Adding the box to vagrant makes it available as a template. However this is just a golden image/template

Boxes

- Box = AMI = Template = Image
- Contains a pre-installed and pre-configured environment
- Portable files which can be shared with others to setup identical environments
- Box Commands
    - add
    - list
    - remove
    - repackage



Lets now create a actual VM from this box which we will then use for the purpose of this training.

Creating Directories

#mkdir learn

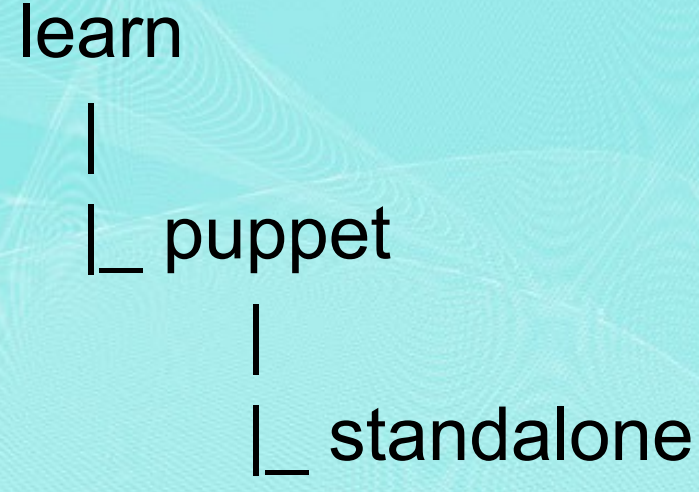
#cd learn

#mkdir puppet

cd puppet

#mkdir standalone

#cd standalone



Initialize Vagrant Template

vagrant init puppet

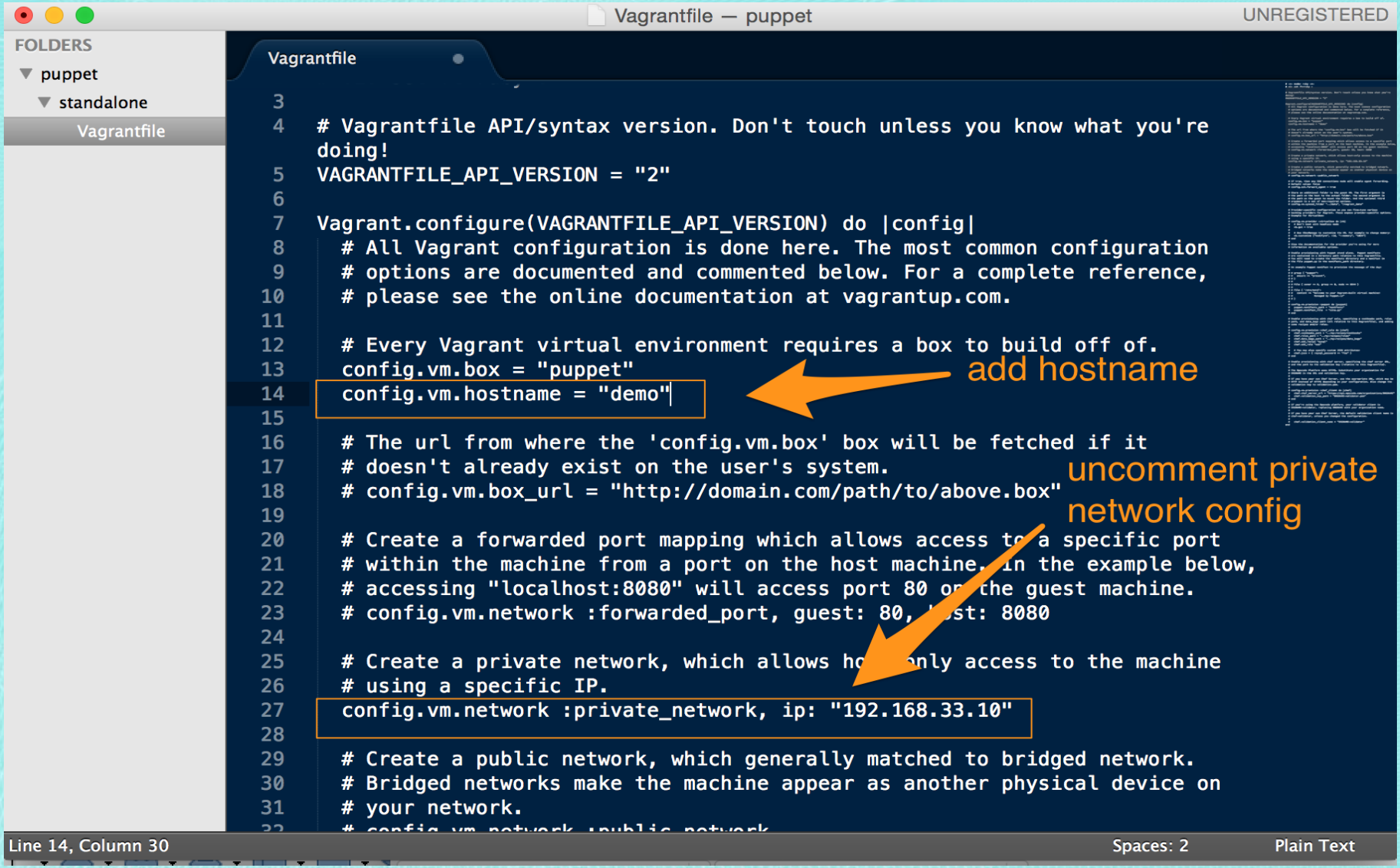
Edit Vagrantfile

- Add hostname configuration as

  config.vm.hostname = “demo”
- Uncomment line which configures private network

  (shown in the next slide)

Edit Vagrantfile



Launch VM and Login

#vagrant up

#vagrant ssh

Objectives

“ The training VM is pre built with Puppet, a local repository and a few other useful utilities such as editors, tree etc.

Validate

$ puppet --version

```
3.7.4
```

$ facter --version

```
2.4.1
```

$hostname

```
demo
```

ALL Set !

Installing Manually

“ If the validation steps do not show puppet installed, or if you would like to manually install it later, follow the rest of this presentation.”

Install Options (Redhat/CentOS)

- From Source
- Puppet Labs Repository
- EPEL

We will use Puppet Labs Repository

Setting up Repository

For CentOS/RedHat Version 6.x

$ sudo rpm -ivh
http://yum.puppetlabs.com/el/6/products/i386/puppetlabs-release-6-7.noarch.rpm

You could skip this test as the current box is pre configured with the repository.

Install Puppet : (Redhat/CentOS)

Install Puppet from Package Repository

$ sudo yum install puppet

You could skip this test as the current box is pre installed with puppet

Summary

- Set up Vagrant
- Setup Editor
- Setup Hostname
- Setup Repository
- Install Puppet (Standalone Package)