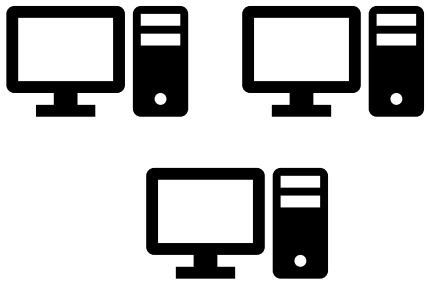
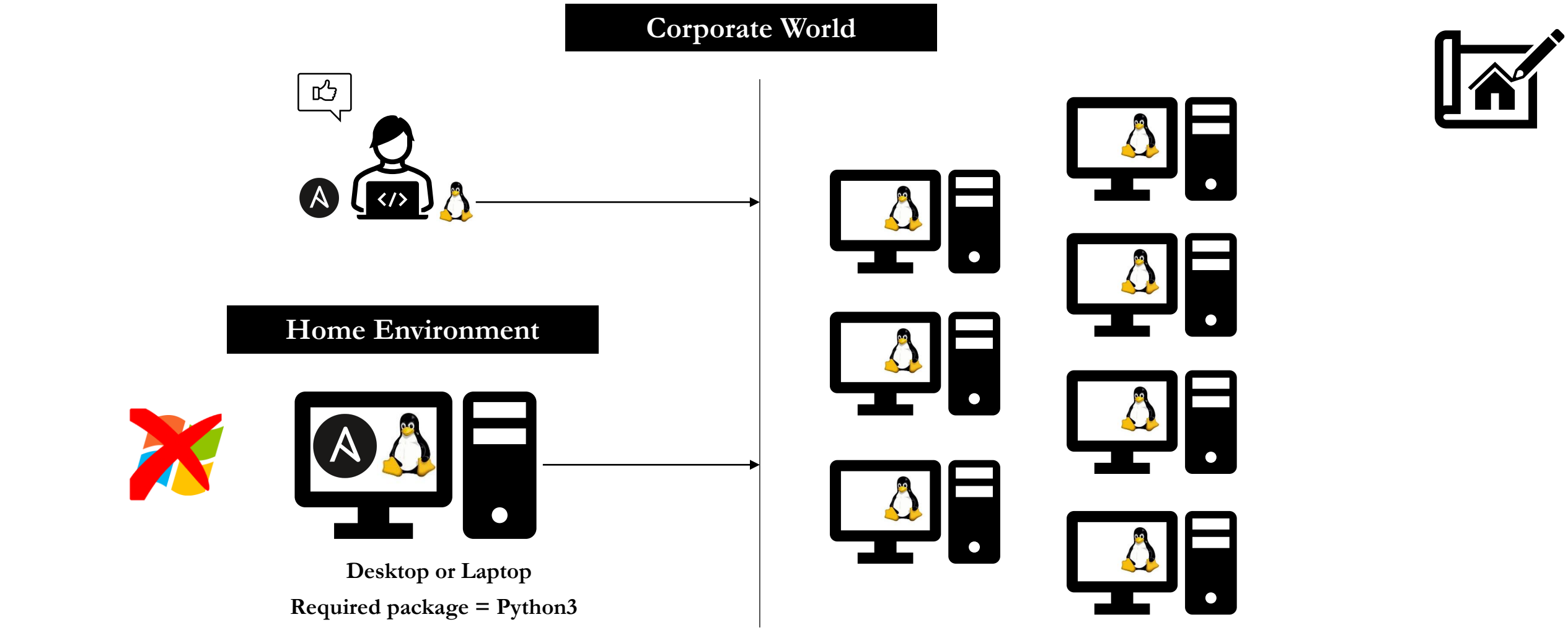
Complete Ansible Automation Training

Lab Design and Setup



Lab Design



By: Imran Afzal
www.utclisolutions.com

Lab Design

2 Options

Option 1

Ansible

CentOS
Red Hat
ubuntu

VM1

Control Node

VM2

Client1

VM3

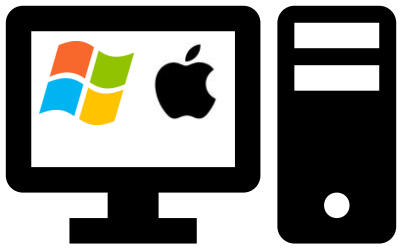
Client2

VMWare
Workstation Player

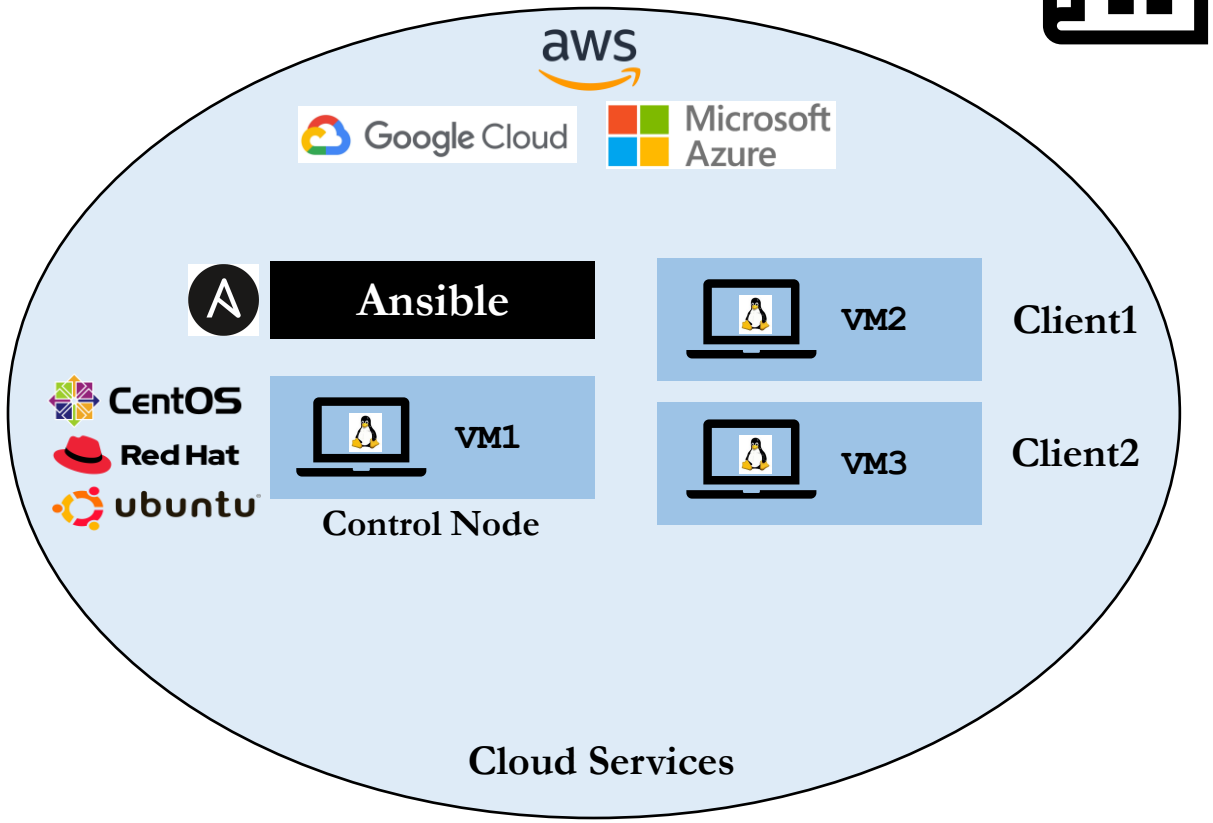
Virtualization

Oracle VirtualBox

- Intel (VT-x) or AMD (AMD-V) 64-bit CPU
- 64-bit host OS
- 8G RAM
- 40-60G Free HDD



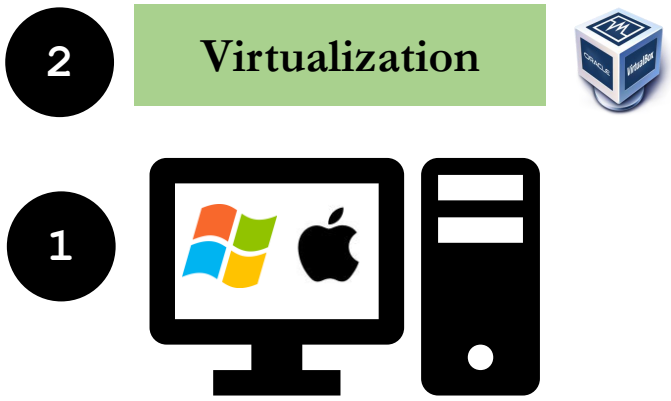
Option 2



By: Imran Afzal
www.utclisolutions.com

Installing Virtualization Software

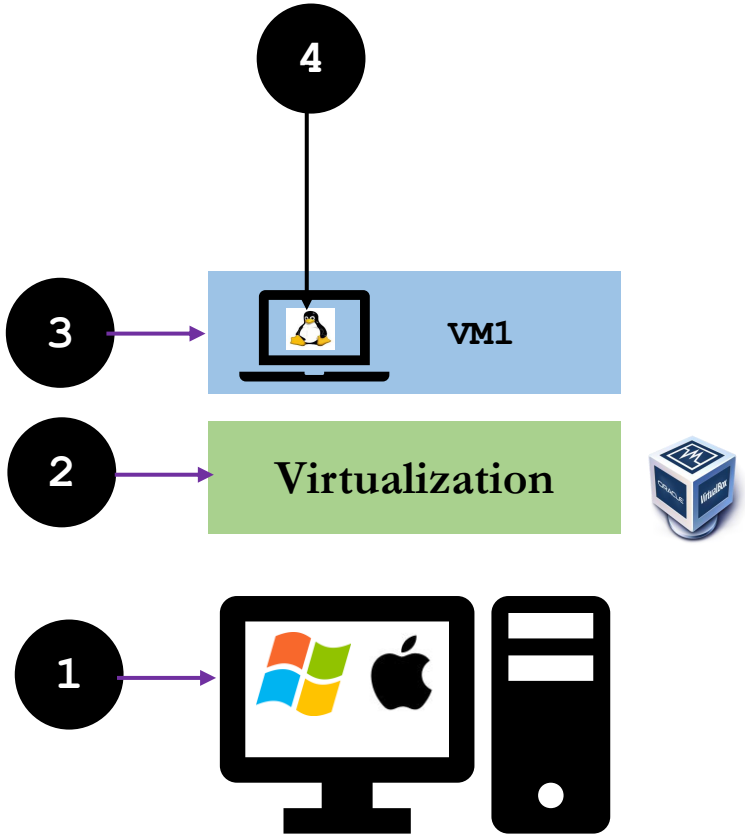
Option 1



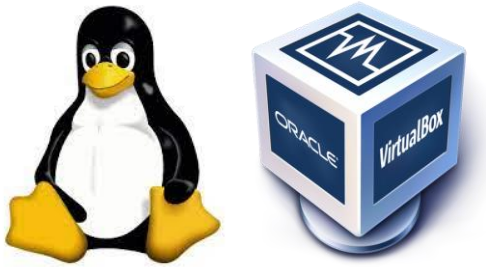
- What is Virtualization software?
- What is Oracle VirtualBox?
- Download Oracle VirtualBox
- Install Oracle VirtualBox

By: Imran Afzal
www.utclisolutions.com

Creating a VM and Installing Linux

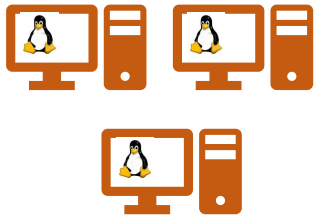


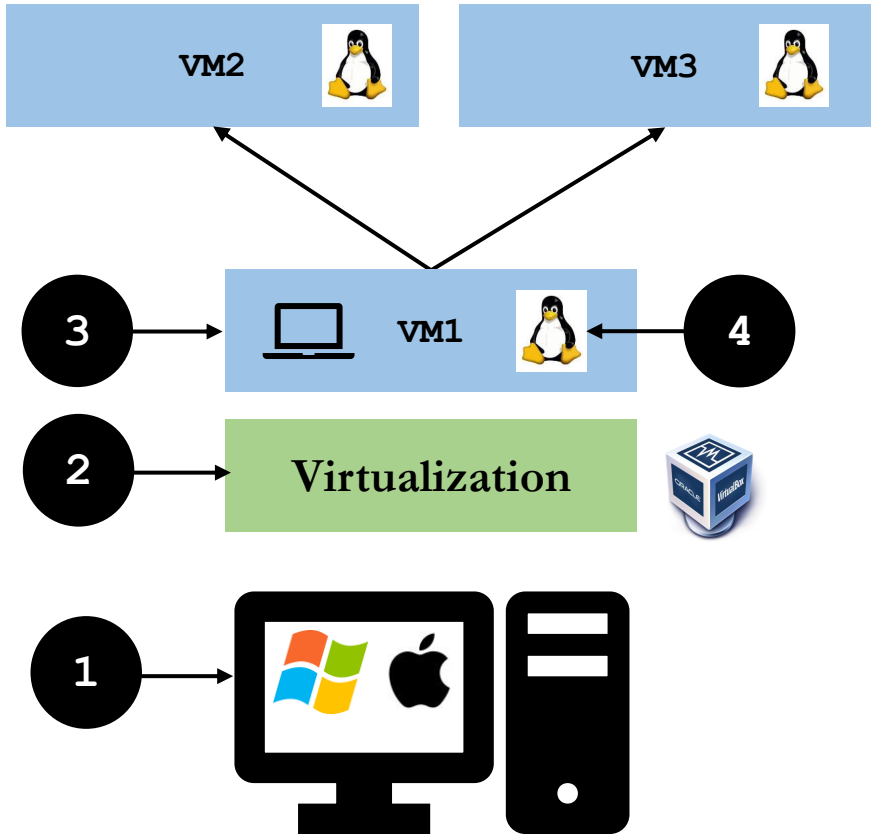
Home lab



By: Imran Afzal
www.utclisolutions.com

Creating Ansible Clients



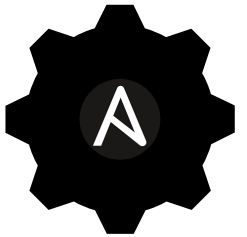


Home lab

By: Imran Afzal
www.utclisolutions.com

Installing Ansible

IMPORTANT: Take VM snapshot



- Ansible Installation guide can be found on:
https://docs.ansible.com/ansible/latest/installation_guide/intro_installation.html

- **CentOS/Red Hat/Fedora 7**
  - **yum/dnf install epel-release**
  - **yum/dnf install ansible**

- **For version 8:**
  - **yum install epel-release**
  - **yum install python -y** *(should be installed already)*
  - ***yum install ansible ansible-doc***

- **CentOS 8** *(In case the above steps don't work)*
  Usually, verion8 will come with Python3 already installed by default. However, if for whatever reason Python3 is not installed, then install it using the following commands
  - **yum/dnf install python3**

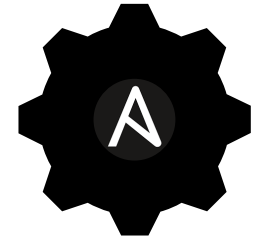
- Installing PIP – The Python Package Installer
  - **yum/dnf install python3-pip**

- Install Ansible as a regular user
  - **pip3 install ansible ansible-doc**

By: Imran Afzal
www.utclisolutions.com

Installing Ansible

- Red Hat 8 (enable the Ansible Engine repository to install Ansible)
  - **`subscription-manager repos --enable ansible-2.8-for-rhel-8-x86_64-rpms`**
  - **`yum/dnf install ansible`**



- Check Ansible version and run ping module without Playbook to check Ansible status
  - **`# ansible --version`**
  - **`# ansible localhost –m ping`**

- Ansible config files
  - **`/etc/ansible`** → **Default directory**
  - **`/etc/ansible/ansible.cfg`**
  - **`/etc/ansible/hosts`**
  - **`/etc/ansible/roles`**

Please note:

If you have **`SELinux`** enabled on remote nodes, you will also want to install **`libselinux-python`** on them before using any copy/file/template related functions in Ansible. You can use the yum module or dnf module in Ansible to install this package on remote systems that do not have it.

By: Imran Afzal
www.utclisolutions.com