



Lesson: Virtualization

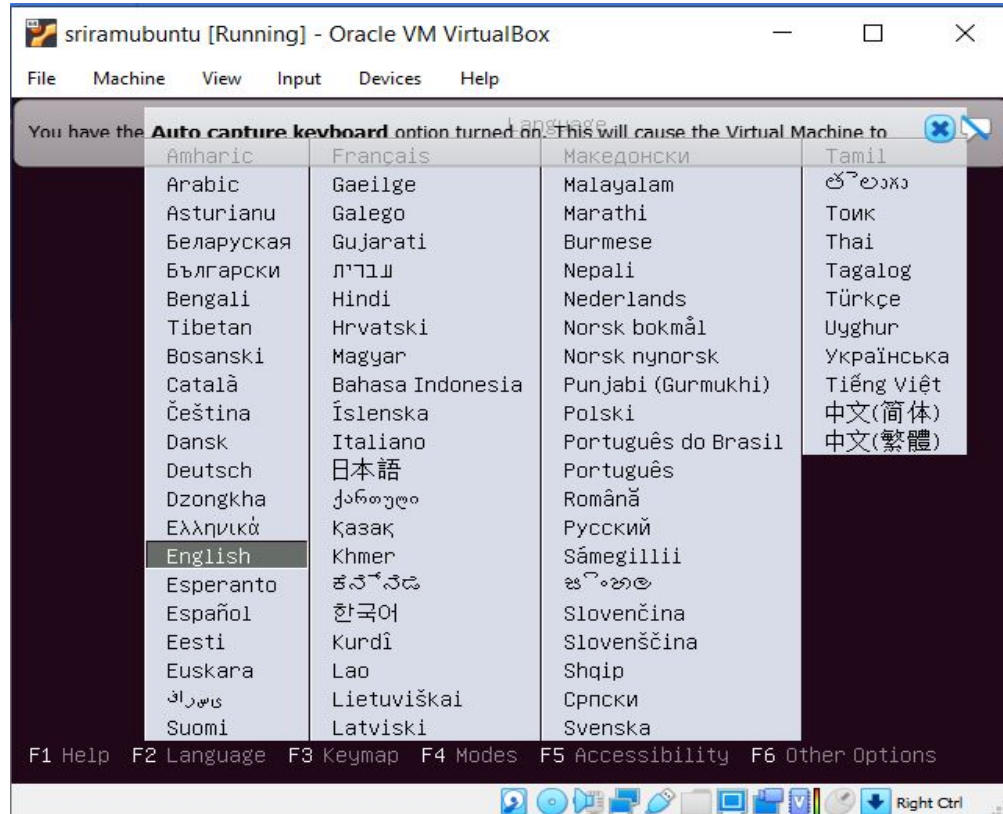
July 13, 2021



Objective

- What is Virtual Box
- What is SSH
- What is Vagrant
- Create a virtual machine
- SSH to a virtual machine
- Suspend a virtual machine
- Destroy a virtual machine

Virtual Machine- A Machine that runs on a host server





Advantages and Disadvantages of Virtual Machine

- Run multiple apps on different platforms
- Isolation between apps
- Consolidate IT resources and resource utilization
- What do you think about Performance? (When should we use Virtualization)



SSH

- Secure Shell Protocol
- Port= 22
- Secure Remote Login and File Transfer
- <https://www.ssh.com/academy/ssh/protocol>



Vagrant

- A tool to easily build and manage virtual machine
- No need to use CD/DVD/ISO image to setup virtual machine
- Create/Destroy/Maintain virtual machine
- Independent of platform works on all systems (Linux/Unix/Mac/Windows/ Chromebook)



Why should I know Vagrant

- Imagine I assign you a problem set which is required to be done on a Linux machine, and you are having Windows machine, how will you solve the problem set?
- (Hint) Don't think about buying a new computer or setting up dual boot on your windows machine



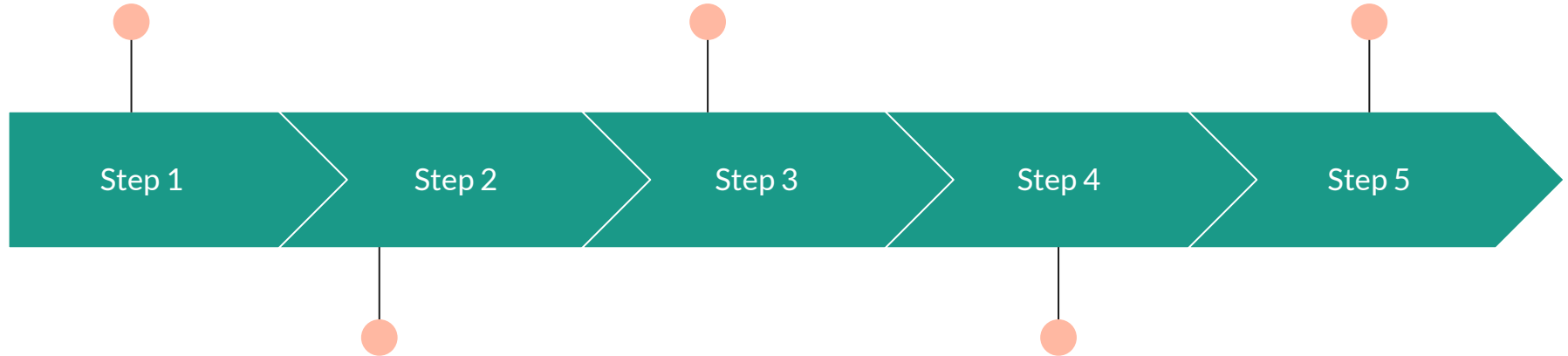
Vagrant

- Download Vagrant and run this command `vagrant init ubuntu/xenial64`
- Virtual machine with Ubuntu OS is ready, you can use ssh protocol to connect
- <https://www.vagrantup.com/intro>

Understand what is
Virtual Machine

Setup a virtual machine

Complete reflection
for Lab 1 Module 1



What is SSH, Vagrant

Connect to your virtual
machine using SSH