

# EXPERIMENT 1

**AIM: Installing Vagrant & Creating basic vagrant box using Virtual Box Virtualization.**

## Steps to Complete:

1. Download and Install Oracle Virtual Box 5.x and Vagrant 2.2.7.

```
imakshat@Akshat-Ubuntu:~$ sudo apt install virtualbox
[sudo] password for imakshat:
Reading package lists... Done
Building dependency tree
Reading state information... Done
virtualbox is already the newest version (6.1.16-dfsg-6~ubuntu1.20.10.1).
0 upgraded, 0 newly installed, 0 to remove and 0 not upgraded.
imakshat@Akshat-Ubuntu:~$ sudo apt install vagrant
Reading package lists... Done
Building dependency tree
Reading state information... Done
vagrant is already the newest version (2.2.9+dfsg-1ubuntu1).
0 upgraded, 0 newly installed, 0 to remove and 0 not upgraded.
imakshat@Akshat-Ubuntu:~$
```

2. Check working of Vagrant using vagrant --version command.

```
imakshat@Akshat-Ubuntu:~$ vboxmanage --version
6.1.16_Ubuntu140961
imakshat@Akshat-Ubuntu:~$ vagrant --version
Vagrant 2.2.9
imakshat@Akshat-Ubuntu:~$
```

3. Create a new directory using CMD.

```
imakshat@Akshat-Ubuntu:~$ cd Desktop/Application\ Containerization/Vagrant/
imakshat@Akshat-Ubuntu:~/Desktop/Application Containerization/Vagrant$
```

## 4. Run vagrant init command

```
imakashat@Akshat-Ubuntu:~/Desktop/Application Containerization/Vagrant$ vagrant init hashicorp/bionic64
A 'Vagrantfile' has been placed in this directory. You are now
ready to 'vagrant up' your first virtual environment! Please read
the comments in the Vagrantfile as well as documentation on
'vagrantup.com' for more information on using Vagrant.
```

## 5. Edit vagrantfile and add ubuntu/xenial64 in box tag.

```
8 Vagrant.configure("2") do |config|
9   # The most common configuration options are documented and commented below.
10  # For a complete reference, please see the online documentation at
11  # https://docs.vagrantup.com.
12
13  # Every Vagrant development environment requires a box. You can search for
14  # boxes at https://vagrantcloud.com/search.
15  config.vm.box = "hashicorp/bionic64"
16  config.vm.box_url = "https://vagrantcloud.com/hashicorp/bionic64"
17
```

## 6. Run vagrant up command

```
imakashat@Akshat-Ubuntu:~/Desktop/Application Containerization/Vagrant$ vagrant up
Bringing machine 'default' up with 'virtualbox' provider...
==> default: Box 'hashicorp/bionic64' could not be found. Attempting to find and install...
    default: Box Provider: virtualbox
    default: Box Version: >= 0
==> default: Loading metadata for box 'https://vagrantcloud.com/hashicorp/bionic64'
    default: URL: https://vagrantcloud.com/hashicorp/bionic64
==> default: Adding box 'hashicorp/bionic64' (v1.0.282) for provider: virtualbox
    default: Downloading: https://vagrantcloud.com/hashicorp/boxes/bionic64/versions/1.0.282/providers/virtualbox.box
Download redirected to host: vagrantcloud-files-production.s3.amazonaws.com
Progress: 10% (Rate: 220k/s, Estimated time remaining: 0:29:14)
```

## 7. Run vagrant SSH command

```
imakshat@Akshat-Ubuntu:~/Desktop/Application Containerization/Vagrant$ vagrant ssh
Welcome to Ubuntu 18.04.3 LTS (GNU/Linux 4.15.0-58-generic x86_64)

 * Documentation:  https://help.ubuntu.com
 * Management:    https://landscape.canonical.com
 * Support:       https://ubuntu.com/advantage

System information as of Fri Jan 29 07:44:53 UTC 2021

System load:  0.0               Processes:            88
Usage of /:   2.5% of 61.80GB   Users logged in:     0
Memory usage: 13%              IP address for eth0: 10.0.2.15
Swap usage:   0%

 * Introducing self-healing high availability clusters in MicroK8s.
   Simple, hardened, Kubernetes for production, from RaspberryPi to DC.

   https://microk8s.io/high-availability

 * Canonical Livepatch is available for installation.
   - Reduce system reboots and improve kernel security. Activate at:
     https://ubuntu.com/livepatch

0 packages can be updated.
0 updates are security updates.

Last login: Fri Jan 29 06:20:20 2021 from 10.0.2.2
vagrant@vagrant:~$
```