

LAB 1

Installation of Linux (Ubuntu)

Instructor info:

Name:

Email:

Linux (Ubuntu) Installation

Installing Ubuntu with VMWare Player



- The Steps involved are :
- Download & install VMWare Player.
- Download Ubuntu 12.04 LTS
- Install Ubuntu with VMWare Player.

What is virtualization?



- *What is VMWare Player?*
 - VMware Player is a virtualization software package supplied free of charge by VMware, Inc.
- *What is virtualization?*
 - Virtualization allows us to run one operating system(Guest OS) to run on another operating system(Host OS).

Linux (Ubuntu) Installation

- VMware, Inc. is a subsidiary of Dell Technologies that provides cloud computing and platform virtualization software and services
- Was the first commercially successful company to virtualize the x86 architecture

Installing VMWare Player



- *The installation of VMWare player is very simple.*
- Double click the downloaded setup file to run installer & follow appropriate installation steps.

Downloading Ubuntu



- Download the Ubuntu Desktop distribution from following URL

<http://www.ubuntu.com/download/desktop>

Select the release to match your requirement & system architecture.

For extended support, choose Ubuntu 12.04 LTS

Ubuntu 12.04.3 LTS is a long-term support release. It has continuous hardware support improvements as well as guaranteed security and support updates until April 2017.

[Read the full installation instructions >](#)

If you have an older PC with less than 2GB of memory, choose the 32-bit download.

Choose your flavour

64-bit
64-bit
32-bit (for machines with less than 2GB RAM)

Ubuntu 12.04 LTS

For the latest features, choose Ubuntu 13.10

Ubuntu 13.10 will be supported for 9 months and includes cutting-edge new features that make your music, videos, documents and apps much easier to access.

[Read the full installation instructions >](#)

If you have an older PC with less than 2GB of memory, choose the 32-bit download.

Choose your flavour

64-bit

Ubuntu 13.10

Installing Ubuntu on VMWare Player.



- *Open the VMWare Player.*
- *Now click the link “Create New Virtual Machine”*

 Home

Welcome to VMware Player



Create a New Virtual Machine

Create a new virtual machine, which will then be added to the top of your library.



Open a Virtual Machine

Open an existing virtual machine, which will then be added to the top of your library.



Upgrade to VMware Workstation

Get advanced features such as snapshots, developer tool integration, and more.



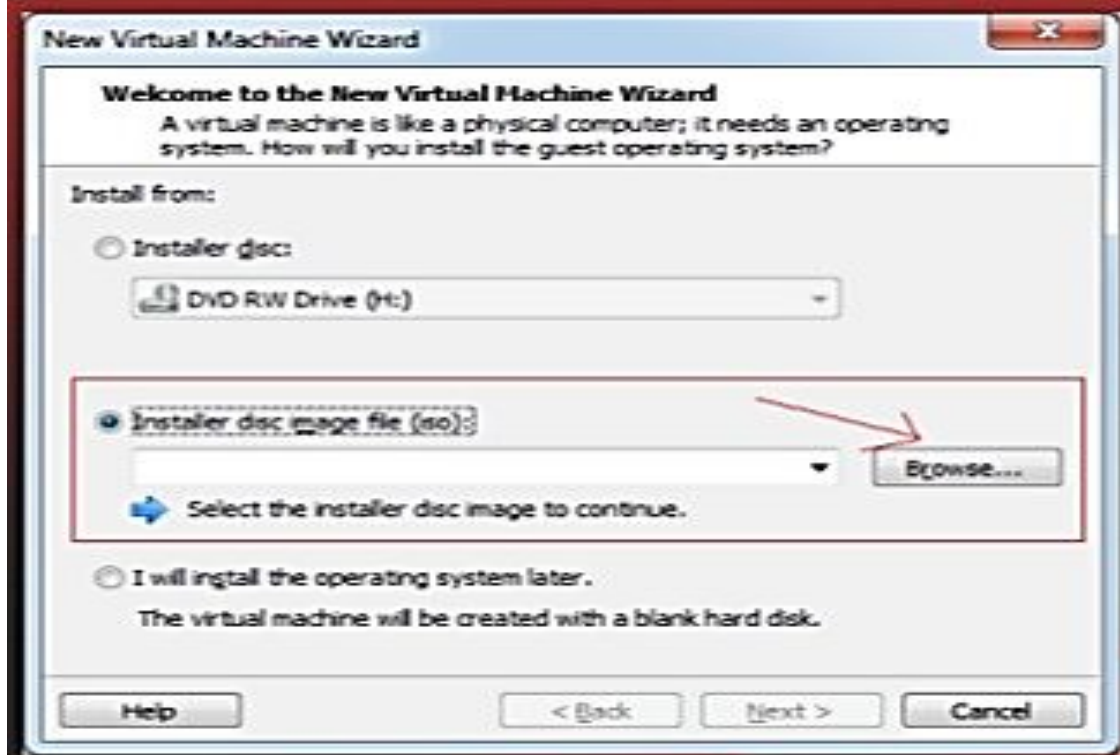
Help

View VMware Player's help contents.

Installing Ubuntu on VMWare Player.



- Select option *Installer disc image file* & click “Browse...”



Installing Ubuntu on VMWare Player.



- Select Downloaded 'iso' file for Ubuntu. & click "Next"

New Virtual Machine Wizard

Welcome to the New Virtual Machine Wizard
A virtual machine is like a physical computer; it needs an operating system. How will you install the guest operating system?

Install from:

☐ Installer disc:
DVD RW Drive (H:)

☒ **Installer disc image file (iso):**
E:\Downloads\ubuntu-12.04.3-desktop-i386.iso Browse...

 Ubuntu 12.04.3 detected.
This operating system will use Easy Install. [What's this?](#)

☐ I will install the operating system later.
The virtual machine will be created with a blank hard disk.

Help < Back Next > Cancel

Installing Ubuntu on VMWare Player.



- *Fill in the required information & continue the installation.*

New Virtual Machine Wizard

Easy Install Information
This is used to install Ubuntu.

Personalize Linux

Full name:

User name:

Password:

Confirm:

Help < Back Next > Cancel

Installing Ubuntu on VMWare Player.



- *Select the directory where virtual machine files to be saved. Make sure you have sufficient space on that disk.*

New Virtual Machine Wizard

Name the Virtual Machine
What name would you like to use for this virtual machine?

Virtual machine name:

Location:

< Back Next > Cancel

Installing Ubuntu on VMWare Player.



— *Select amount of disk space for Ubuntu installation.*

New Virtual Machine Wizard

Specify Disk Capacity
How large do you want this disk to be?

The virtual machine's hard disk is stored as one or more files on the host computer's physical disk. These file(s) start small and become larger as you add applications, files, and data to your virtual machine.

Maximum disk size (GB):

Recommended size for Ubuntu: 20 GB

☐ Store virtual disk as a single file

☒ Split virtual disk into multiple files

Splitting the disk makes it easier to move the virtual machine to another computer but may reduce performance with very large disks.

Help < Back Next > Cancel

Installing Ubuntu on VMWare Player.



- Click “Customize Hardware...” to view virtual machine configuration.

New Virtual Machine Wizard

Ready to Create Virtual Machine
Click Finish to create the virtual machine and start installing Ubuntu and then VMware Tools.

The virtual machine will be created with the following settings:

Name:	Ubuntu
Location:	D:\Virtual_Machines\Ubuntu
Version:	Workstation 10.0
Operating System:	Ubuntu
Hard Disk:	20 GB, Split
Memory:	1024 MB
Network Adapter:	NAT
Other Devices:	CD/DVD, USB Controller, Printer, Sound Card

[Customize Hardware...](#)

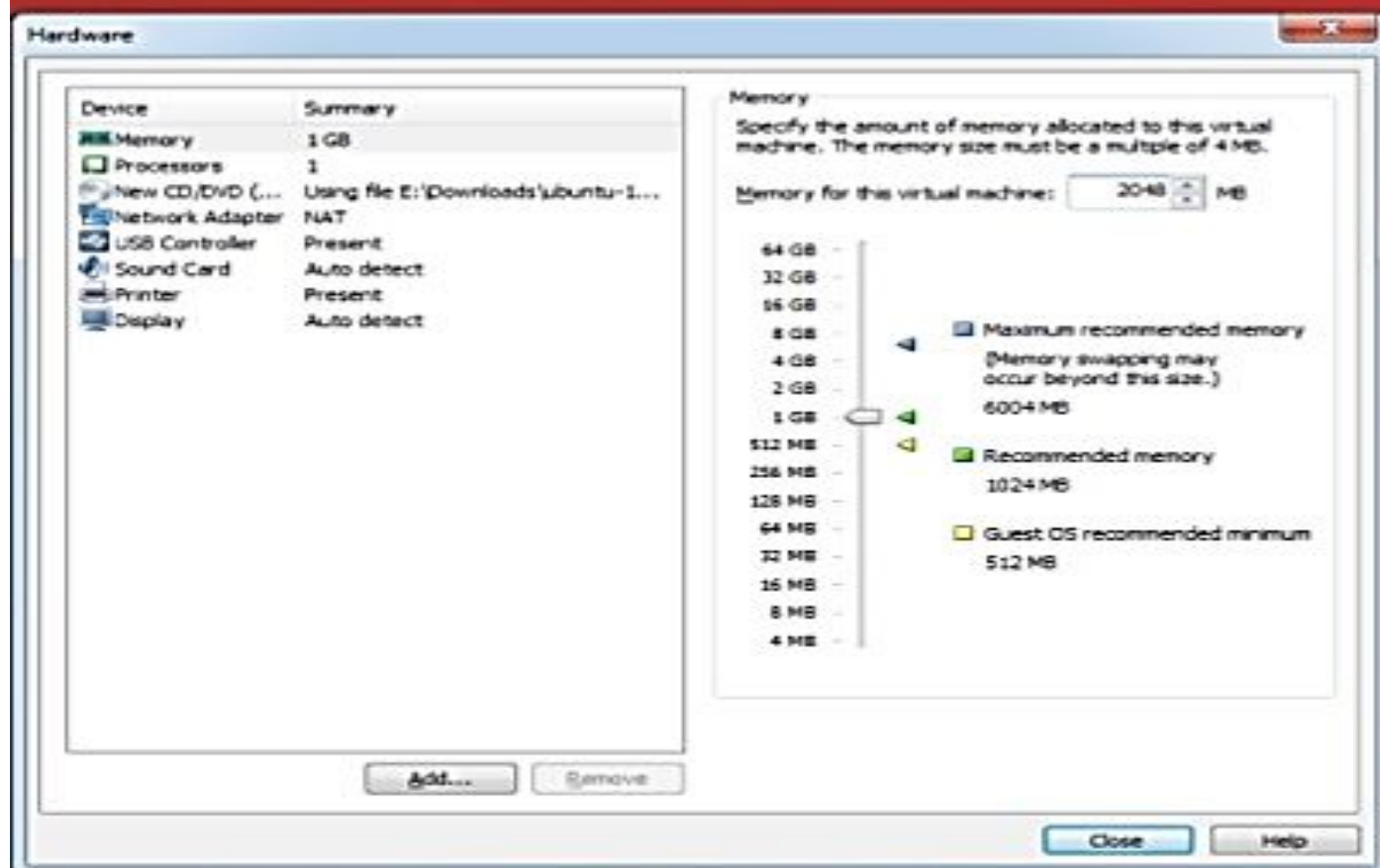
☒ Power on this virtual machine after creation

< Back Finish Cancel

Installing Ubuntu on VMWare Player.



We can now set amount of RAM, no of processors, network adapter, CD/DVD drives etc. For virtual machine.



Installing Ubuntu on VMWare Player.



- Once we click finish “Ubuntu” installation starts.
- If you want to try Ubuntu Live media without any installation click Try Ubuntu else click “Install Ubuntu” to continue installation. Follow the wizard for installation.



Installing Ubuntu on VMWare Player.

- Once installation is complete virtual machine will reboot & ubuntu linux starts, will ask for login credentials.



Installing Ubuntu on VMWare Player.

— *Now you can enjoy your Ubuntu environment.*



Ubuntu - VMware Player (Non-commercial use only)

Player



Compilers Installation

- Following compilers are used for C and C++ language:
 - For C language: gcc
 - Command: `sudo apt-get install gcc`
 - For C++ Language: g++
 - Command: `sudo apt-get install g++`

Test g++ Compiler Installation

- Create file by right click and name it as “test.cpp”

- Add this code into file and save:

- Compile this code using following steps:

- To compile: g++ -o obj test.cpp

- To run: ./obj

- Done, Check the output on command prompt

```
#include<iostream>
using namespace std;
int main()
{
    cout<< “Testing G++ Compiler!!!!!!!”;
    cout<< “Yes, G++ Compiler working Perfectly!!!!!!!”;
    return 0;
}
```

Test gcc Compiler Installation

- Create file by right click and name it as “test.c”
- Add this code into file and save:

```
#include<stdio.h>
```
- Compile this code using following steps:

```
void main() {
```
- To compile: gcc -o obj test.c

```
    printf("Hello! This is my first C program with  
    Ubuntu 11.10\n");  
    /* Do something more if you want */  
}
```
- To run: ./obj
- Done, Check the output on command prompt