Name: Nimra Nasir

Reg No: 19-CP-35

# Operating System

## Lab: 01

**Exercise:**

**Questions:**

**Question: 1**

What is the file system used by the linux?

**file system used by the linux:**

Linux file system is generally a built-in layer of a linux operating system used to handle the data management of the storage. It helps to arrange the file on the disk storage. It manages the file size, file name, creation date, and much more information about a file.

There are certain file formats used widely in linux but not preffered under linux specially for installing linux root system. e.g UFS of BSD.

Ext4 is the preffered and most widely used linux file system. In certain special case XFS and ReiserFS are used. Btrfs is still used in experimental enviroment.

## Question: 2

Name two types of boot loaders available.

### boot Loaders:

A boot loader, also called a boot manger, is a small program that places the operating system (os) of a computer into memory. When a computer is powered-up or restarted, the basic input/output system (BIOS) performs some initial tests, and then transfers control to the Master Boot Record (MBR) where the boot loader resides.

### Two most common type of boot Loaders:

i) LILO ( LInux LOader)

ii) LOADLIN ( LOAD LINux)

### LILO :

LILO is the most popular boot loader among computer users that employ Linux as the main, or only, operating System. The primary advantage of LILO is the fact that it allows for fast boot-up.

### LOADLIN:

LOADLIN is preferred by some users whose computers have multiple operating system, and who spend relatively little time in Linux. LOADLIN is sometimes used as a backup boot loaders for Linux in case LILO fails.

## Question: 3

what are the names of partition Created for linux?

### Major Parition On a Linux System:

There are two kinds of major partitions on a Linux system.

1) data partition

2) swap partition

### Data Partition:

Normal linux system data, including the root partition containing all the data to start up and run the system.

### Swap partition:

Expansion of the computer's physical memory, extra memory on hard disk.

---

## Question: 4

Why we use Linux?

Linux operating system is different from other operating systems.

we use linux operating system because;

i) it has no security and privacy issues.

ii) Linux can be customized the way we want.

iii) Runs smooth for years

iv) Can run on any system (old or new)

v) open source nature

vi) Better community support

vii) Perfect for programming

viii) free to use.

---

## Question: 5

what are the benefits of linux Operating systems?

### Benefits of linux Operating system:

Some benefits of linux operating system are,

### 1) Free:

Linux is completely free and users do not need to pay

for anything. we can easily download it, no need to buy license for it.

## 2) Open Source:

As it is open-source, its source code is easily available.

## 3) Stability:

Linux is more stable than other operating systems. Linux does not require to reboot the system to maintain performance levels. It rarely hangs up or slow down. It has big up-time.

## 4) Performance:

Linux system provides high performance over different network. It is capable of handling a large number of users simultaneously.

## 5) Flexibility:

Linux operating system is very flexible. It can be used for desktop applications, embedded systems, and server application too.

## 6) Suitable for Programming:

It supports almost all of the most used programming languages such as C/C++, java, and more.

## 7) Compatibility:

Linux is compatible with a large-number of file formats as it supports almost all file formats.

## 8) Multitasking:

it is a multitasking operating system as it can run multiple tasks simultaneously without affecting the system speed.

## 9) Graphical User Interface:

Linux is a command-line based os, but it provides an interactive user interface like windows.

---