

Linux Squad

Week 3

What is an Operating System?

What is an Operating System?

Series of software programs that interact with and control the computer hardware.

What is virtualization software?

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Software that allows a computer to run multiple operating systems concurrently

i.e. Virtual Box

What is a virtual machine?

What is a virtual machine?

An operating system that is
run within virtualization software

What is BIOS?

What is BIOS?

Basic Input/Output System

Part of the computer system that
contains the programs used to
initialize hardware components
at boot time

**What do you call sections you
can divide a hard disk into?**

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can divide a hard disk into?**

Partitions

**What do you call the structure that
specifies how data
should reside on the hard disk?**

**What do you call the structure that
specifies how data
should reside on the hard disk?**

Filesystem

**Where is the partition information
for a hard disk stored?**

**Where is the partition information
for a hard disk stored?**

Master boot record

**What is the default limit for
primary partitions on a disk?**

**What is the default limit for
primary partitions on a disk?**

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**How can you overcome the
limit of partitions?**

How can you overcome the limit of partitions?

Label one of the partitions as "extended"

Extended partitions can contain an unlimited number of smaller partitions

**What do you call a smaller
partition in an extended partition?**

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partition in an extended partition?**

Logical Drive

What is SATA?

What is SATA?

Standard hardware interface
for hard drives, solid state drives,
and CD/DVD drives

Generally used in consumer computers

What is SCSI?

What is SCSI?

Also a standard hardware interface for storage drives, generally used in datacenters where large numbers of drives are required

Faster and more reliable than SATA, but more costly

In Linux, what is the first SATA/SCSI device in your system referred to as?

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sda

If a system has an sda, and that sda has two primary partitions, what are they referred to as?

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sda1 and sda2

**If you have four primary partitions - referred to as
sda1, sda2, sda3, and sda4 -
and one is an extended partition -
what would a partition within the extended partition
be referred to as?**

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sda1, sda2, sda3, and sda4 -
and one is an extended partition -
what would a partition within the extended partition
be referred to as?**

sda5

**Does a swap partition
contain a filesystem?**

Does a swap partition contain a filesystem?

No, and it is never mounted as a directory

Linux OS is ultimately responsible for
swapping information

**Why would you create extra
partitions on a hard disk?
(beyond root and swap)**

Why would you create extra partitions on a hard disk? (beyond root and swap)

Makes Linux more robust against
filesystem errors

If filesystem on one partition encounters
an error, only data on one part of the system is
affected (not the entire system)

**What is a journaling
filesystem?**

What is a journaling filesystem?

Keeps track of the information written to the hard disk in a journal

Each step required to copy a file from one location to the other is first written to a journal

If something interrupts the copy (i.e. power outage) - system can retrace the steps from the journal and finish the copy

**What standard directory contains
the Linux kernel and boot files?**

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the Linux kernel and boot files?**

`/boot`

What directory is the default location for user home directories?

What directory is the default location for user home directories?

`/home`

What directory is an alternative location for additional programs?

What directory is an alternative location for additional programs?

`/opt`

**What directory contains log
files and spools?**

What directory contains log files and spools?

/var

What directory contains temporary files created by programs?

What directory contains temporary files created by programs?

tmp

**What directory contains all directories
no present on other filesystems?**

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no present on other filesystems?**

/

Why would you create two user accounts - one root and one regular?

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root account has full rights to the system and should only be used when performing system administration tasks