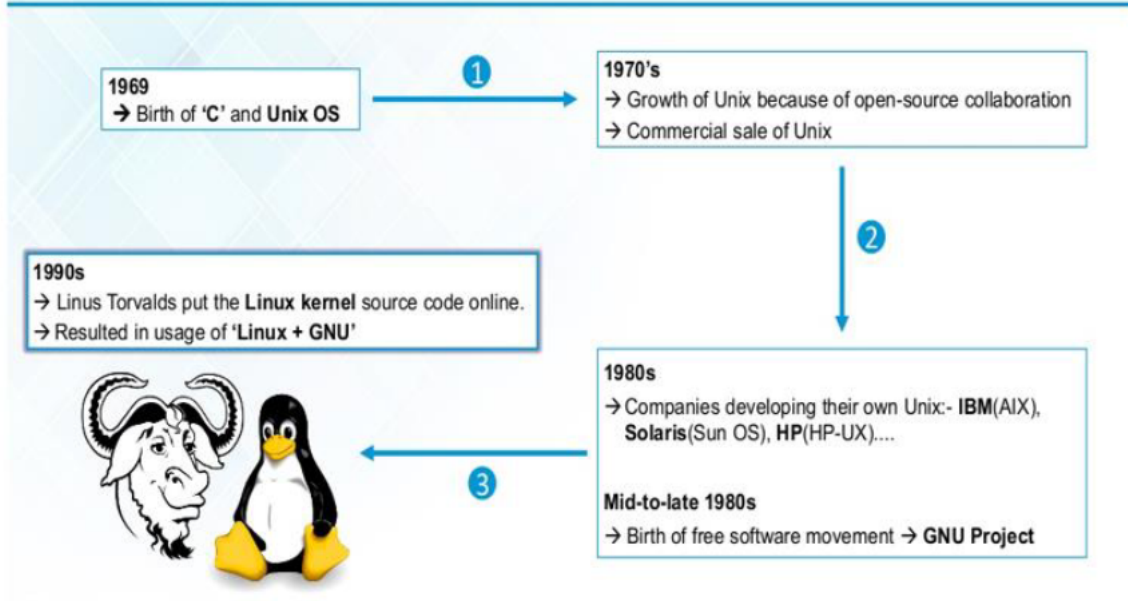


## Linux Basics

Tuesday, November 23, 2021 08:32 AM

### Birth Of Linux



### Linux's Features



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### Why use Linux?

Some of the reasons to use Linux are:

- Low cost and very stable (some Linux servers are not rebooted for over a year, try that with Windows server!)
- Best computing power and inbuilt network support.
- Fastest developing OS, with the most number of developers.
- Most secure OS.

- Configurability
- Convenience
- freedom

IBM → AIX

### Unix Vs Linux

Today Linux is in great demand. You can see the use of Linux everywhere. It's dominating on our servers, desktop, smartphones and even used in some electrical devices like refrigerators.

Some people think Unix and Linux as synonyms, but that's not true. Many operating systems were developed to be like Unix but none of them got the popularity as Linux. Linux is the clone of Unix. It has several features similar to Unix, still have some key differences. Before Linux and Windows, computer world was dominated by Unix. Unix is a copyrighted name and IBM AIX, HP-UX and Sun Solaris are only Unix operating system remained till date.

### Difference between Linux and Unix

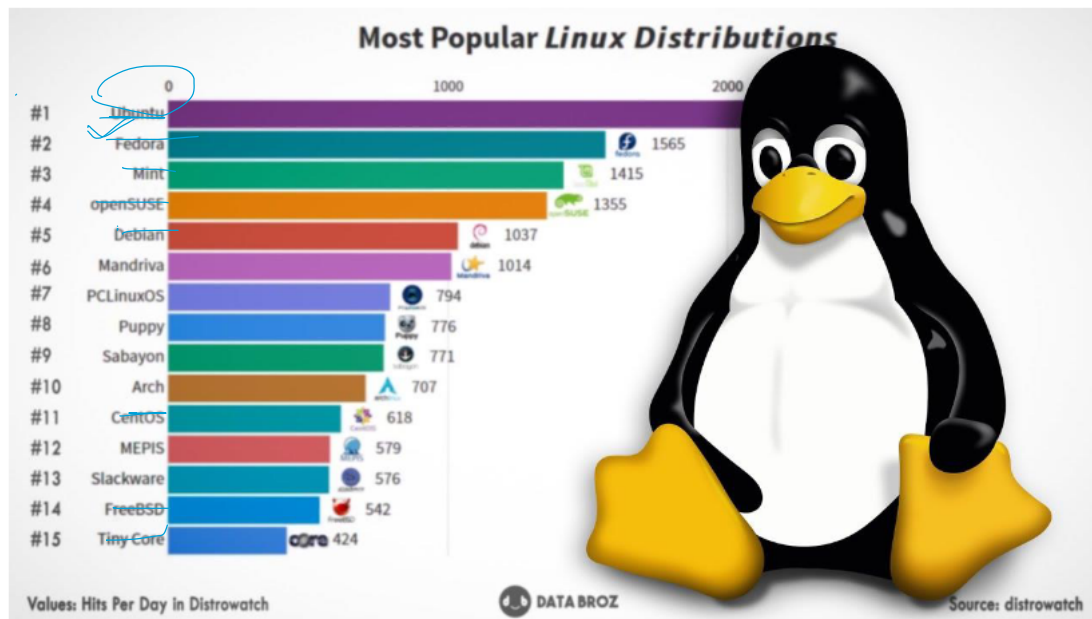
Comparison	Linux	Unix
Definition	It is an open-source operating system which is <u>freely available to everyone</u> .	It is an operating system which <u>can be only used by its copyrighters</u> .
Examples	It has different distros like <u>Ubuntu</u> , <u>Redhat</u> , <u>Fedora</u> , etc	<u>IBM AIX</u> , <u>HP-UX</u> and <u>Sun Solaris</u> .
Users	Nowadays, Linux is in great demand. Anyone can use Linux whether a home user, developer or a student.	It was developed mainly for <u>servers</u> , <u>workstations</u> and <u>mainframes</u> .

Usage	Linux is used everywhere from servers, PC, smartphones, tablets to mainframes and supercomputers.	It is used in servers, workstations and PCs.
Cost	Linux is freely distributed, downloaded, and distributed through magazines also. And priced distros of Linux are also cheaper than Windows.	Unix copyright vendors decide different costs for their respective Unix Operating systems.
Development	As it is open source, it is developed by sharing and collaboration of codes by world-wide developers.	Unix was developed by <u>AT&amp;T Labs</u> , various commercial vendors and non-profit organizations.
Manufacturer	Linux kernel is developed by the community of developers from different parts of the world. Although the father of Linux, Linus Torvalds oversees things.	Unix has three distributions <u>IBM AIX</u> , <u>HP-UX</u> and <u>Sun Solaris</u> . Apple also uses Unix to make <u>OSX</u> operating system.
GUI	Linux is command based but some distros provide GUI based Linux. Gnome and KDE are mostly used GUI.	Initially it was command based OS, but later Common Desktop Environment was created. Most Unix

		distributions use <del>Gnome</del> .
Interface	The default interface is BASH (Bourne Again SHell). But some distros have developed their own interfaces.	It originally used Bourne shell. But is also compatible with other GUIs.
File system support	Linux supports more file system than Unix.	It also supports file system but lesser than Linux.

Coding	Linux is a Unix clone, behaves like Unix but doesn't contain its code.	Unix contain a completely different coding developed by AT&T Labs.
Operating system	Linux is just the kernel.	Unix is a complete package of <u>Operating system</u> .
Security	It provides higher security. Linux has about <u>60-100 viruses</u> listed till date.	Unix is also highly secured. It has about 85-120 viruses listed till date
Error detection and solution	As Linux is open-source, whenever a user post any kind of threat, developers from all over the world start working on it. And hence, <u>it provides faster solution</u> .	In Unix, users have to wait for some time for the problem to be resolved.

### Linux Distributions (Distros)

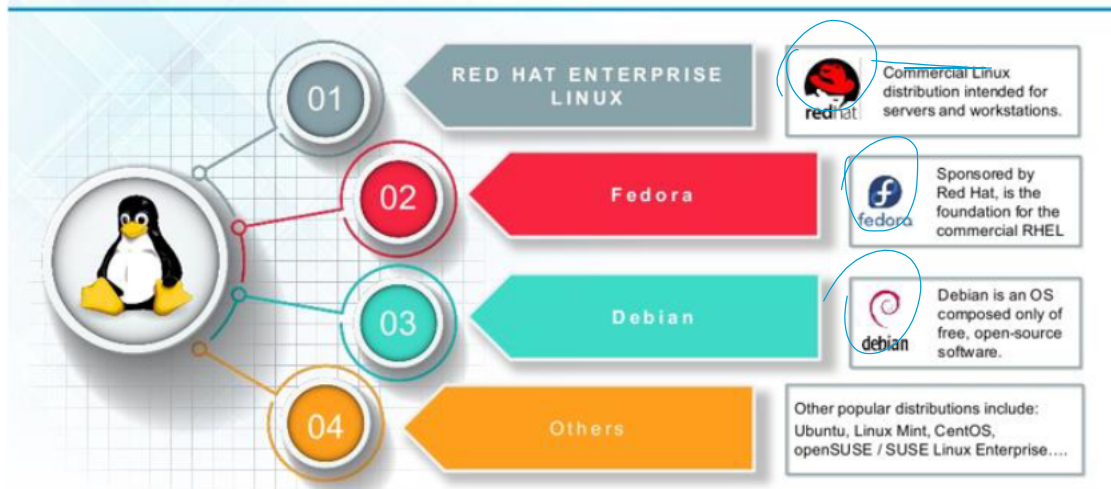


### Choosing a Linux Distro

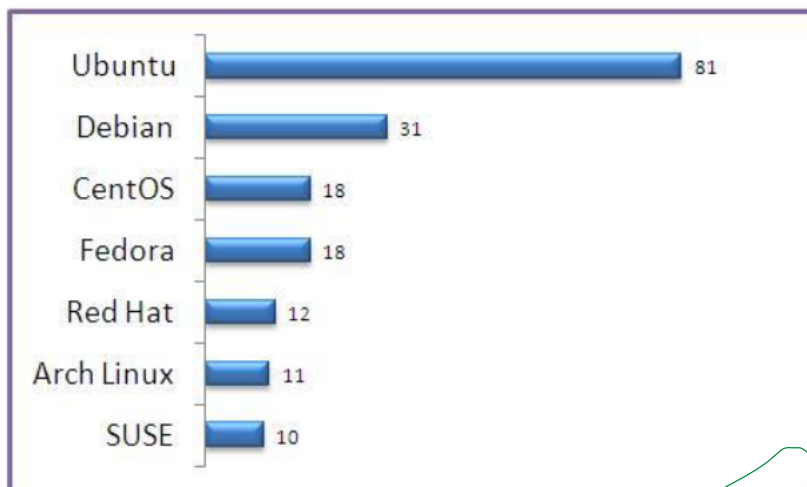
Distribution	Why To Use
UBuntu	It works like Mac OS and easy to use.
Linux mint	It works like windows and should be use by new comers.
Debian	It provides stability but not recommended to a new user.

Fedora	If you want to use red hat and latest software.
Red hat enterprise	<u>To be used commercially.</u> [ ]
CentOS	If you want to use red hat but without its trademark.
OpenSUSE	It works same as Fedora but slightly older and more stable.
Arch Linux	It is not for the beginners because every package has to be installed by yourself.

## Various Linux Distributions



## Top Linux Distribution



Ubuntumaster -  
UbuntuVm1

Hsbs\_admin / admin123

*Handwritten note:* T fm -xf

\$ cat > a.txt

≡

\$ ctrl + d

→ cat a.txt

mkdir dir1 dir2

⇒ cp dir1 — dir2

⇒ mv

2) notepad  
↳ vi / vim

whoiam ?

Su → { Su surekha  
                  Su admin

sum → root

SU root

③ 1) Super User or root

2) system user

3) Normal user

→

→ /etc/passwd

/etc/shadow

