

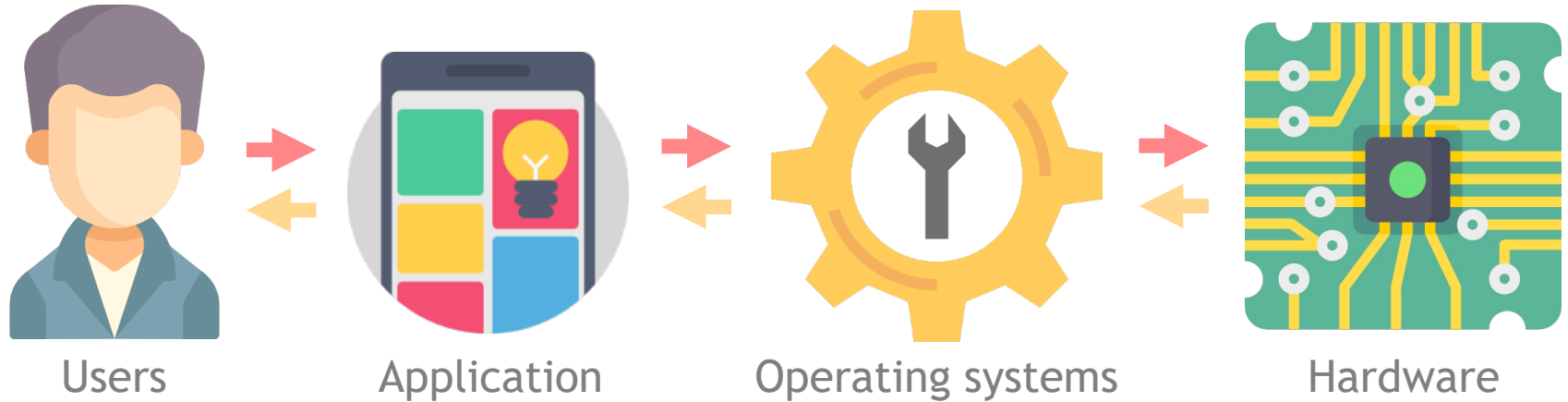


# Linux



# What is an Operating System?

# What is an Operating system?





# What is Linux?

# What is Linux?

Linux is a set of open source Operating systems. It as simple as that, just like windows and mac, linux based OS provide us an interface to use specific programs with help of the hardware.



# Linux History

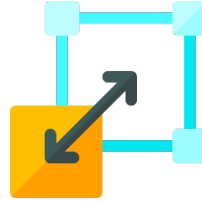
Linux was a UNIX based kernel developed by Linus Torvald in 1991. He was driven by the lack of open source UNIX based systems that people could use.



# Benefits of using Linux



Open Source



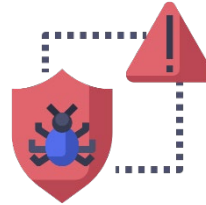
Highly Flexible



Lightweight



Highly configurable

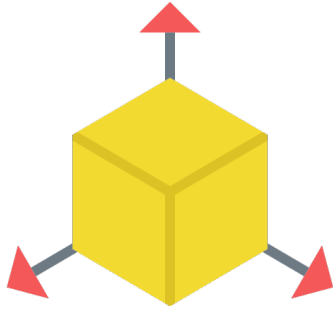


Fewer Malware



Awesome for  
Development

# Benefits of using Linux



Stable



Large Community



Performance



# Linux & Unix

- What's the difference?

# What's the difference?

## What is UNIX?

It's an operating system developed by Ken Thompson, Dennis Ritchie in 1970. It is written in C. It influenced the development of other popular Operating systems such as: MAC, solaris, AIX.

It was a paid OS that At&T sold after its development.

## What is Linux?

It is also an Operating system. It is a **UNIX like** operating system. It does not share any source code with UNIX, but it shares the design principles with UNIX.

It promotes the use of open source software.

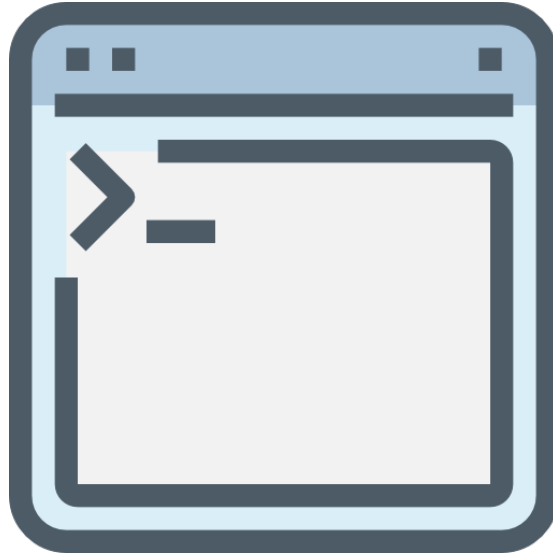
# What's the difference?

## What is UNIX?

UNIX is a complete Operating system.

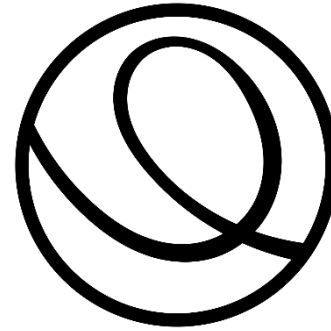
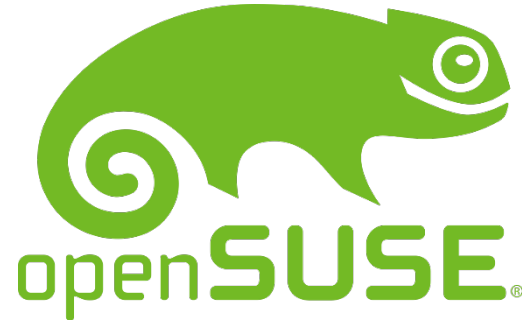
## What is Linux?

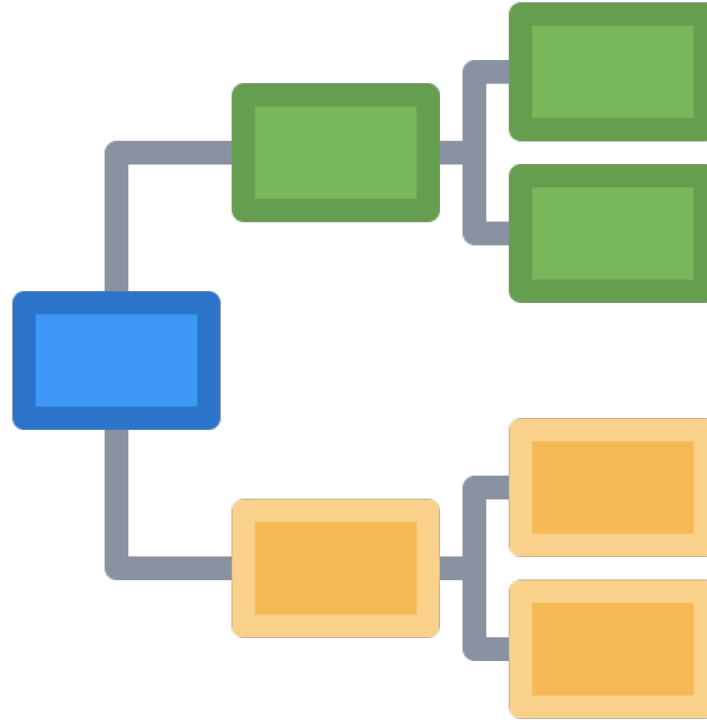
Linux is a kernel, when it is packaged with different distributions it becomes a complete operating system of that flavor.



# Different **Linux** Distros

# Different linux Distro available





# Linux **Architecture &** Components

# Linux Architecture



A diagram showing the layers of Linux Architecture as a stack of four horizontal bars. From top to bottom, the layers are: Applications (red), Shell (orange), Linux Kernel (green), and Hardware (dark grey). Each layer is centered with its name in white text.

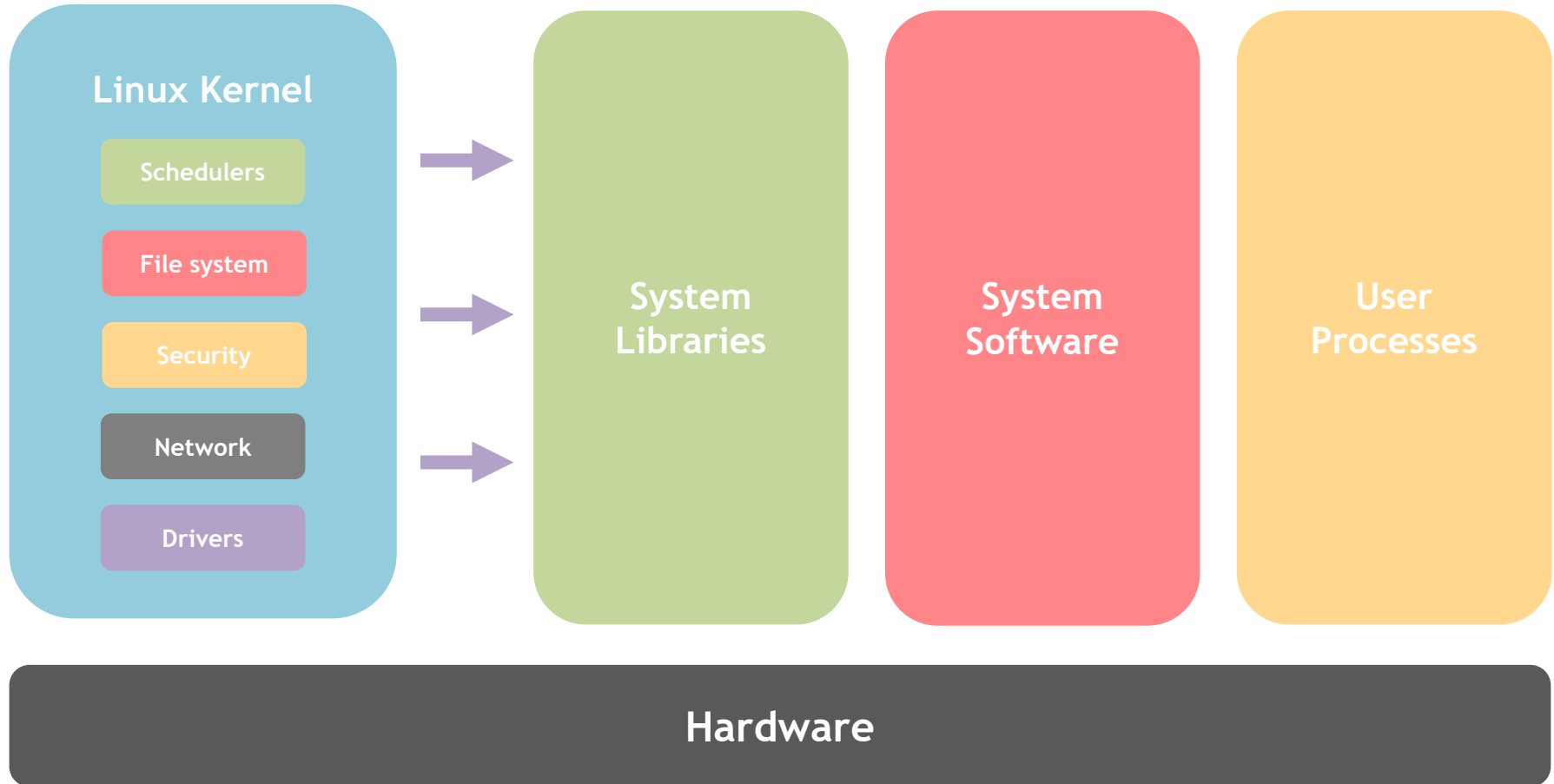
Applications

Shell

Linux Kernel

Hardware

# Linux Components







# Linux Basic Concepts

# Linux Basic Concepts



Kernel

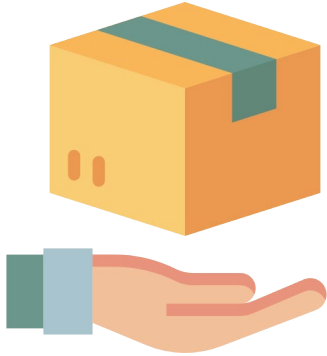


Shell

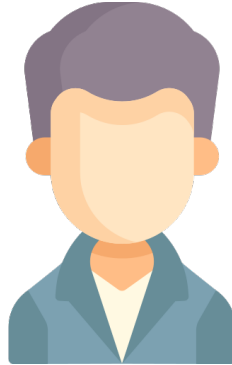


File system

# Linux Basic Concepts



Package Manager



Users



Processes



# Linux FileSystem



# Linux Installation & Setup

# Linux **Installation** & setup - Requirements



Ubuntu Image



Virtual Box

At least 4 GB of Ram & 20 GB of free hard-drive space

# Linux **Installation** & setup - Requirements

Or Just Launch a VM on a Cloud (AWS, Azure, GCP) - Easy & Free

