

Introduction to Linux Essentials

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Lecture Content

What is Linux?

Popular Linux Distributions

Current Uses of Linux

Job that Include Linux Skills

What is Linux?

Linux is an open-source operating system kernel first developed by Linus Torvalds in 1991.

Key features

Open-source nature

Highly customizable

Wide range of distributions (Ubuntu, Debian, CentOS, etc.)

Linux is an operating system, which is basically a set of instructions that tells your computer how to do things. It's similar to Windows or macOS, but it's built on a different foundation. Linux is open-source, which means its code is freely available for anyone to use, modify, and distribute.

Popular Linux Distributions



Ubuntu



Debian



Amazon Linux



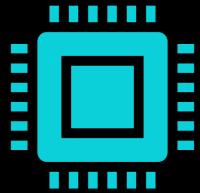
RedHat Linux



Ubuntu



**Founded by South African
entrepreneur Mark
Shuttleworth in 2004.**



**Ubuntu is one of the most
widely used Linux
distributions globally, known
for its ease of use, regular
updates, and strong
community support**



Use Cases

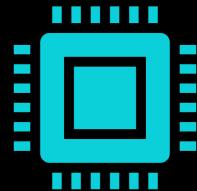
Desktop Computing
Education
Web Development



Debian



**Founded by Ian Murdock in
1993**



**Debian is one of the oldest
and most respected Linux
distributions. It was founded
by with the goal of creating a
completely free and open-
source operating system.**



Use Cases

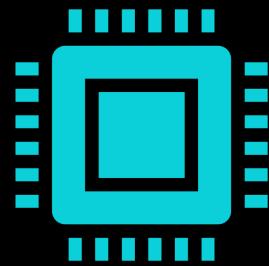
Server Infrastructure

Embedded Systems

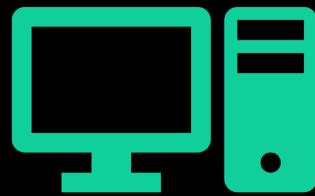
Development Environment



Amazon Linux



Amazon Linux is a Linux-based operating system developed by Amazon Web Services (AWS)



Use Cases:

- Web Applications
- DevOps Environments
- Data Analytics
- Machine Learning

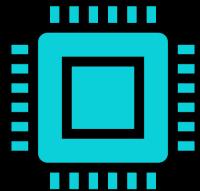
RedHat



Red Hat



Red Hat Enterprise Linux (RHEL)
is a leading enterprise Linux distribution developed and maintained by Red Hat, Inc



Designed to provide a stable, secure, and reliable platform for mission-critical workloads in enterprise environments. Here's a more detailed explanation of RHEL:



Use Cases:
Enterprise Servers

Data Centers

High-Performance Computing (HPC)

Additional Distributions of Linux



Where is linux used today?

Web Servers - 90 % of websites run linux based web servers

Cloud Computing, such as AWS, Google

Smart Devices , such as IoT devices, smart TVs

Supercomputers

Automotive Industry

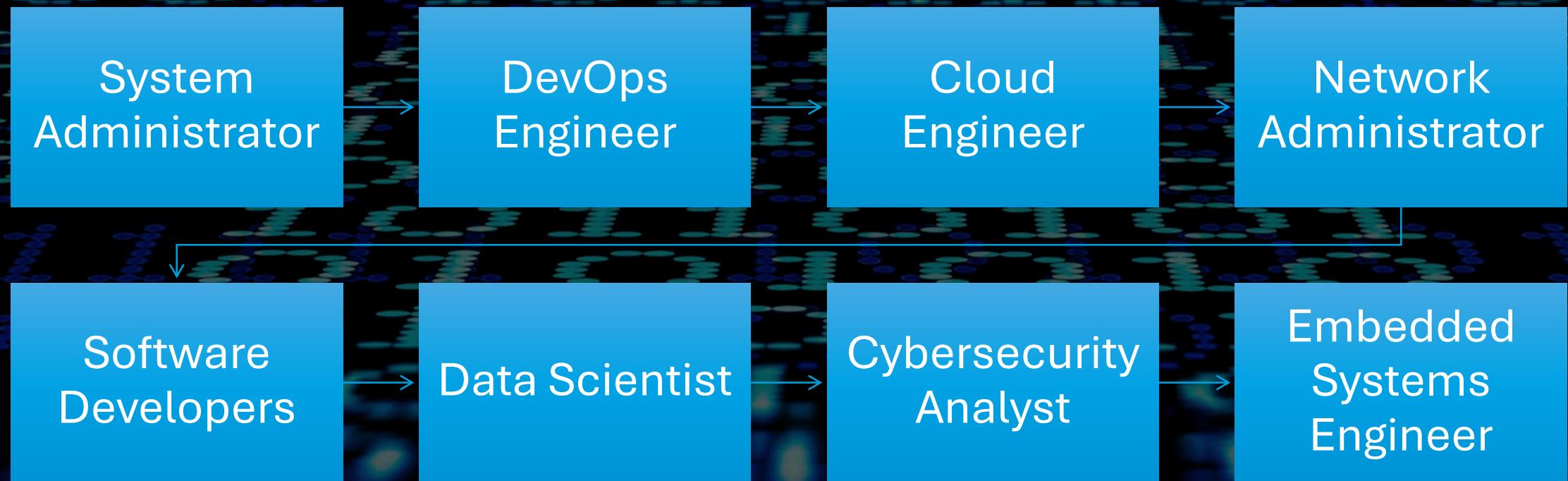
Financial Sector

Scientific Research

Entertainment Industry



Jobs That Utilize Linux Skills



Linux System Components

Kernal

Shell

Utilities

File System

Graphical User Interface (GUI)