RS School

DEVOPS FROM ZERO TO HERO EDUCATIONAL PROGRAM

LINUX BASICS

Introduction

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Welcome to the exciting world of Linux! As you begin your journey into the realm of DevOps, you'll quickly discover that Linux is an essential tool in the toolkit of any IT professional. This versatile and powerful operating system has been at the forefront of technological innovation for decades, and its influence can be felt in nearly every aspect of modern computing.

Whether you're a seasoned IT veteran or just starting out in the field, learning Linux is an absolute must if you want to stay competitive in today's fast-paced world. With its robust security features, flexible command-line interface, and vast array of tools and utilities, Linux is the perfect platform for DevOps professionals looking to streamline their workflows, optimize their systems, and automate their processes.

But Linux isn't just a tool for IT professionals. It's also a vibrant community of developers, enthusiasts, and innovators who are constantly pushing the boundaries of what's possible with this incredible operating system. From open-source software projects to cutting-edge hardware designs, the Linux community is always at the forefront of technological innovation.

So if you're ready to dive into the fascinating world of Linux and DevOps, there's no time like the present! With its unparalleled flexibility, power, and versatility, Linux is the perfect platform for anyone looking to build a solid foundation in IT and position themselves for success in this rapidly evolving field. So why wait? Start exploring the world of Linux today and discover all the amazing things it has to offer!

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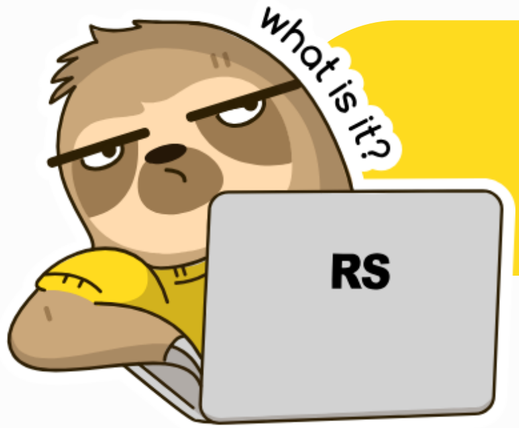


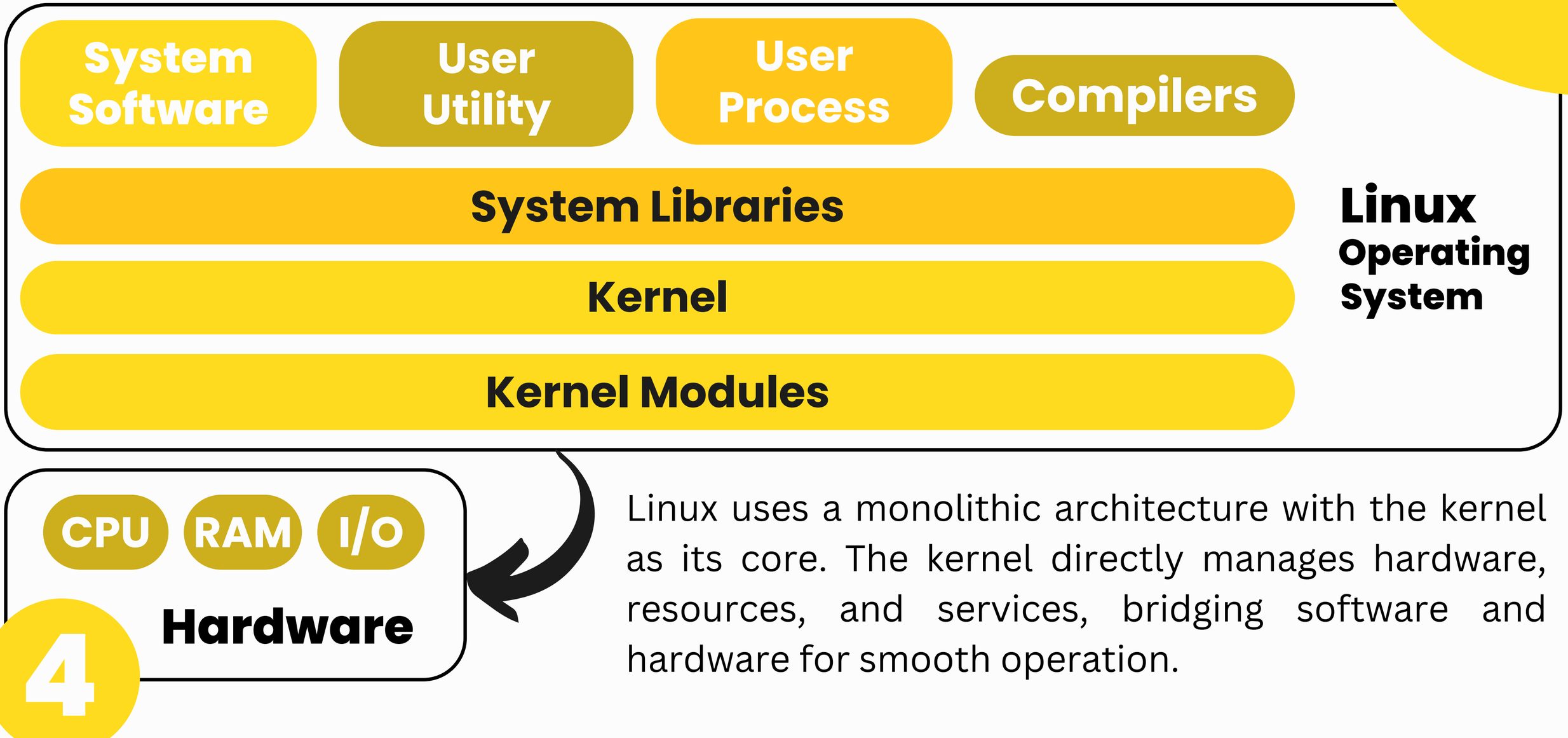
What is Linux?

- A free and open-source operating system based on the Unix kernel
- Used by a wide variety of people and organizations
- Known for its stability, security, and performance
- Used on a variety of devices (servers, desktops, laptops, and phones)
- A powerful operating system used for a wide variety of tasks
- Supports from older hardware to the latest cutting-edge systems
- Provides a versatile command-line interface to perform operations

Why learn Linux?

- Linux skills are pre requisite for roles like System/Server Admin, Cloud Admin, Solutions Architect, Site Reliability Engineer, DevOps Engineer etc
- 96.3% of the world's top 1 million web servers run on Linux
- 95% of the servers that run the world's top 1 million domains are powered by Linux
- Famous DevOps tools like Docker, Ansible, Kubernetes etc run with the help of Linux

Linux architecture



Linux uses a monolithic architecture with the kernel as its core. The kernel directly manages hardware, resources, and services, bridging software and hardware for smooth operation.

Differences between distributions

Target audiences and systems

Linux distributions are tailored for different systems, including desktops, servers, and older machines.

Process of installing

Different distributions use different application installation and management tools, called package management tools.

Support and updates

Some distributions are maintained by a community of volunteers while others are maintained and supported by a commercial vendor.

All Linux distributions share the same core Linux kernel, meaning the skills and experiences acquired in one distribution can be applied to others.

Most popular Linux distributions

Red Hat

CentOS

fedora

SuSE

debian

ubuntu

gentoo linux™

archlinux

alpine Linux

KALI

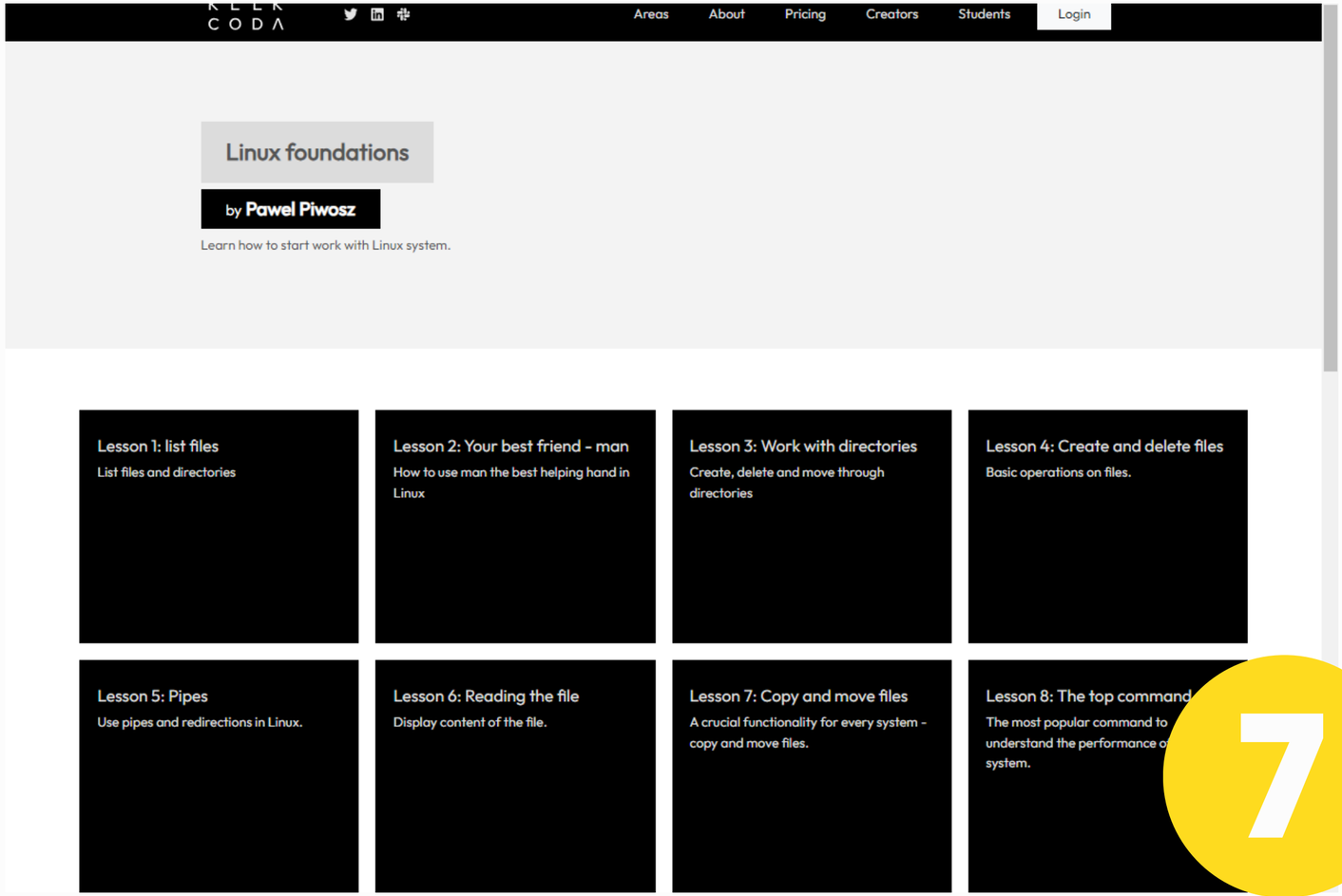
When choosing a Linux distribution, consider your needs, preferred user interface, hardware compatibility, software availability, community support, stability vs. cutting edge updates, and security measures. Experimenting with live USB or virtual machines can help find the best fit for you.

Task

You have to take the **Linux foundations course** using the interactive platform Killercoda, which contains 20 lectures and a final knowledge test.

What is Killercoda?

Killercoda is a place where you open your browser and get instant access to a real Linux environment ready to use. These environments are maintained remotely and accessed locally, hence no setup or huge resource usage in local browsers.



How to do the task?

1. Sign into Killercoda

Use your Github account

2. Take the entire Linux foundations course

All lessons contain theoretical and practical modules

3. Test your knowledge!

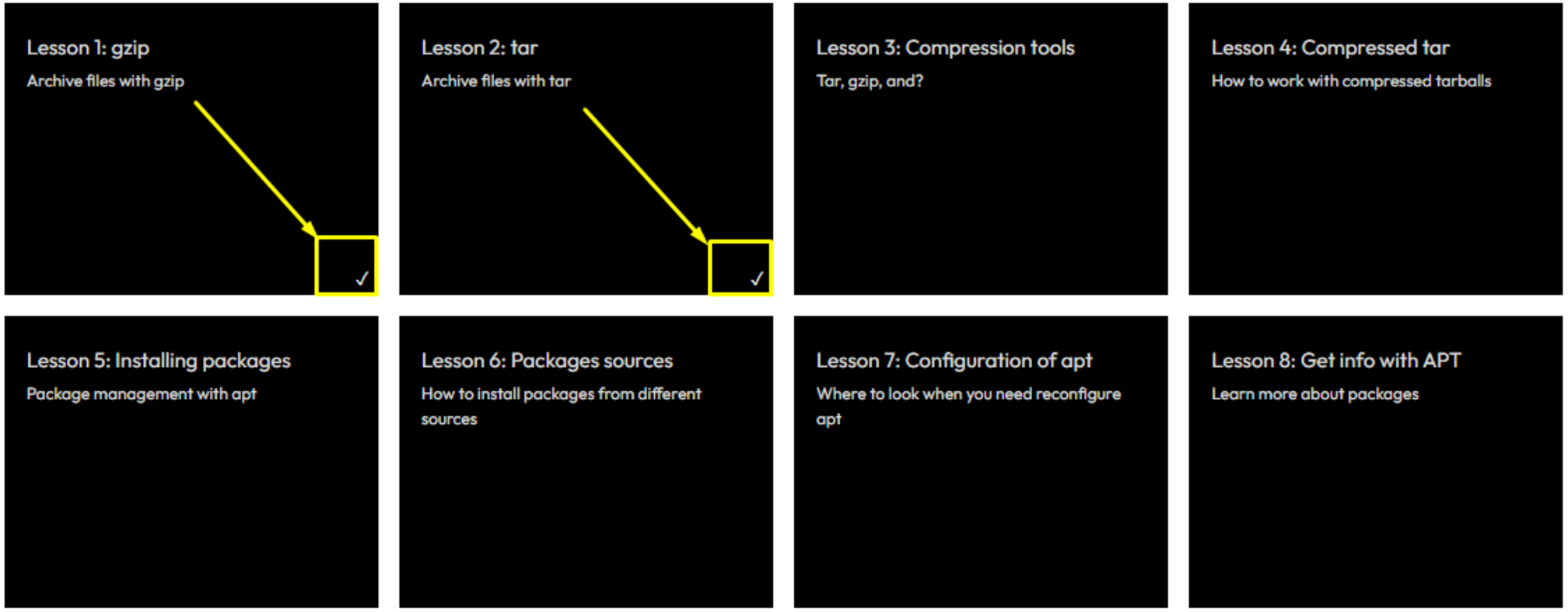
Take an interactive quiz and take a screenshot of your completion of the test. **Pay attention! Take a screenshot of the entire screen.**
It should contain the date and time.

4. Cross-check

Upload a screenshot to the RS School portal. Your result will be cross-checked by another student of the course, and you will have to check someone else's results

Want extra points?

Take the Linux advanced course of 14 interactive lessons and take a screenshot that includes a marker to show that you have completed every lesson, as well as the date and time. Upload it to the RS School platform.



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Useful links

Linux Essentials

provistep by step guide for Linux Systems Administrators.des a complete reference on how to install various application on Linux

Linux Hint

provides Linux users with helpful information and resources, covers a wide range of topics related to Linux, including tutorials, how-to guides, reviews, and news updates.

Installati.one

provides a complete reference on how to install various application on Linux

Linux Journey

provides a variety of courses and lessons ranging from beginner to advanced levels

Commandlinefu.com

offers a collection of command line tricks, tips, and scripts for various Linux and Unix operating systems.

100+ Essential Linux Commands

provides a comprehensive list of essential Linux commands. It offers a beginner-friendly guide for individuals who want to learn Linux quickly and become proficient in managing a Linux system.

Thank You

For taking this module