



LINUX TRAINING

Developing Applications For Linux

Master Linux application development. Learn to build robust, efficient software for the Linux platform.

DURATION

2 hours

LEVEL

Intermediate

FORMAT

Instructor-Led

- Globally Recognized Certification

- Expert-Led Hands-On Training

- Flexible Scheduling

Computer Pride | 1st Floor, ICEA Building, Kenyatta Avenue, Nairobi | www.computer-pride.co.ke

COURSE OVERVIEW

This intermediate-level course, "Developing Applications For Linux," is meticulously designed for programmers seeking to harness the power and flexibility of the Linux environment. Over two focused hours, participants will gain a foundational understanding of the core concepts and essential tools required to build robust applications specifically tailored for Linux systems. We delve into key areas such as leveraging system calls, understanding inter-process communication (IPC), and utilizing standard development utilities, providing a solid springboard for more advanced Linux programming.

By the end of this intensive training, you will be equipped with practical skills to navigate the Linux development ecosystem, write efficient code that interacts directly with the operating system, and troubleshoot common issues. This course is ideal for those looking to expand their programming capabilities beyond general-purpose languages, offering a distinct advantage in roles that require deep system-level understanding and the ability to craft performant, reliable applications for one of the world's most ubiquitous operating systems. It's a critical step for anyone aspiring to contribute to open-source projects or develop enterprise-grade solutions on Linux.

Duration	2 hours
Level	Intermediate
Vendor	Linux

COURSE CURRICULUM

01 Module 1: Setting Up Your Linux Development Environment

- Introduction to Linux as a development platform
- Essential command-line tools for development (GCC, Make, GDB)
- Basic shell scripting for automation and build processes
- Configuring your editor/IDE for Linux application development

02 Module 2: Core Linux System Programming Fundamentals

- Understanding Linux system calls vs. library functions
- File I/O operations (open, read, write, close, lseek)
- Process management basics (fork, exec, wait, exit)
- Introduction to error handling in Linux applications

03 Module 3: Introduction to Inter-Process Communication (IPC)

- Concepts of Inter-Process Communication
- Using pipes for simple process communication (named and unnamed pipes)
- Introduction to shared memory segments
- Basic signal handling for process control

04 Module 4: Building and Debugging Linux Applications

- Managing projects with Makefiles
- Introduction to debugging with GDB (breakpoints, stepping, inspecting variables)
- Common debugging strategies and tools
- Basic deployment considerations for Linux applications

CAREER PATHWAYS

Graduates of this program are prepared for the following roles:

- > **Junior Systems Programmer (Linux Environment)**
- > **Entry-Level Embedded Linux Developer**
- > **DevOps Tools Developer (focus on Linux utilities)**

FREQUENTLY ASKED QUESTIONS

Q: What are the recommended prerequisites for someone to get the most out of this 'Developing Applications For Linux' course?

To fully benefit from this intermediate course, participants should have a foundational understanding of C or C++ programming, including concepts like variables, data types, control structures, functions, and pointers. Familiarity with basic Linux commands and navigating the command line interface is also highly recommended, as the course assumes some prior exposure to the Linux environment.

Q: What specific types of applications or utilities will I be able to develop or contribute to after completing this course?

Upon completion of this course, you will be capable of developing command-line utilities, system-level tools, and simple daemon processes that interact directly with the Linux kernel. You'll gain the foundational skills necessary to contribute to open-source projects, create custom scripts for system automation, or even begin exploring embedded systems development by understanding how applications interact with the Linux OS at a deeper level.

Q: How does this course differentiate from general C/C++ programming courses, and what unique skills will I acquire?

Unlike general C/C++ courses, this program specifically focuses on the unique aspects of developing applications *for* the Linux operating system. You will learn how to leverage Linux-specific system calls and libraries, understand the nuances of process management, and implement inter-process communication mechanisms. This specialization provides you with the crucial skills to write efficient, low-level code that directly interacts with the kernel, making your applications robust and optimized for the Linux environment, a skill not typically covered in generic programming curricula.

ABOUT COMPUTER PRIDE



East Africa's Premier IT Training Center

With over 15 years of excellence, Computer Pride delivers globally recognized certification programs from leading technology vendors. Located on Kenyatta Avenue in Nairobi's CBD, our state-of-the-art facilities and expert instructors have empowered thousands of professionals across East Africa.

15+

Years of Excellence

10,000+

Professionals Trained

50+

Vendor Certifications

READY TO ENROL?

Take the next step in your technology career.

Location

1st Flr, ICEA Building
Kenyatta Ave, Nairobi

Email

info@computer-pride.co.ke

Phone

+254 705 900 900

www.computer-pride.co.ke