

## LPI 102. Linux administration and networking (code: LPI-102)

### Overview

The fundamental topics in Linux and network administration: shell script language Bash, users and permissions, processes, boot scripts, programs, basic server services, protocols - including TCP/IP, addressing and routing. Training is authorized by **Linux Professional Institute**

This training is a second part of our LPIC-1 certification path - a followup to the LPI-101 training. Learning material covered by these two training courses allows to pass the LPIC-1 exam.

After LPI 102, we suggest:

- (if you took the LPI 101 course or mastered the material on your own) taking the LPIC-1 exam,
- continuing learning on LPIC-2 level - through the complete Advanced Linux Administrator course, or LPI 201 and LPI 202 training courses.

To persons interested in acquiring the complete knowledge required by LPIC-1 exam from the very basics, we recommend our long course Linux Administrator. It not only covers all the material covered by LPI 101 and LPI 102 training courses - it has also a module on selected network services, and costs less than the two training courses combined.

This training is equivalent to days 5-8 of the Linux Administrator course.

### Duration

5 days

### Agenda

1. Automating work: shell scripts
  - operations on text, variables
  - conditions
  - loops
  - functions
2. Users
  - users, groups - adding, deleting, configuring
  - pam
  - administrators – sudo
3. Finding files
4. SQL fundamentals - topics important for a future administrator
  - databases (tables, data types)
  - SQL basics (SELECT, INSERT, UPDATE, DELETE)
5. X-window
  - basic configuration (support tools)
  - architecture (incl. networking) with examples
  - basic tools and smart features
6. System customization
  - language, regional settings
  - graphical environment settings
  - accessibility
7. Encryption
8. Fundamental services

### Ask for details

Phone +44 203 608 6289

info@alx.training

### Coming courses

2025-03-30 (Online (English))

- logs
- cron and at
- printing
- NTP
- 9. Basic e-mail configuration
  - sending e-mails
  - redirecting and aliases
- 10. Basic network configuration
- 11. Computer networks - an overview
  - topologies
  - network hardware and technologies
- 12. TCP/IP and ISO/OSI model
  - local area networks and the problem of connecting networks
  - addresses, ARP and RARP
  - IP protocol (IPV4 and IPV6) and routing
  - ICMP
  - TCP and UDP
- 13. Configuring network interfaces
  - scripts
  - manual setting up interfaces (ip command)
  - tools such as ping, traceroute, mtr, whois
  - resolving names. DNS.
- 14. DHCP
  - how the protocol and the services work
  - basic configuration of the server and the client
- 15. Remote working
  - ssh (keys, X forwarding, ports, scp and sftp)
- 16. Security fundamentals
  - identifying devices (nmap, server version identification)
  - basic intrusion techniques (buffer overflow, string format)
  - critical rules
- 17. Identifying and solving problems
  - prevention: backup strategies and methods
  - what to do in case of a catastrophe

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### Coming courses

2025-03-30 (Online (English))

## Target audience and prerequisites

Basic familiarity with Linux, ability to use the command line and familiarity with the shell.

## Certificates

Course participants receive completion certificates signed by ALX.

## Locations

- Warsaw (English) – Jasna 14/16A
- Online (English) – your home, office or wherever you want
- any other location (London, UK, EU) on request

## Price

840 EUR

The price includes:

- course materials,
- snacks, coffee, tea and soft drinks,
- course completion certificate,
- one-time consultation with the instructor after course completion.

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**Coming courses**

2025-03-30 (Online (English))