

## Introduction to Linux

**Level:** beginner

**Length:** 21 hours

**Course Objective:** familiarize attendees to use the Linux operating system for software development

### What You Will Learn

- How to install and manage Linux
- Usual administration required by a common user
- How to interact with Linux, how to use its resources

**Who can attend:** anyone who wants to use Linux

**Prerequisites:** basics for using other operating system, usually Windows

**Required Infrastructure:** VGA projector, whiteboard, personal computer with Windows and Internet connection

### Bibliography

- Linux Administration: A Beginner's Guide (5th Edition), 2009, Wale Soyinka, McGraw Hill
- Linux Command Line and Shell Scripting Bible (2nd Edition), 2011, Richard Blum, Christine Bresnahan, Wiley Publishing Inc.
- Linux Bible, Christopher Negus, Christine Bresnahan, 2012, Wiley Publishing Inc.

**Related Courses:** Programming Linux

### Description

The course will teach how to use, it is targeted to regular users, programmers or system administrators. It is shown how to install Linux, how to use it for solving regular tasks. Linux is compared with other operating systems, especially Windows.

It will be presented usual scenarios of using Linux, potential problems and how to solve them.

The course is highly oriented towards practice, the goal is assure transition to Linux starting from other operating system, usually Windows.



## Contents

1. Introduction to virtualization solutions (VirtualBox). Virtualization solution installation
2. Introduction to Linux. Linux vs. Windows. Installing Linux as a guest machine
3. Common Linux commands for working with the file system and disks, for editing text files
4. Users and groups management
5. Access control to files and directories – ownership, rights to read, write, execute
6. Management of software packages (yum, rpm, apt). Installing and configuring applications (for example MySQL, Apache, etc.)
7. Secured remote connection, remote work with ssh, sftp, scp. Remote authentication without password
8. Install Java, write and execute Java applications
9. Commands for processes management
10. Management of services – starting, stopping, get status, automatic starting
11. Cron services
12. Graphical interfaces