

UNIX/Linux Shell Programming

Course code: UNIXSH

The course is designed for administrators who need to understand the system scripts, to modify their content and create new ones for the functions automation, monitoring and a dialogue with the user. In the course the participant will learn about the possibilities which are offered in shell, he will also master the basic programming techniques and will learn to create useful scripts on practical examples, these techniques will make his or other users' work easier.

Affiliate	Duration	Course price	ITB
Praha	3	13 500 Kč	30
Brno	3	13 500 Kč	30
Bratislava	3	600 €	30

The prices are without VAT.

Course terms

Date	Duration	Course price	Type	Course language	Location
☀ 10.08.2026	3	11 475 Kč	Presence	CZ/SK	GOPAS Brno
☀ 11.08.2026	3	510 €	Online	CZ/SK	Online
☀ 11.08.2026	3	11 475 Kč	Online	CZ/SK	Online
05.10.2026	3	13 500 Kč	Presence	CZ/SK	GOPAS Praha
28.10.2026	3	600 €	Presence	CZ/SK	GOPAS Bratislava
02.11.2026	3	13 500 Kč	Presence	CZ/SK	GOPAS Brno
14.12.2026	3	600 €	Online	CZ/SK	Online
14.12.2026	3	13 500 Kč	Online	CZ/SK	Online

The prices are without VAT.

Who is the course for

The course is designed for OS UNIX administrators who need to write scripts in shell environment.

What we teach you

The course participant will learn about the possibilities which are offered in shell. He will acquire the basic programming techniques and through practical examples he will learn to create useful scripts which make his or other users' work easier.

Required skills

Good knowledge of OS UNIX environment. Knowledge of basic users' commands. The knowledge of vi editor is essential.

Course outline

Introduction

Overview of basic UNIX shell constructions

UNIX architecture

Possibilities and support of scripting in Bourne shell, Korn shell and Bash

Processes control

Types of commands

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UNIX/Linux Shell Programming

Processes

Commands starting

Basics for scripts writing

Scripts starting

Comments

Code tuning

Echo command, print, formatting output using printf

Variables

User variables

Variable environment

Read command

Positional parameters

Special variables

Quoting

Metacharacters, differences in their use

Commands substitution

Eval command

Decision construction

Return codes

Command test and []

Command if

Command case

Special constructions

Cycles

Command expr

Command while

Command until

Command for

Parameters processing using getopt command

Working with descriptor files using exec

Functions

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Functions in shell
Parameters handing over
Return command

Working with signals

Asynchronous events
Signals generation
Signals processing using trap command

Enlargements available in ksh and bash

Select command
Arithmetic support
Working with field
[[]] command
Enlarged pattern-matching
Ksh and bash environment modification

Tools and external programs
Data mining from files
Combination of data content
Sorting out the file content
Editing using sed and awk
Regular expressions

Effective creation of scripts

Time command
Working with PATH variable
Absolute vs. relative paths
Shell built-in commands
Effective way of using the pipe

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