

# **Automation with Python**

Varighed: 4 Days Kursus Kode: GK2355 Leveringsmetode: Company event (Firmakursus)

### Beskrivelse:

The focus of this training is on automating IT operations with the Python programming language. This refers to writing simple scripts that perform tasks that were previously performed manually. The training focuses on the core of the python programming language, and goes towards practice as quickly as possible. There is hands-on implementation of real-world applications; however, the more abstract parts of the python programming language are not covered here.

The training fits in well with practice and specific questions can be sufficiently addressed during the training.

#### Firmakursus

Med et firmakursus bliver jeres it-kompetenceudvikling målrettet jeres behov. Det betyder, at vi hjælper med at finde og sammensætte det helt rigtige kursusindhold og den helt rigtige form. Kurset kan afvikles hos os eller kunden, standard eller virtuelt.

## Målgruppe:

The training is aimed at IT professionals who need to automate tasks that are normally performed manually. Think of system and network administrators.

## Agenda:

- After following this course, the student is able to automate the work through python scripting. Some possible examples:
- system administrators: automatic installation, set up and configuration of systems, monitoring and searching of log files, etc.
- network administrators: configure IP addresses and routing, interact with a REST API, monitor and search log files, etc.
- Using Python datatypes: string, int, float, boolean, list,dict.
- Using Python control structures: if, for, while
- Writing Python functions
- Handling of errors through exceptions
- Writing and Executing Python Scripts
- Using Python classes
- packages, dependencies and virtual environments
- Installing and using third-party packages using pip

- Opening, reading and editing files, both text and binary
- And in practice:
- Executing external (shell) commands from python
- Parse and search log files
- Text formats: CSV, XML, JSON
- Execution of unix shell commands
- Remote execution of commands over SSH
- Communication with REST APIs Regular Expressions
- Web interfaces with Flask
- Scheduling

### Indhold:

### Day 1: Python Introduction

- Using Python datatypes: string, int, float,
- Using Python control structures: for, while
- Opening, reading and editing files, both text and binary
- Writing and Executing Python Scripts
- Execution of unix shell commands

### Day 2: Python continued

- Using Python datatypes: boolean, list, dict
- Using Python control structures: if
- Writing Python functions
- Remote execution of commands over SSH
- Text formats: CSV, XML, JSON

### Day 3:

- Handling of errors through exceptions
- packages, dependencies and virtual environments
- Installing and using third-party packages using pip
- Web interfaces with Flask
- Scheduling

#### Day 4:

- Using Python classes
- Handling of errors through exceptions
- Communication with REST APIs
- Parse and search log files
- Regular expressions

## Additional Information:

The course participants must have their own laptop with the rights to install software on it. During the course we will at least use the following software:Python 3.xPycharm (JetBrains)

#### Flere Informationer:

For yderligere informationer eller booking af kursus, kontakt os på tlf.nr.: 44 88 18 00

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