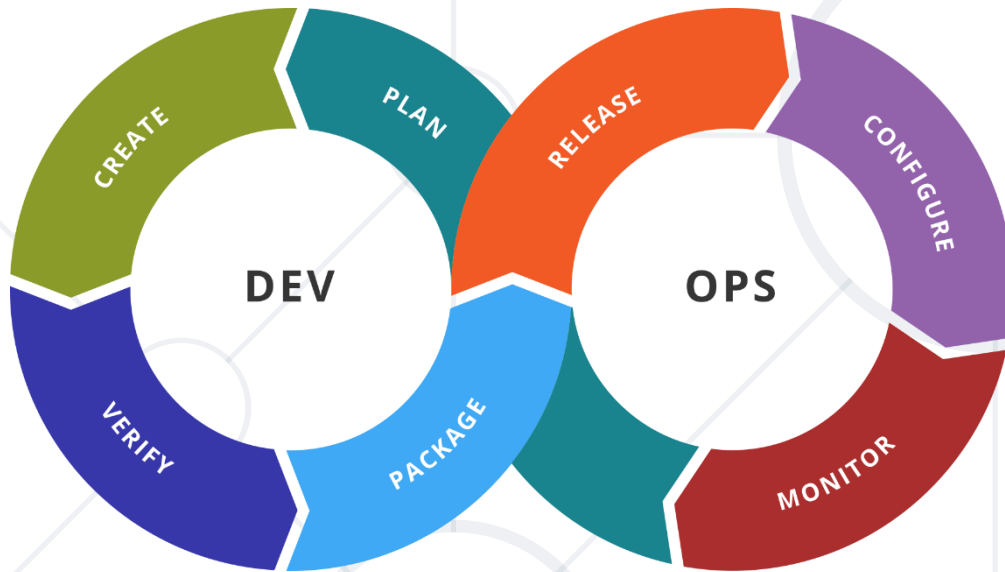


DevOps Infrastructure & Configuration Management

Course Introduction



SoftUni Team
Technical Trainers



SoftUni



Software University

<https://softuni.org>

Table of Contents

1. Course objectives, scope, and schedule
2. Infrastructure
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You Have Questions?

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#DevOps-23

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/DevOpsInfrastructureandConfigManagementApril2023

SoftUni Diamond Partners

SCHWARZ



Coca-Cola HBC
Bulgaria



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Решения за твоето утре



POKERSTARS



CAREERS



AMBITIONED

DXC
TECHNOLOGY



**SOFTWARE
GROUP**

Bosch.IO

INDEAVR
Serving the high achievers

 **DRAFT
KINGS**

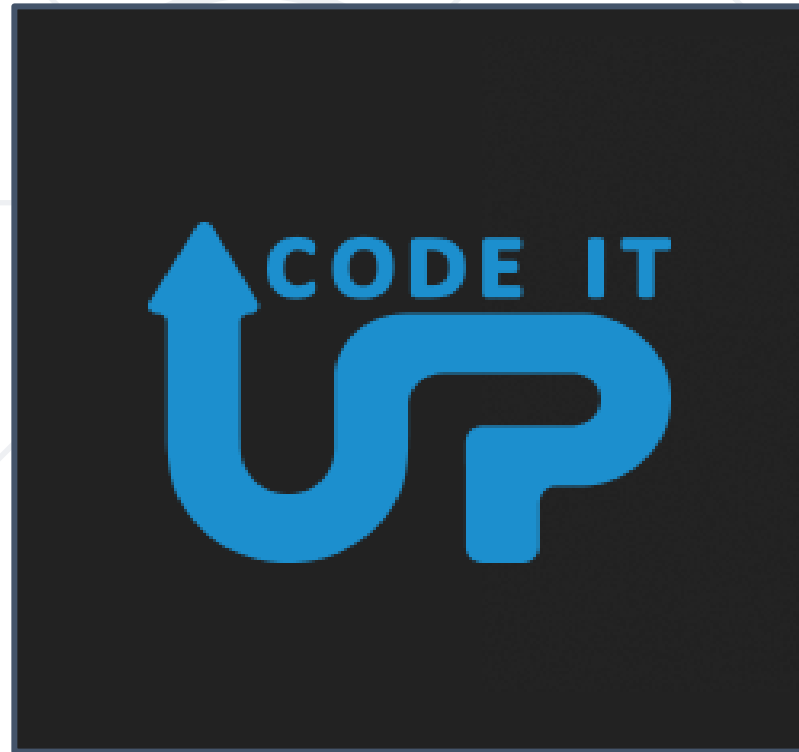
 **PHAR
VISION**



SmartIT

createX

**SUPER
HOSTING
.BG**

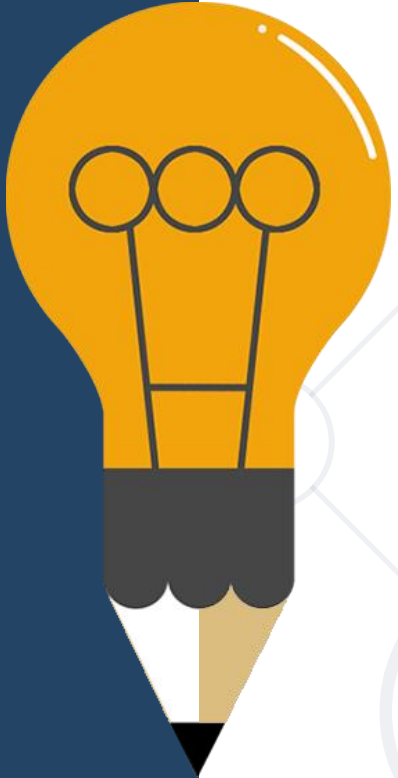




Course Scope and Objectives

Course Objectives

- Working with **Terraform**
- Working with **Ansible, Salt, Chef, and Puppet**
- Working with **Apache Kafka**
- Working with **RabbitMQ**
- Putting it altogether



Course Scope and Schedule (1)

■ Week #1

- Introduction to Terraform
- Installation and configuration of Terraform
- Working with Terraform

■ Week #2

- Introduction to Ansible
- Installation and configuration of Ansible
- Working with Ansible



Course Scope and Schedule (2)

■ Week #3

- Introduction to Salt
- Installation and configuration of Salt
- Working with Salt

■ Week #4

- Introduction to Chef
- Installation and configuration of Chef
- Working with Chef



Course Scope and Schedule (3)

■ Week #5

- Introduction to Puppet
- Installation and configuration of Puppet
- Working with Puppet

■ Week #6

- Introduction to Apache Kafka
- Installation and configuration of Apache Kafka
- Working with Apache Kafka



Course Scope and Schedule (4)

■ Week #7

- Introduction to RabbitMQ
- Installation and configuration of RabbitMQ
- Working with RabbitMQ

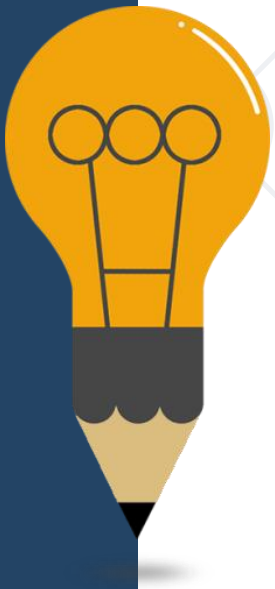
■ Week #8

- Course Overview
- Exam Preparation



Is This Enough?

- The short answer is **NO** (or *IT DEPENDS*)
- **Learning by doing** is the key
- Experiment with **different** scenarios
- Use **various ways** to manage the infrastructure
- Read a **book** or **two** (or even more) on the subject
- Attend **other courses** on the subject as well





Infrastructure Requirements and Landscape

Required Infrastructure*

- Processor that supports **VT-x** or **AMD-V**
- At least **8 GB of free RAM**. More is better
- At least **80 GB of free disk space**. More is better
- Computer running recent version of Windows, macOS or Linux
- Virtualization software (**VirtualBox**, VMware ..., Hyper-V)
- Any cloud platform (offering IaaS) will do the job as well

Best option is an **Intel** compatible PC with **VirtualBox** installed

- Basic knowledge about virtualization
- Basic Linux administration skills
- Basic networking skills
- Basic scripting skills



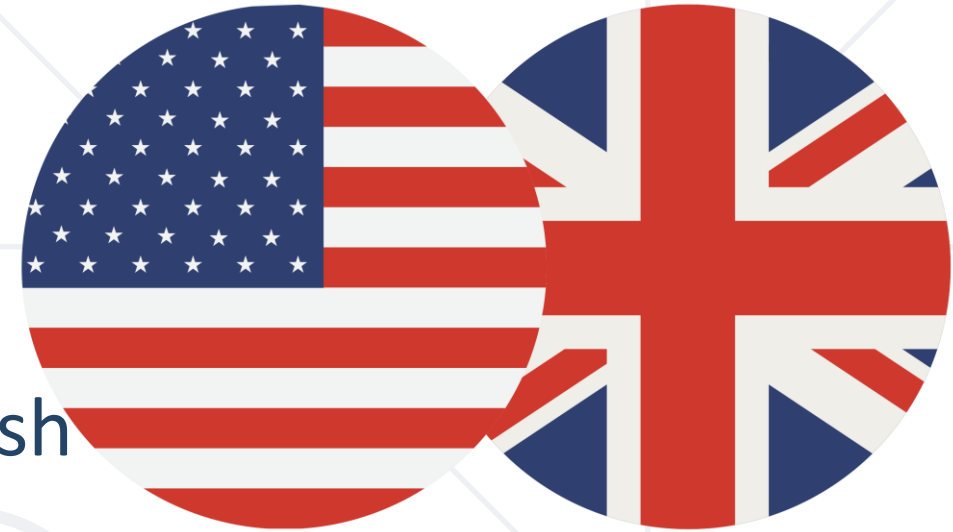
More Details
Duration, Languages, Technologies

- Lectures: ~ 12 hours (online)
- Practical exercises (in class): ~ 12 hours
- Homework: ~ 12 hours
- Schedule: April 2023 – June 2023
 - Every Monday* between 18:30 and 22:00
- Regular Exam: 04 June 2023
- Retake Exam: 11 June 2023



18:30 – 19:30 Part 1
19:30 – 19:45 Break 1
19:45 – 20:45 Part 2
20:45 – 21:00 Break 2
21:00 – 22:00 Part 3

- Why are the slides in English?
 - English is the native language of the IT people
 - Specific terminology should be in English
 - Translations are inaccurate and funny
- Just learn English!
 - No excuses





Course Evaluation

Exam and Evaluation Criteria

Scoring for DevOps Fundamentals



- Create and configure the required infrastructure
- Deploy and configure the necessary tools and components
- Fulfill the requirements in the most automated way possible
- Additional tasks as per the exam requirements
- Prove the solution is working as per the requirements

30

minutes

20

single-choice
questions

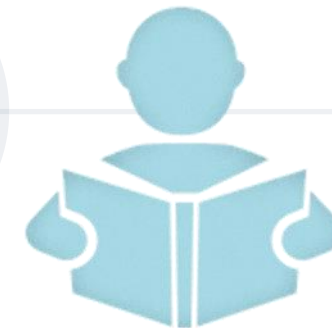
10

multi-choice
questions

- **Every week** there will be a homework (almost)
- You must submit the solution **within 10 days**
- **7 assignments** worth **1,43 points** each
- **10 bonus points** in total

- Just watch the lecture, do not try to follow
- Repeat practice at home, at your own peace
- Extend the practice with additional tasks
- Do your homework
- If this is not enough, ask for more

- The course assignments require to **search in Internet**
 - This is an important part of the learning process
 - Some exercises intentionally have no hints
- Learn to find solutions!
 - Software development includes **everyday searching and learning**
 - No excuses, just **learn to study!**
 - Developers learn new technologies, tools, languages every day!





About Me

Just a Few Words



- During office hours work as Consultant
- Passionate about technology and teaching
- Other side activities:
 - Technical Trainer
 - openSUSE Advocate
 - VMUG Bulgaria Leader



About You

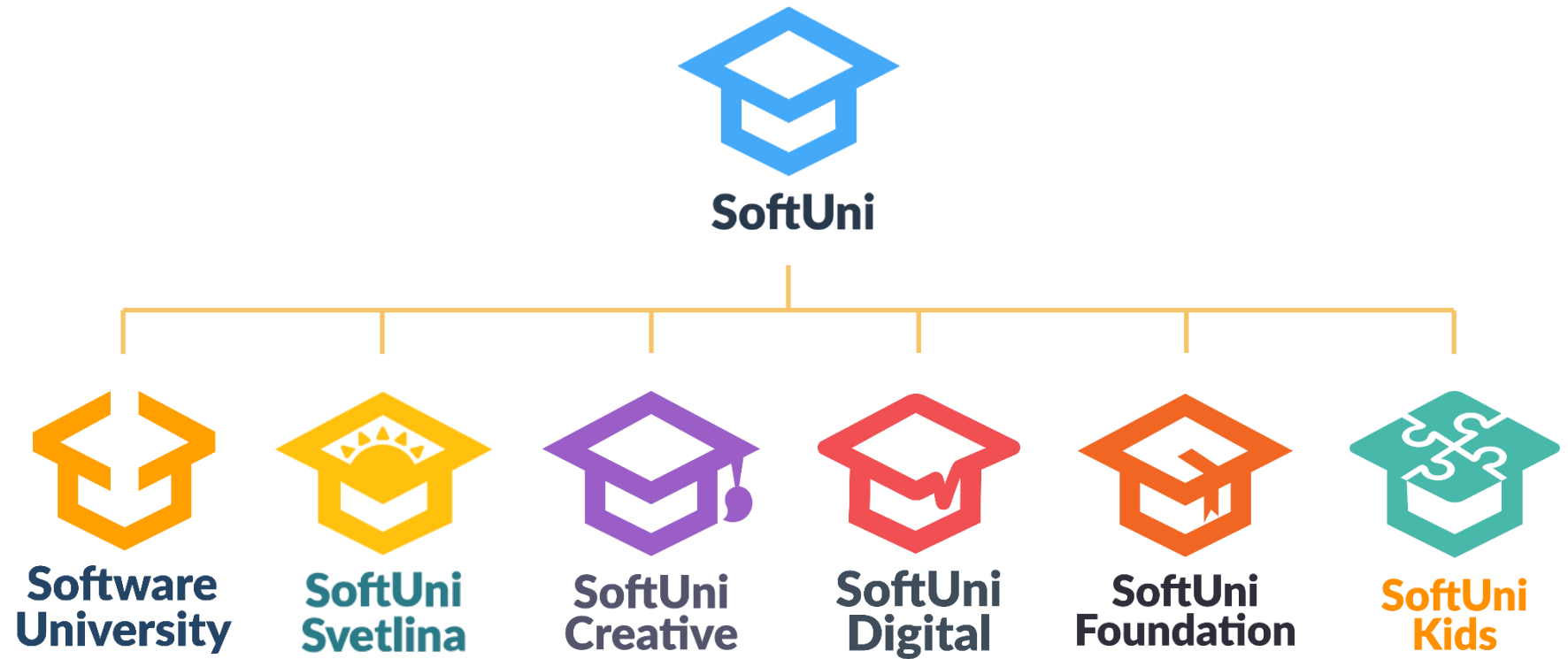
Just a Short Form

- Go here:
 - <https://zahariev.pro/go/do2-form>
- Write down a few words about you
- Share your expectations/suggestions

We are ready to move **forward**.



Questions?



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