

# Microservices Architect

Microservices are a method of developing software applications which are made up of independently deployable, modular services. Each microservice runs a unique process and communicates through a well-defined, lightweight mechanism, such as a container, to serve a business goal. In this course you will learn in detail the software architecture patterns and techniques to develop robust and scalable microservices.

## You Must Know!

### Duration:

40 Hours

### Who should attend?

Anyone who wants to learn about microservices and gain in-depth technical knowledge on how to design, structure and develop microservice based systems. Software developers who want to develop microservices or want to improve their skills in designing microservices.

### Prerequisites:

Basic software development knowledge

### Main Topics:

- Evolution of Microservices
- Microservices Architecture
- Microservices Design
- Microservices Security
- Microservices Testing
- Microservices Reference Architecture

## Course modules

### Module 1 – Evolution of Microservices

- Monolithic Architecture
- Distributed Architecture
- Service oriented Architecture
- Microservice and API Ecosystem
- Microservices in nutshell
- Point of considerations
- SOA vs. Microservice
- Microservice & API

### Module 2 – Microservices Architecture

- REST Architecture principles
- Microservice Characteristics
- Inter-Process Communications
- Microservice Transaction Management

### Module 3 – Microservices Design

- Domain Driven Design
- Big Mud Ball to Sweet Gems
- Untangling the Ball of MUD
- Kill the MUD Ball growth
- Repackaging/Refactoring
- Decouple the User interface and Backend Business Logic
- MUD Ball to Services
- Microservice Design Patterns
- Microservice Architecture Decisions

### Module 4 – Microservices Security

- Why is Security important ?
- Microservice Security Principles

המכללה שומרת לעצמה את הזכות לערוך מעת לעת, לפי שיקול דעתה, שינויים בתכנית הלימודים, היקף שעות הלימוד, סגל המדריכים וכד', ולא יראו בכל מידע המפורט בדפי מידע של המכללה כהתחייבות כלשהי מצד המכללה.

- Microservice Security techniques
- Access Tokens
- OAuth 2.0
- How to secure a Microservice using OAuth 2.0

## Module 5 – Microservices Testing

- Testing scenarios and strategy
- Test at Different Levels
- Testing Best Practice for Microservices

## Module 6 – Microservices Reference Architecture

- Reference Architecture
- Microservice Enablerc
- Microservices @ Netflix



המרכז הבינלאומי  
ללימודי הייטק וחדשנות

\* 6377

מתקדמים  
לקריירה בהייטק



Microsoft Partner  
Gold Learning



### קמפוסים בפריסה ארצית:

באר שבע

רחוב האנגריה 77  
פארק ההייטק

ירושלים

רחוב יפו 34

רחובות

רחוב אופנהיימר 5  
פארק המדע

תל אביב

ראול ולנברג 36  
קריית עתידים