

CI/CD with GitHub Actions

Automation is key for streamlining your development work processes. GitHub Actions recently became a great platform for development automation! It enables you to create custom Continuous Integration and Continuous Delivery software workflows directly from your code repository. It is easy to use, built-in and fully integrated into the well known GitHub website. This course will teach you how to use GitHub Actions to automation your development process, you will understand CI/CD concepts and learn the best practices for software delivery in a modern world.

You Must Know!

Duration:

40 Hours

Who should attend?

Developers, System Administrators, DBAs, Managers

Prerequisites

- General concepts of software development operations (build, deploy, code repository, release) ○
- Basic Python or another equivalent language. ○
- Familiarity with Linux commands ○
- Familiarity with virtualization (Virtual Machine in the cloud, Docker) ○

Main Topics:

- What is CI/CD? ○
- GitHub Actions workflows ○
- Build, Test & Deploy practice ○
- GitHub Integration ○
- Advanced Topics ○

Course modules

Module 1 – Introduction

- What are GitHub Actions? ○
- Intro to CI/CD use cases ○
- Git introduction ○

Module 2 – Getting Started

- Setting up a GitHub repository ○
- Workflows syntax, commands, essential features ○
- Workflows management ○
- Create your first workflow ○

Module 3 – Continuous Integration

- Testing pipeline (functional test, unittest) ○
- Workflows advanced topics - expressions, contexts, environment variables ○
- Trigger workflows by events ○

Module 4 – Continuous Integration II

- Build pipeline ○
- Build you app using Docker ○
- Manage Docker Container Registry ○

Module 5 – Continuous Delivery

- Deployment workflow ○
- Deploy to cloud providers ○
- Deploy to other environments (Kubernetes etc.) ○

Lab – Build and Deploy with GitHub Actions

Module 6 - Advanced Topics

- Manage issues and Pull Requests ○
 - Workflow security ○
 - Workflow scheduling ○
- Store your workflow artifacts ○
- Cache dependencies (if time allows) ○
- Manage your own runners (if time allows) ○

Lab - Building a Demo Project



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