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 o
 - Familiarity with virtualization (Virtual Machine in the cloud, Docker)

Main Topics:

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



Course modules

Module 1 - Introduction

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

Module 2 - Getting Started

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

Module 3 - Continuous Integration

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

Module 4 - Continuous Integration II

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

Module 5 - Continuous Delivery

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

Lab - Build and Deploy with GitHub Actions



Module 6 - Advanced Topics

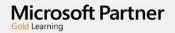
- Manage issues and Pull Requests o
 - Workflow security o
 - Workflow scheduling o
 - Store your workflow artifacts o
- Cache dependencies (if time allows) o
- Manage your own runners (if time allows) o

<u>Lab - Building a Demo Project</u>



אתקדמים 6377 לקריירה בהייטק























קמפוסים בפריסה ארצית:

באר שבע	ירושלים	רחובות	תל אביב
רחוב האנרגיה 77	רחוב יפו 34	רחוב אופנהיימר 5	ראול ולנברג 36
פארק ההייטק		פארק המדע	קריית עתידים