Azure DevOps

Introduction

DevOps is a journey not a destination. Our goal when writing this challenged based hack is to introduce you to the Azure DevOps tooling and some common DevOps practices. We also understand that your choice of programming language and DevOps processes might differ from the ones we will be using in this hack, that is OK. Our intent was to select some of the most common programming languages and highlight industry best practices, with an emphasis on showing how Azure DevOps can help you on your DevOps journey, so that you can apply this in your environment with the languages and tools that you use.

Duration

3 days

Learning Objectives

This hack will help you learn:

1. How to use Azure DevOps Repos to manage source control
2. How to use Azure DevOps Boards for Project Management
3. How to use Azure DevOps Pipelines for CI & CD
4. Monitoring apps with Application Insights

Challenges

- Challenge 00: Setup
    - Prepare your workstation to be a devops master!
- Challenge 01: Azure DevOps: Introduction
    - Learn motivations for DevOps & assess yourself
- Challenge 02: Azure Boards: Agile Project Management
    - Learn how to work with Azure Boards
- Challenge 03: Azure Repos: Introduction
    - Setup an Azure Repo and learn how to integrate it with Azure Board task items

- Challenge 04: Azure Pipelines: Infrastructure as Code
  - Deploy an ARM template via an Azure Pipelines job
- Challenge 05: Azure Pipelines: Continuous Integration
  - Learn how to automate a build process for a sample app
- Challenge 06: Azure Pipelines: Continuous Delivery
  - Automate the deployment of an application into Azure
- Challenge 07: Azure Repos: Branching & Policies
  - Learn about Git branching and configure policies to ensure developers follow the rules
- Challenge 08: Azure Monitoring: Application Insights
  - Configure Application Insights to create work items in Azure Boards
- Challenge 09: Azure Pipelines: OSS Scanning with WhiteSource Bolt
  - Get a taste of DevSecOps by configuring a code scanning tool in your CI Pipeline

Prerequisites

- [Visual Studio Code](#)
- [Git SCM](#)