

Updated on 11/10/2024

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# Azure Devops Services training

3 days (21 hours)

## Presentation

Azure DevOps Services is a Microsoft platform designed to replace [Visual Studio Team Services](#) (VSTS). This platform is a Cloud version hosted in a Microsoft Azure data center.

[Azure DevOps Services](#) helps manage and streamline the development and delivery of complex software projects. It gives you rapid configuration, maintenance-free operations, easy collaboration between domains, elastic scaling and robust security.

Our Azure DevOps Services training course will teach you how to master typical Azure DevOps tasks and manage your developments using Git and the TFVC version controller. You'll be able to explore automated builds and automated deployment. You'll be able to effectively lead your projects with Scrum and Kanban to ensure the quality of your deliverables.

At the end of this training course, you'll be able to develop and deliver high-performance, functional software.

## Objectives

- Build and deploy applications with Azure DevOps services
- Master all Azure DevOps services (Artifacts, Pipelines, Boards, Test Plans)
- Integrate a test campaign
- Create delivery pipelines
- Project and user administration

## Target audience

- Developers
- Architects
- Testers
- Project managers

## Prerequisites

- Basic knowledge of Azure DevOps
- .NET experience

## Software requirements

- Have an Azure account as an administrator with an Azure DevOps organization
- Declare [private use of Azure pipelines](#)

## Azure DevOps Services training program

### Introduction to Azure DevOps Services

- What is Azure DevOps?
- Software factory components
- Difference between Azure DevOps Services/Server
- Integration with Visual Studio

### Azure DevOps

- Connecting Azure DevOps to Azure Active Directory
- Adding a guest user to an Azure DevOps project
- Managing and allocating user licenses
- Pricing
- Permission management

### Creating an ADS project

- Project structure
- Administration tools
- User types
- Continuous integration services
- Continuous delivery CI/CD
- Security and Azure Active Directory
- Add users using Microsoft accounts

- Account types, features and billing
- Azure DevOps Services with Docker

## Azure Repos: Source code management

- Git and Team Foundation Version Control
- Git and Azure Devops
- Create a project and initialize the repository
- Connecting Visual Studio to a Git repository in Azure Devops
- Azure Repos web interface
- Share changes with the server
- Connect and merge

## Azure DevOps and build pipelines

- Create a build definition
- Build variables and extensions
- Triggers and continuous integration
- Creating a version definition
- Deploy database changes with EF Migration
- Build and Release metadata variable
- Multi-stage deployment and environments
- Installation of a self-hosted Pipeline agent in the data center

## Azure Boards

- Keeping track of work with tables
- Kanban boards
- Scrum & Agile
- Dashboards
- Backlogs
- Workflow
- Customized reports

## Azure Artifacts

- Sharing packages
  - Maven
  - npm
  - NuGet
- Public/private sources
- Integrating package sharing into pipelines

## Azure Test Plans: Exploratory testing

- Introduction
- Test and Feedback browser extension
- Create tests in 4 different ways
- Running test scenarios
- Testing with Visual Studio
- HMI testing
- Testing web and desktop applications
- Screenshots during test execution
- Creating a video recording

## Migrating projects to Azure DevOps

- Options for migrating to Azure DevOps
- Migrating GitHub to Azure DevOps
- Migrating from Git to Azure DevOps
- TFVC to Git migration
- Migrating from TFVC to TFVC on Azure DevOps

## Companies concerned

This course is aimed at both individuals and companies, large or small, wishing to train their teams in a new advanced computer technology, or to acquire specific business knowledge or modern methods.

## Positioning on entry to training

Positioning at the start of training complies with Qualiopi quality criteria. As soon as registration is finalized, the learner receives a self-assessment questionnaire which enables us to assess his or her estimated level of proficiency in different types of technology, as well as his or her expectations and personal objectives for the training to come, within the limits imposed by the selected format. This questionnaire also enables us to anticipate any connection or security difficulties within the company (intra-company or virtual classroom) which could be problematic for the follow-up and smooth running of the training session.

## Teaching methods

Practical course: 60% Practical, 40% Theory. Training material distributed in digital format to all participants.

## Organization

The course alternates theoretical input from the trainer, supported by examples, with brainstorming sessions and group work.

## Validation

At the end of the session, a multiple-choice questionnaire is used to check correct acquisition.

skills.

## Sanction

A certificate will be issued to each trainee who completes the course.