Introducing GIT

Course Details

Days	1.00
Course Code	QADEVOPSGIT

Overview

GIT is a DevOps tool used for source code management. It is a free and open-source version control system used to handle small to very large projects efficiently. GIT is used to tracking changes in the source code, enabling multiple developers to work together on non-linear development.

GIT allows distributed, serverless, version control management of software and document management. This workshop-based course provides hands on exposure to GIT on the command line, through GUIs and onto servers such as GITHub. You will learn how GIT works, explore strategies to work with it effectively.

The course is delivered as a mixture of discussions, demos and hands on exercises. Practical sessions follow the main topics, designed to reinforce the points covered. Additional information is provided in appendices to extend the learning experience after the course has been completed.

Prerequisites

Learners should be comfortable with the concepts of software development, file systems and the command line. No specific programming skills are required.

Learners will need an email address they are willing to use as part of this course to build and work with GIT and GITHub.

Please note: Before attending this class delegates must have a Microsoft account (signing up one is free). The instructions on how to set up a Microsoft account can be found here.

Course Outline

Git Basics

- Installing GIT
- Working with the BASH
- Using the GUI
- Understanding the Architecture of a GIT application

Git Repos

- Creating repositories
- Staged and unstaged resources
- Working with the GIT commit lifecycle
- Understanding when to commit

Git Updates and Tracking

- Extending the git lifecycle to manage change
- Understanding and working with hunks
- Using GIT diff and dry run to commit with confidence
- Working with GITK

Branching

- Working with the Master branch and the HEAD
- Working with the commit history

- Checking out branches
- Building and maintaining new branches
- Merging branches
- Exploring branch management strategy
- Stashing incomplete commits

Cloning and Remotes

- Cloning repositories
- Working with remotes
- Using GIThub
- Pulling and pushing repositories
- Managing out of sink branches
- GIT in task run solutions

Related Learning

- QADEVSECOPS - DevSecOps
- QADEVOPSINT - Introducing DevOps
- QAHOGL - Hands-On Gitlab
- QADEVOPRAC2 - DevOps Practitioner