**Azure DevOps**

Azure DevOps is a Software as a service (SaaS) platform from Microsoft that provides an end-to-end DevOps toolchain for developing and deploying software.  It also integrates with most leading tools on the market and is a great option for orchestrating a DevOps toolchain.  At DevOpsGroup, we have lots of customers who have found Azure DevOps fits their needs irrespective of their language, platform or cloud.

## **What can Azure DevOps do?**

* Azure Boards: agile planning, work item tracking, visualisation and reporting tool.
* Azure Pipelines: a language, platform and cloud agnostic CI/CD platform with support for containers or Kubernetes.
* Azure Repos: provides cloud-hosted private git repos.
* Azure Artifacts: provides integrated package management with support for Maven, npm, Python and NuGet package feeds from public or private sources.
* Azure Test Plans: provides an integrated planned and exploratory testing solution.

**Version control with Git in Azure DevOps**

We will be working with Git and Azure DevOps to setup a repository which we use for source control. Source control, also known as version control, has many benefits, each of these benefits come together to create a feedback loop to a team working on the code under version control. These benefits include:

* Collaboration - teams can work concurrently, even on the same sections of code, which are merged together.
* Workflows - teams check the quality of each others code, ensuring compliance with coding standards.
* Versioning - source code can be tagged so that released versions of code can be referred back to,
* History - a full history of the code repository is maintained and linked to a users credentials. If changes are well commented, this can assist in issue resolution.
* Automation - actions within a version control system, such as checking in a code change, can be set to trigger other operatons, such as compilation and testing.

**In version control it has two type of version control**

1. **Git version**
2. **Teams foundation version control**

* In the Git version it has two types Descriptive and centralized and the descriptive can do the locally and it doesn’t have the server to commit the code but push we need to commit the code.
* In the centralized version control its need to connect with the server without the server it can’t be works most of the company used the git version to perform.