**Sunkari Manohar**

**Assessment 1 – 08/01/2024**

**Azure Devops**

**Devops: Development (Dev) + Ops (operations)**

DevOps is a set of practices that combines software development (Dev) and IT operations (Ops). It aims to shorten the systems development life cycle and provide continuous delivery with high software quality.

**Azure Devops:** Microsoft offers a full set of development tools called Azure DevOps, which is a component of the Microsoft Azure cloud platform. The software development lifecycle is supported by a variety of services that enable teams to plan, work together on code development, build and test applications, and deploy them effectively.

* Azure DevOps provides services like:

1. Azure Boards
2. Azure Pipelines
3. Azure Repos
4. Azure Test Plans
5. Azure Artifacts

**Azure Boards:**

Azure Boards is a web-based service that enables teams to plan, track, and discuss work across the entire development process, while it supports agile methodologies, including [Scrum and Kanban](https://learn.microsoft.com/en-us/azure/devops/boards/get-started/what-is-azure-boards?view=azure-devops#implement-agile-scrum-and-kanban-processes). Azure Boards provides a customizable platform for managing work items, allowing teams to [collaborate](https://learn.microsoft.com/en-us/azure/devops/cross-service/cross-service-overview?view=azure-devops) effectively and streamline their workflow.

**Azure Pipelines:**

Azure Pipelines automatically builds and tests code projects. It supports all major languages and project types and combines [continuous integration](https://learn.microsoft.com/en-us/azure/devops/pipelines/get-started/what-is-azure-pipelines?view=azure-devops#continuous-integration), [continuous delivery](https://learn.microsoft.com/en-us/azure/devops/pipelines/get-started/what-is-azure-pipelines?view=azure-devops#continuous-delivery), and [continuous testing](https://learn.microsoft.com/en-us/azure/devops/pipelines/get-started/what-is-azure-pipelines?view=azure-devops#continuous-testing) to build, test, and deliver your code to any destination.

**Azure Repos:**

It's a Git repository hosting service that supports both centralized version control with Team Foundation Version Control (TFVC) and distributed version control with Git. Developers can store, manage, and collaborate on their codebase securely.

**Azure Test Plans:**

Azure Test Plans provides rich and powerful tools everyone in the team can use to drive quality and collaboration throughout the development process. The easy-to-use, browser-based test management solution provides all the capabilities required for planned manual testing, user acceptance testing, exploratory testing, and gathering feedback from stakeholders.

**Azure Artifacts:**

Azure Artifacts allow developers to publish and consume various types of packages from feeds and public registries like PyPI, Maven Central, and NuGet.org. You can combine Azure Artifacts with Azure Pipelines to publish build and pipeline artifacts, deploy packages, or integrate files across different stages of your pipeline for building, testing, or deploying your application.