

.NET Core Microservices – True Ultimate Guide

Section 14 – Azure DevOps (CI/CD Pipelines) – Cheat Sheet

Introduction to Azure DevOps

Azure DevOps is a set of tools from Microsoft that helps teams to plan, develop, test, and deploy software efficiently.

It integrates with various development practices and supports automation, collaboration, and tracking throughout the software lifecycle.



Azure DevOps Services



Azure Boards

Plan, track and discuss work across teams



Azure Repos

Unlimited cloud-hosted private Git repos. Collaborative pull requests, advanced file management and more.



Azure Pipelines

CI/CD that works with any language, platform or cloud. Connect to Github or any Git provider and deploy continuously to any cloud.



Azure Test Plans

The test management and exploratory testing toolkit lets you ship with confidence.



Azure Artifacts

Create, host and share packages. Easily add artifacts to CI/CD pipelines.

Azure Boards

The screenshot shows an Azure Boards backlog view. At the top, there are tabs for 'Board', 'Analytics', and 'View as backlog'. The 'Backlog items' dropdown is set to 'Backlog items'. The board is organized into columns: 'New', 'Design' (5/10), 'Develop & Test' (4/15), and 'Done'. The 'Design' column is expanded to show a list of tasks. Each task card includes a title, a status (e.g., 'Unassigned'), a priority, an effort, and an area path. The tasks are as follows:

Task ID	Task Description	Status	Priority	Effort	Area Path
86	Provide related items or frequently bought together section when people browse or search	Unassigned	2	0	Part Unlimited
87	As tester, I need to test the website on all the relevant browsers and devices and be sure that it can handle our load.	Unassigned	2	8	Part Unlimited
88	As a customer, I should be able to put items to shopping cart	Unassigned	2	8	Part Unlimited
89	As a customer, I should be able to print my...	Unassigned	2	8	Part Unlimited
205	Decline in orders noticed - Please Investigate immediately	Unassigned	3 - Medium	0	Part Unlimited
100	Notify the user about any changes made to the order	Unassigned	2	10	Part Unlimited
101	As an admin, I should be able to update prices on ad-hoc condition	Unassigned	2	6	Part Unlimited
96	As a customer, I would like to store my credit card details securely	Unassigned	2	0	Part Unlimited
97	As a customer, I should be able to select different shipping option	Unassigned	1	2	Part Unlimited
94	Provide customers the ability to track status of the package	Unassigned	2	2	Part Unlimited
95	As a customer, I would like to have the ability to send my items as gift	Unassigned	2	5	Part Unlimited

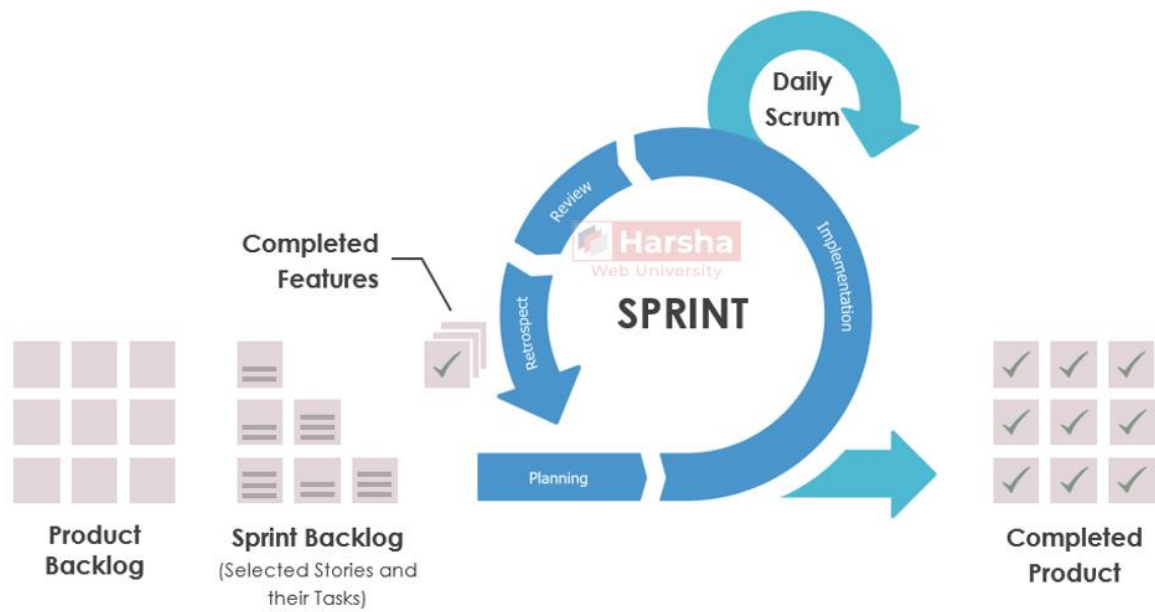
Epic

Feature

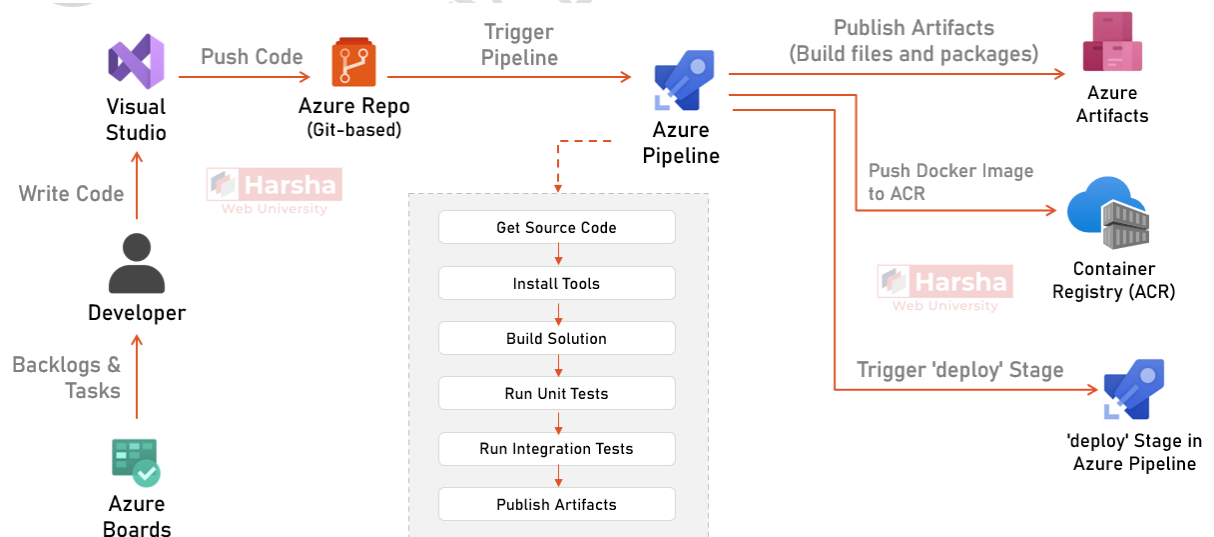
Product Backlog Item (PBI)

Task

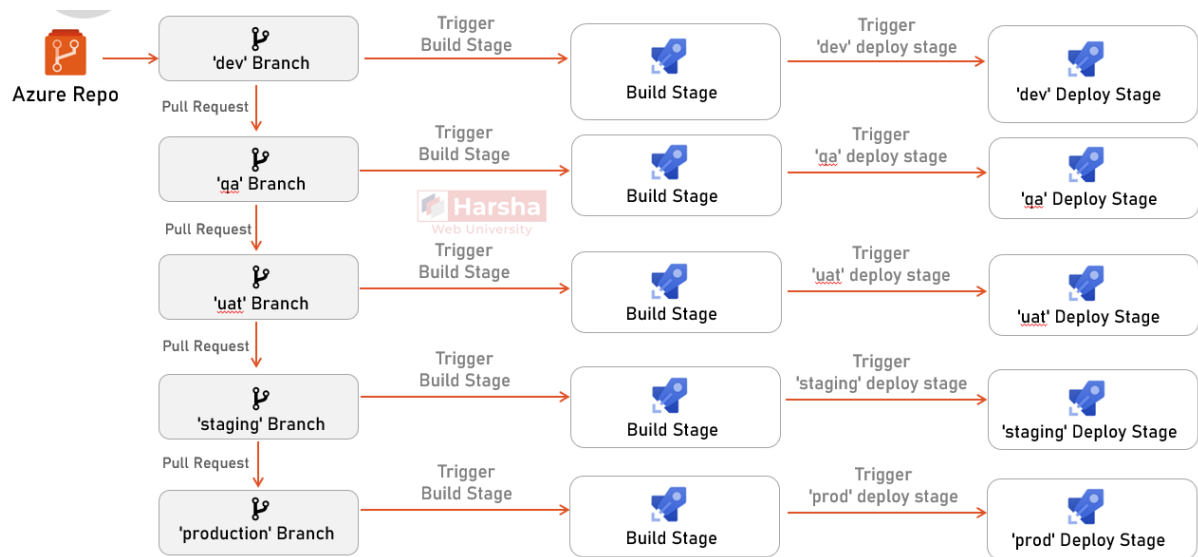
Scrum - Sprints



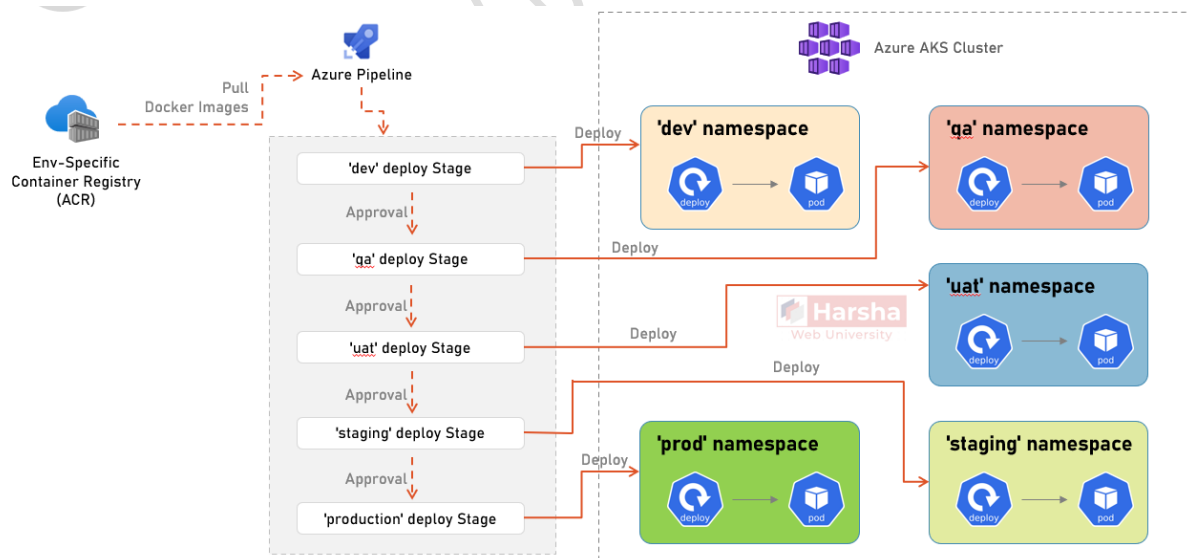
Azure DevOps Workflow - CI



Env-specific pipeline stages



Azure DevOps Workflow - CD

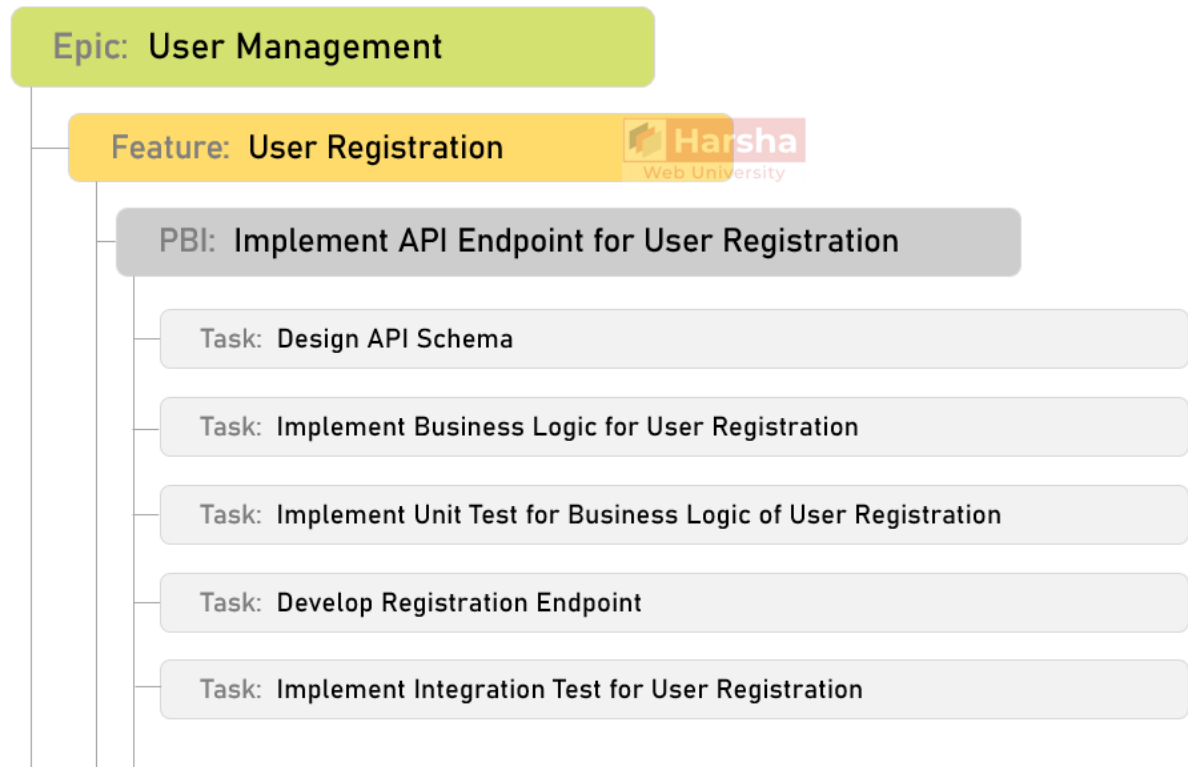


Azure DevOps - Project

An Azure DevOps project is a container for managing your software development lifecycle, including planning, coding, building, testing, and deploying applications.

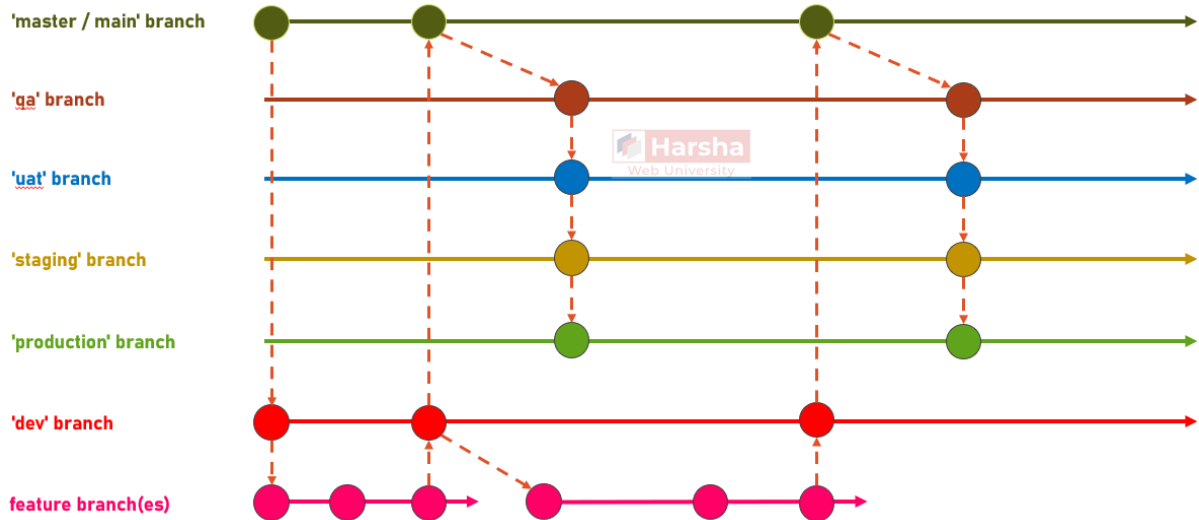
It provides tools for version control, work item tracking, and continuous integration/continuous deployment (CI/CD).

Azure Boards



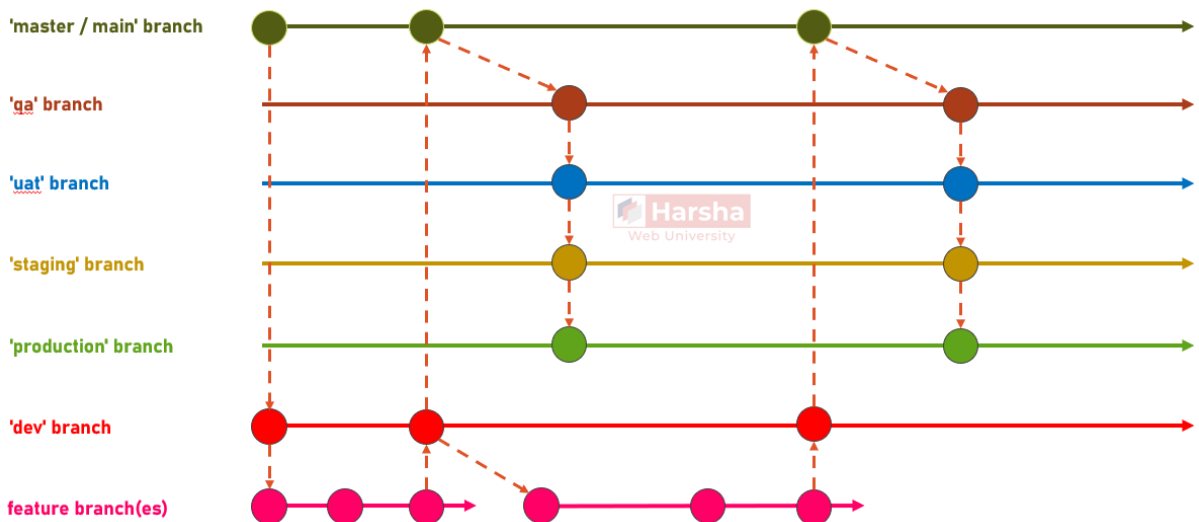
Azure Repos

Azure Repos - Branches

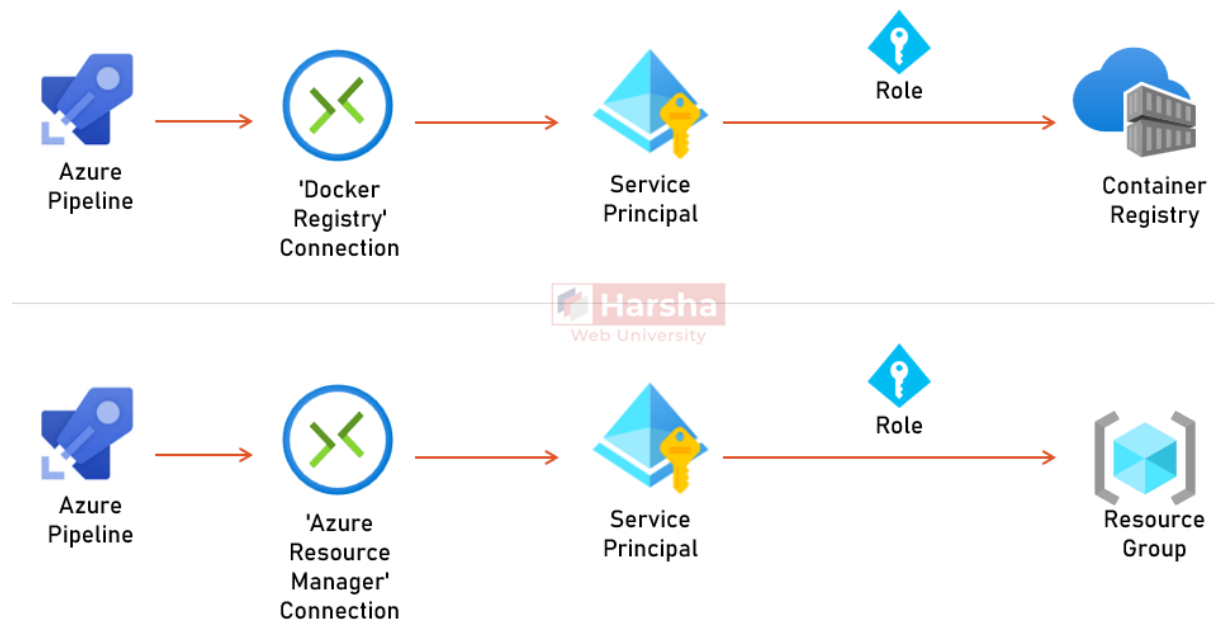


Azure Repos - Branches and Pull Requests

Azure Repos - Branches



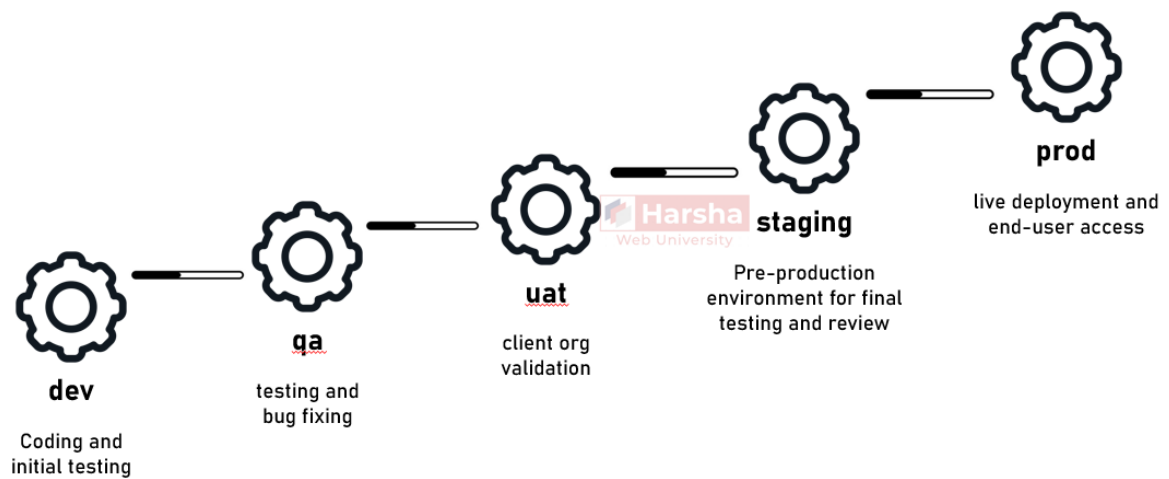
Azure DevOps - Service Connections



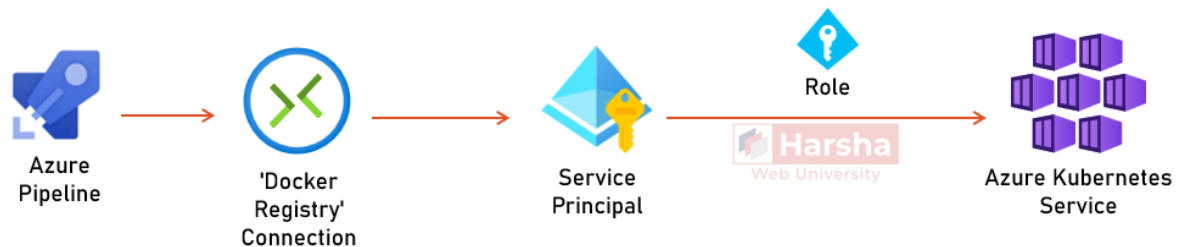
Azure DevOps - Tests in Pipeline



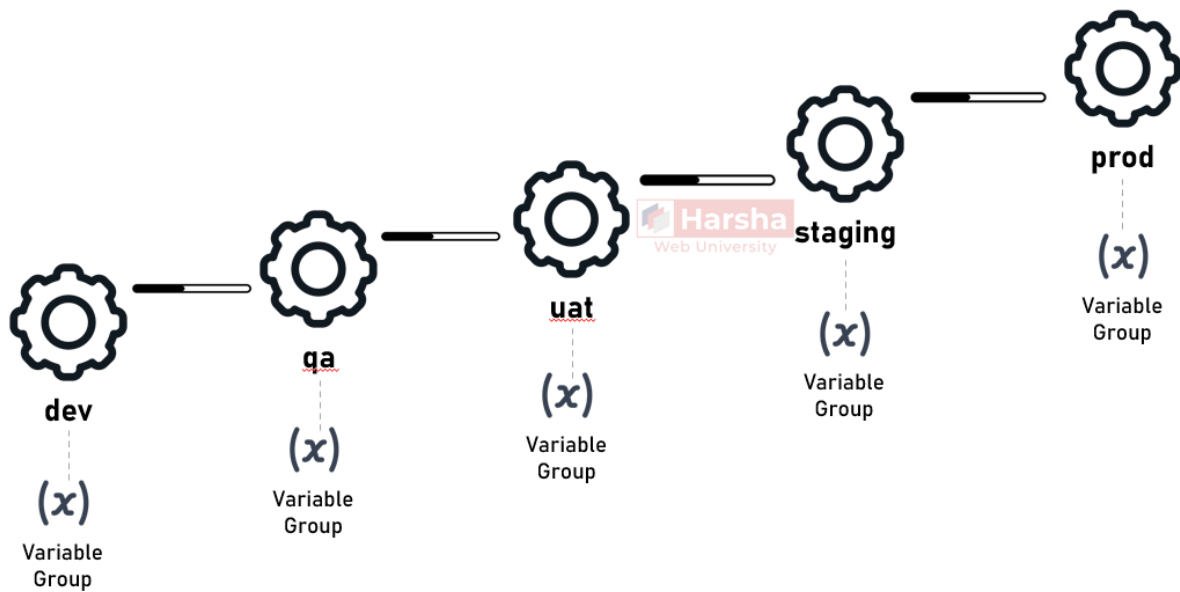
Azure DevOps - Environments



Azure DevOps - Service Connections



Azure DevOps - Variable Groups



Azure - KeyVault

Azure Key Vault is a cloud service for securely storing and managing sensitive information like secrets, keys, and certificates.

It provides centralized access control, encryption, and auditing, ensuring that critical data is protected and only accessible by authorized applications and users.

