**Azure Devops:**

**Azure boards: PLAN**

can create tickets ,tasks features based on scrum/ Agile methodology

**Azure repos:** **CODE**

Host the code.similar to github..etc.and also collaborate(branches/PR) on code.

**Git workflows:**

Centralised

Feature branching

Trunk-based

GitFlow



Plan-🡪Code🡪Test🡪Package🡪Deploy

Azure Pipelines: **TEST & PACKAGE (CI)**

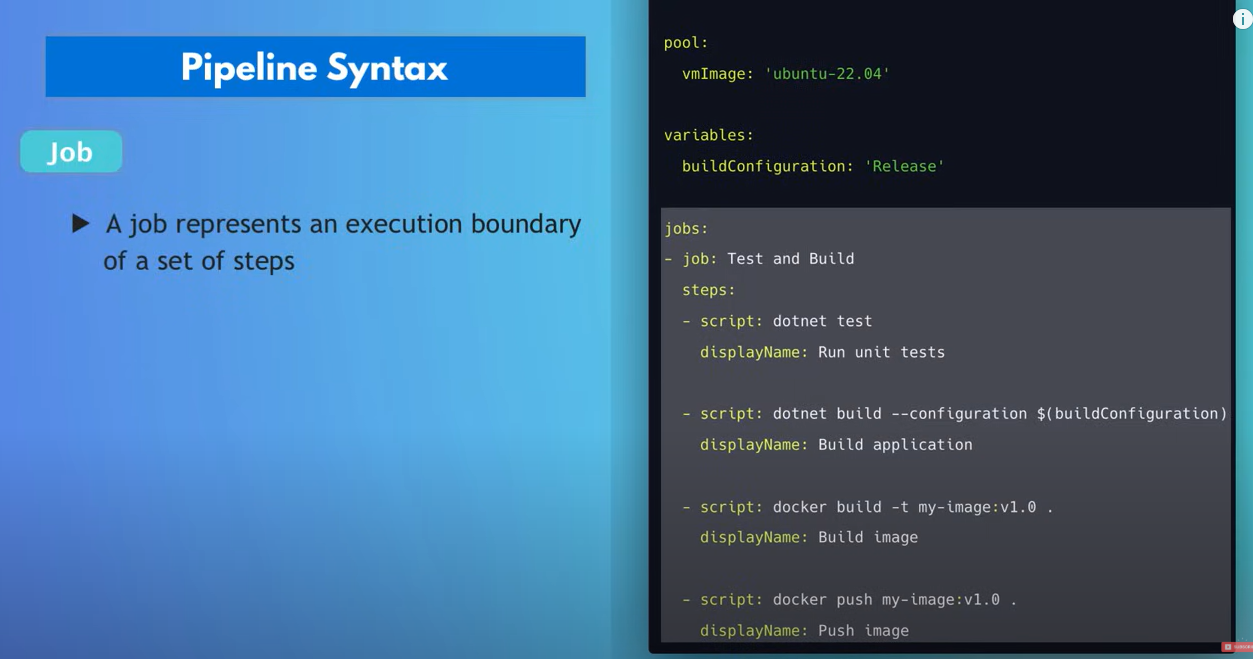
**Syntax:**

A screenshot of a computer

Description automatically generated

**Single Job:**

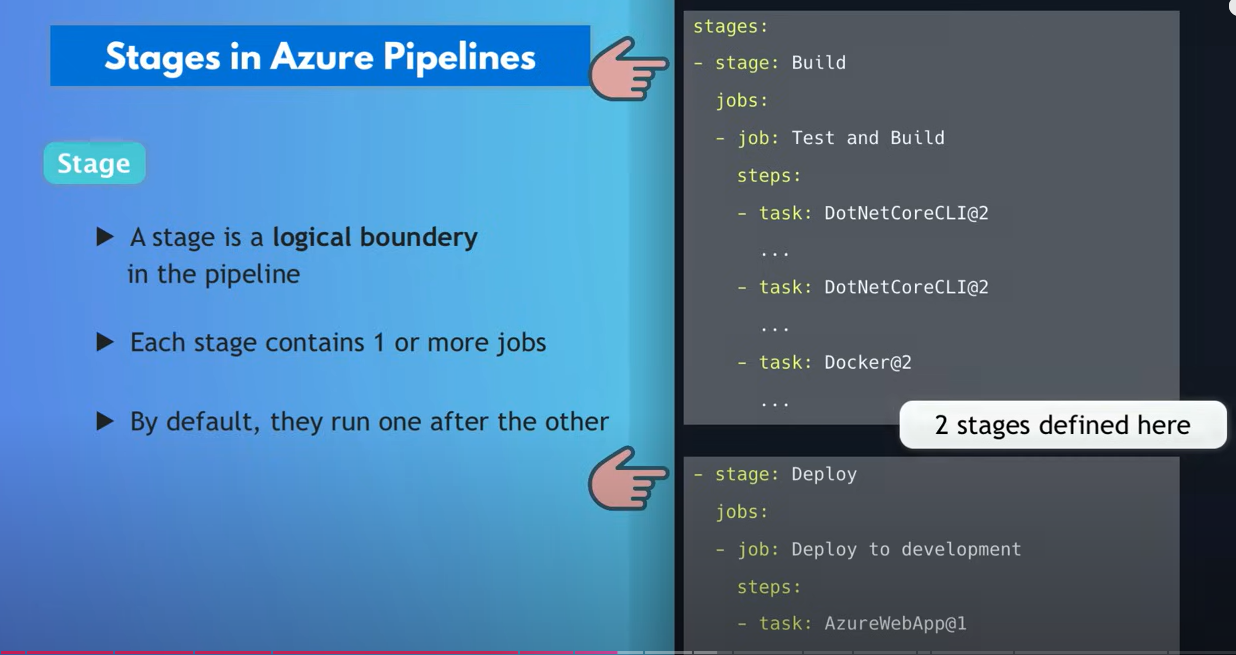
We don’t need to explicitly mention a job param if there is only a single job**.**

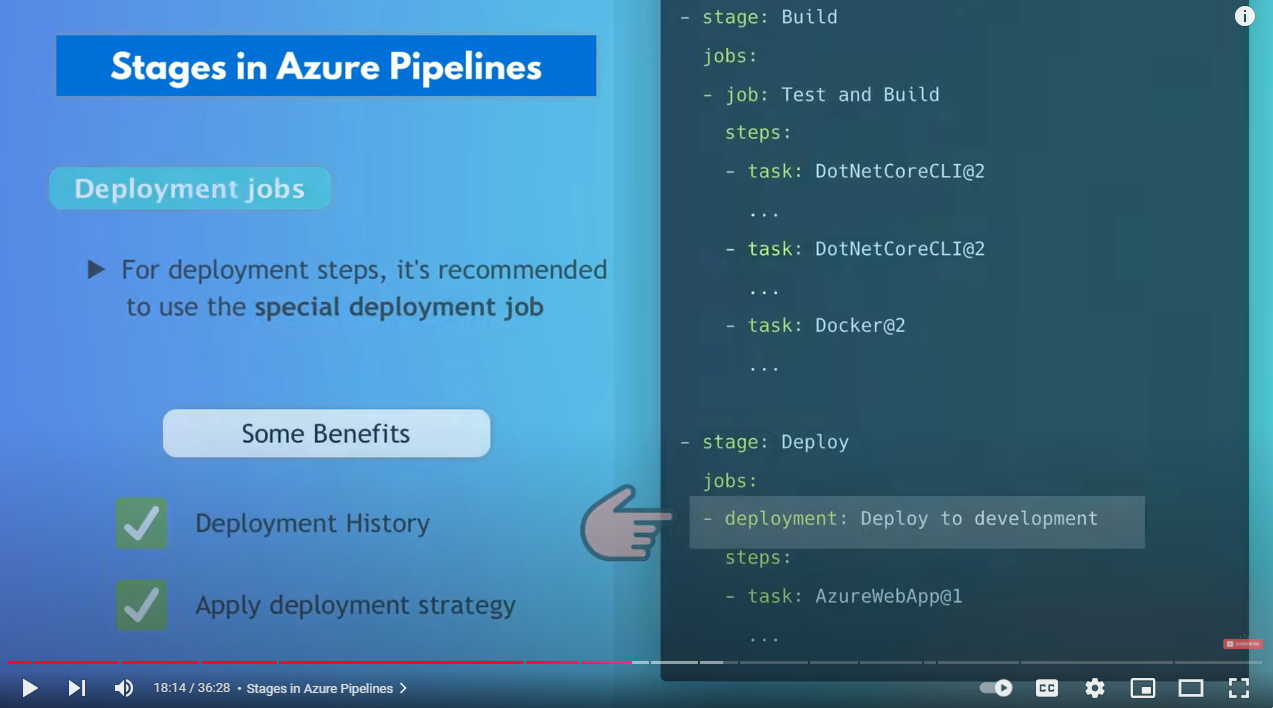


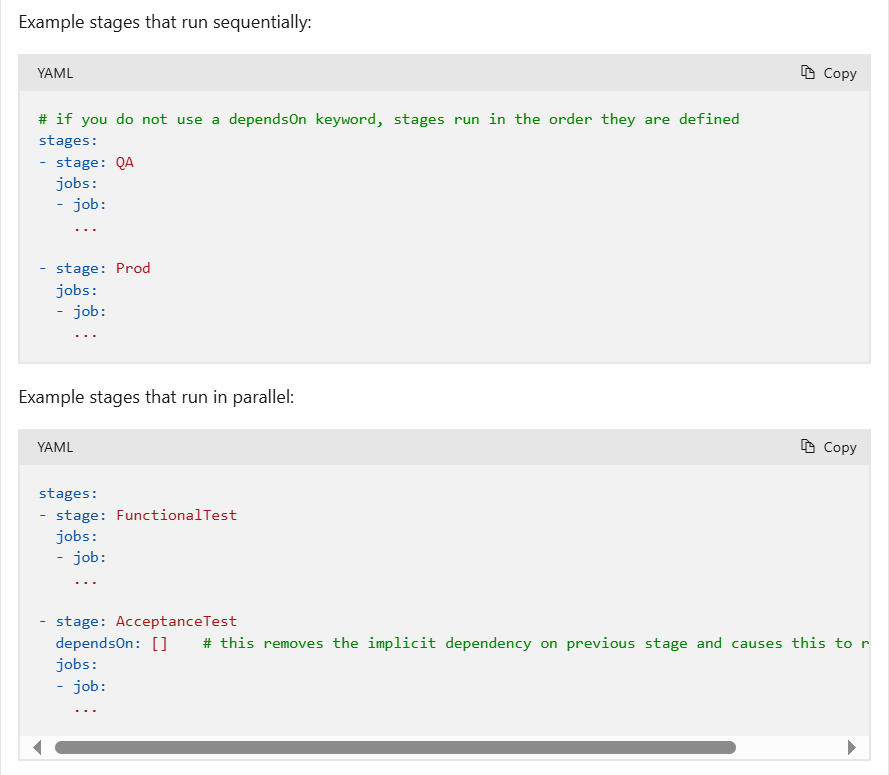
**Multiple Jobs:**

A screenshot of a computer

Description automatically generated









**Azure Artifacts:**

Can store and share different packages.

Based on programming lang used for writing the application.

JAVA🡪JAR

.NET🡪nuget

JS🡪ZIP/TAR

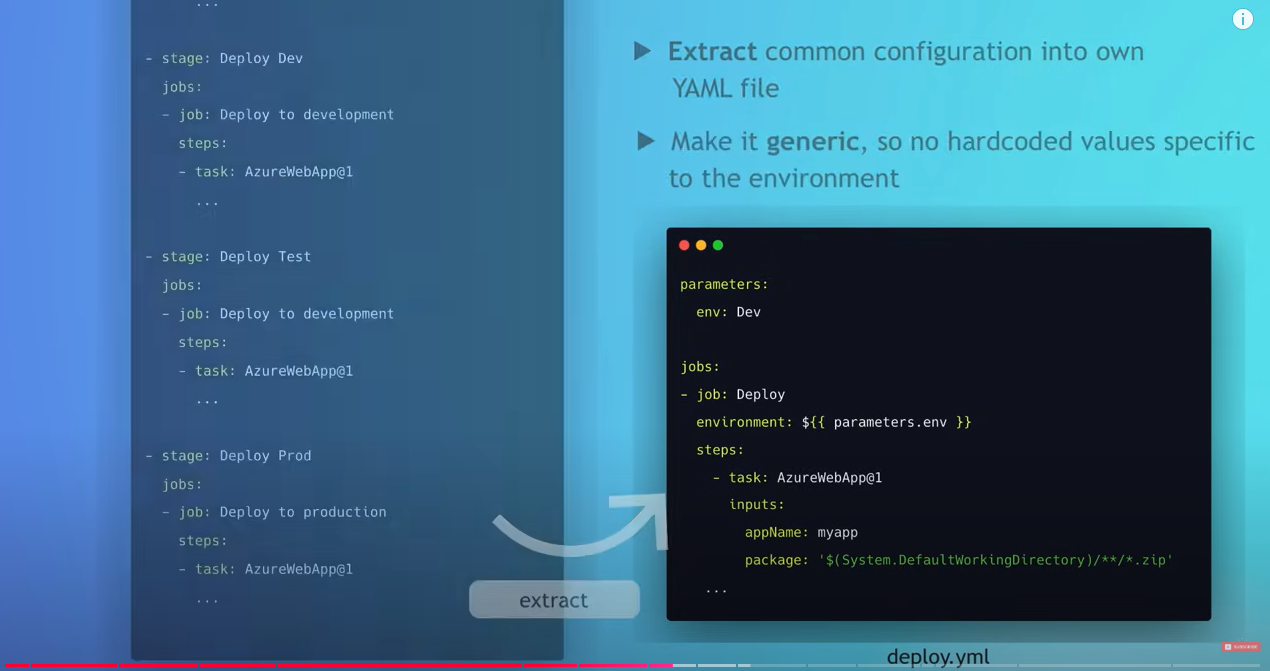
If build pipeline produces **docker images** then DockerHUb/ACR should be used to store the artifact

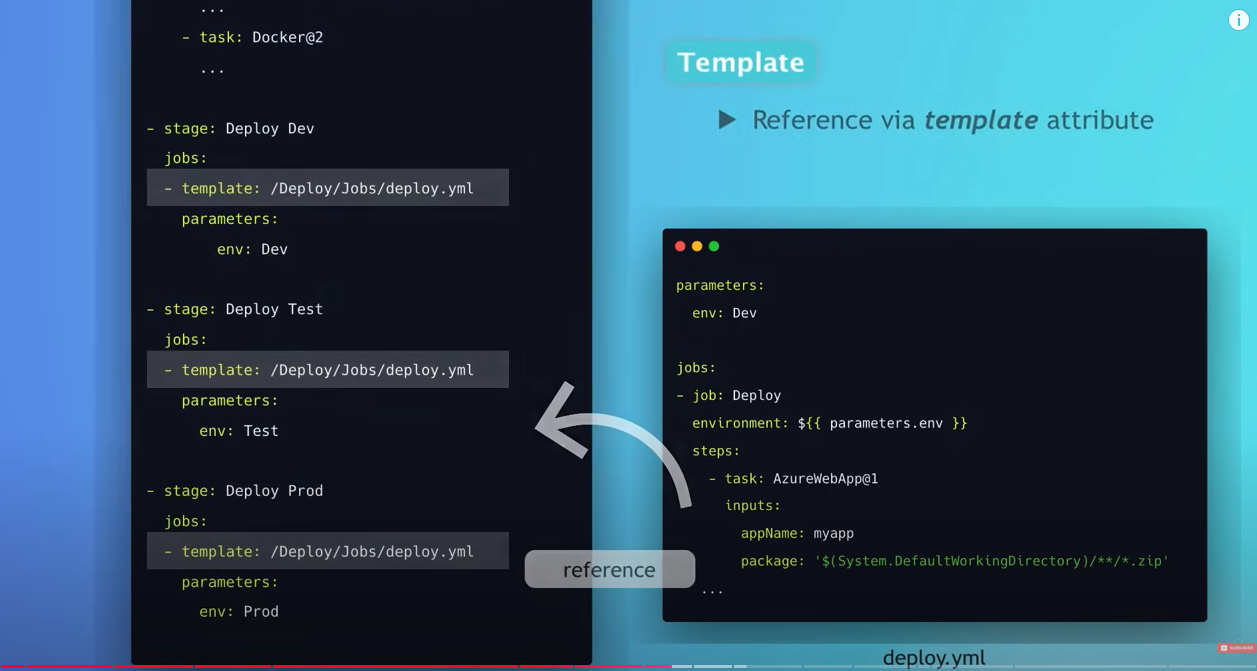
A screenshot of a computer

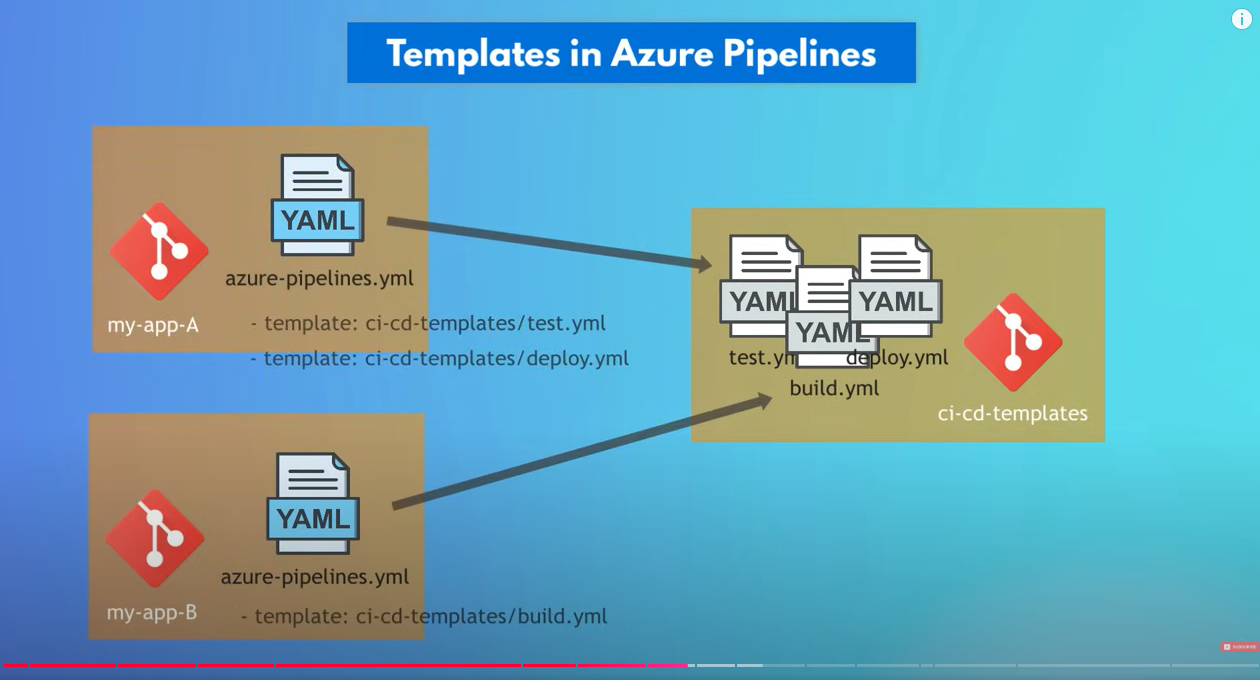
Description automatically generated

A screenshot of a computer

Description automatically generated







A screenshot of a computer

Description automatically generated

Better to have 1 CI/CD pipeline in YML than having separate pipelines for CI/Cd.

**Test Plans:**

Before code release to end users,need to test the code rigorously.

Manual/automated can be done

Results can be viewed and can be also be run the tests via kanban boards.

**Agents:**

**Microsoft hosted:**

Agents hosted and managed by Microsoft

**Self Hosted:**

An agent that you set up and manage on your own to run jobs.

gives more control to install dependent software needed for your builds and deployments. Also, machine-level caches and configuration persist from run to run, which can boost speed.

**Service connection:**

In devops process we often need to connect and interact with other platforms.

Ex:

Push docker image to container repo.

For that ADO needs to connect and authenticate to these platforms.

**Service hook:**

run tasks on other services when events happen in our ADO project.

Events can be related to Boards/repos/Pipelines.

New item creation /new file commit/build fail notifications to teams/slack ..etc

**Environment:**

An environment is a collection of [resources](https://learn.microsoft.com/en-us/azure/devops/pipelines/process/about-resources?view=azure-devops) that you can target with deployments from a pipeline.

It represents a logical target where your pipeline deploys software. Typical environment names are Dev, Test, QA, Staging, and Production.