**Q1 . Pipeline scenario**

Pipeline Description:

In order to achieve the setup mentioned in the points. we require to create a main pipeline yml file ie Build.CI.CD .yml . Which includes all the stages as Build Stage, Deploy to Dev , QA ,Production and approval stages .

There will be another yml file BuildCI.yml which will be called for Building Web API and Test and BuildCD.yml ,deployment.yml file for the Deployment Steps/copying .

Please find yml files in repo. you can use Notepad++ for opening files

1. **The build should trigger as soon as anyone in the dev team checks in code to master branch.**

In order to achieve this we can go for two option as :

Edit the pipeline and set the triggers , add the Branch name

Set the mentioned configuration in yml file

trigger:

branches:

include:

- master

1. **There will be test projects which will create and maintained in the solution along the Web and API. The trigger should build all the 3 projects - Web, API and test.**

For any check in to master branch Build.CI.CD yml will be triggered.Which will call Build.CI yml and build all the projects and will publish artifacts



1. **The deployment of code and artifacts should be automated to Dev environment.**

There will be no approval set for Dev Env and hence Deployment.yml will be called by Dev Stage . with environment set to Dev . we need to set the Environment in AzureDevOps from evnrionment section under pipelines. In order to do that we need to Add the Dev, QA , Prod servers to env .

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1. **Upon successful deployment to the Dev environment, deployment should be easily promoted to QA and Prod through automated process**



**5) The deployments to QA and Prod should be enabled with Approvals from approvers only**

**Please find the configuration file Steps(yml) in checked in github repo with description**