Q1 - SCENARIO

A car rental company called FastCarz has a .net Web Application and Web API which are recently migrated from on-premise system to Azure cloud using Azure Web App Service

and Web API Service.

The on-premises system had 3 environments Dev, QA and Prod.

The code repository was maintained in TFS and moved to Azure GIT now. The TFS has daily builds which triggers every night which build the solution and copy the build package to drop folder.

deployments were done to the respective environment manually. The customer is planning to setup Azure DevOps service for below requirements:

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

2) 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.

The build should not be successful if any test fails.

3) The deployment of code and artifacts should be automated to Dev environment.

4) 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.

Explain how each of the above the requirements will be met using Azure DevOps configuration.

Explain the steps with configuration details.

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Answer

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

Build triggers are essential for automated code process

Automated build triggers can be further refined into types:

Repository triggers start a build based on a repository commit, or a pull request being initiated or updated.

Schedule triggers can be planned to start builds at a predetermined time or interval.

Pipeline triggers can kick off another pipeline upon completion with optional criteria such as successful or failed.

Triggers can also have criteria defined that will further refine when a trigger kicks off a build:

Branch or tag is used to include or exclude branches and/or tags that can trigger the build.

Path is used to include or exclude a directory or file path that can trigger a build.

Pull request is used to specify a list of branches as the pull request target to include or exclude to determine whether to kick off a build when a pull request is opened or updated.

YAML Code

# specific branch build

trigger:

branches:

include:

- master

- releases/\*

exclude:

- releases/old\*