**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 Pipeline service for below requirements:

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

**Ans.)** Build Pipeline🡪Build Definition🡪 Edit-> Triggers🡪 Enable Continous intergration🡪Branch filters 🡪 Include 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.*

**Ans.)** We need to have MSBuild to run .Sln and we need to have VSTest Task to run Unit test cases. We can mention the \*\*\\*test\*.dll in Test files field to run the test cases for all Projects.

Or

We can mentioned exact .dll file name of the Project in the Test files field. So it runs that .dll and execute the test cases. If any test cases fails in any particular .dll Build will automatically fail Without executing the next project .dll

In Control option select “Only when all previous tasks have succeeded”

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

**Ans.)** Go to Release Pipeline🡪 Select release definition🡪 Edit🡪 Artifacts🡪 Select and Enable Continuous deployment trigger🡪 Automatically New release will be created after successful build.

Next

Click on DEV ENV stage🡪 Pre Deployment condition🡪 Triggers🡪 Select After Release Option – This will automatically deploy to DEV ENV.

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

**Ans.)** Go to QA ENV Stage🡪 Pre Deployment condition🡪 Triggers🡪 Select After stage option 🡪 select DEV ENV in stages - this will automatically deploy to QA after successful deployment on DEV.

Next

Go to PROD ENV Stage🡪 Pre Deployment condition🡪 Triggers🡪 Select After stage option 🡪 select QA ENV in stages - this will automatically deploy to PROD after successful deployment on QA.

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

**Ans.)** Go to QA ENV Stage 🡪 Pre Deployment conditions🡪 Enable Pre Deployment Approvals 🡪Add Approvers or QA Approver Group

Next

Go to PROD ENV Stage 🡪 Pre Deployment conditions🡪 Enable Pre Deployment Approvals 🡪Add Approvers or PROD Approver Group

This is how we can meet above the requirements using Azure DevOps configuration.