Programming Assignment

Engineer (C) for Tech4Dev

As a Developer within Aurum, you are responsible for delivering "Azure DevOps Management" functionalities using APIs and Pipelines. This programming assignment is about creating an Azure DevOps Pipeline Template Task that receives an azure DevOps repository (Id or complete name) as the input parameter and perform the following actions:

- · Determine the default branch of the specified repository.
- Check if the following <u>permissions</u> are set on the default branch:
 - o "Force Push" denied for everyone.
 - o "Edit Policies" denied for everyone.
 - o "Bypass policies when completing pull requests" denied for everyone.
 - o "Bypass policies when pushing" denied for everyone.
- Check if the following <u>policy</u> is set on the default branch:
 - o Minimum number of contributors set to 2.
 - Reset all approval votes (does not reset votes to reject or wait) when new changes are pushed.
- Set the permission and policy when each of the previous criteria has failed.

Mandatory delivery Items:

- Pipeline template code
- · The candidate should be able to demo the task usage in the technical interview.

Optional delivery items:

- · Create a pipeline that demonstrate the usage of the Template Task.
- Add a deployment stage/job/task to the pipeline with options for customizing the deployment strategies: the default option should be Canary deployment, but users should be able to also opt for Blue Green deployment.

Notes:

 The assignment is not trivial, and at least it should consider the following case: What to do when "Edit Policies" is denied for everyone but the required branch policy is not set.