

# Azure DevOps Assignment: Access Control, Branch Policies, and Pipelines

## 1. Create a Project with User Groups and Apply Group Policies

Login to Azure DevOps:

- Visit <https://dev.azure.com> and sign in.

Create a New Project:

- Click "New Project"
- Enter project name: DevOpsAccessManagement
- Set visibility to Private
- Click Create

Create User Groups:

- Go to Project Settings > Permissions
- Click "New Group" and create groups like:
  - Project Administrators
  - Contributors
  - Viewers

Add Users to Groups:

- Select a group > Members > Add users by email > Save

Apply Permissions:

- Open each group and set permissions based on their roles.

## 2. Apply Branch Policies (Only Admin Can Access Master Branch)

Go to Repos > Branches

- Click next to master > Branch Policies

Enable:

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- Minimum number of reviewers: 1
- Require linked work items
- Require successful build

Go to Branch Security:

- Contributors: Contribute - Deny, Create Branch - Allow
- Project Administrators: All permissions - Allow

## 3. Apply Branch Security and Locks

Go to Repos > Branches

- Lock the master branch using > Lock Branch

Go to Branch Security:

- Contributors: Deny Contribute, Force push, Delete
- Admins: Allow all actions

## 4. Apply Branch Filters and Path Filters

Go to Project Settings > Repos > Branches > master > Branch Policies

Under Build Validation:

- Add Build Policy with Branch Filter = master
- Path Filters:
  - Include: src/\*
  - Exclude: docs/\*

## 5. Apply a Pull Request

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Create a new branch: feature-login

Make code changes and commit

Go to Repos > Pull Requests > New Pull Request

- Source: feature-login, Target: master
- Add reviewers, link work items
- Click Create and wait for approval/build success

## 6. Apply Triggers in Build and Release Pipelines

Build Trigger in YAML:

trigger:

branches:

include:

- master
- develop

pr:

branches:

include:

- "\*\*"

Release Pipeline:

- Go to Pipelines > Releases > New Pipeline
- Add artifact from build pipeline
- Enable Continuous Deployment trigger

## 7. Apply Gates to the Pipeline

Go to Pipelines > Releases > Select Stage > Pre-deployment Conditions

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Enable Gates and Add:

- Delay timer
- REST API check
- Azure Monitor query

## 8. Allow Contributors to Create Pull Requests but Not Merge

Go to Repos > Branches > Branch Security

Set for Contributors:

- Create Branch: Allow
- Contribute: Deny
- Create PR: Allow
- Complete PR: Deny

Admins: Allow all permissions

## 9. Use Work Items in Pipelines

Go to Boards > Work Items

- Create new item and assign

Link Work Items in PR using #ID or link via UI

Enable 'Check for linked work items' in branch policy

Work items will show up in pipeline run summary