**CI/CD Pipeline in Azure DevOps**

**What is CI/CD Pipeline?**

A CI/CD Pipeline (Continuous Integration and Continuous Deployment) is an automated process that helps developers integrate code changes, test them, and deploy them to production efficiently. It automates the software delivery process from code integration to deployment, ensuring faster and more reliable software releases.

**Advantages of CI/CD Pipeline**

1. Faster and more reliable software delivery.

2. Early detection of bugs through automated testing.

3. Reduced manual work and human errors.

4. Improved collaboration between development and operations teams.

5. Easier rollback and recovery from deployment issues.

6. Continuous feedback for improvement and optimization.

**How to Configure CI/CD Pipeline in Azure DevOps**

1. Sign in to Azure DevOps and create a new project.

2. Navigate to ‘Pipelines’ → ‘Create Pipeline’.

3. Connect your source code repository (e.g., GitHub, Azure Repos).

4. Choose ‘YAML’ or ‘Classic Editor’ to define your pipeline.

5. Define build steps such as restoring dependencies, building, and running tests.

6. Save and run the pipeline to verify the build process.

7. Set up a Release Pipeline under ‘Releases’ for Continuous Deployment.

8. Add deployment stages (e.g., Dev, Test, Production) and link them to your build pipeline.

9. Configure environment variables, approvals, and triggers.

10. Save and run the release pipeline to deploy your application automatically.