**Task 1: Prerequisites**

* Open **Visual Studio** (2019 or later).
* Go to: Team Explorer → Manage Connections → Connect to a Project.
* Select Azure DevOps account and choose the project/repository.
* Click "Clone" and select a folder where the repository should be stored.
* Copy the SSIS solution folder (containing .sln and .dtproj files).
* Paste it into the cloned repository folder.
* Open the solution (.sln) file in Visual Studio.

**SQL Server**

* SQL Server Integration Services (SSIS) project is stored in Azure DevOps Git repository.
* SSISDB Catalog is configured on the target SQL Server instance.
* SQL Server Agent is enabled on the deployment target.

Task 2:

* Create a Build Pipeline (CI) in Azure DevOps
* Go to Azure DevOps → Pipelines → New Pipeline
* Select Repository (Azure Repos )
* 3Choose "Starter Pipeline"
* Add the following tasks:

Task 3: Build SSIS Project

* Add "Visual Studio Build" task
* Configure the task:
* Solution: SSISProject.sln
* Platform: VM
* Configuration: Release
* MSBuild Arguments: /p:Configuration=Release /p:Platform="Any CPU
* Generates .ispac file (SSIS project deployment file).
* Publish the .ispac File as an Artifact
* Add "Publish Build Artifacts" task
* Configure:
* Path to publish: $(Build.SourcesDirectory)\bin\Release
* Artifact name: SSIS-Deployment
* Publish location: Azure DevOps
* This will generate .ispac file is now available as an artifact for deployment.
* Task 3:
* Create a Release Pipeline (CD)
* Go to Azure DevOps → Releases → New Release Pipeline  
  Choose "Empty Job"
* Select "Artifact" → Choose SSIS-Deployment from the build pipeline  
  Add the following task:

Task4:

Deploy SSIS Package Using "SSIS Deploy" Task

* Add "SQL Server Integration Services (SSIS) Deploy" Task
* Configure the task as follows:
* SSIS Target Server: sql-server-instance
* SSIS Target Folder: /SSISDB/ Project\_Name
* Project Name: Project\_Name
* Deployment File: $(System.ArtifactsDirectory)/SSIS-Deployment/ Project\_Name.ispac
* Overwrite existing project
* The SSIS package is automatically deployed to SSISDB without using PowerShell.
* The CI/CD pipeline automates deployments from Dev → UAT → Prod.

Task 5:

Automate SSIS Deployment Triggers

* Go to Release Pipeline → Edit → Triggers
* Enable "Continuous Deployment" (After every successful build, deploy to UAT)
* Configure Stage Gates (e.g., Require approval for PROD deployment)

| Stage | Task | Description |
| --- | --- | --- |
| CI (Build) | Build SSIS Project | Generates .ispac file using Visual Studio Build |
| CI (Build) | Publish Artifact | Saves .ispac file in Azure DevOps |
| CD (Release) | Download Artifact | Gets .ispac from Azure DevOps |
| CD (Release) | Deploy SSIS | Uses SSIS Deploy Task to deploy .ispac to SSISDB |
| CD (Release) | Configure Triggers | Enables automatic deployments to UAT |