# CICD Deployment Automation Tool

## Challenges in Current Deployment Setup:

* Manual deployment process is time consuming.
* For multi developer team, merging all solution manually to one solution is time consuming.
* In DevOps Deployment, need to configure every time for Solution and Patch solution.
* No automated process to commit customization to repository. Sometime developers will miss to commit customization to repository will lead to mismatch.
* No way to review customizations and No report for list of solution components for Deployment.
* Solution Imports fails at very last moment due to unhandled dependencies which is too much time consuming.
* When Import fails, error message is not clear about failure details.

## Tool Features:

### Direct Deployment:

* Direct deployment to one/multiple instances.

### GitHub Repository Commit and DevOps Pipeline Deployment:

* Check-In CRM solution related files to Git-Hub repository and maintaining folder structure for CRM components in Git-Hub repository.
* If any check-in happens in repository, DevOps pipeline gets triggered and deploy one/multiple CRM solutions to target instance.
* Fully automated CI/CD pipeline integrated with Azure DevOps.
* Multiple Solutions deployed in single release

### Common Tool Features:

* Manual deployment process gets reduced and less time consuming.
* Using this tool, we can merge multiple CRM solutions to one solution (master solution) and master solution can be deployed to one/multiple target instance.
* List of Components in Solution will be displayed in dynamics source control.
* Dependency Checker in this tool, will give list of missing dependent component for deployment.
* Check the status of deployment in CRM record (Dynamic Source Control) itself or download log file.
* Success/failure of deployment status get logged and displayed in dynamics source control.