

## ABOUT

The objective of the project is to develop the nurse scheduling system for 500 nurses of an agency in Montreal by June 2022.

This schedule helps to accommodate supplemental nurses to different hospitals as per nurses' availability and preferences which matches the hospital requirements.

## Technologies Used:

**Programming Language Used:** ASP.NET

**Database:** Microsoft SQL 2016

**API Hosted:** IIS server/Azure Web App/IIS server on Azure Virtual machine

**Front-end Development:** HTML, CSS, and, Bootstrap

**Tools Used:** VS 2019, Microsoft SQL Server 2019.

**Storage:** GITHUB

**CI/CD:** Azure DevOps.

**Other tools Used:** JIRA

CI/CD:

Implementation of CI/CD pipeline using dev ops as follows:

- Added the code base to the azure GIT repo on Azure DevOps.
- Created a build pipeline using the GIT repo as the source.
- Added a task in the YAML to create an artifact of the asp.net build solution. This will be used in the release pipeline to deploy the asp.net build solution to the destination.
- I have deployed the solution to the Azure web app.

```
main  Nurseschedule_n / azure-pipelines.yml

23
  Settings
24 - task: VSBuild@1
25   inputs:
26     solution: '$(solution)'
27     msbuildArgs: '/p:DeployOnBuild=true /p:WebPublishMethod=Package /p:PackageAsSingle
28     platform: '$(buildPlatform)'
29     configuration: '$(buildConfiguration)'
30
  Settings
31 - task: VSTest@2
32   inputs:
33     platform: '$(buildPlatform)'
34     configuration: '$(buildConfiguration)'
35
  Settings
36 - task: PublishBuildArtifacts@1
37   displayName: 'Publish Nurse Website Artifact'
38   inputs:
39     ArtifactName: NurseSite
40     PathToPublish: '$(build.artifactStagingDirectory)'
41
42
```

## Build Successful:

The screenshot displays the Azure DevOps interface for a project named 'nurseapplication\_2'. The breadcrumb navigation shows the path: `sprojects / nurseapplication_2 / Pipelines / Nurseschedule_n / 20220319.5`. The left sidebar contains navigation links: Overview, Boards, Repos, Pipelines (selected), Environments, Releases, Library, Task groups, Deployment groups, Test Plans, and Artifacts. The main area is titled 'Jobs in run #20220319.5' for 'Nurseschedule\_n'. It lists the following jobs with their durations:

Job	Duration
Job	38s
Initialize job	7s
Checkout Nursesched...	2s
NuGetToolInstaller	1s
NuGetCommand	11s
VSBUILD	10s
VSTest	1s
Publish Nurse Websit...	2s
Post-job: Checkout ...	<1s
Finalize Job	<1s
Report build status	<1s

The right pane shows the 'Publish Nurse Website Artifact' task log:

```
1 Starting: Publish Nurse Website Artifact
2 =====
3 Task      : Publish build artifacts
4 Description : Publish build artifacts to Azure Pipelines or a Windows file share
5 Version    : 1.200.0
6 Author     : Microsoft Corporation
7 Help       : https://docs.microsoft.com/azure/devops/pipelines/tasks/utility/publish-build-artifacts
8 =====
9 Async Command Start: Upload Artifact
10 Uploading 5 files
11 Max dedup parallelism: 192
12 Building file tree
13 Uploaded 0 out of 9,668,261 bytes.
14 Uploaded 9,668,261 out of 9,668,261 bytes.
15 Associating files
16 Total files: 5 ----- Associated files: 0 (0%)
17 File upload succeed.
18 Upload 'D:\a\1\1a' to file container: '#/16279469/NurseSite'
19 Associated artifact 7 with build 31
20 Async Command End: Upload Artifact
21 Finishing: Publish Nurse Website Artifact
```

## Release Pipeline Output:

The screenshot shows the Azure DevOps interface for a release pipeline named 'Release-14'. The breadcrumb navigation is: `sprojects / nurseapplication_2 / Pipelines / Releases / New release pipeline / Release-14`. The left sidebar is the same as the previous screenshot. The main area shows the release details for 'Release-14', which was manually triggered by Suresh Gandham on 3/19/2022, 7:47 PM. The release artifacts are listed as `_Nurseschedule_n 20220319.5` on the `main` branch. The 'Stages' section shows 'Stage 1' as 'Succeeded' on 3/19/2022, 7:48 PM. The right pane provides a detailed view of 'Stage 1', showing it was 'Succeeded' and 'Now at Release-14'. It lists the deployment as 'Deployment succeeded' on 3/19/2022, 7:48 PM, ran for 28s, and was triggered by a 'Manual trigger' from Suresh Gandham. It also shows 'Associated changes' as the commit `_Nurseschedule_n / 20220319.5` on the `main` branch.