



Azure Artifacts

Storie 8 : collection of Azure Artifacts - install node,nodemodules and publish artifacts.

Repo link

<https://github.com/digitaledify/lms-public-services-project.git>

Azure DevOps Artifacts

1. Introduction to Artifacts

Azure DevOps Artifacts is a package management service that allows teams to create, host, and share packages such as NuGet, npm, Maven, and more. It

provides a centralized repository for managing dependencies and artifacts used in software development.

2. Key Features of Artifacts

a. Package Management

- Artifacts supports various package formats, including NuGet, npm, Maven, and others, making it versatile for different programming languages and frameworks.
- Teams can publish, consume, and version packages, ensuring consistency in dependency management.

b. Secure and Reliable Hosting

- Artifacts provides secure and reliable hosting for packages, ensuring high availability and performance.
- Role-based access control (RBAC) helps manage permissions and control who can access and publish packages.

c. Integration with Build Pipelines

- Artifacts seamlessly integrates with Azure DevOps build pipelines, enabling automatic package publishing and consumption as part of the CI/CD process.
- This integration simplifies dependency management and ensures that the right packages are used during builds.

d. Universal Package Management

- Azure Artifacts offers Universal Packages, which can store any file type, including binaries, scripts, and documentation, making it suitable for various types of artifacts beyond code libraries.

3. Benefits of Using Artifacts

- **Streamlined Dependency Management:** Artifacts centralizes the storage and management of packages, reducing the risk of using outdated or incompatible dependencies.

- **Improved Build and Deployment Efficiency:** Integration with build pipelines ensures that the correct packages are used consistently during builds and deployments.
- **Enhanced Collaboration:** Teams can easily share and version packages, promoting collaboration and reuse across projects.

4. Security and Compliance

- Azure DevOps Artifacts adheres to industry-standard security practices, offering features such as RBAC, audit logging, and secure connections to protect sensitive package data.
- Compliance certifications like SOC, ISO, and HIPAA ensure that Artifacts meets stringent compliance requirements.

Lab to collect artifacts of node js application

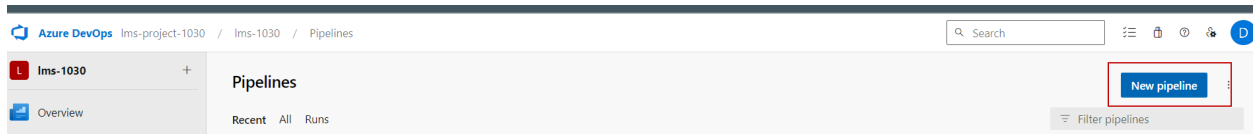
Collection of Artifact

Three Step Process

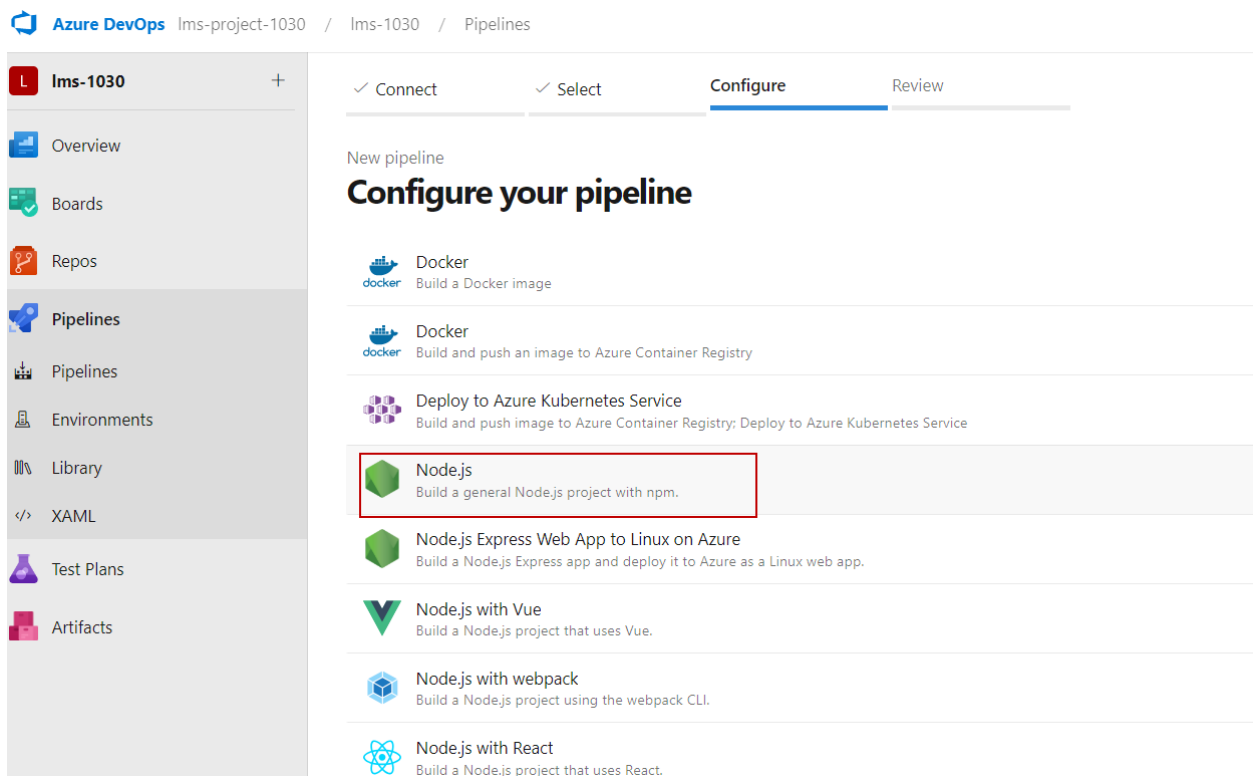
- Install node
- Build and
- Publish Artifacts

Step 1: install node

Create A pipeline

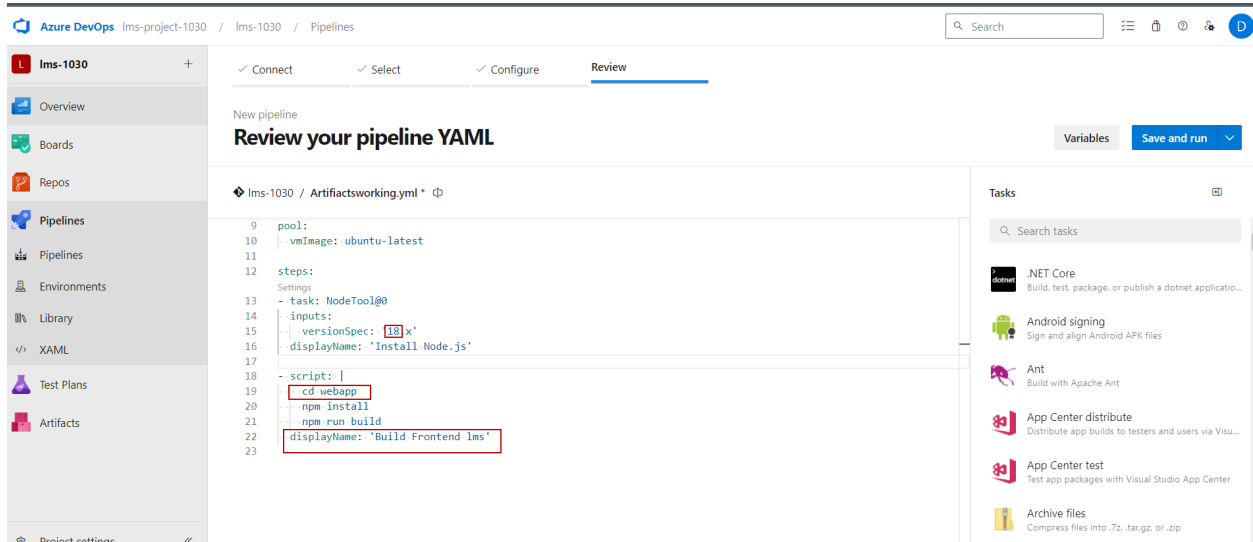


Select Node .js as we want to install nodejs our code base is nodejs



Add the following

change the node version 18 and add cd webapp in script as shown below



Step 2: install npm node modules

Select cursor on proper position

New pipeline

Review your pipeline YAML

lms-1030 / Artifactsworking.yml *

```
9 pool:
10   vmImage: ubuntu-latest
11
12 steps:
13   Settings
14   - task: NodeTool@0
15     inputs:
16       versionSpec: '18.x'
17       displayName: 'Install Node.js'
18   - script: |
19       cd webapp
20       npm install
21       npm run build
22     displayName: 'Build Frontend lms'
23
```

click on show assistance

New pipeline

Review your pipeline YAML

Variables

Save and run

lms-1030 / Artifactsworking.yml *

```
9 pool:
10   vmImage: ubuntu-latest
11
12 steps:
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15     inputs:
16       versionSpec: '18.x'
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18   - script: |
19       cd webapp
20       npm install
21       npm run build
22     displayName: 'Build Frontend lms'
23
```

Tasks

Download Github Npm Package
Install npm packages from Github.

npm
Install and publish npm packages, or run an npm ...

Install and publish npm packages, or run an npm command. Supports npmjs.com and authenticated registries like Azure Artifacts.

To install npm i that is adding node modules

work dir is webapp and verbose is for detailing

> set cursor on correct position and click on ADD

New pipeline

Review your pipeline YAML

ims-1030 / Artifactsworking.yml * ⓘ

```
9 pool:
10   vmImage: ubuntu-latest
11
12 steps:
13   - task: NodeTool@0
14     inputs:
15       - versionSpec: '18.x'
16       displayName: 'Install Node.js'
17
18   - script: |
19     - cd webapp
20     - npm install
21     - npm run build
22     displayName: 'Build Frontend lms'
23
```

Variables Save and run ▾

Command ⓘ
install ▾

Working folder that contains package.json ⓘ
webapp

Custom registries and authentication ^

Registries to use ⓘ
☒ Registries in my .npmrc
☐ Registry I select here

Credentials for registries outside this organization/collection ⓘ
▾

Advanced ^

☒ Verbose logging ⓘ

[About this task](#) [Add](#)

after clicking on add

```
9  pool:
10    vmImage: ubuntu-latest
11
12  steps:
    Settings
13  - task: NodeTool@0
14    inputs:
15      versionSpec: '18.x'
16      displayName: 'Install Node.js'
    Settings
17  - task: Npm@1
18    inputs:
19      command: 'install'
20      workingDir: 'webapp'
21      verbose: true
22  - script: |
23      cd webapp
24      npm install
25      npm run build
26      displayName: 'Build Frontend lms'
27
```

Step 3: public build artifacts to artifacts

click on show assistance

✓ Connect

✓ Select

✓ Configure

Review

New pipeline

Review your pipeline YAML

Variables

Save and run

ims-1030 / Artifactsworking.yml

```

9 pool:
10   vmImage: ubuntu-latest
11
12 steps:
13   - task: NodeTool@0
14     inputs:
15       versionSpec: '18.x'
16       displayName: 'Install Node.js'
17   - task: Npm@1
18     inputs:
19       command: 'install'
20       workingDir: 'webapp'
21       verbose: true
22     script: |
23       cd webapp
24       npm install
25       npm run build
26       displayName: 'Build Frontend lms'
27

```

Tasks

publish

dotnet

.NET Core

Build, test, package, or publish a dotnet applicatio...

Index sources and publish symbols

Index your source code and publish symbols to a ...

npm

Install and publish npm packages, or run an npm ...

Publish build artifacts

Publish build artifacts to Azure Pipelines or a Win...

Publish build artifacts to Azure Pipelines or a Windows file share

Publish build artifacts to Azure Pipelines or a Windows file share

Publish Pipeline Artifacts

Publish (upload) a file or directory as a named arti...

Publish Pipeline Metadata

Publish Pipeline Metadata to Evidence store

Publish Quality Gate Result

Publish SonarQube's Quality Gate result on the A...

Set cursor position correctly

Final pipeline script

New pipeline

Review your pipeline YAML

lms-1030 / Artifactsworking.yml * 



```
1  # Node.js
2  # Build a general Node.js project with npm.
3  # Add steps that analyze code, save build artifacts, deploy, and more:
4  # https://docs.microsoft.com/azure/devops/pipelines/languages/javascript
5
6  trigger:
7    - dev
8
9  pool:
10   vmImage: ubuntu-latest
11
12  steps:
13    Settings
14    - task: NodeTool@0
15      inputs:
16        versionSpec: '18.x'
17        displayName: 'Install Node.js'
18    Settings
19    - task: Npm@1
20      inputs:
21        command: 'install'
22        workingDir: 'webapp'
23        verbose: true
24      script: |
25        cd webapp
26        npm install
27        npm run build
28      displayName: 'Build Frontend lms'
29    Settings
30    - task: PublishBuildArtifacts@1
31      inputs:
32        PathToPublish: 'webapp/dist'
33        ArtifactName: 'frontend'
34        publishLocation: 'Container'
```

Save and run

← Jobs in run #20240226.1

Ims-1030 (2)

Jobs

✓		Job	9s
✓		Initialize job	2s
✓		Checkout Ims-1030@dev to s	1s
✓		Install Node.js	<1s
		Npm	4s
		Build Frontend Ims	
		PublishBuildArtifacts	
		Post-job: Checkout Ims-1030@dev t...	

Npm

```

1  Starting: Npm
2  =====
3  Task      : npm
4  Description : Install and publish npm packages, or run an npm
5  Version    : 1.231.0
6  Author     : Microsoft Corporation
7  Help      : https://docs.microsoft.com/azure/devops/pipeline
8  =====
9  /opt/hostedtoolcache/node/18.19.1/x64/bin/npm --version
10 10.2.4
11 /opt/hostedtoolcache/node/18.19.1/x64/bin/npm config list
12 npm verb cli /opt/hostedtoolcache/node/18.19.1/x64/bin/node /op
13 ; "env" config from environment
14 npm info using npm@10.2.4
15
16 npm info using node@v18.19.1
17 npm verb title npm config list
18 npm verb argv "config" "list"
19 npm verb logfile logs-max:10 dir:/home/vsts/.npm/_logs/2024-02-
20 npm verb logfile /home/vsts/.npm/_logs/2024-02-26T06_57_48_3342
21 npm verb exit 0
22 npm info ok
23 loglevel = "verbose"
24 userconfig = "/home/vsts/work/1/npm/45.npmrc"
25
26 ; node bin location = /opt/hostedtoolcache/node/18.19.1/x64/bin
27 ; node version = v18.19.1

```

←

Jobs in run #20240226.1

lms-1030 (2)

Jobs

▼

✓ Job

54s

✓ Initialize job

2s

✓ Checkout lms-1030@dev to s

1s

✓ Install Node.js

<1s

✓ Npm

30s

✓ Build Frontend lms

16s

✓ PublishBuildArtifacts

1s

✓ Post-job: Checkout lms-1030@d...

<1s

✓ Finalize Job

<1s

✓ Job

1 Pool: [Azure Pipelines](#)

2 Image: ubuntu-latest

3 Queued: Just now [[manage_parallel_jobs](#)]

4 Agent: Hosted Agent

5 Started: Just now

6 Duration: 54s

7

8 The agent request is already running or has already

9 ▶ Job preparation parameters

44 📦 1 artifact produced

45 Job live console data:

46 Starting: Job

47 Async Command Start: DetectDockerContainer

48 Async Command End: DetectDockerContainer

49 Async Command Start: DetectDockerContainer

50 Async Command End: DetectDockerContainer

51 Finishing: Job

How to check collected artifacts

ims-project-1030 / ims-1030 / Pipelines

ims-1030

Overview

Boards

Repos

Pipelines

Pipelines

Environments

Library

XAML

Test Plans

Artifacts

Search

New pipeline

Filter pipelines

Pipelines

RecentAllRuns

Recently run pipelines

Pipeline	Last run
<div>✓</div> ims-1030 (2)	<div>#20240226.1 • Set up CI with Azure Pipelines</div> <div>Individual CI for <div>dev</div></div> <div>Just now</div> <div>59s</div>
<div>✓</div> ims-1030 (1)	<div>#20240224.1 • Update azure-pipelines-4.yml for Azure Pipelines</div> <div>Manually triggered for <div>dev</div></div> <div>Saturday</div> <div>1m 59s</div>
<div>✓</div> ims-1030	<div>#20240224.7 • Update azure-pipelines-4.yml for Azure Pipelines</div> <div>Individual CI for <div>dev</div></div> <div>Saturday</div> <div>53s</div>

ims-1030

+

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← Jobs in run #20240226.1

ims-1030 (2)

Jobs

✓ Job	54s
✓ Initialize job	2s
✓ Checkout ims-1030@dev to s	1s
✓ Install Node.js	<1s
✓ Npm	30s
✓ Build Frontend Ims	16s
✓ PublishBuildArtifacts	1s
✓ Post-job: Checkout Ims-1030@d...	<1s
✓ Finalize Job	<1s
✓ Report build status	<1s

✓ Job

```

1 Pool: Azure Pipelines
2 Image: ubuntu-latest
3 Agent: Hosted Agent
4 Started: Today at 12:27 PM
5 Duration: 54s
6
7 ▶ Job preparation parameters
42 1 artifact produced

```

ims-1030

+

Overview

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✓ #20240226.1 • Set up CI with Azure Pipelines

ims-1030 (2)

Run now

This run is being retained as one of 3 recent runs by dev (Branch).

View retention leases

Summary

Triggered by devops

Repository and version

ims-1030

2 dev

de12e7cb

Time started and elapsed

Today at 12:27 PM

59s

Related

0 work items

1 published

Tests and coverage

Get started

View 36 changes

Jobs

Name	Status	Duration
✓ Job	Success	54s

Artifacts collected here

Azure DevOps

Im-s-project-1030 / Im-s-1030 / Pipelines / Im-s-1030 (2) / 20240226.1 / Published artifacts

Im-s-1030

Overview

Boards

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Artifacts

Published

Name	Size
frontend	3 MB
assets	3 MB
dl-logo.png	17 KB
index.html	416 B
loading.gif	14 KB
mockServiceWorker.js	8 KB
vite.svg	2 KB