

Azure Key Vault Integration with DevOps Pipeline

Configure Azure Key Vault on Azure Portal.

Resource group * {New} MyRG Create new

Instance details

Key vault name * tkv001

Region * East US

Pricing tier * Standard

Recovery options

If delete protection will automatically be enabled on this key vault. This feature allows you to recover or permanently delete key vault and secrets for the duration of the retention period. This protection applies to the key vault and the secrets stored within the key vault.

Home > Key vaults >

Create a key vault

Permission model
Grant data plane access by using a [Azure RBAC](#) or [Key Vault access policy](#)

☐ Azure role-based access control (recommended) ⓘ
☒ Vault access policy ⓘ

Resource access

☐ Azure Virtual Machines for deployment ⓘ
☐ Azure Resource Manager for template deployment ⓘ
☐ Azure Disk Encryption for volume encryption ⓘ

Access policies
Access policies enable you to have fine grained control over access to vault items. [Learn more](#)

+ Create Edit Delete

Name	Email	Key Permissions	Secret Permissions	Certificate Permissions
USER				
<input checked="" type="checkbox"/> Tanvi Puri	puritanviltm@gmail.com#EXT#@puritanviltm...	Get, List, Update, Create, Import, Delete, Recov...	Get, List, Set, Delete, Recover, Backup, Restore	Get, List, Update, Create, Import, Delete, Recov...

Generate a new secret with name devopsecret and set any Password (azure@123 in my case).

Search

+ Generate/Import Refresh Restore Backup View sample code Manage deleted secrets

Name	Type	Status
devopsecret		✓ Enabled
newsecret		✓ Enabled

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Create a secret ...

Upload options	Manual
Name *	devopsecret1
Secret value *	*****
Content type (optional)	
Set activation date	<input type="checkbox"/>
Set expiration date	<input type="checkbox"/>
Enabled	<input checked="" type="radio"/> Yes <input type="radio"/> No
Tags	0 tags

Create

Cancel

Create Project in AzureDevOps and in Repos section create a new repository.

Azure DevOps TechLearningDemo / Project1 / Repos / Files / Project1

Project1 is empty. Add source control

Clone to your computer

HTTPS SSH https://TechLearningDemo@dev.azure.com/TechLearningDemo/Project1/_git/Project1

Generate Git Credentials

Having problems authenticating in Git? Be sure to get the latest version Git for Windows or our plugins for IntelliJ, Eclipse, Android Studio or Windows command line.

Push an existing repository from command line

HTTPS SSH

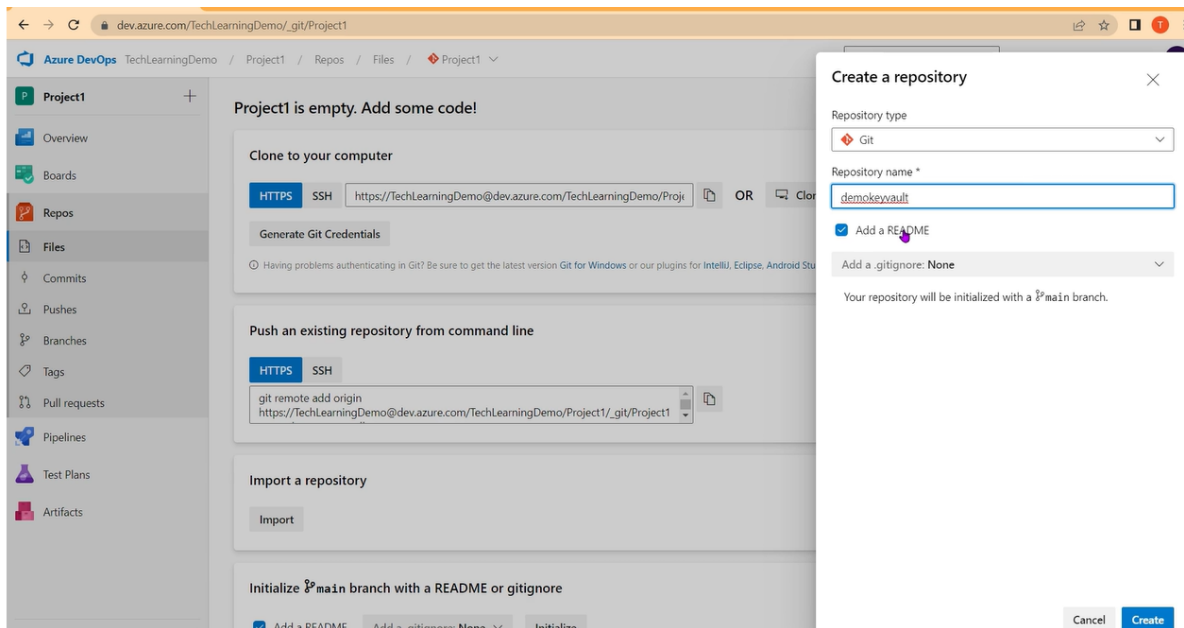
git remote add origin https://TechLearningDemo@dev.azure.com/TechLearningDemo/Project1/_git/Project1

Import a repository

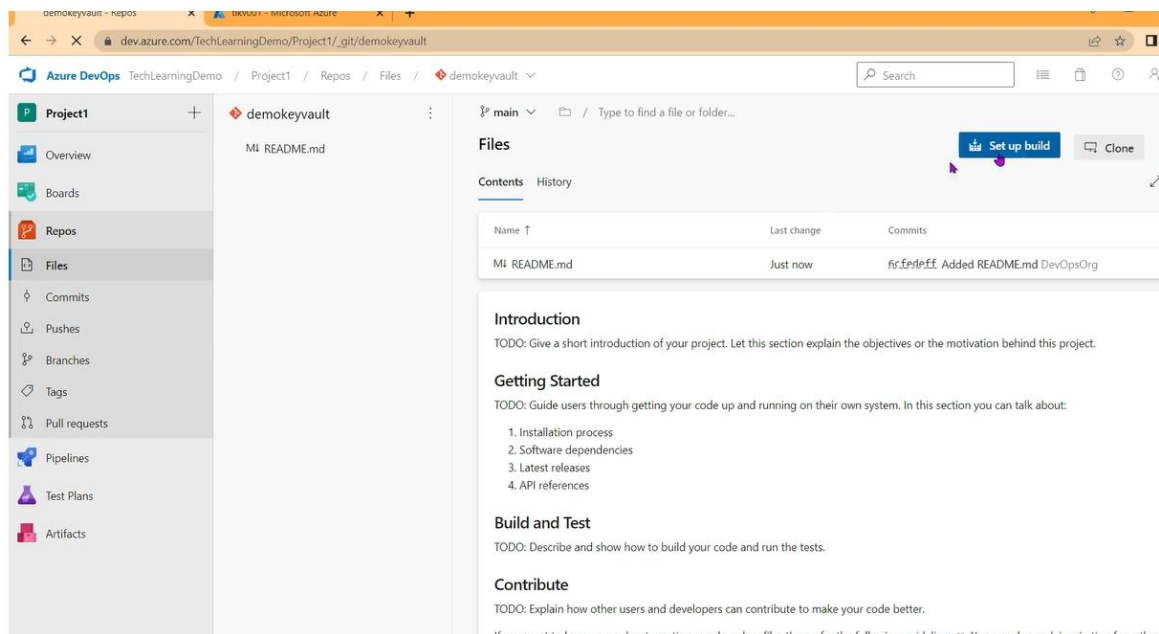
Import

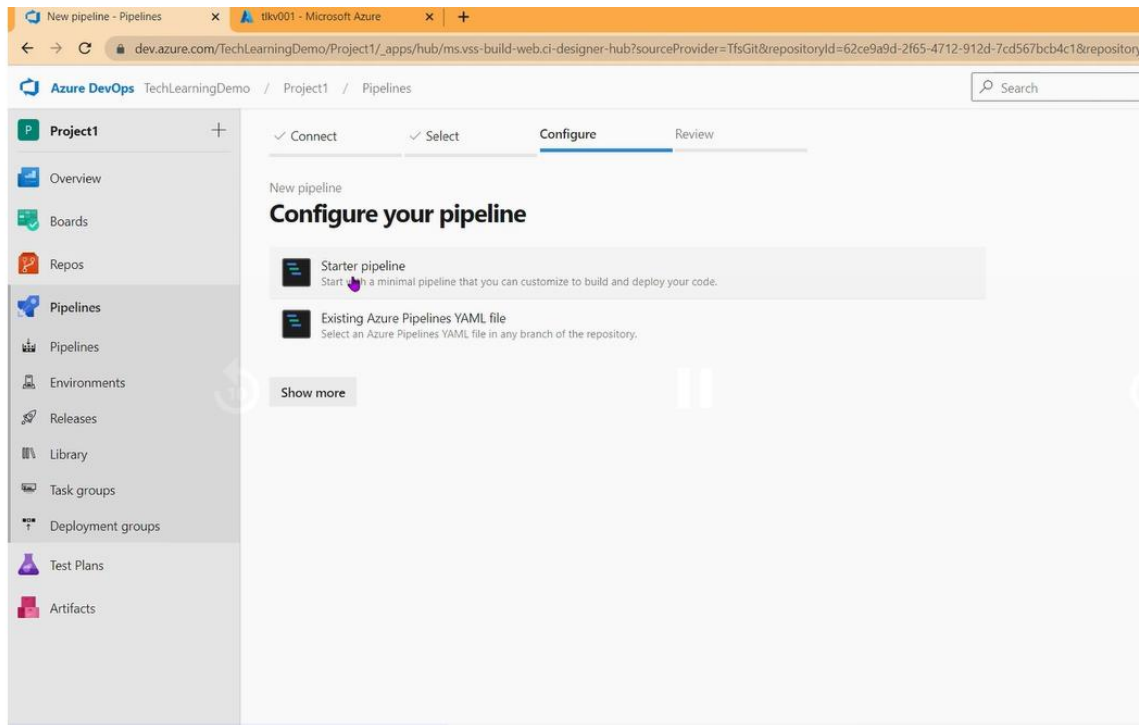
Initialize main branch with a README or gitignore

Initialize



Click on Setup Build and take Starter Pipeline.





YAML Pipeline Code

Starter pipeline

Start with a minimal pipeline that you can customize to build and deploy your code.

Add steps that build, run tests, deploy, and more:

<https://aka.ms/yaml>

trigger:

- main

pool:

vmImage: ubuntu-latest

steps:

- script: echo Hello, world!

displayName: 'Run a one-line script'

- task: AzureKeyVault@2

inputs:

azureSubscription: 'MSDN Platforms Subscription(c5f6b777-a115-4e13-86f4-e1af2e819314)'

KeyVaultName: 'demokeyvault657'

SecretsFilter: '*'

RunAsPreJob: false

- script: |

echo \${devopsecret} > Password.txt

- task: PublishPipelineArtifact@1

inputs:

targetPath: '\$(Pipeline.Workspace)'

publishLocation: 'pipeline'

```
1 # Starter pipeline
2 # Start with a minimal pipeline that you can customize to build and deploy your code.
3 # Add steps that build, run tests, deploy, and more:
4 # https://aka.ms/yaml
5
6 trigger:
7   - main
8
9 pool:
10  vmImage: ubuntu-latest
11
12 steps:
13   - script: echo Hello, world!
14     displayName: 'Run a one-line script'
15
16   - task: AzureKeyVault@2
17     inputs:
18       azureSubscription: 'MSDN Platforms Subscription(c5f6b777-a115-4e13-86f4-e1af2e819314)'
19       KeyVaultName: 'demokeyvault657'
20       SecretsFilter: '*'
21       RunAsPreJob: false
22
23   - script: |
24     echo ${devopsecret} > Password.txt
25
26   - task: PublishPipelineArtifact@1
27     inputs:
28       targetPath: '$(Pipeline.Workspace)'
29       publishLocation: 'pipeline'
```

Add Task Azure Key Vault and add code after default script

The screenshot shows the Azure DevOps Pipelines interface for a pipeline named 'demokeynew'. The pipeline is a starter pipeline with a main trigger. It includes a task 'AzureKeyVault@2' and a task 'PublishPipelineArtifact@1'. The 'PublishPipelineArtifact@1' task is configured to publish the file 'Password.txt' to the 'pipeline' artifact location.

```

1 # Starter pipeline
2 # Start with a minimal pipeline that you can customize to build and deploy your code.
3 # Add steps that build, run tests, deploy, and more:
4 # https://aka.ms/yaml
5
6 trigger:
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8
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15
16 Settings
17   - task: AzureKeyVault@2
18     inputs:
19       azureSubscription: 'MSDN Platforms Subscription(c5f6b777-a115-4e13-86f4-e1af2e819314)'
20       KeyVaultName: 'demokeyvault657'
21       SecretsFilter: '*'
22       RunAsPreJob: false
23
24   - script: |
25     echo $(devopsecret) > Password.txt
26
27 Settings
28   - task: PublishPipelineArtifact@1
29     inputs:
30       targetPath: '$(Pipeline.Workspace)'
31       publishLocation: 'pipeline'

```

The right sidebar shows the 'Azure Key Vault' configuration with the subscription 'MSDN Platforms Subscription(c5f6b777-a115-4e13-86f4-e1af2e819314)' and the key vault 'demokeyvault657'. The 'Secrets filter' is set to '*'. There is a checkbox for 'Make secrets available to whole job'.

Redirect your devopsecret to new file Password.txt and Publish it as an artifact.

Now click on Publish Pipeline Artifacts and go with Default Settings.

The screenshot shows the Azure DevOps Pipelines interface for a pipeline named 'demokeynew'. The pipeline is a starter pipeline with a main trigger. It includes a task 'AzureKeyVault@2' and a task 'PublishPipelineArtifact@1'. The 'PublishPipelineArtifact@1' task is configured to publish the file 'Password.txt' to the 'pipeline' artifact location. A tooltip is visible over the 'Publish Pipeline Artifacts' task, stating: 'Publish (upload) a file or directory as a named artifact for the current run'.

```

7   - main
8
9 pool:
10  vmImage: ubuntu-latest
11
12 steps:
13   - script: echo Hello, world!
14     displayName: 'Run a one-line script'
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17   - task: AzureKeyVault@2
18     inputs:
19       azureSubscription: 'MSDN Platforms Subscription(c5f6b777-a115-4e13-86f4-e1af2e819314)'
20       KeyVaultName: 'demokeyvault657'
21       SecretsFilter: '*'
22       RunAsPreJob: false
23
24   - script: |
25     echo $(devopsecret) > Password.txt
26
27 Settings
28   - task: PublishPipelineArtifact@1
29     inputs:
30       targetPath: '$(Pipeline.Workspace)'
31       publishLocation: 'pipeline'

```

The right sidebar shows the 'Tasks' list with 'Publish Pipeline Artifacts' selected. A tooltip is visible over the 'Publish Pipeline Artifacts' task, stating: 'Publish (upload) a file or directory as a named artifact for the current run'.

The screenshot shows the Azure DevOps Pipelines interface for a pipeline named 'demokeynew'. The pipeline is a starter pipeline with a main trigger. It includes a task 'AzureKeyVault@2' and a task 'PublishPipelineArtifact@1'. The 'PublishPipelineArtifact@1' task is configured to publish the file 'Password.txt' to the 'pipeline' artifact location. The 'Artifact name' is set to 'Password.txt' and the 'Artifact publish location' is set to 'Azure Pipelines'.

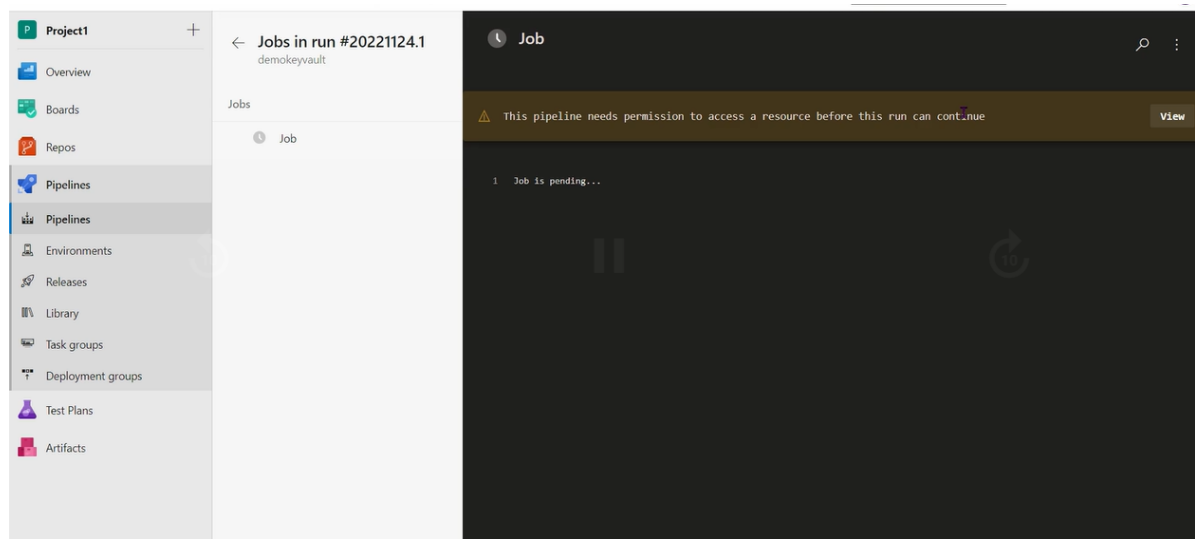
```

7   - main
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21       SecretsFilter: '*'
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28   - task: PublishPipelineArtifact@1
29     inputs:
30       targetPath: '$(Pipeline.Workspace)'
31       publishLocation: 'pipeline'

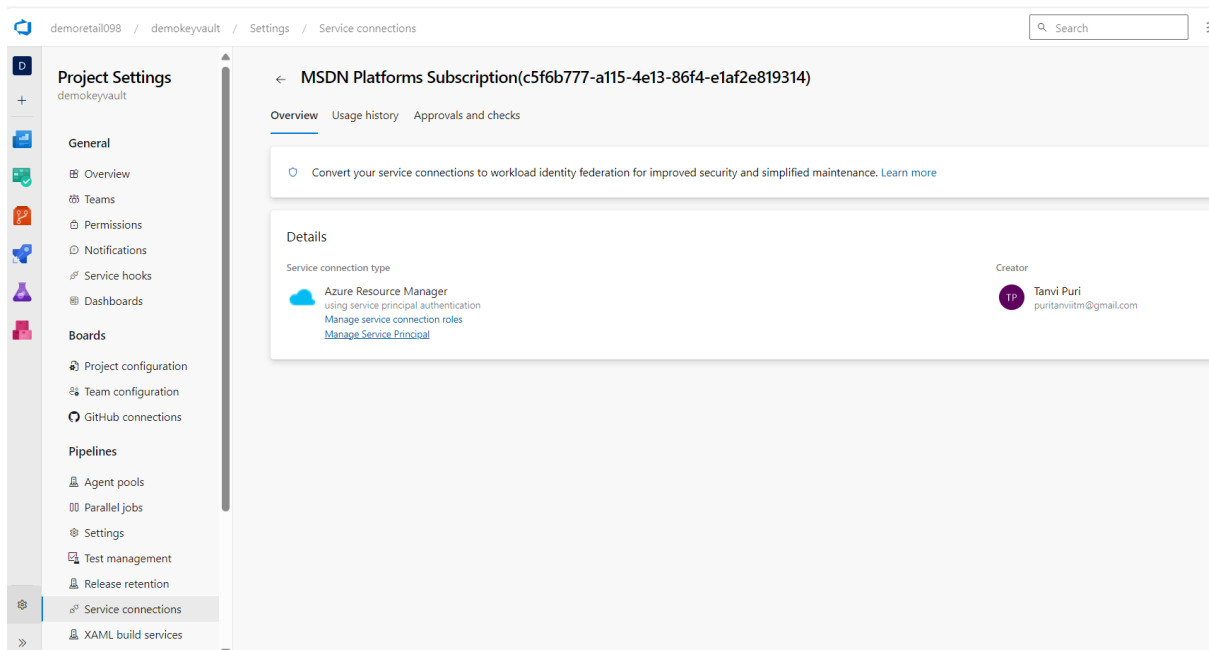
```

The right sidebar shows the 'Publish Pipeline Artifacts' configuration. The 'File or directory path' is set to '\$(Pipeline.Workspace)'. The 'Artifact name' is set to 'Password.txt'. The 'Artifact publish location' is set to 'Azure Pipelines'. There is a section for 'Custom properties'.

Validate and Run the Pipeline. Provide the permissions.



Service Connection will be created in the backend. Navigate to Azure Portal and provide the Get,List secret permissions to the newly created service principal.



Go to Project settings and click on Manage Service Principal or verify from Microsoft Entra ID App Registration as well.

Microsoft Azure

Search resources, services, and docs (G+)

Copilot

Home > Default Directory | App registrations >

demoretail098-demokeyvault-c5f6b777-a115-4e13-86f4-e1af2e819314

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Got a second? We would love your feedback on Microsoft identity platform (previously Azure AD for developer). →

Essentials

Display name : demoretail098-demokeyvault-c5f6b777-a115-4e13-86f4-e1af2...

Application (client) ID : a372492b-51bf-47ff-9f86-cf90d0171e3a

Object ID : 8cbd56c6-6cf6-468c-8e1d-6b8ee6c43145

Client credentials : 0.certificate_1_secret

Redirect URIs : Add a Redirect URI

Application ID URI : Add an Application ID URI

Home > Key vaults > demokeyvault657

demokeyvault657 | Access policies

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Access policies enable you to have fine grained control over access to vault items. Learn more

SearchPermissions: AllType: All

Showing 1 to 3 of 3 records.

Name	Email	Key Permissions	Secret Permissions	Certificate Permissions
APPLICATION				
demoretail098-demokeyvault-c5f6b...			Get, List	
demowebretail			Get, List	
USER				
Tanvi Puri	puritanviitm_gmail.com#EXT#@purit...	Get, List, Update, Create, Import, Del...	Get, List, Set, Delete, Recover, Backu...	Get, List, Update, Create, Import, Del...

Create an access policy

demokeyvault657

- 1 Permissions
- 2 Principal
- 3 Application (optional)
- 4 Review + create

Configure from a template

Select a template

Key permissions

Key Management Operations

- ☐ Select all
- ☐ Get
- ☐ List
- ☐ Update
- ☐ Create
- ☐ Import
- ☐ Delete
- ☐ Recover
- ☐ Backup
- ☐ Restore

Secret permissions

Secret Management Operations

- ☐ Select all
- ☒ Get
- ☒ List
- ☐ Set
- ☐ Delete
- ☐ Recover
- ☐ Backup
- ☐ Restore

Privileged Secret Operations

- ☐ Select all

Certificate permissions

Certificate Management Operations

- ☐ Select all
- ☐ Get
- ☐ List
- ☐ Update
- ☐ Create
- ☐ Import
- ☐ Delete
- ☐ Recover
- ☐ Backup
- ☐ Restore
- ☐ Manage Contacts

Create an access policy ...

demokeyvault657

- ✓

Permissions
- 2

Principal
- 3

Application (optional)
- 4

Review + create

Only 1 principal can be assigned per access policy.
Use the new embedded experience to select a principal. The previous popup experience can be accessed here. [Select a principal](#)

demoretail098-demokeyvault-c5f6b777-a115-4e13-86f4-e1af2e819314

demoretail098-demokeyvault-c5f6b777-a115-4e13-86f4-e1af2e819314
a372492b-51bf-47ff-9f86-cf90d0171e3a

Selected item

No item selected

Previous

Next

Select Service Principal and click on Review and create.

Azure DevOps

demoretail098 / demokeyvault / Pipelines

Search

demoretail098

+

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Pipeline	Last run
<div>✓</div> demokeynew	#20240915.2 • Update azure-pipelines.yml for Azure Pipelines Manually triggered for msl:n 40m ago 14s

Azure DevOps demoetail098 / demokeyvault / Pipelines / demokeynew / 20240915.2

demokeyvault +

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#20240915.2 • Update azure-pipelines.yml for Azure Pipelines

demokeynew

This run is being retained as one of 3 recent runs by main (Branch). [View retention leases](#)

Summary Code Coverage

Manually run by Tanvi Puri [View change](#)

Repository and version	Time started and elapsed	Related	Tests and coverage
demokeynew main b796ca99	Today at 7:24 am 14s	0 work items 1 published	Get started

Jobs

Name	Status	Duration
Job	Success	10s

Click on Publish Artifacts and download Password.txt text file.

Azure DevOps demoetail098 / demokeyvault / Pipelines / demokeynew / 20240915.2 / Published artifacts

demokeyvault +

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← Artifacts

Published

Name	Size
Job	2 KB
TestResults	
a	
b	
s	2 KB
Password.txt	10 B
README.md	985 B
azure-pipelines.yml	689 B