

AWS CodeBuild CI Project

IAM User Creation:

- Created an IAM **user** with the necessary permissions for CodeBuild, GitHub access, and S3 (if required for storing build artifacts).

CICD_User Info

Summary

ARN
[arn:aws:iam::211125348329:user/CICD_User](#)

Created
December 14, 2024, 15:59 (UTC+05:30)

Console access
[Enabled without MFA](#)

Last console sign-in
[8 hours ago](#)

Access key 1
[Create access key](#)

Permissions

Groups

Tags

Security credentials

Last Accessed

Permissions policies (3)

Permissions are defined by policies attached to the user directly or through groups.

Filter by Type
All types

<input type="checkbox"/>	Policy name	Type	Attached via
<input type="checkbox"/>	AWSCodeBuildAdminAccess	AWS managed	Directly
<input type="checkbox"/>	AWSCodeCommitPowerUser	AWS managed	Directly
<input type="checkbox"/>	IAMUserChangePassword	AWS managed	Directly

Source Code Setup:

- Created a simple **HTML file** and a **buildspec.yml** file.
- Pushed these files to a **GitHub repository**. (https://github.com/deepakkesarkar8809/AWS_CI_Demo.git)

```
buildspec.yml M  index.html X
index.html > ...
1  <!DOCTYPE html>
2  <html lang="en">
3  <head>
4  <meta charset="UTF-8">
5  <meta name="viewport" content="width=device-width, initial-scale=1.0">
6  <title>CICD Project Using the AWS Managed Services and GitHub</title>
7  </head>
8  <body>
9  <h1>Code With Shubham -YT Channel </h1>
10 <p>We have used the Codebuild,CodePipeLine,CodeDeploy from AWS Managed Services and for repository
11 <a href="https://www.google.com" target="_blank">Visit Google</a>
12 </body>
13 </html>
14
15
```

```
buildspec.yml M X  index.html
buildspec.yml > {} artifacts > [ ] files
1  version: 0.2
2
3  phases:
4    install:
5      commands:
6        - echo "Installing nginx"
7        - sudo apt-get update
8        - sudo apt-get install nginx -y
9    build:
10     commands:
11       - echo Build started on `date`
12       - cp index.html /var/www/html/
13    post_build:
14     commands:
15       - echo configuring nginx
16  artifacts:
17    files:
18      - /var/www/html/index.html
19
20
21
22
23
```

CodeBuild Configuration:

- Named the project as shown in the reference image.
- Connected **AWS CodeBuild** to the GitHub repository.
- Specified the **repository URL** and selected the **main branch** to fetch the files from GitHub.

☐ Default source credential
Use your account's default source credential to apply to all projects

☒ Custom source credential
Use a custom source credential to override your account's default settings

☒ GitHub App
Connect project to GitHub using an AWS managed GitHub App

☐ OAuth app
Connect project to GitHub using an OAuth app

☐ Personal access token
Connect project to GitHub using a personal access token

Connection

You can [create a new GitHub connection](#) by using an AWS managed GitHub App

☒ Repository in my GitHub account

☐ Public repository

☐ GitHub scoped webhook

Source version - [optional Info](#)

Enter a pull request, branch, commit ID, tag, or reference and a commit ID.

► **Additional configuration**

Git clone depth, Git submodules, Build status config

Build Execution:

- Created the build project and started the build process.
- The build completed successfully.

Developer Tools > CodeBuild > Build projects

Build projects [Info](#)

< 1 >

	Name	Source provider	Repository	Latest build status	Description	Last Modified
<input type="radio"/>	CI-Demo-001	GitHub	deepakkesarkar8809/AWS_CI_Demo	✓ Succeeded	-	23 minutes ago

Start time

End time

Build number

Dec 15, 2024 12:34 AM (UTC+5:30)

Dec 15, 2024 12:34 AM (UTC+5:30)

1

Build logs

Phase details

Reports

Environment variables

Build details

Resource utilization

Name	Status	Context	Duration	Start time	End time
SUBMITTED	<div>Succeeded</div>	-	<1 sec	Dec 15, 2024 12:34 AM (UTC+5:30)	Dec 15, 2024 12:34 AM (UTC+5:30)
QUEUED	<div>Succeeded</div>	-	<1 sec	Dec 15, 2024 12:34 AM (UTC+5:30)	Dec 15, 2024 12:34 AM (UTC+5:30)
PROVISIONING	<div>Succeeded</div>	-	6 secs	Dec 15, 2024 12:34 AM (UTC+5:30)	Dec 15, 2024 12:34 AM (UTC+5:30)
DOWNLOAD_SOURCE	<div>Succeeded</div>	-	4 secs	Dec 15, 2024 12:34 AM (UTC+5:30)	Dec 15, 2024 12:34 AM (UTC+5:30)
INSTALL	<div>Succeeded</div>	-	24 secs	Dec 15, 2024 12:34 AM (UTC+5:30)	Dec 15, 2024 12:34 AM (UTC+5:30)
PRE_BUILD	<div>Succeeded</div>	-	<1 sec	Dec 15, 2024 12:34 AM (UTC+5:30)	Dec 15, 2024 12:34 AM (UTC+5:30)
BUILD	<div>Succeeded</div>	-	<1 sec	Dec 15, 2024 12:34 AM (UTC+5:30)	Dec 15, 2024 12:34 AM (UTC+5:30)
POST_BUILD	<div>Succeeded</div>	-	<1 sec	Dec 15, 2024 12:34 AM (UTC+5:30)	Dec 15, 2024 12:34 AM (UTC+5:30)
UPLOAD_ARTIFACTS	<div>Succeeded</div>	-	<1 sec	Dec 15, 2024 12:34 AM (UTC+5:30)	Dec 15, 2024 12:34 AM (UTC+5:30)
FINALIZING	<div>Succeeded</div>	-	<1 sec	Dec 15, 2024 12:34 AM (UTC+5:30)	Dec 15, 2024 12:34 AM (UTC+5:30)
COMPLETED	<div>Succeeded</div>	-	-	Dec 15, 2024 12:34 AM (UTC+5:30)	-

S3 Bucket Creation:

- Created a new **S3 bucket** to store build artifacts.

Account snapshot - updated every 24 hoursAll AWS RegionsView Storage Lens dashboard

Storage lens provides visibility into storage usage and activity trends. Metrics don't include directory buckets. [Learn more](#)

General purpose bucketsDirectory buckets

General purpose buckets (2)InfoAll AWS Regions

Refresh

Copy ARN

Empty

Delete

Create bucket

Buckets are containers for data stored in S3.

Find buckets by name

< 1 > ⚙

Name	AWS Region	IAM Access Analyzer	Creation date
cf-templates-5tzeznqzewog-ap-south-1	Asia Pacific (Mumbai) ap-south-1	View analyzer for ap-south-1	November 25, 2024, 15:21:58 (UTC+05:30)
deepak-aws-project-code-build	Asia Pacific (Mumbai) ap-south-1	View analyzer for ap-south-1	December 15, 2024, 01:28:04 (UTC+05:30)

Editing the Project:

- Opened the previously created **CodeBuild project**.
- Enabled **artifacts** in the project settings.
- Selected the newly created **S3 bucket** as the destination for build outputs.

Artifacts

Add artifact

Artifact 1 - Primary

Type

Amazon S3

You might choose no artifacts if you are running tests or pushing a Docker image to Amazon ECR.

Bucket name

Q deepak-aws-project-code-build

Name

The name of the folder or compressed file in the bucket that will contain your output artifacts. Use Artifacts packaging under Additional configuration to choose whether to use a folder or compressed file. If the name is not provided, defaults to project name.

Code_output_demo_app

☐ Enable semantic versioning

Use the artifact name specified in the buildspec file

Path - optional

The path to the build output ZIP file or folder.

s3://deepak-aws-project-code-build/Code_output_demo_app/artifact.zip

Example: MyPath/MyArtifact.zip.

Namespace type - optional

None

Choose Build ID to insert the build ID into the path to the build output ZIP file or folder, e.g. MyPath/MyBuildID/MyArtifact.zip. Otherwise, choose None.

Artifacts packaging

☒ None

The artifact files will be uploaded to the bucket.

☐ Zip

AWS CodeBuild will upload artifacts into a compressed file that is put into the specified bucket.

☐ Disable artifact encryption

Disable encryption if using the artifact to publish a static website or sharing content with others

Rebuilding the Project:

- Started the build process again.
- Verified that the build artifacts were successfully uploaded to the **S3 bucket**.

Amazon S3 > Buckets > deepak-aws-project-code-build > artifact.zip/ > Code_output_demo_app/ > var/ > www/ > html/

html/

Copy S3 URI

Objects Properties

Objects (1) Info

Copy S3 URI Copy URL Download Open Delete Actions Create folder Upload

Objects are the fundamental entities stored in Amazon S3. You can use [Amazon S3 inventory](#) to get a list of all objects in your bucket. For others to access your objects, you'll need to explicitly grant them permissions. [Learn more](#)


Find objects by prefix

<input type="checkbox"/>	Name	Type	Last modified	Size	Storage class
<input type="checkbox"/>	index.html	html	December 15, 2024, 01:54:19 (UTC+05:30)	528.0 B	Standard

Files Stored Successfully:

- Verified that the build artifacts were successfully uploaded and stored in the **S3 bucket**.

If you want to learn about this project please use the below YouTube link for detail explanation:

 [Add this AWS DevOps Project to your Resume | AWS CodeCommit | CodeBuild \(Hindi\)](#)