

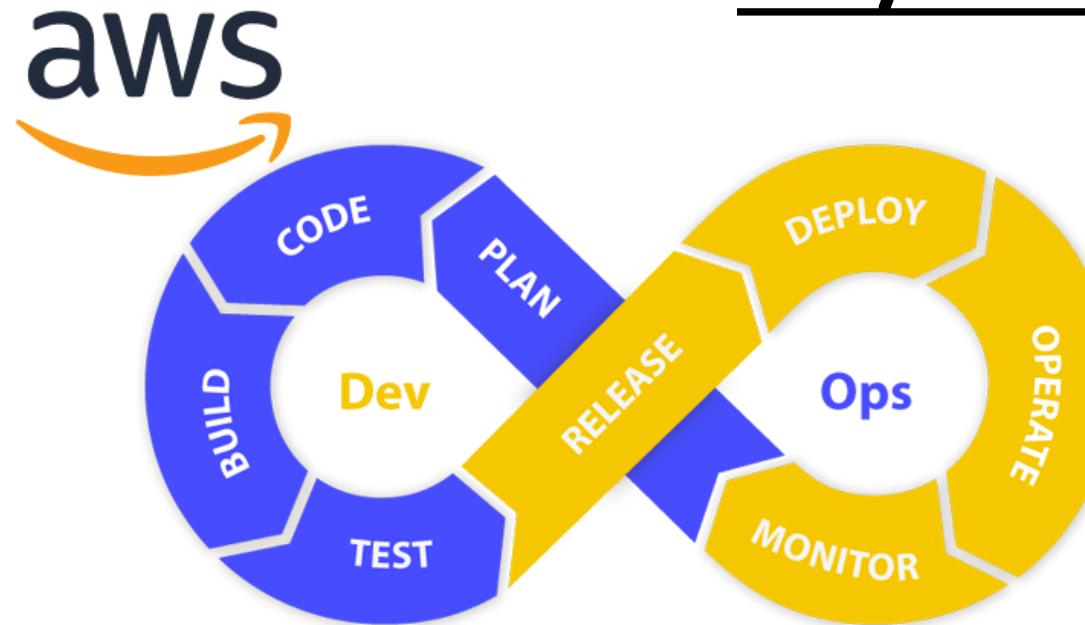
**L**i**B**

**Learn and Build**

by TechieNest Pvt. Ltd.

# Major Project - AWS

## CI/CD Pipeline



**Presented By:-**

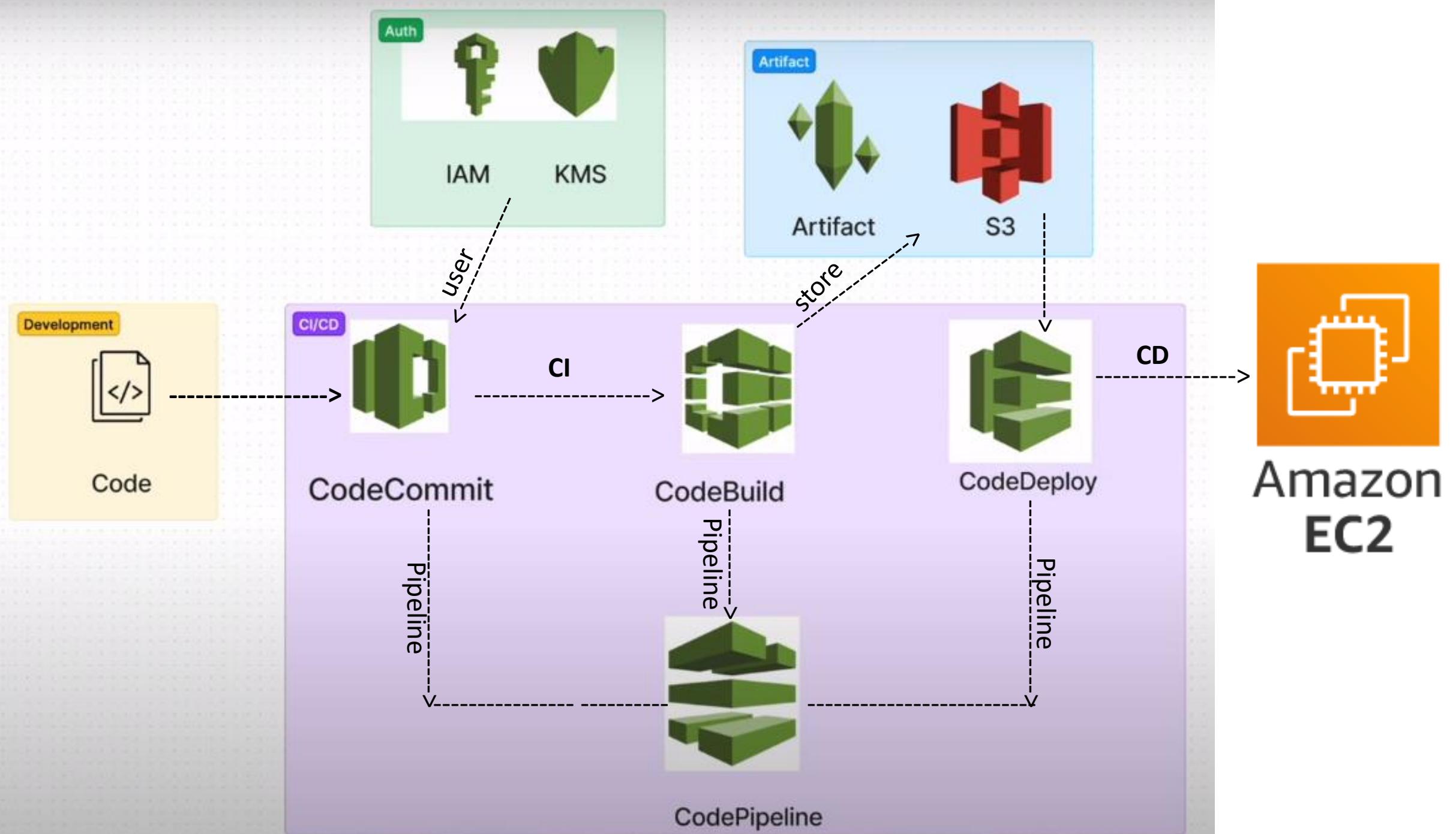
Ravi Kant

**Presented To:-**

Ashish Sir

# INDEX

- Developer Code
- AWS CodeCommit
- IAM User
- AWS CodeBuild
- Amazon Artifact and s3
- AWS CodeDeploy
- Amazon EC2
- AWS CodePipeline



# Create Repository from AWS CodeCommit

The screenshot shows the AWS CodeCommit service page. The top navigation bar includes the AWS logo, a services menu, a search bar, and account information for 'N. Virginia' and 'hacker'. The left sidebar, titled 'Developer Tools' and 'CodeCommit', has a 'Source • CodeCommit' section with 'Getting started' highlighted, along with links for 'Repositories', 'Approval rule templates', 'Artifacts • CodeArtifact', 'Build • CodeBuild', 'Deploy • CodeDeploy', 'Pipeline • CodePipeline', 'Settings', 'Go to resource', and 'Feedback'. The main content area features the 'AWS CodeCommit' logo and the tagline 'Create secure repositories for sharing your code in the cloud'. It describes CodeCommit as a fully-managed source control service for hosting private Git repositories. A large orange 'Create repository' button is prominently displayed. To the right, there are sections for 'Pricing' and a 'Learn more' link.

AWS CodeCommit

Create secure repositories for sharing your code in the cloud

AWS CodeCommit is a fully-managed source control service that makes it easy for companies to host secure and highly scalable private Git repositories. CodeCommit eliminates the need to operate your own source control system or worry about scaling its infrastructure.

**Create AWS CodeCommit repo**

Get started with AWS CodeCommit by creating a secure repository to store and share your code.

**Create repository**

**Pricing**

[Learn more](#)

How it works



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Copied

<https://git-codecommit.us-east-1.amazonaws.com/v1/repos/CICD-project>

Developer Tools &gt; CodeCommit &gt; Repositories &gt; CICD-project

# CICD-project

Clone URL ▾

### Connection steps

HTTPS

SSH

HTTPS (GRC)

You are signed in using a root account. You cannot configure SSH connections for a root account, and HTTPS connections for a root account are not recommended. Consider signing in as an IAM user and then setting up your connection.

### Step 1: Prerequisites

You must use a Git client that supports Git version 1.7.9 or later to connect to an AWS CodeCommit repository. If you do not have a Git client, you can install one from Git downloads page [View Git downloads page](#) ↗

# Create IAM User

aws Services Search [Alt+S]

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IAM > Users > Create user

Step 1 Specify user details

Step 2 Set permissions

Step 3 Review and create

Step 4 Retrieve password

## Specify user details

### User details

User name

devops-project

The user name can have up to 64 characters. Valid characters: A-Z, a-z, 0-9, and + = , . @ \_ - (hyphen)

Provide user access to the AWS Management Console - *optional*  
If you're providing console access to a person, it's a [best practice](#) to manage their access in IAM Identity Center.

**i Are you providing console access to a person?**

User type

Specify a user in Identity Center - Recommended  
We recommend that you use Identity Center to provide console access to a person. With Identity Center, you can centrally manage user access to their AWS accounts and cloud applications.

I want to create an IAM user  
We recommend that you create IAM users only if you need to enable programmatic access through access keys, service-specific credentials for AWS CodeCommit or Amazon Kinesis, or a backup

# Give Permission PowerUser of AWS CodeCommit

The screenshot shows the AWS IAM User creation wizard at Step 4: Retrieve password. The user is named 'devops-project' and has a custom password. The permissions summary table lists two policies:

Name	Type	Used as
AWSCodeCommitPowerUser	AWS managed	Permissions policy
IAMUserChangePassword	AWS managed	Permissions policy

**Tags - optional**  
Tags are key-value pairs you can add to AWS resources to help identify, organize, or search for resources. Choose any tags you want to associate with this user.

No tags associated with the resource.

Add new tag

You can add up to 50 more tags.

Cancel Previous Create user



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Key Management Service

## Identity and Access Management (IAM)

Search IAM

Dashboard

### Access management

User groups

Users

Roles

Policies

Identity providers

Account settings

### Access reports

Access analyzer

Archive rules

✓ User created successfully

You can view and download the user's password and email instructions for signing in to the AWS Management Console.

View user



IAM &gt; Users

**Users (2) Info**

An IAM user is an identity with long-term credentials that is used to interact with AWS in an account.



Delete

Add users

Find users by username or access key

&lt; 1 &gt;



<input type="checkbox"/>	User name	Groups	Last activity	MFA	Password a...	Activ
<input type="checkbox"/>	devops-project	None	Never	None	None	-
<input type="checkbox"/>	ravikant	None	2 days ago	None	9 days ago	-



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### ▼ Access reports

Access analyzer

Archive rules

IAM &gt; Users &gt; devops-project

## devops-project Info

Delete

### Summary

#### ARN

arn:aws:iam::351499076166:user/devops-project

#### Console access

Enabled without MFA

#### Access key 1

Not enabled

#### Created

August 03, 2023, 01:53 (UTC+05:30)

#### Last console sign-in

Never

#### Access key 2

Not enabled

[Permissions](#)[Groups](#)[Tags](#)[Security credentials](#)[Access Advisor](#)

### Console sign-in

[Manage console access](#)[Console sign-in link](#)[Console password](#)



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HTTP  
General  
credentialsAWS  
CloudWatch  
LogsCred  
General  
time. LGenerat  
time. LActi  
on

## Generate credentials

✓ Your new credentials are available.

**Save your user name and password or download the credentials file.**

This is the only time you can view the password or download it. You cannot recover it later. However, you can reset your password at any time.

You can use these credentials when connecting from your local computer, or from tools that require a static user name and password. [Learn more](#)

User name

devops-project-at-351499076166

Password

\*\*\*\*\* [Show](#)

Download credentials

Close

No credentials

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Privacy

Terms

Cookie preferences

Command Prompt

Microsoft Windows [Version 10.0.19045.3208]  
(c) Microsoft Corporation. All rights reserved.

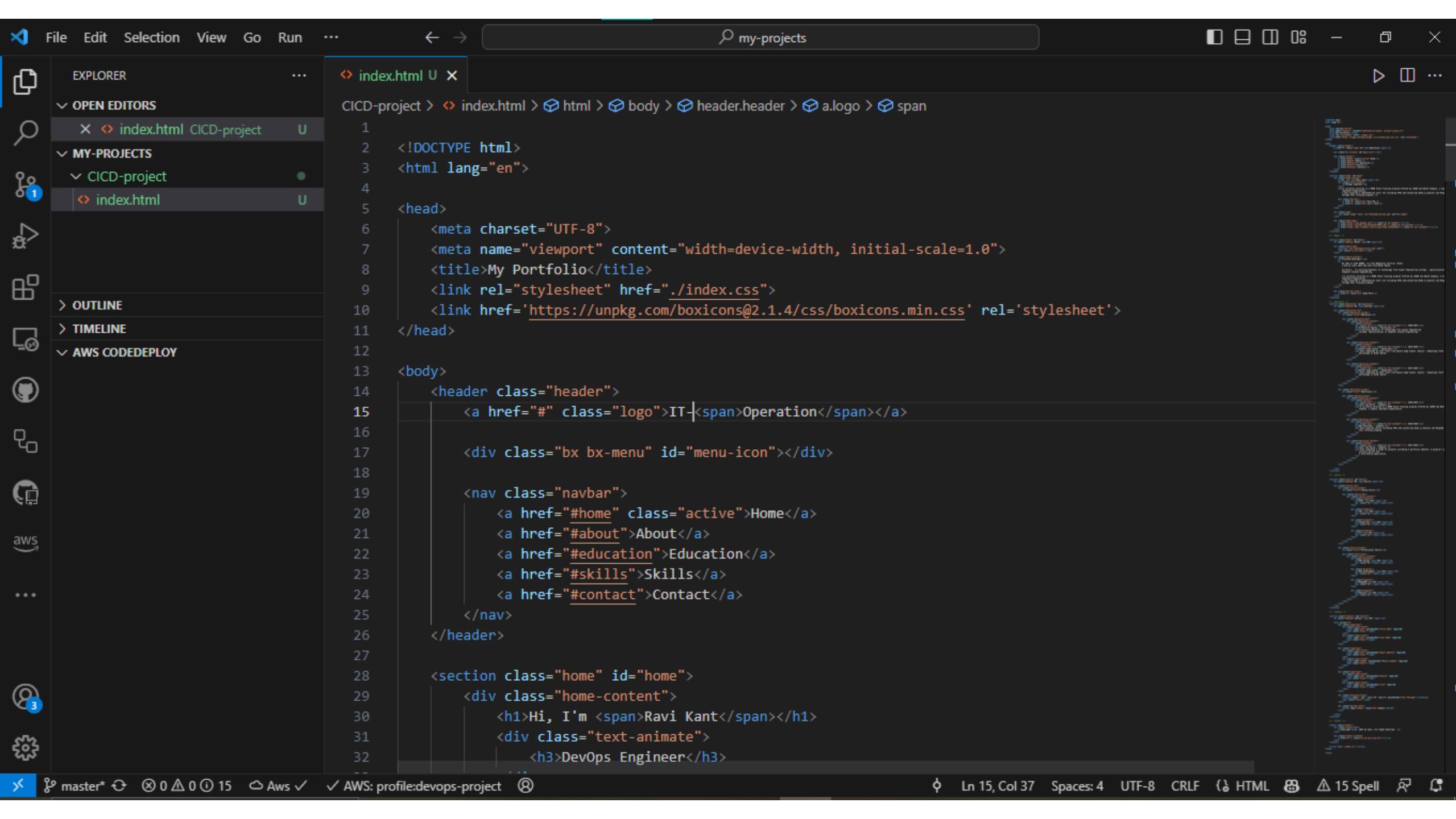
C:\Users\popha>

C:\Users\popha>cd my-projects

C:\Users\popha\my-projects>git clone https://git-codecommit.us-east-1.amazonaws.com/v1/repos/CICD-project  
Cloning into 'CICD-project'...  
warning: You appear to have cloned an empty repository.

C:\Users\popha\my-projects>git clone https://git-codecommit.us-east-1.amazonaws.com/v1/repos/CICD-project  
Cloning into 'CICD-project'...  
warning: You appear to have cloned an empty repository.

C:\Users\popha\my-projects>



```
C:\Users\popha\my-projects>cd CICD-project

C:\Users\popha\my-projects\CICD-project>git init
Reinitialized existing Git repository in C:/Users/popha/my-projects/CICD-project/.git/

C:\Users\popha\my-projects\CICD-project>git add .

C:\Users\popha\my-projects\CICD-project>git commit -m "added portfolio"
[master (root-commit) f83beb2] added portfolio
 1 file changed, 298 insertions(+)
 create mode 100644 index.html

C:\Users\popha\my-projects\CICD-project>git push origin master
Enumerating objects: 3, done.
Counting objects: 100% (3/3), done.
Delta compression using up to 2 threads
Compressing objects: 100% (2/2), done.
Writing objects: 100% (3/3), 2.26 KiB | 771.00 KiB/s, done.
Total 3 (delta 0), reused 0 (delta 0), pack-reused 0
remote: Validating objects: 100%
To https://git-codecommit.us-east-1.amazonaws.com/v1/repos/CICD-project
 * [new branch]      master -> master

C:\Users\popha\my-projects\CICD-project>
```



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## CICD-project

Notify ▾

master ▾

Create pull request

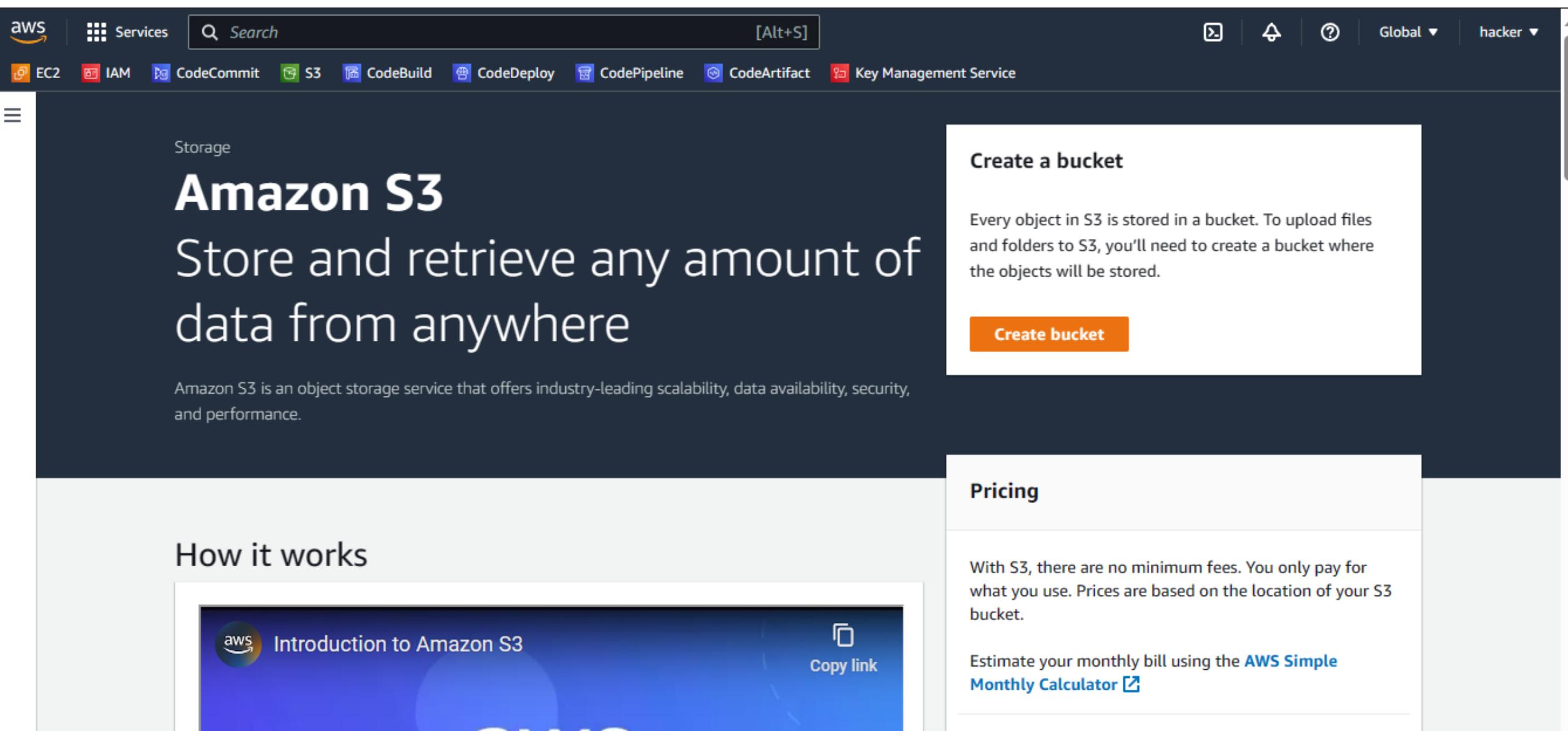
Clone URL ▾

### CICD-project / index.html

Edit

```
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>My Portfolio</title>
7    <link rel="stylesheet" href="./index.css">
8    <link href="https://unpkg.com/boxicons@2.1.4/css/boxicons.min.css" rel='stylesheet'>
9  </head>
10 <body>
11   <header class="header">
12     <a href="#" class="logo">IT-<span>Operation</span></a>
13   <div class="bx bx-menu" id="menu-icon"></div>
14   <nav class="navbar">
15     <a href="#home" class="active">Home</a>
16     <a href="#about">About</a>
```

# Create Bucket of Amazon S3



The screenshot shows the AWS S3 landing page. At the top, there's a navigation bar with the AWS logo, a search bar, and various service links like EC2, IAM, and S3. Below the navigation, the main heading is "Amazon S3" with the subtext "Store and retrieve any amount of data from anywhere". A descriptive paragraph explains that S3 is an object storage service with industry-leading scalability, data availability, security, and performance. To the right, there's a prominent orange "Create bucket" button inside a white box. Further down, there's a "Pricing" section with information about no minimum fees and a link to the AWS Simple Monthly Calculator.

warn Services Search [Alt+S] Global ▾ hacker ▾

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Storage

## Amazon S3

Store and retrieve any amount of data from anywhere

Amazon S3 is an object storage service that offers industry-leading scalability, data availability, security, and performance.

**Create a bucket**

Every object in S3 is stored in a bucket. To upload files and folders to S3, you'll need to create a bucket where the objects will be stored.

**Create bucket**

### How it works

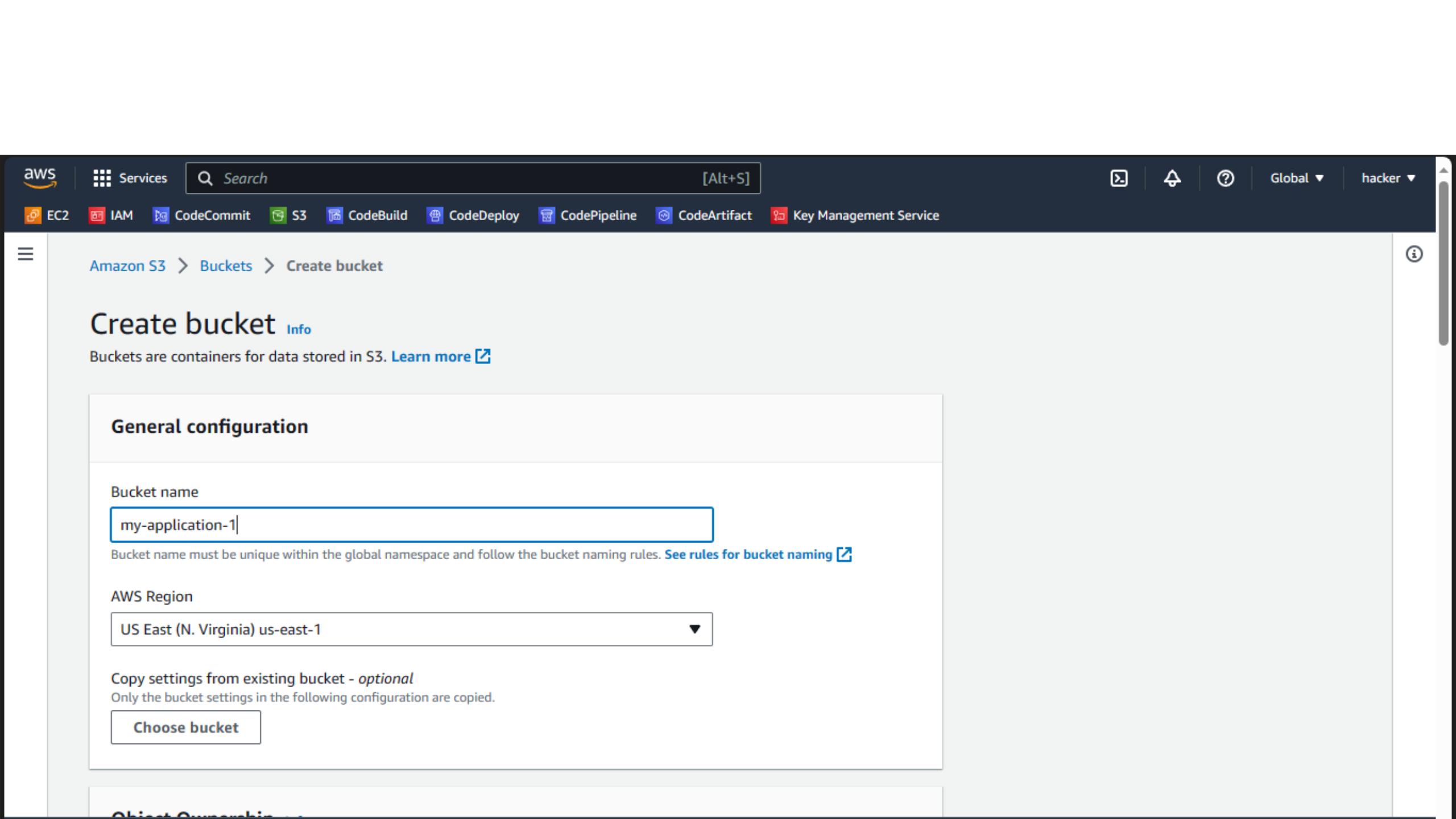
Introduction to Amazon S3

Copy link

Pricing

With S3, there are no minimum fees. You only pay for what you use. Prices are based on the location of your S3 bucket.

Estimate your monthly bill using the [AWS Simple Monthly Calculator](#)





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✔ Successfully created bucket "my-application-1"

To upload files and folders, or to configure additional bucket settings choose [View details](#).[View details](#)[Amazon S3](#) > [Buckets](#)

## ▶ Account snapshot

Storage lens provides visibility into storage usage and activity trends. [Learn more](#)[View Storage Lens dashboard](#)Buckets (1) [Info](#)Buckets are containers for data stored in S3. [Learn more](#)[Copy content](#)[Empty](#)[Delete](#)[Create bucket](#) Find buckets by name

&lt; 1 &gt;

Name	AWS Region	Access	Creation date
my-application-1	US East (N. Virginia) us-east-1	Bucket and objects not public	August 4, 2023, 12:21:38 (UTC+05:30)



Services

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Amazon S3 &gt; Buckets &gt; my-application-1 &gt; Create folder



## Create folder Info

Use folders to group objects in buckets. When you create a folder, S3 creates an object using the name that you specify followed by a slash (/). This object then appears as folder on the console. [Learn more](#)



### Your bucket policy might block folder creation

If your bucket policy prevents uploading objects without specific tags, metadata, or access control list (ACL) grantees, you will not be able to create a folder using this configuration. Instead, you can use the [upload configuration](#) to upload an empty folder and specify the appropriate settings.

### Folder

Folder name

my-folder

/

Folder names can't contain "/". [See rules for naming](#)

### Server-side encryption Info



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# Create Build from AWS CodeBuild

The screenshot shows the AWS CodeBuild console interface. The top navigation bar includes the AWS logo, a search bar with the placeholder 'Search' and a keyboard shortcut '[Alt+S]', and various service links like EC2, IAM, CodeCommit, S3, CodeBuild, CodeDeploy, CodePipeline, CodeArtifact, and Key Management Service. The location is set to N. Virginia, and the user is identified as 'hacker'. On the left, a sidebar titled 'Developer Tools' contains sections for CodeCommit, CodeArtifact, CodeBuild (with 'Getting started', 'Build projects' highlighted in orange, 'Build history', 'Report groups', 'Report history', and 'Account metrics'), and CodeDeploy (with 'Getting started', 'Deployments', 'Applications', and 'Deployment configurations'). The main content area is titled 'Developer Tools > CodeBuild > Build projects'. It features a 'Build projects' section with a 'Create build project' button, a search bar, and a dropdown for 'Your projects'. A table below lists columns for Name, Source provider, Repository, Latest build status, Description, and Last Modified. The message 'No results' and 'There are no results to display.' is centered in the table area.

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  - Report history
  - Account metrics
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  - Deployments
  - Applications
  - Deployment configurations

Developer Tools > CodeBuild > Build projects

**Build projects** Info

C Notify ▾ Start build ▾ View details Edit ▾ Delete build project

Create build project

Search Your projects ▾

Name	Source provider	Repository	Latest build status	Description	Last Modified
No results					
There are no results to display.					



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## Create build project

### Project configuration

#### Project name

A project name must be 2 to 255 characters. It can include the letters A-Z and a-z, the numbers 0-9, and the special characters - and \_.

#### Description - optional

#### Build badge - optional

 Enable build badge

#### Enable concurrent build limit - optional

Limit the number of allowed concurrent builds for this project.

 Restrict number of concurrent builds this project can start



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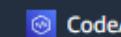
CodeBuild



CodeDeploy



CodePipeline



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Key Management Service



## Source

[Add source](#)

### Source 1 - Primary

Source provider

AWS CodeCommit

Repository

CICD-project



#### Reference type

Choose the source version reference type that contains your source code.

 Branch Git tag Commit ID

#### Branch

Choose a branch that contains the code to build.

master

#### Commit ID - optional

Choose a commit ID. This can shorten the duration of your build.



#### Source version [Info](#)

refs/heads/master

## Environment

### Environment image

Managed image

Use an image managed by AWS CodeBuild

Custom image

Specify a Docker image

### Operating system

Ubuntu

 The programming language runtimes are now included in the standard image of Ubuntu 18.04, which is recommended for new CodeBuild projects created in the console. See [Docker Images Provided by CodeBuild for details](#).

### Runtime(s)

Standard

### Image

aws/codebuild/standard:7.0

### Image version

Always use the latest image for this runtime version

### Environment type

Linux

### Privileged



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### Service role

#### New service role

Create a service role in your account

#### Existing service role

Choose an existing service role from your account

### Role name

Type your service role name

### ► Additional configuration

Timeout, certificate, VPC, compute type, environment variables, file systems

### Buildspec

#### Build specifications

#### Use a buildspec file

Store build commands in a YAML-formatted buildspec file

#### Insert build commands

Store build commands as build project configuration

#### Buildspec name - *optional*

By default, CodeBuild looks for a file named buildspec.yml in the source code root directory. If your buildspec file uses a different name or location, enter its path from the source root here (for example, buildspec-two.yml or configuration/buildspec.yml).

The screenshot shows a dark-themed IDE interface with the following details:

- Top Bar:** File, Edit, Selection, View, Go, Run, ...
- Search Bar:** my-projects
- Left Sidebar (EXPLORER):**
  - OPEN EDITORS
  - MY-PROJECTS
    - CICD-project
      - buildspec.yml (selected)
      - index.html
  - OUTLINE
  - TIMELINE
  - AWS CODEDEPLOY
- Central Area:** The selected file is `buildspec.yml`. The code content is as follows:

```
version: 0.2
phases:
  install:
    commands:
      - echo Installing NGINX
      - sudo apt-get update
      - sudo apt-get install nginx -y
  build:
    commands:
      - echo build started on `date`
      - cp index.html /var/www/html/
  post_build:
    commands:
      - echo Configuring NGINX
artifacts:
  files:
    - '**/*'
```
- Right Sidebar:** Shows a small preview of the project structure.

Command Prompt

Microsoft Windows [Version 10.0.19045.3208]  
© Microsoft Corporation. All rights reserved.

C:\Users\popha>cd my-projects

C:\Users\popha\my-projects>cd CICD-project

C:\Users\popha\my-projects\CICD-project>git add .

C:\Users\popha\my-projects\CICD-project>git commit -m "added buildspec"  
[master bbda2dd] added buildspec  
1 file changed, 19 insertions(+)  
create mode 100644 buildspec.yml

C:\Users\popha\my-projects\CICD-project>git push origin master

Enumerating objects: 4, done.

Counting objects: 100% (4/4), done.

Delta compression using up to 2 threads

Compressing objects: 100% (3/3), done.

Writing objects: 100% (3/3), 459 bytes | 229.00 KiB/s, done.

Total 3 (delta 0), reused 0 (delta 0), pack-reused 0

remote: Validating objects: 100%

To https://git-codecommit.us-east-1.amazonaws.com/v1/repos/CICD-project  
f83beb2..bbda2dd master -> master

C:\Users\popha\my-projects\CICD-project>



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# CICD-project



Notify ▾

master



Create pull request

Clone URL ▾

### CICD-project Info

Add file ▾

#### Name



buildspec.yml



index.html



Services

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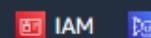


N. Virginia ▾

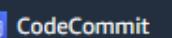
hacker ▾



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Key Management Service



## 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

my-application-1



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.

my-folder

 Enable semantic versioning

Use the artifact name specified in the buildspec file

Path - *optional*

The path to the build output ZIP file or folder.

artifact.zip

Example: MyPath/MyArtifact.zip.



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 Disable artifact encryption

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

## ▶ Additional configuration

Cache, encryption key

## Logs

### CloudWatch

 CloudWatch logs - *optional*

Checking this option will upload build output logs to CloudWatch.

### S3

 S3 logs - *optional*

Checking this option will upload build output logs to S3.

Cancel

Create build project



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Key Management Service

Project created

You have successfully created the following project: my-build-project

Create a notification rule for this project



Developer Tools &gt; CodeBuild &gt; Build projects &gt; my-build-project

## my-build-project

Notify ▾

Share

Edit ▾

Delete build project

Start build with overrides

Start build

### Configuration

Source provider

AWS CodeCommit

Primary repository

CICD-project

Artifacts upload location

my-application-1

Build badge

Disabled

Public builds

Disabled

Build history

Batch history

Build details

Build triggers

Metrics

Build history



Stop build

View artifacts

View logs

Delete builds

Retry build



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Select a Region ▾

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### Build started

You have successfully started the following build: my-build-project:6d8dce96-eeb3-4617-8c94-ff2381a965b1

Build logs

Phase details

Reports

Environment variables

Build details

Resource utilization

Name	Status	Context	Duration	Start time	End time
SUBMITTED	✔ Succeeded	-	<1 sec	Aug 4, 2023 12:46 PM (UTC+5:30)	Aug 4, 2023 12:46 PM (UTC+5:30)
QUEUED	✔ Succeeded	-	<1 sec	Aug 4, 2023 12:46 PM (UTC+5:30)	Aug 4, 2023 12:46 PM (UTC+5:30)
PROVISIONING	✔ Succeeded	-	26 secs	Aug 4, 2023 12:46 PM (UTC+5:30)	Aug 4, 2023 12:46 PM (UTC+5:30)
DOWNLOAD_SOURCE	✔ Succeeded	-	6 secs	Aug 4, 2023 12:46 PM (UTC+5:30)	Aug 4, 2023 12:46 PM (UTC+5:30)
INSTALL	✔ Succeeded	-	29 secs	Aug 4, 2023 12:46 PM (UTC+5:30)	Aug 4, 2023 12:47 PM (UTC+5:30)
PRE_BUILD	✔ Succeeded	-	<1 sec	Aug 4, 2023 12:47 PM (UTC+5:30)	Aug 4, 2023 12:47 PM (UTC+5:30)

# Create Application from AWS CodeDeploy

The screenshot shows the AWS CodeDeploy console with the following details:

- Header:** AWS logo, Services menu (selected), Search bar, [Alt+S] keyboard shortcut, and navigation icons.
- Region:** N. Virginia
- Sidebar (Developer Tools):**
  - CodeDeploy** (selected)
  - Source • CodeCommit
  - Artifacts • CodeArtifact
  - Build • CodeBuild
  - Deploy • CodeDeploy**
    - Getting started** (selected)
    - Deployments
    - Applications
    - Deployment configurations
    - On-premises instances
  - Pipeline • CodePipeline
  - Settings
- Main Content:**
  - AWS CodeDeploy**
  - Automate code deployments to maintain application uptime
  - AWS CodeDeploy** is a fully managed deployment service that automates software deployments to compute services such as Amazon EC2, AWS Lambda, and your on-premises servers. AWS CodeDeploy makes it easier for you to rapidly release new features, helps you avoid downtime during application deployment, and handles the complexity of updating your applications.
- Call-to-Action:** Create AWS CodeDeploy deployment (button)
- Footer:** How it works, Pricing (US), and a section for CodeDeploy on EC2/Lambda with a Free tier indicator.



Services

Search

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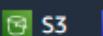
EC2



IAM



CodeCommit



S3



CodeBuild



CodeDeploy



CodePipeline



CodeArtifact



Key Management Service



Developer Tools &gt; CodeDeploy &gt; Applications &gt; Create application

## Create application

### Application configuration

#### Application name

Enter an application name

100 character limit

#### Compute platform

Choose a compute platform



#### Tags



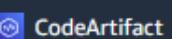
Services

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Developer Tools

## CodeDeploy

▶ Source • CodeCommit

▶ Artifacts • CodeArtifact

▶ Build • CodeBuild

▼ Deploy • CodeDeploy

Getting started

Deployments

Applications

### Application

Settings

Deployment configurations

On-premises instances

▶ Pipeline • CodePipeline

▶ Settings

### Application created

In order to create a new deployment, you must first create a deployment group.

Create a notification rule for this application

Developer Tools > CodeDeploy > Applications > my-app-project

## my-app-project

Notify ▾

Delete application

### Application details

Name

my-app-project

Compute platform

EC2/On-premises

Deployments

Deployment groups

Revisions

### Deployment groups

View details

Edit

Create deployment group

< 1 >



# Create Role for CodeDeploy

aws Services Search [Alt+S] Global ▾ hacker ▾

EC2 IAM CodeCommit S3 CodeBuild CodeDeploy CodePipeline CodeArtifact Key Management Service

directory to perform actions in this account.

actions in this account.

**Use case**  
Allow an AWS service like EC2, Lambda, or others to perform actions in this account.

Common use cases

- EC2  
Allows EC2 instances to call AWS services on your behalf.
- Lambda  
Allows Lambda functions to call AWS services on your behalf.

Use cases for other AWS services:

CodeDeploy

- CodeDeploy  
Allows CodeDeploy to call AWS services such as Auto Scaling on your behalf.
- CodeDeploy for Lambda  
Allows CodeDeploy to route traffic to a new version of an AWS Lambda function version on your behalf.
- CodeDeploy - ECS  
Allows CodeDeploy to read S3 objects, invoke Lambda functions, publish to SNS topics, and update ECS services on your behalf.

Cancel Next



Services

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EC2

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Key Management Service

Identity and Access Management (IAM) X

Search IAM

Dashboard

## ▼ Access management

User groups

Users

## Roles

Policies

Identity providers

Account settings

## ▼ Access reports

Access analyzer

Archive rules

IAM &gt; Roles &gt; awscodedeploy

## awscodedeploy

Delete

Allows CodeDeploy to call AWS services such as Auto Scaling on your behalf.

## Summary

Edit

Creation date

August 03, 2023, 13:35 (UTC+05:30)

ARN

arn:aws:iam::351499076166:role/awscodedeploy

Last activity

22 hours ago

Maximum session duration

1 hour

Permissions

Trust relationships

Tags

Access Advisor

Revoke sessions

Permissions policies (6) Info

You can attach up to 10 managed policies.



Simulate

Remove

Add permissions ▾



Services

Search

[Alt+S]



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EC2



IAM



CodeCommit



S3



CodeBuild



CodeDeploy



CodePipeline



CodeArtifact



Key Management Service

## Identity and Access Management (IAM)

Search IAM

Dashboard

### Access management

User groups

Users

#### Roles

Policies

Identity providers

Account settings

### Access reports

Access analyzer

Archive rules

## Permissions policies (6) Info

You can attach up to 10 managed policies.



Simulate

Remove

Add permissions ▾

Filter policies by property or policy name and press enter.

&lt; 1 &gt;



<input type="checkbox"/>	Policy name	Type	Description
<input type="checkbox"/>	<a href="#">AmazonEC2FullAccess</a>	AWS managed	Provides full access to Amazon EC2 via the AWS Manag...
<input type="checkbox"/>	<a href="#">AmazonS3FullAccess</a>	AWS managed	Provides full access to all buckets via the AWS Managem...
<input type="checkbox"/>	<a href="#">AWSCodeDeployRole</a>	AWS managed	Provides CodeDeploy service access to expand tags and...
<input type="checkbox"/>	<a href="#">AmazonEC2RoleforAWSCodeDeploy</a>	AWS managed	Provides EC2 access to S3 bucket to download revision. ...
<input type="checkbox"/>	<a href="#">AWSCodeDeployFullAccess</a>	AWS managed	Provides full access to CodeDeploy resources.
<input type="checkbox"/>	<a href="#">AmazonEC2RoleforAWSCodeDepl...</a>	AWS managed	Provides EC2 limited access to S3 bucket to download re...

## Permissions boundary - (not set) Info

Set a permissions boundary to control the maximum permissions this role can

# Create Role for Amazon EC2

The screenshot shows the AWS Identity and Access Management (IAM) service interface. The top navigation bar includes the AWS logo, a 'Services' dropdown, a search bar, and global navigation links for 'Global' and 'hacker'. Below the navigation is a secondary row of service icons: EC2, IAM, CodeCommit, S3, CodeBuild, CodeDeploy, CodePipeline, CodeArtifact, and Key Management Service. On the left, a sidebar titled 'Identity and Access Management (IAM)' contains a 'Search IAM' bar and a list of management options: Dashboard, Access management (with 'User groups', 'Users', and 'Roles' expanded), Policies, Identity providers, Account settings, and Access reports (with 'Access analyzer' and 'Archive rules' expanded). The main content area displays a role named 'for-ec2-service' under the 'Roles' section. The role's ARN is listed as arn:aws:iam::351499076166:role/for-ec2-service. It also shows the instance profile ARN as arn:aws:iam::351499076166:instance-profile/for-ec2-service. The role was created on August 03, 2023, at 14:42 (UTC+05:30), and its last activity was 11 hours ago. The 'Summary' section includes tabs for 'Permissions', 'Trust relationships', 'Tags', 'Access Advisor', and 'Revoke sessions'. The 'Permissions' tab is active, showing 'Permissions policies (3) Info' and a note that up to 10 managed policies can be attached. Buttons for 'Simulate' and 'Remove' are available, along with a 'Add permissions' dropdown.

aws Services Search [Alt+S]

EC2 IAM CodeCommit S3 CodeBuild CodeDeploy CodePipeline CodeArtifact Key Management Service

Identity and Access Management (IAM)

IAM > Roles > for-ec2-service

for-ec2-service

Allows EC2 instances to call AWS services on your behalf.

Summary

Creation date: August 03, 2023, 14:42 (UTC+05:30)

Last activity: 11 hours ago

ARN: arn:aws:iam::351499076166:role/for-ec2-service

Instance profile ARN: arn:aws:iam::351499076166:instance-profile/for-ec2-service

Maximum session duration: 1 hour

Permissions Trust relationships Tags Access Advisor Revoke sessions

Permissions policies (3) Info

You can attach up to 10 managed policies.

Simulate Remove Add permissions ▾



Services

Search

[Alt+S]

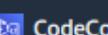


Global ▾

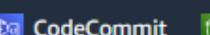
hacker ▾



EC2



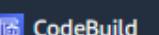
IAM



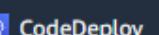
CodeCommit



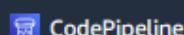
S3



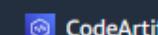
CodeBuild



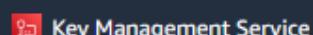
CodeDeploy



CodePipeline



CodeArtifact



Key Management Service

## Identity and Access Management (IAM)

Search IAM

Dashboard

### Access management

User groups

Users

Roles

Policies

Identity providers

Account settings

### Access reports

Access analyzer

Archive rules

You can attach up to 10 managed policies.

Add permissions ▾

Filter policies by property or policy name and press enter.

&lt; 1 &gt;



<input type="checkbox"/>	Policy name	Type	Description
<input type="checkbox"/>	<a href="#">AmazonEC2FullAccess</a>	AWS managed	Provides full access to Amazon EC2 via the AWS Managem...
<input type="checkbox"/>	<a href="#">AmazonS3FullAccess</a>	AWS managed	Provides full access to all buckets via the AWS Managem...
<input type="checkbox"/>	<a href="#">AWSCodeDeployFullAccess</a>	AWS managed	Provides full access to CodeDeploy resources.

### Permissions boundary - (not set) Info

Set a permissions boundary to control the maximum permissions this role can have.  
This is not a common setting but can be used to delegate permission management  
to others.

Set permissions boundary

▼ Generate policy based on CloudTrail events

# Create Ubuntu Machine

Serviços | Search [Alt+S] | N. Virginia | hacker

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Search our full catalog including 1000s of application and OS images

Quick Start

Amazon Linux macOS Ubuntu Windows Red Hat SUSE Li

aws Mac ubuntu® Microsoft Red Hat SUSE

Browse more AMIs Including AMIs from AWS, Marketplace and the Community

Amazon Machine Image (AMI)

Ubuntu Server 22.04 LTS (HVM), SSD Volume Type ami-053b0d53c279acc90 (64-bit (x86)) / ami-0a0c8eebcdd6dcbd0 (64-bit (Arm)) Virtualization: hvm ENA enabled: true Root device type: ebs

Free tier eligible

Description

Canonical, Ubuntu, 22.04 LTS, amd64 jammy image build on 2023-05-16

Architecture

64-bit (x86)

AMI ID

ami-053b0d53c279acc90

Verified provider

▼ Summary

Number of instances Info

1

Software Image (AMI)

Canonical, Ubuntu, 22.04 LTS, ...[read more](#)  
ami-053b0d53c279acc90

Virtual server type (instance type)

t2.micro

Firewall (security group)

New security group

Storage (volumes)

1 volume(s) - 8 GiB

Cancel Launch instance

Review commands



Services

Search

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EC2 IAM CodeCommit S3 CodeBuild CodeDeploy CodePipeline CodeArtifact Key Management Service

New EC2 Experience

Tell us what you think

Instances (1/3) Info



Connect

Instance state ▾

Actions ▾

Launch instances ▾

Find instance by attribute or tag (case-sensitive)

&lt; 1 &gt; ⚙

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone
control node	i-05185f58125bcb158	Stopped	t2.micro	-	No alarms	+ us-east-1b
managed-node	i-0ff4583b7797efd7f	Stopped	t2.micro	-	No alarms	+ us-east-1b
aws CI/CD	i-0d3cd9df53eca2e61	Running	t2.micro	2/2 checks passed	No alarms	+ us-east-1b

Instance: i-0d3cd9df53eca2e61 (aws CI/CD)



Details

Security

Networking

Storage

Status checks

Monitoring

Tags

▼ Instance summary Info

Instance ID

i-0d3cd9df53eca2e61 (aws CI/CD)

Public IPv4 address

3.87.9.131 | open address ↗

Private IPv4 addresses

172.31.85.216

IPv6 address

-

Instance state

Running

Public IPv4 DNS

ec2-3-87-9-131.compute-1.amazonaws.com | ↗



Services

Search

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[EC2](#)[IAM](#)[CodeCommit](#)[S3](#)[CodeBuild](#)[CodeDeploy](#)[CodePipeline](#)[CodeArtifact](#)[Key Management Service](#)

applicable law.

To run a command as administrator (user "root"), use "sudo <command>".  
See "man sudo\_root" for details.

```
ubuntu@ip-172-31-85-216:~$ vi install.sh
ubuntu@ip-172-31-85-216:~$ bash install.sh
Hit:1 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy InRelease
Get:2 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates InRelease [119 kB]
Get:3 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-backports InRelease [109 kB]
Get:4 http://security.ubuntu.com/ubuntu jammy-security InRelease [110 kB]
Get:5 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy/universe amd64 Packages [14.1 MB]
Get:6 http://security.ubuntu.com/ubuntu jammy-security/main amd64 Packages [658 kB]
Get:7 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy/universe Translation-en [5652 kB]
Get:8 http://security.ubuntu.com/ubuntu jammy-security/main Translation-en [153 kB]
Get:9 http://security.ubuntu.com/ubuntu jammy-security/main amd64 c-n-f Metadata [11.2 kB]
Get:10 http://security.ubuntu.com/ubuntu jammy-security/restricted amd64 Packages [656 kB]
Get:11 http://security.ubuntu.com/ubuntu jammy-security/restricted Translation-en [104 kB]
Get:12 http://security.ubuntu.com/ubuntu jammy-security/restricted amd64 c-n-f Metadata [532 B]
Get:13 http://security.ubuntu.com/ubuntu jammy-security/universe amd64 Packages [769 kB]
Get:14 http://security.ubuntu.com/ubuntu jammy-security/universe Translation-en [140 kB]
Get:15 http://security.ubuntu.com/ubuntu jammy-security/universe amd64 c-n-f Metadata [16.4 kB]
Get:16 http://security.ubuntu.com/ubuntu jammy-security/multiverse amd64 Packages [36.5 kB]
Get:17 http://security.ubuntu.com/ubuntu jammy-security/multiverse Translation-en [7060 B]
Get:18 http://security.ubuntu.com/ubuntu jammy-security/multiverse amd64 c-n-f Metadata [260 B]
```

i-0d3cd9df53eca2e61 (aws CI/CD)



PublicIPs: 3.87.9.131 PrivateIPs: 172.31.85.216

aws Services Search [Alt+S] N. Virginia ▾ hacker ▾

EC2 IAM CodeCommit S3 CodeBuild CodeDeploy CodePipeline CodeArtifact Key Management Service

```
#!/bin/bash
# This installs the CodeDeploy agent and its prerequisites on Ubuntu 22.04.
sudo apt-get update
sudo apt-get install ruby-full ruby-webrick wget -y
cd /tmp
wget https://aws-codedeploy-us-east-1.s3.us-east-1.amazonaws.com/releases/codedeploy-agent_1.3.2-1902_all.deb
mkdir codedeploy-agent_1.3.2-1902_ubuntu22
dpkg-deb -R codedeploy-agent_1.3.2-1902_all.deb codedeploy-agent_1.3.2-1902_ubuntu22
sed 's/Depends:.*Depends:ruby3.0/' -i ./codedeploy-agent_1.3.2-1902_ubuntu22/DEBIAN/control
dpkg-deb -b codedeploy-agent_1.3.2-1902_ubuntu22/
sudo dpkg -i codedeploy-agent_1.3.2-1902_ubuntu22.deb
systemctl list-units --type=service | grep codedeploy
sudo service codedeploy-agent status
~
```

-- INSERT -- 13, 37 All X

i-0d3cd9df53eca2e61 (aws CI/CD)  
PublicIPs: 3.87.9.131 PrivateIPs: 172.31.85.216



Services

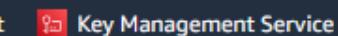
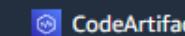
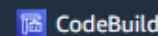
Search

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[EC2](#)[New EC2 Experience](#)

Tell us what you think

[EC2 Dashboard](#)[EC2 Global View](#)[Events](#)[Instances](#)[Instances](#)[Instance Types](#)[Launch Templates](#)[Spot Requests](#)[Savings Plans](#)[Reserved Instances](#)[Dedicated Hosts](#)[Scheduled Instances](#)[Capacity Reservations](#)[Images](#)[AMIs](#)Instances (1/3) [Info](#)

Connect

Instance state ▾

Actions ▾

Launch instances ▾

Name	Instance ID	Instance state	Instance type	Status checks	Actions
control node	i-05185f58125bcb158	Stopped	t2.micro	-	<a href="#">Connect</a> <a href="#">View details</a> <a href="#">Manage instance state</a>
managed-node	i-0ff4583b7797efd7f	Stopped	t2.micro	-	<a href="#">Instance settings</a> <a href="#">Networking</a> <a href="#">Security</a>
aws CI/CD	i-0d3cd9df53eca2e61	Running	t2.micro	Change security groups Get Windows password Modify IAM role	<a href="#">Change security groups</a> <a href="#">Get Windows password</a> <a href="#">Modify IAM role</a> <a href="#">Image and templates</a> <a href="#">Monitor and troubleshoot</a>

## Instance: i-0d3cd9df53eca2e61 (aws CI/CD)

[Details](#)[Security](#)[Networking](#)[Storage](#)[Status checks](#)[Monitoring](#)[Tags](#)Instance summary [Info](#)

Instance ID

[i-0d3cd9df53eca2e61 \(aws CI/CD\)](#)

Public IPv4 address

[3.87.9.131 | open address](#)

Private IPv4 addresses

[172.31.85.216](#)

IPv6 address

-

Instance state

[Running](#)

Public IPv4 DNS

[ec2-3-87-9-131.compute-1.amazonaws.com |](#)



Services

Search

[Alt+S]



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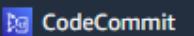
hacker ▾



EC2



IAM



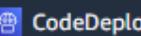
CodeCommit



S3



CodeBuild



CodeDeploy



CodePipeline



CodeArtifact



Key Management Service



EC2 &gt; Instances &gt; i-0d3cd9df53eca2e61 &gt; Modify IAM role

## Modify IAM role Info

Attach an IAM role to your instance.

Instance ID

i-0d3cd9df53eca2e61 (aws CI/CD)

IAM role

Select an IAM role to attach to your instance or create a new role if you haven't created any. The role you select replaces any roles that are currently attached to your instance.

for-ec2-service



Create new IAM role

Cancel

Update IAM role

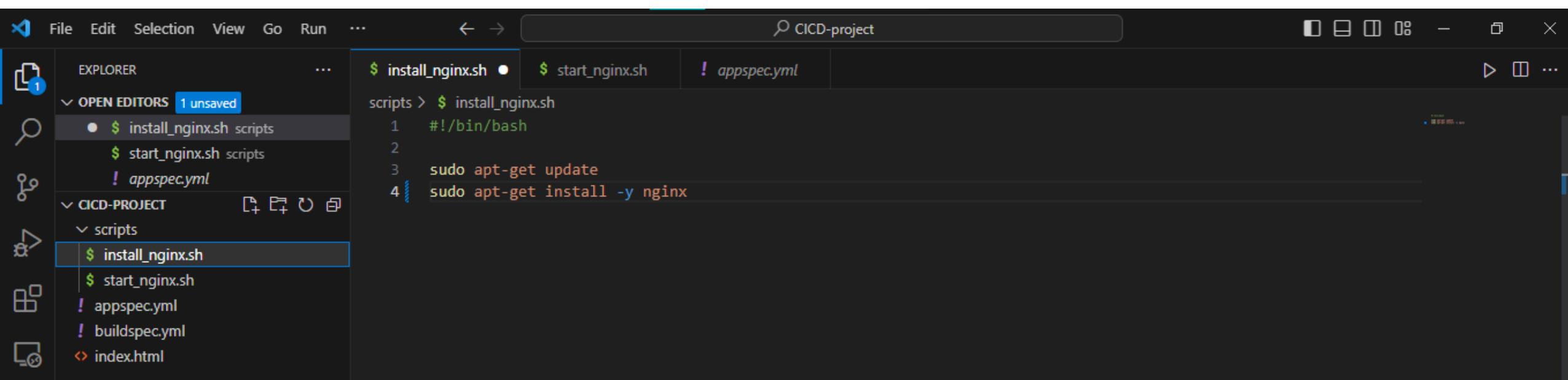
```
ubuntu@ip-172-31-85-216:~$ sudo service codedeploy-agent restart
ubuntu@ip-172-31-85-216:~$ sudo service codedeploy-agent status
● codedeploy-agent.service - LSB: AWS CodeDeploy Host Agent
  Loaded: loaded (/etc/init.d/codedeploy-agent; generated)
  Active: active (running) since Fri 2023-08-04 09:42:41 UTC; 21s ago
    Docs: man:systemd-sysv-generator(8)
 Process: 2685 ExecStart=/etc/init.d/codedeploy-agent start (code=exited, status=0/SUCCESS)
   Tasks: 2 (limit: 1141)
  Memory: 62.3M
     CPU: 1.192s
    CGroup: /system.slice/codedeploy-agent.service
```

# Create appspec.yml file

The screenshot shows the AWS Cloud9 IDE interface with the following details:

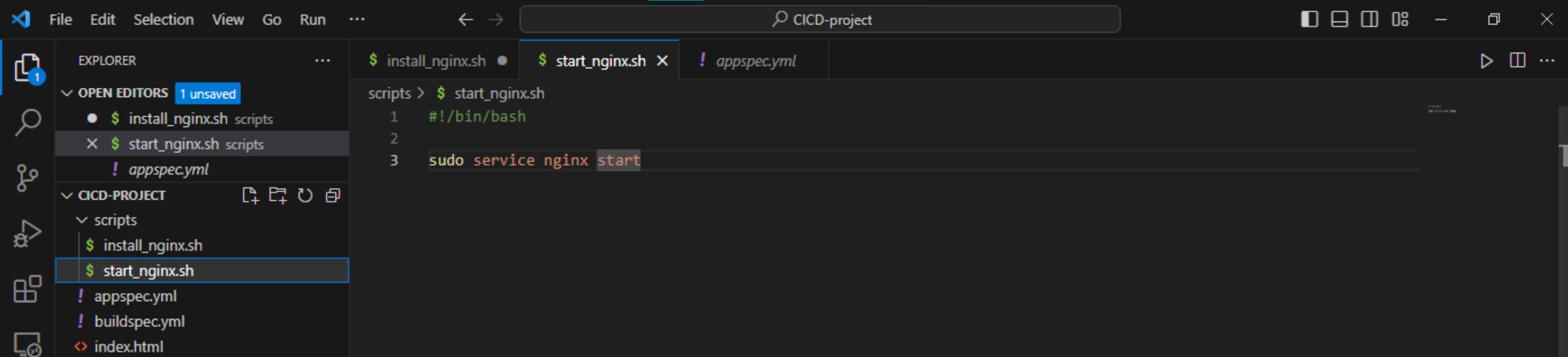
- File Bar:** File, Edit, Selection, View, Go, Run, ...
- Search Bar:** CICD-project
- Toolbar:** Standard window controls.
- Left Sidebar (EXPLORER):**
  - OPEN EDITORS: 1 unsaved
  - scripts: \$ install\_nginx.sh, \$ start\_nginx.sh
  - CICD-PROJECT: scripts (\$ install\_nginx.sh, \$ start\_nginx.sh), ! appspec.yml (selected)
  - buildspec.yml, index.html
- Central Editor Area:** The file ! appspec.yml is open, showing its contents:

```
version: 0.0
os: linux
files:
- source: /
  destination: /var/www/html/
hooks:
  AfterInstall:
    - location: scripts/install_nginx.sh
      timeout: 300
      runas: root
  ApplicationStart:
    - location: scripts/start_nginx.sh
      timeout: 300
      runas: root
```
- Bottom Status Bar:** Shows various AWS services and their status (e.g., S3, Lambda, CloudWatch Metrics, CloudWatch Logs, CloudWatch Metrics Insights, CloudWatch Metrics Insights Insights).



The screenshot shows a dark-themed code editor interface. At the top, there's a navigation bar with File, Edit, Selection, View, Go, Run, and other standard options. A search bar is positioned above the main workspace, containing the text "CICD-project". The left sidebar features several icons: a file icon with a blue border, a magnifying glass, a gear, a play/pause button, a grid, and a monitor. Below these are sections for EXPLORER, OPEN EDITORS (with 1 unsaved file), and CICD-PROJECT. The CICD-PROJECT section includes a scripts folder with files: \$ install\_nginx.sh, \$ start\_nginx.sh, and ! appspec.yml. The \$ install\_nginx.sh file is selected in the list and is currently open in the main editor area. The editor window displays the following code:

```
scripts > $ install_nginx.sh
1 #!/bin/bash
2
3 sudo apt-get update
4 sudo apt-get install -y nginx
```



This screenshot shows the same code editor environment as the first one, but with a different file open. The 'start\_nginx.sh' file is now selected in both the Explorer sidebar and the main editor area. The editor window displays the following code:

```
scripts > $ start_nginx.sh
1 #!/bin/bash
2
3 sudo service nginx start
```

```
C:\Users\popha\my-projects\CICD-project>git add .
warning: in the working copy of 'scripts/install_nginx.sh', LF will be replaced by CRLF the next time Git touches it
warning: in the working copy of 'scripts/start_nginx.sh', LF will be replaced by CRLF the next time Git touches it

C:\Users\popha\my-projects\CICD-project>git commit -m "added appspec and scripts"
[master c67afdd] added appspec and scripts
 3 files changed, 21 insertions(+)
 create mode 100644 appspec.yml
 create mode 100644 scripts/install_nginx.sh
 create mode 100644 scripts/start_nginx.sh

C:\Users\popha\my-projects\CICD-project>git push origin master
Enumerating objects: 7, done.
Counting objects: 100% (7/7), done.
Delta compression using up to 2 threads
Compressing objects: 100% (5/5), done.
Writing objects: 100% (6/6), 690 bytes | 172.00 KiB/s, done.
Total 6 (delta 0), reused 0 (delta 0), pack-reused 0
remote: Validating objects: 100%
To https://git-codecommit.us-east-1.amazonaws.com/v1/repos/CICD-project
 bbda2dd..c67afdd  master -> master

C:\Users\popha\my-projects\CICD-project>
```



Services

Search

[Alt+S]



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hacker ▾



EC2



IAM



CodeCommit



S3



CodeBuild



CodeDeploy



CodePipeline



CodeArtifact



Key Management Service

Developer Tools



## CodeCommit

### Source • CodeCommit

Getting started

Repositories

#### Code

Pull requests

Commits

Branches

Git tags

Settings

Approval rule templates

### Artifacts • CodeArtifact

### Build • CodeBuild

Developer Tools &gt; CodeCommit &gt; Repositories &gt; CICD-project

# CICD-project



Notify ▾

master



Create pull request

Clone URL ▾

### CICD-project Info

Add file ▾

Name



scripts



appspec.yml



buildspec.yml



index.html



Services

Search

[Alt+S]



N. Virginia ▾

hacker ▾



EC2



IAM



CodeCommit



S3



CodeBuild



CodeDeploy



CodePipeline



CodeArtifact



Key Management Service

Developer Tools

## CodeBuild



### Build started

You have successfully started the following build: my-build-project:b085210b-8773-43d1-bd03-a7e9758d5333



▶ Source • CodeCommit

▶ Artifacts • CodeArtifact

▼ Build • CodeBuild

Getting started

Build projects

Build project

Settings

Build history

Report groups

Report history

Account metrics

▶ Deploy • CodeDeploy

▶ Pipeline • CodePipeline

Build logs

Phase details

Reports

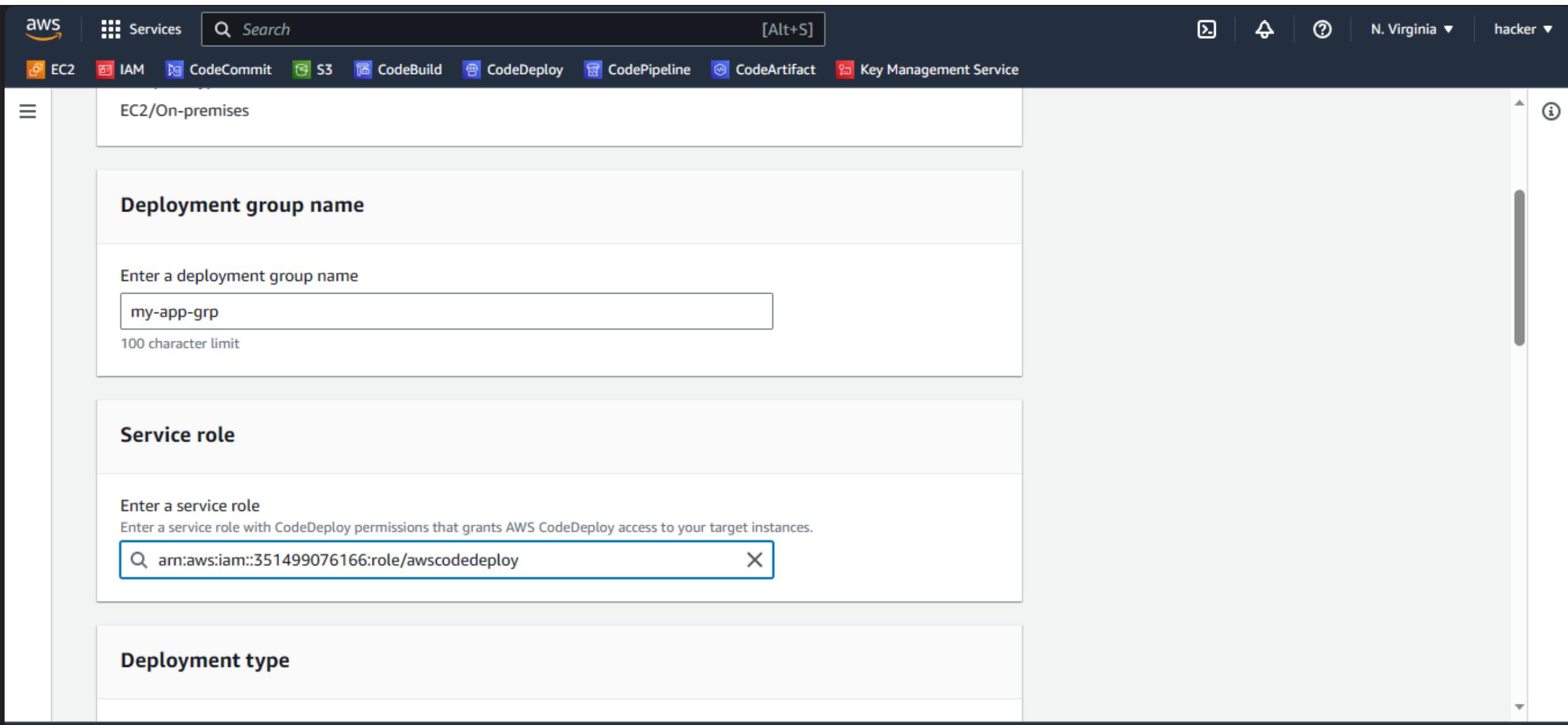
Environment variables

Build details

Resource utilization

Name	Status	Context	Duration	Start time	End time
SUBMITTED	✔ Succeeded	-	<1 sec	Aug 4, 2023 4:32 PM (UTC+5:30)	Aug 4, 2023 4:32 PM (UTC+5:30)
QUEUED	✔ Succeeded	-	<1 sec	Aug 4, 2023 4:32 PM (UTC+5:30)	Aug 4, 2023 4:32 PM (UTC+5:30)
PROVISIONING	✔ Succeeded	-	26 secs	Aug 4, 2023 4:32 PM (UTC+5:30)	Aug 4, 2023 4:32 PM (UTC+5:30)
DOWNLOAD_SOURCE	✔ Succeeded	-	7 secs	Aug 4, 2023 4:32 PM (UTC+5:30)	Aug 4, 2023 4:32 PM (UTC+5:30)
INSTALL	✔ Succeeded	-	25 secs	Aug 4, 2023 4:32 PM (UTC+5:30)	Aug 4, 2023 4:33 PM (UTC+5:30)
PREF_BUILD	✔ Succeeded	-	<1 sec	Aug 4, 2023 4:33 PM	Aug 4, 2023 4:33 PM

# Create Deployment Group from CodeDeploy



The screenshot shows the AWS CodeDeploy console interface for creating a new deployment group. The top navigation bar includes the AWS logo, 'Services' dropdown, search bar, and account information for 'N. Virginia' and 'hacker'. Below the navigation, a horizontal menu bar lists services: EC2, IAM, CodeCommit, S3, CodeBuild, CodeDeploy, CodePipeline, CodeArtifact, and Key Management Service. The 'CodeDeploy' service is selected.

The main content area is a form titled 'Create Deployment Group'. It consists of several sections:

- Deployment group name:** A field labeled 'Enter a deployment group name' contains the value 'my-app-grp'. A note below states '100 character limit'.
- Service role:** A field labeled 'Enter a service role' with the instruction 'Enter a service role with CodeDeploy permissions that grants AWS CodeDeploy access to your target instances.' contains the ARN 'arn:aws:iam::351499076166:role/awscodedeploy'. An 'X' button is available to clear the value.
- Deployment type:** This section is currently collapsed, indicated by a downward arrow icon.



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Key Management Service



## Environment configuration

Select any combination of Amazon EC2 Auto Scaling groups, Amazon EC2 instances, and on-premises instances to add to this deployment

Amazon EC2 Auto Scaling groups

Amazon EC2 instances

1 unique matched instance. [Click here for details](#)

You can add up to three groups of tags for EC2 instances to this deployment group.

**One tag group:** Any instance identified by the tag group will be deployed to.

**Multiple tag groups:** Only instances identified by all the tag groups will be deployed to.

Tag group 1

Key

 X

Value - optional

 X

Remove tag

Add tag

+ Add tag group



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Key Management Service



## Agent configuration with AWS Systems Manager [Info](#)



We recommend configuring your CodeDeploy Agent install and updates with AWS Systems Manager.

AWS Systems Manager provides more control over CodeDeploy Agent version updates and rollbacks than installing using other methods. [Learn more](#)

### Install AWS CodeDeploy Agent

- Never
- Only once
- Now and schedule updates

## Deployment settings

### Deployment configuration

Choose from a list of default and custom deployment configurations. A deployment configuration is a set of rules that determines how fast an application is deployed and the success or failure conditions for a deployment.

CodeDeployDefault.AllAtOnce



or

[Create deployment configuration](#)



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Key Management Service

## Deployment settings

### Deployment configuration

Choose from a list of default and custom deployment configurations. A deployment configuration is a set of rules that determines how fast an application is deployed and the success or failure conditions for a deployment.

CodeDeployDefault.AllAtOnce



or

Create deployment configuration

## Load balancer

Select a load balancer to manage incoming traffic during the deployment process. The load balancer blocks traffic from each instance while it's being deployed to and allows traffic to it again after the deployment succeeds.

 Enable load balancing

### ► Advanced - optional

Cancel

Create deployment group

# Create Deployment from CodeDeploy

The screenshot shows the AWS CodeDeploy console interface. On the left, a sidebar titled "Developer Tools" lists various services: EC2, IAM, CodeCommit, S3, CodeBuild, CodeDeploy, CodePipeline, CodeArtifact, and Key Management Service. Under "CodeDeploy", the "Deploy" section is expanded, showing "Getting started", "Deployments", "Applications", "Application" (which is selected), "Settings", "Deployment configurations", "On-premises instances", and "Pipeline" (under "CodePipeline"). The main content area has a green header bar with a checkmark icon and the text "Success Deployment group created". Below this, the breadcrumb navigation shows "Developer Tools > CodeDeploy > Applications > my-app-project > my-app-grp". The main title "my-app-grp" is displayed, along with three buttons: "Edit", "Delete", and a prominent orange "Create deployment" button. The "Deployment group details" section contains the following information:

Deployment group name	Application name	Compute platform
my-app-grp	my-app-project	EC2/On-premises
Deployment type	Service role ARN	Deployment configuration
In-place	arn:aws:iam::351499076166:role/awscodeDeploy	CodeDeployDefault.AllAtOnce
Rollback enabled	Agent update scheduler	
False	<a href="#">Learn to schedule update in AWS Systems Manager</a>	



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CodeCommit



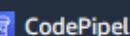
S3



CodeBuild



CodeDeploy



CodePipeline



CodeArtifact



Key Management Service

## Revision type

- My application is stored in Amazon S3

- My application is stored in GitHub

## Revision location

Copy and paste the Amazon S3 bucket where your revision is stored

 X

s3://bucket-name/folder/object.[zip|tar|tgz]

## Revision file type

 ▼

## Deployment description

## Deployment description - optional

Add a brief description about the deployment



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CodeCommit



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CodeBuild



CodeDeploy



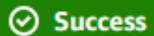
CodePipeline



CodeArtifact



Key Management Service



Deployment created



Developer Tools &gt; CodeDeploy &gt; Deployments &gt; d-YN1HGDX0

d-YN1HGDX0



Copy deployment

Retry deployment

### Deployment status

Installing application on your instances

1 of 1 instances updated Succeeded

100%

### Deployment details

Application

my-app-project

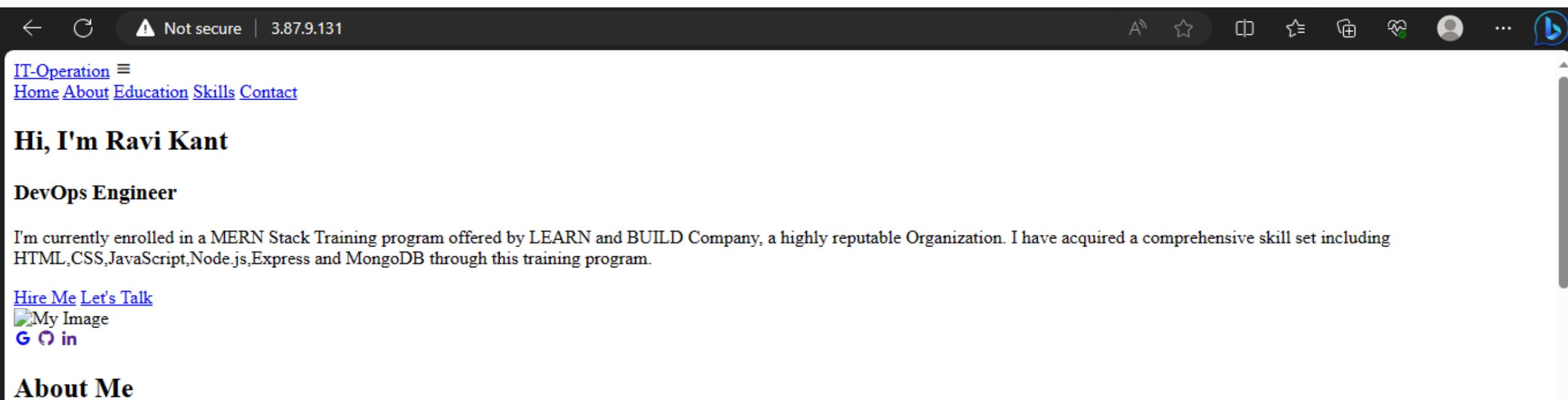
Deployment ID

d-YN1HGDX0

Status

Succeeded

# It Work..!



# Create Pipeline from AWS CodePipeline

The screenshot shows the AWS CodePipeline console interface. At the top, there's a navigation bar with the AWS logo, a search bar, and links for EC2, IAM, CodeCommit, S3, CodeBuild, CodeDeploy, CodePipeline, CodeArtifact, and Key Management Service. The user is signed in as 'hacker' in the N. Virginia region.

The main area has a sidebar titled 'Developer Tools' with sections for Source (CodeCommit), Artifacts (CodeArtifact), Build (CodeBuild), Deploy (CodeDeploy), Pipeline (CodePipeline), and Settings. Under Pipeline, 'Getting started' and 'Pipelines' are listed, with 'Pipelines' being the active section.

The main content area shows the 'Pipelines' list. The header includes buttons for 'Info', 'Notify' (with a dropdown arrow), 'View history', 'Release change', 'Delete pipeline', and a prominent orange 'Create pipeline' button. Below the header is a search bar and a pagination control showing page 1 of 1.

The table below the header has columns for 'Name', 'Most recent execution', 'Latest source revisions', and 'Last executed'. A message 'No results' is displayed, followed by the sub-message 'There are no results to display.'



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CodeCommit



S3



CodeBuild



CodeDeploy



CodePipeline



CodeArtifact



Key Management Service



Step 1

Choose pipeline settings

Step 2

Add source stage

Step 3

Add build stage

Step 4

Add deploy stage

Step 5

Review

## Choose pipeline settings Info

### Pipeline settings

#### Pipeline name

Enter the pipeline name. You cannot edit the pipeline name after it is created.

No more than 100 characters

#### Service role

 New service role

Create a service role in your account

Existing service role

Choose an existing service role from your account

#### Role name

Type your service role name

Allow AWS CodePipeline to create a service role so it can be used with this new pipeline



Services

Search

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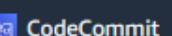


N. Virginia ▾

hacker ▾



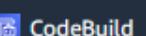
EC2



IAM



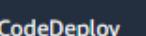
CodeCommit



S3



CodeBuild



CodeDeploy



CodePipeline



CodeArtifact



Key Management Service



Step 3

Add build stage

Step 4

Add deploy stage

Step 5

Review

### Source provider

This is where you stored your input artifacts for your pipeline. Choose the provider and then provide the connection details.

AWS CodeCommit

### Repository name

Choose a repository that you have already created where you have pushed your source code.

CICD-project

### Branch name

Choose a branch of the repository

master

### Change detection options

Choose a detection mode to automatically start your pipeline when a change occurs in the source code.



Amazon CloudWatch Events (recommended)

Use Amazon CloudWatch Events to automatically start my pipeline when a change occurs



AWS CodePipeline

Use AWS CodePipeline to check periodically for changes

### Output artifact format

Choose the output artifact format.

CodePipeline default

AWS CodePipeline uses the default zip format for artifacts in the pipeline. Does not include Git metadata about the repository.

Full clone

AWS CodePipeline passes metadata about the repository that allows subsequent actions to do a full Git clone. Only supported for AWS CodeBuild actions.



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EC2



IAM



CodeCommit



S3



CodeBuild



CodeDeploy



CodePipeline



CodeArtifact



Key Management Service

Step 3

### Add build stage

Step 4

Add deploy stage

Step 5

Review

#### Build provider

This is the tool of your build project. Provide build artifact details like operating system, build spec file, and output file names.

AWS CodeBuild

#### Region

US East (N. Virginia)

#### Project name

Choose a build project that you have already created in the AWS CodeBuild console. Or create a build project in the AWS CodeBuild console and then return to this task.

my-build-project



or

Create project

#### Environment variables - optional

Choose the key, value, and type for your CodeBuild environment variables. In the value field, you can reference variables generated by CodePipeline. [Learn more](#)

[Add environment variable](#)

#### Build type



Single build

Triggers a single build.



Batch build

Triggers multiple builds as a single execution.

[Cancel](#)[Previous](#)[Skip build stage](#)[Next](#)



Services

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EC2



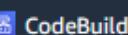
IAM



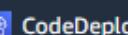
CodeCommit



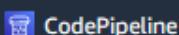
S3



CodeBuild



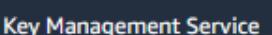
CodeDeploy



CodePipeline



CodeArtifact



Key Management Service

## Choose pipeline settings

Step 2

Add source stage

Step 3

Add build stage

Step 4

Add deploy stage

Step 5

Review

## Deploy - optional

## Deploy provider

Choose how you deploy to instances. Choose the provider, and then provide the configuration details for that provider.

AWS CodeDeploy

## Region

US East (N. Virginia)

## Application name

Choose an application that you have already created in the AWS CodeDeploy console. Or create an application in the AWS CodeDeploy console and then return to this task.

my-app-project



## Deployment group

Choose a deployment group that you have already created in the AWS CodeDeploy console. Or create a deployment group in the AWS CodeDeploy console and then return to this task.

my-app-grp



Cancel

Previous

Skip deploy stage

Next



Services

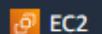
Search

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EC2



IAM



CodeCommit



S3



CodeBuild



CodeDeploy



CodePipeline



CodeArtifact



Key Management Service

Developer Tools

## CodePipeline

▶ Source • CodeCommit

▶ Artifacts • CodeArtifact

▶ Build • CodeBuild

▶ Deploy • CodeDeploy

▼ Pipeline • CodePipeline

Getting started

Pipelines

### Pipeline

History

Settings

▶ Settings

Q Go to resource

✓ Success

Congratulations! The pipeline my-app-pipeline has been created.

Create a notification rule for this pipeline

Developer Tools &gt; CodePipeline &gt; Pipelines &gt; my-app-pipeline

## my-app-pipeline

Notify ▾

Edit

Stop execution

Clone pipeline

Release change

✓ Source Succeeded

Pipeline execution ID: d0cd2ca3-3a2b-48d8-9d53-9550ec3c0abc

Source



AWS CodeCommit

✓ Succeeded - 9 minutes ago

c67afdd8

c67afdd8 Source: added appspec and scripts

Disable transition



# Some Changes in Code

The screenshot shows a dark-themed code editor interface with the title bar "CICD-project". The left sidebar contains icons for File, Edit, Selection, View, Go, Run, and a search bar. Below these are sections for EXPLORER, OPEN EDITORS (with 1 unsaved file), CICD-PROJECT, and a section for AWS. The EXPLORER section lists files like start\_nginx.sh, \$ start\_nginx.sh, # index.css, JS index.js, and index.html. The OPEN EDITORS section shows index.html as the active editor. The main workspace displays the content of index.html:

```
<!DOCTYPE html>
<html>
    <head>
        <link href="index.css" rel="stylesheet">
    </head>
    <body>
        I'm currently enrolled in a DevOps Training program offered by LEARN and BUILD Company, a highly reputable Organization.
        I posses a comprehensive skills set that include Linux, AWS, Docker, Kubernetes, Jenkins, Ansible
        <p>I posses a comprehensive skills set that include Linux, AWS, Docker, Kubernetes, Jenkins, Ansible</p>
        <div class="btn-box btns">
            <a href="#" class="btn">Read More</a>
        </div>
    </body>
</html>

<!-- Education -->
<section class="education" id="education">
    <h2 class="heading">My <span>Journey</span></h2>
    <div class="education-row">
        <div class="education-column">
            <h3 class="title">Education</h3>
            <div class="education-box">
                <div class="education-content">
                    <div class="content">
                        <div class="year"><i class="bx bxs-calendar"></i> 2020-2024</div>
                        <h3>Graduation Degree - University</h3>
                        <p>I'm pursuing Bachelor of Technology from Jaipur Engineering College, specialization in Computer Science engineering.</p>
                    </div>
                </div>
            </div>
        </div>
    </div>
</section>
```

```
C:\Users\popha\my-projects\CICD-project>
C:\Users\popha\my-projects\CICD-project>git add .

C:\Users\popha\my-projects\CICD-project>git commit -m "new code"
[master 1831612] new code
 3 files changed, 958 insertions(+), 6 deletions(-)
 create mode 100644 index.js
 create mode 100644 scripts/index.css

C:\Users\popha\my-projects\CICD-project>git push origin master
Enumerating objects: 9, done.
Counting objects: 100% (9/9), done.
Delta compression using up to 2 threads
Compressing objects: 100% (6/6), done.
Writing objects: 100% (6/6), 3.97 KiB | 812.00 KiB/s, done.
Total 6 (delta 1), reused 0 (delta 0), pack-reused 0
remote: Validating objects: 100%
To https://git-codecommit.us-east-1.amazonaws.com/v1/repos/CICD-project
  c67afdd..1831612  master -> master

C:\Users\popha\my-projects\CICD-project>
```

# Release Code in Pipeline

The screenshot shows the AWS CodePipeline console interface. The top navigation bar includes the AWS logo, Services (with a search bar), and regions (N. Virginia). The main menu bar has links for EC2, IAM, CodeCommit, S3, CodeBuild, CodeDeploy, CodePipeline, CodeArtifact, and Key Management Service.

The left sidebar under "Developer Tools" lists "CodePipeline" as the active section. Sub-options include "Source • CodeCommit", "Artifacts • CodeArtifact", "Build • CodeBuild", "Deploy • CodeDeploy", and "Pipeline • CodePipeline". Under "Pipeline", there are "Getting started" and "Pipelines". "my-app-pipeline" is selected, indicated by an orange border. Other pipelines listed are "new code-1" and "new code-2".

The main content area displays two green success notifications:

- "Success: Congratulations! The pipeline my-app-pipeline has been created."
- "Success: The most recent change will re-run through the pipeline. It might take a few moments for the status of the run to show in the pipeline view."

A callout box titled "Create a notification rule for this pipeline" is visible.

The pipeline details page for "my-app-pipeline" shows the following information:

- Header: "my-app-pipeline" with buttons for "Notify", "Edit", "Stop execution", "Clone pipeline", and "Release change".
- Step: "Source" status is "Succeeded". Pipeline execution ID: 1c4b15d8-db74-476d-ad26-3db467289e58.
- Details: "Source" type is "AWS CodeCommit", step status is "Succeeded - Just now", commit ID is fa3798ce.
- Log entry: "fa3798ce Source: new code-1"

A vertical sidebar on the right contains three circular icons with checkmarks: green, blue, and green.

# IT-Operation

[Home](#)   [About](#)   [Education](#)   [Skills](#)   [Contact](#)

# Hi, I'm Ravi Kant

## DevOps Engineer |

I'm currently enrolled in a DevOps Training program offered by LEARN and BUILD Company, a highly reputable Organization. I posses a comprehensive skills set that include Linux, AWS Cloud, Docker, Kubernetes, Jenkins and Ansible through this training program.



Hire Me

## Let's Talk





A white rectangular card stands upright on a light-colored surface. The word "Thank" is written in a large, elegant, cursive font, and "You" is written below it in a slightly smaller, matching font. Both words have a vibrant, multi-colored gradient from purple at the top to red at the bottom. The card is positioned in front of a blurred background of tulips in shades of pink, yellow, and orange.

Thank  
You