

AWS Task-5

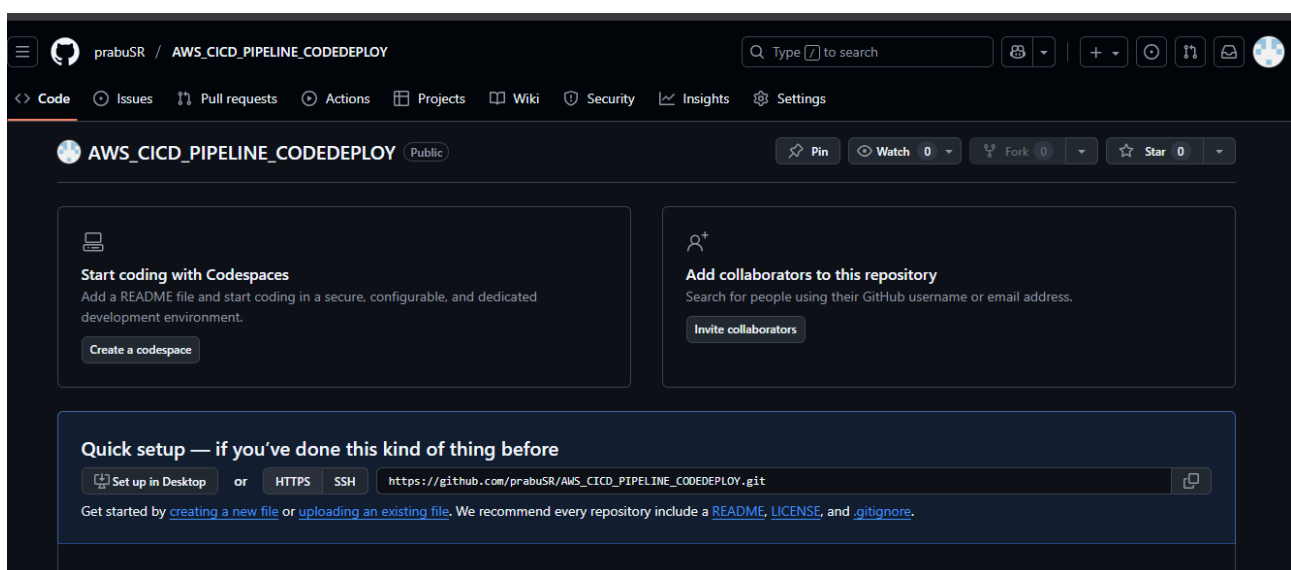
Deploy a simple web application using AWS code commit, code build and deploy & access via browser and automate via codepipeline

Aws has stopped CodeCommit service, so i used Github.

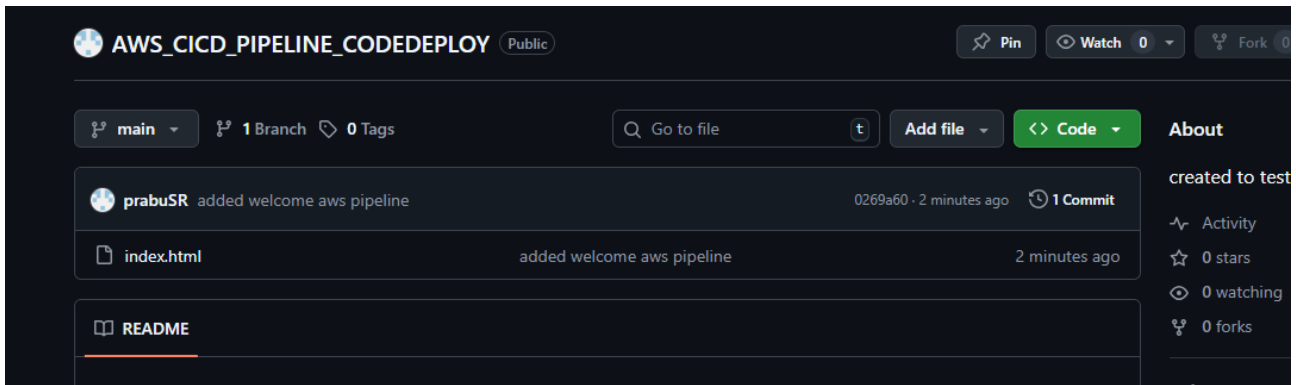
AWS CodeCommit is no longer available to new customers. Existing customers of AWS CodeCommit can continue to use the service as normal. [Learn more.](#)

AWS CodeCommit is no longer available to new customers, a change that became effective on **July 25, 2024**.⁴ As of this date, only customers who already have an existing repository in AWS CodeCommit can create additional repositories.⁸ This decision was confirmed by AWS chief evangelist Jeff Barr, who stated that while new customer onboarding has ceased, existing customers can continue to use the service as normal.² AWS continues to invest in security, availability, and performance improvements for CodeCommit but does not plan to introduce new features, except for those related to security and availability.⁵ For new users, AWS recommends alternatives such as Amazon CodeCatalyst, GitLab, GitHub, or other third-party source providers.⁴

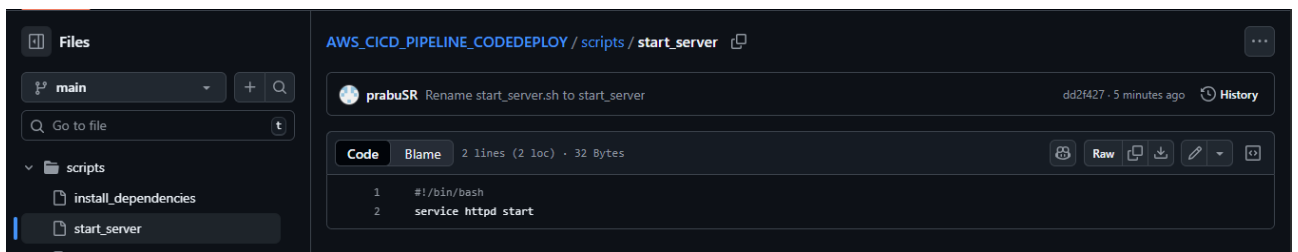
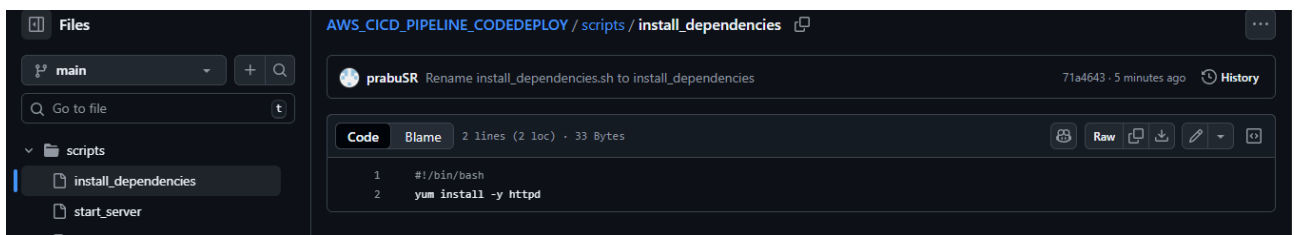
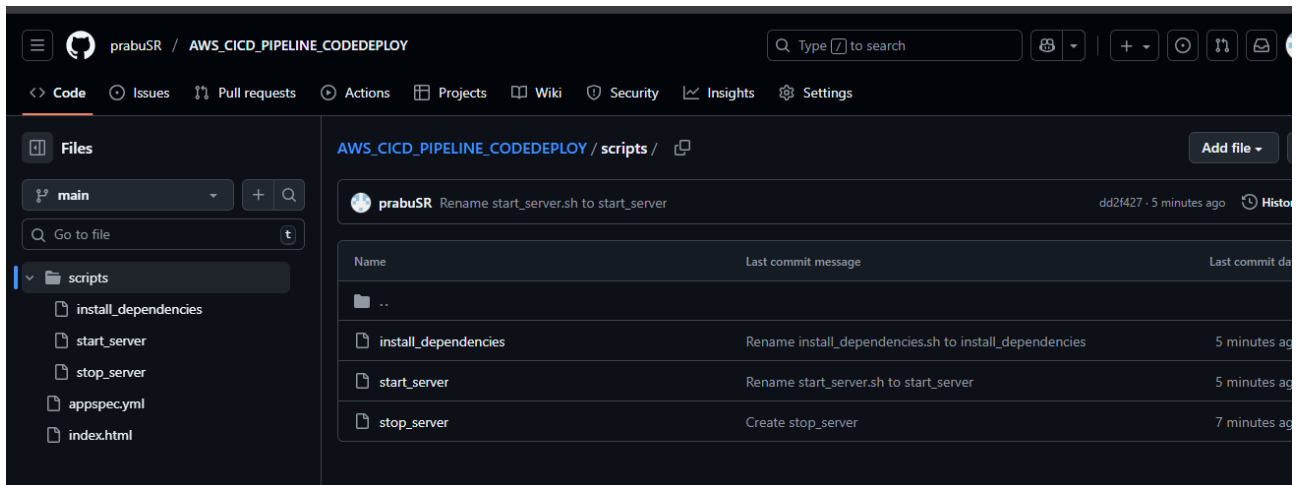
1. I created a new repository for this CICD task in aws.

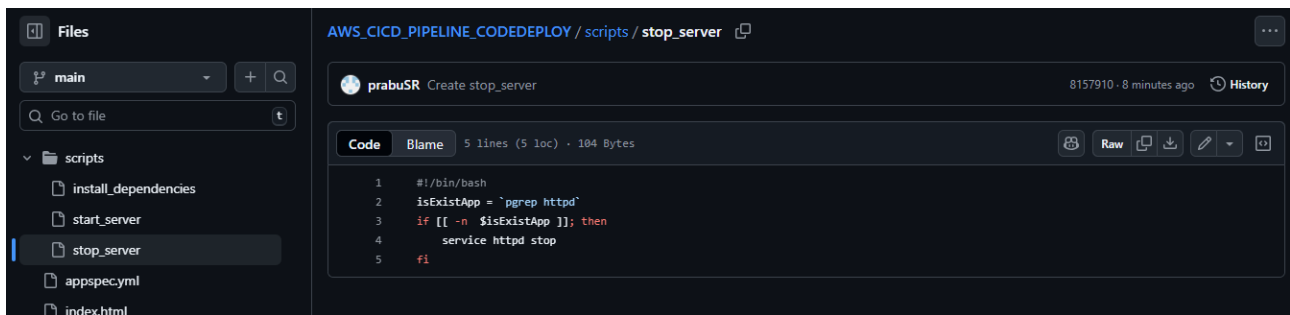


in this repository i created a simple index.html page

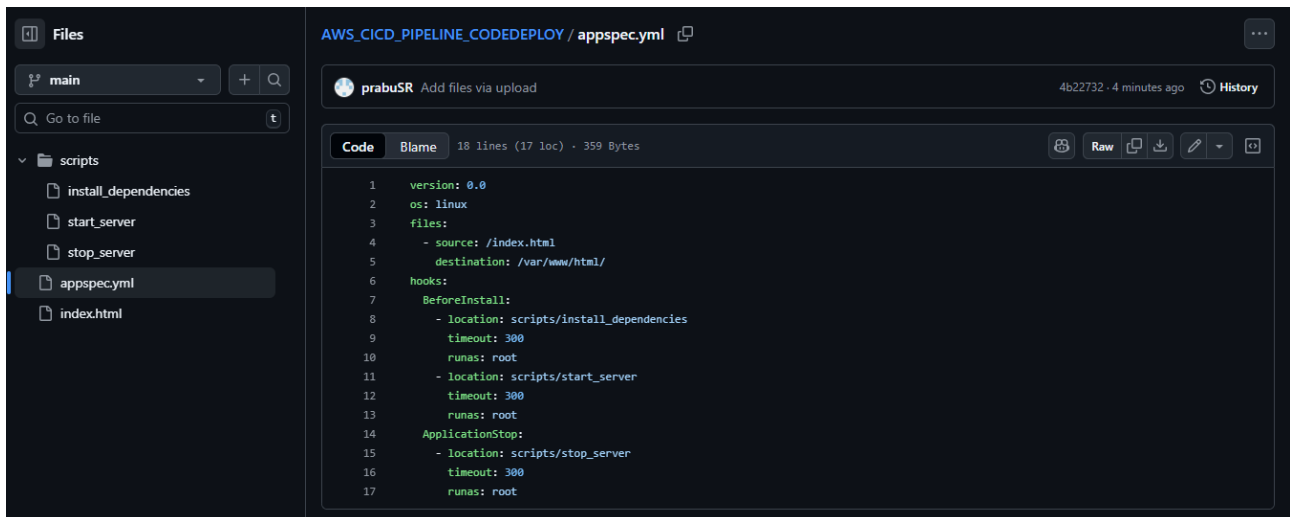


i created a scripts folder which contain install_dependencies, start_server, stop_server – shell script inside.



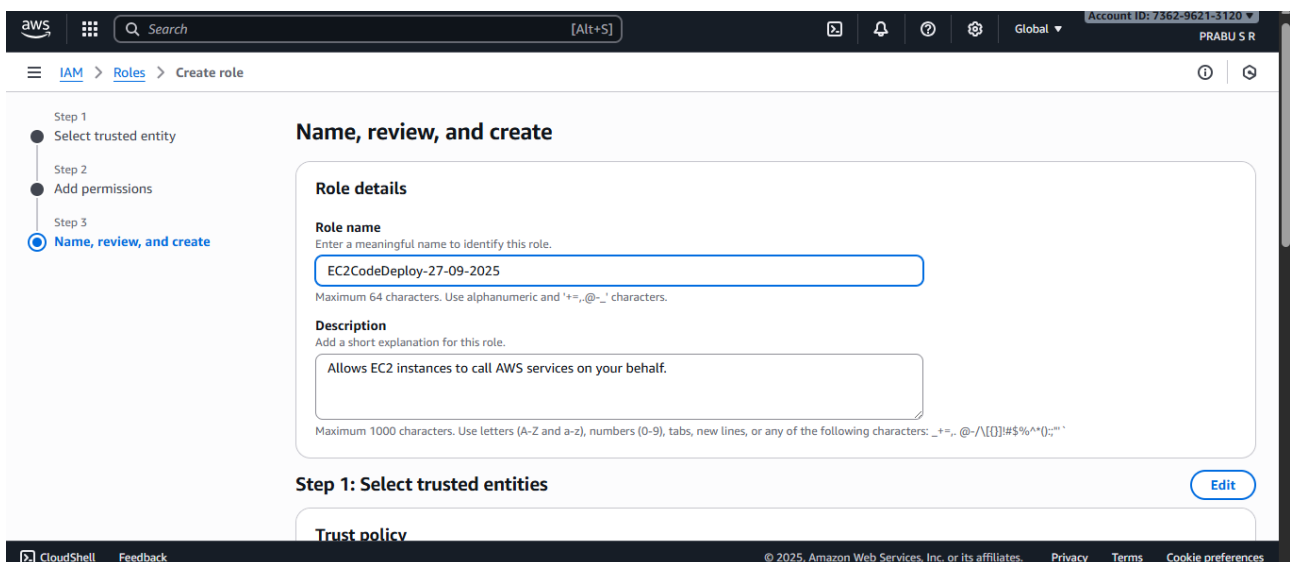


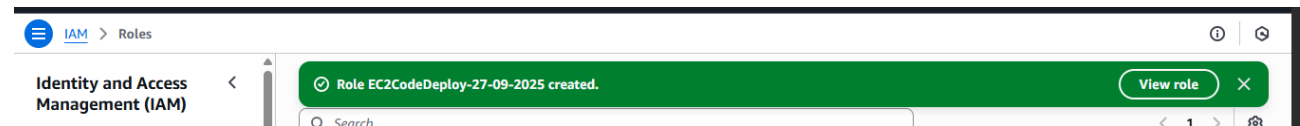
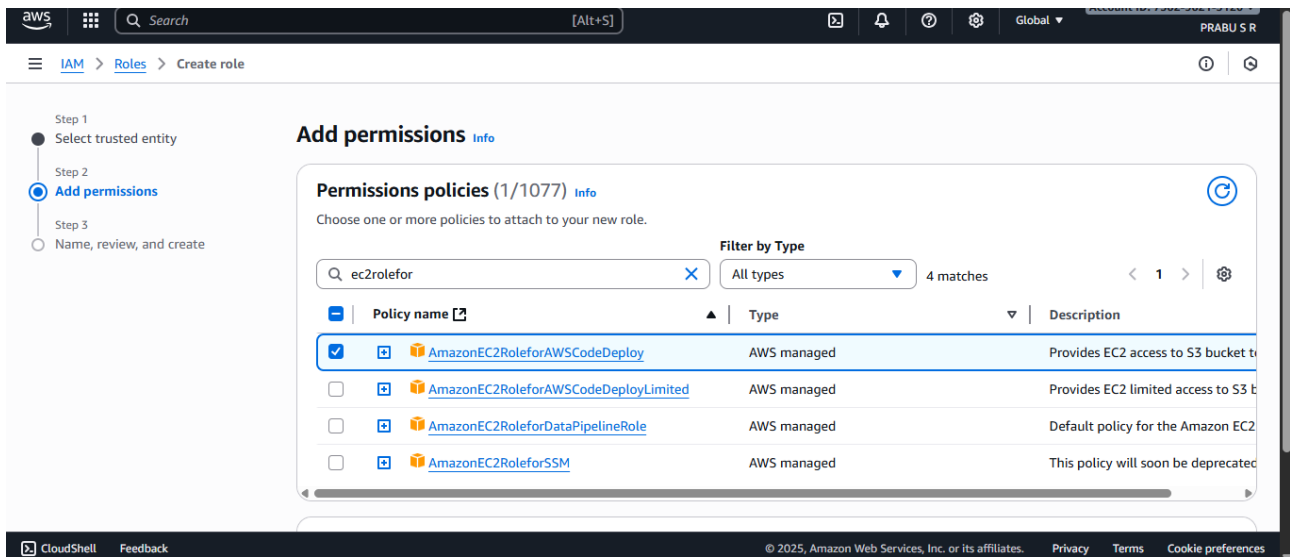
i created appspec.yml file, which instruct what to do.



https://github.com/prabuSR/AWS_CICD_PIPELINE_CODEDEPLOY.git

i created two roles one for ec2 and another for codedeploy as these services going to talk.





role for codedeploy

aws [Search] [Alt+S] Account ID: 7362-9621-3120 PRABU S R

IAM > Roles > Create role

Use case

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

Service or use case

CodeDeploy

Choose a use case for the specified service.

Use case

☒ **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

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IAM > Roles > Create role

Step 1: Select trusted entity
Step 2: **Add permissions**
Step 3: Name, review, and create

Add permissions

Permissions policies (1)

The type of role that you selected requires the following policy.

Policy name	Type
AWSCodeDeployRole	AWS managed

► Set permissions boundary - optional

Cancel Previous Next

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IAM > Roles > Create role

Step 1: Select trusted entity
Step 2: Add permissions
Step 3: **Name, review, and create**

Name, review, and create

Role details

Role name
Enter a meaningful name to identify this role.

CodeDeployRole-27-09-2025

Maximum 64 characters. Use alphanumeric and '+', '@', '-' characters.

Description
Add a short explanation for this role.

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

Maximum 1000 characters. Use letters (A-Z and a-z), numbers (0-9), tabs, new lines, or any of the following characters: '_', '+', '@', '-', '/', '[', ']', '#', '\$', '%', '^', '(', ')', '=', '&', '!', ' ', ':', ';', ',', '.', '<', '>', '–', '—', '‘', '’', '“', '”', '„', '‟', '–', '—', '‘', '’', '“', '”', '„', '‟'.

Step 1: Select trusted entities

Edit

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IAM > Roles

Identity and Access Management (IAM)

Role CodeDeployRole-27-09-2025 created.

View role

2. i created ec2- instance as webserver

aws

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Account ID: 7362-9621-3120

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EC2 > Instances > Launch an instance

1 ⓘ ⌂

Name

AWS-CICD-WebserverEC2-27-09-2025

Add additional tags

▼ Application and OS Images (Amazon Machine Image) Info

An AMI contains the operating system, application server, and applications for your instance. If you don't see a suitable AMI below, use the search field or choose [Browse more AMIs](#).

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

Recents

Quick Start

Amazon Linux

macOS

Ubuntu

Windows

Red Hat

SUSE Linux

Debian

Browse more AMIs

Including AMIs from AWS, Marketplace and the Community

Amazon Machine Image (AMI)

Amazon Linux 2023 kernel-6.1 AMI
ami-01b6d88af12965bb6 (64-bit (x86), uefi-preferred) / ami-0f5d42f0ba3ba0328 (64-bit (Arm), uefi)

▼ Summary

Number of instances Info

1

Software Image (AMI)
Amazon Linux 2023 AMI 2023.8.2...[read more](#)
ami-01b6d88af12965bb6

Virtual server type (instance type)
t3.micro

Firewall (security group)
default

Storage (volumes)
1 volume(s) - 8 GiB

Cancel

Launch instance

Preview code

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Account ID: 7362-9621-3120

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EC2 > Instances > Launch an instance

1 ⓘ ⌂

Proceed without a key pair (Not recommended)

Default value

Create new key pair

▼ Network settings Info

Edit

Network Info

vpc-0811954bf33a0cb2f | Default-VPC

Subnet Info

No preference (Default subnet in any availability zone)

Auto-assign public IP Info

Enable

Firewall (security groups) Info

A security group is a set of firewall rules that control the traffic for your instance. Add rules to allow specific traffic to reach your instance.

Create security group

Select existing security group

Common security groups Info

Select security groups

default sg-08fb1ee4e7232f4af X
VPC: vpc-0811954bf33a0cb2f

Compare security group rules

Security groups that you add or remove here will be added to or removed from all your network interfaces.

▼ Summary

Number of instances Info

1

Software Image (AMI)
Amazon Linux 2023 AMI 2023.8.2...[read more](#)
ami-01b6d88af12965bb6

Virtual server type (instance type)
t3.micro

Firewall (security group)
default

Storage (volumes)
1 volume(s) - 8 GiB

Cancel

Launch instance

Preview code

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EC2 > Instances > Launch an instance

▼ Advanced details Info

Domain join directory Info

Select Create new directory

IAM instance profile Info

Select Create new IAM profile

EC2CodeDeploy-27-09-2025
arn:aws:iam::736296213120:instance-profile/EC2CodeDeploy-27-09-2025

☒ Enable IP name IPv4 (A record) DNS requests

☒ Enable resource-based IPv4 (A record) DNS requests

☐ Enable resource-based IPv6 (AAAA record) DNS requests

Instance auto-recovery Info

Select

Shutdown behavior Info

Stop

▼ Summary

Number of instances Info

1

Software Image (AMI)

Amazon Linux 2023 AMI 2023.8.2...read more
ami-01b6d88af12965bb6

Virtual server type (instance type)

t3.micro

Firewall (security group)

default

Storage (volumes)

1 volume(s) - 8 GiB

Cancel Launch instance Preview code

aws [Search] [Alt+S] Asia Pacific (Mumbai) Account ID: 7362-9621-3120 PRABU S R

EC2 > Instances > Launch an instance

▼ Advanced details Info

Domain join directory Info

Select Create new directory

IAM instance profile Info

EC2CodeDeploy-27-09-2025
arn:aws:iam::736296213120:instance-profile/EC2CodeDeploy-27-09-2025

Create new IAM profile

Hostname type Info

IP name

DNS Hostname Info

☒ Enable IP name IPv4 (A record) DNS requests

☒ Enable resource-based IPv4 (A record) DNS requests

☐ Enable resource-based IPv6 (AAAA record) DNS requests

Instance auto-recovery Info

Select

Shutdown behavior Info

▼ Summary

Number of instances Info

1

Software Image (AMI)

Amazon Linux 2023 AMI 2023.8.2...read more
ami-01b6d88af12965bb6

Virtual server type (instance type)

t3.micro

Firewall (security group)

default

Storage (volumes)

1 volume(s) - 8 GiB

Cancel Launch instance Preview code

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aws [Search] [Alt+S] Asia Pacific (Mumbai) Account ID: 7362-9621-3120 PRABU S R

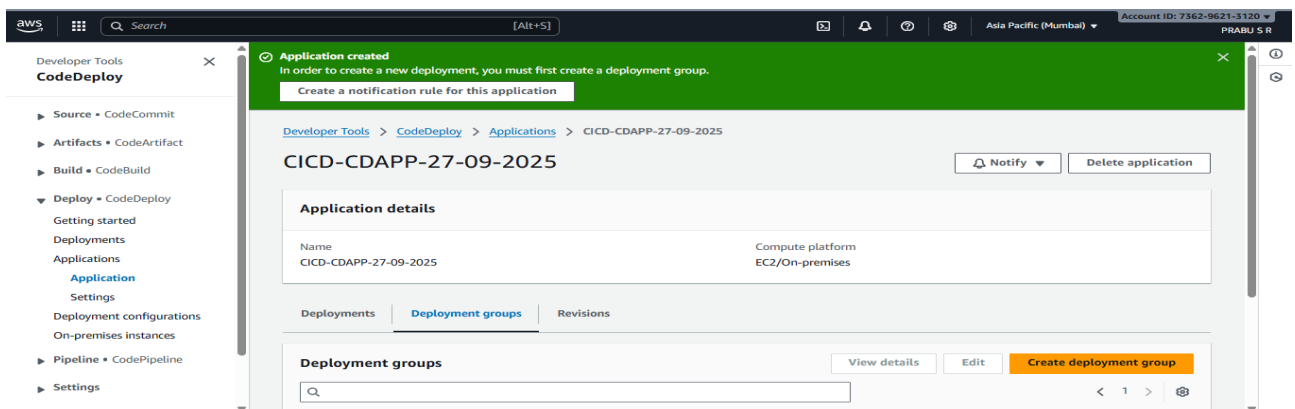
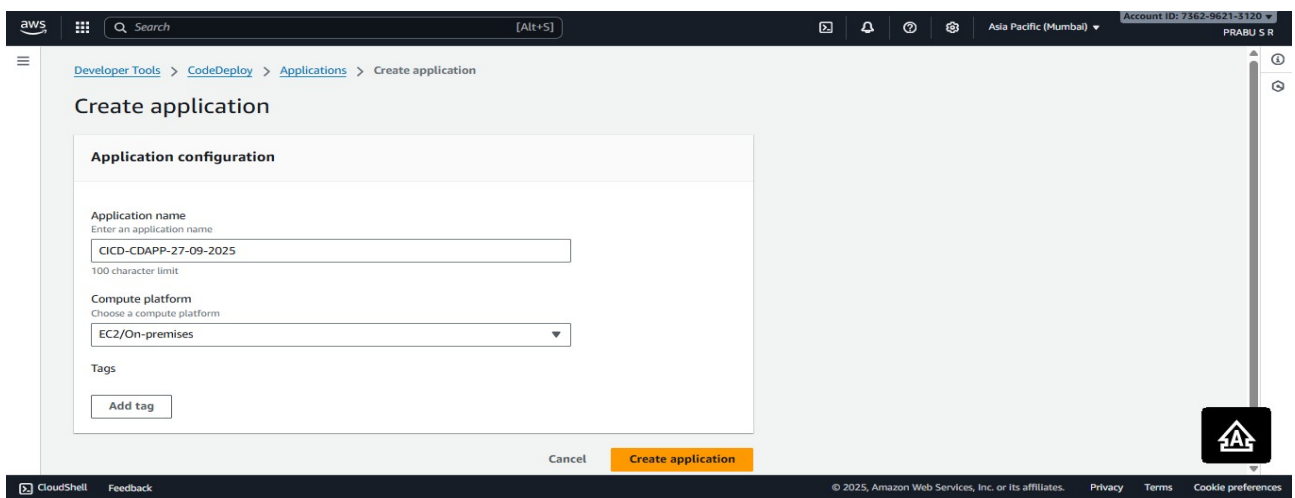
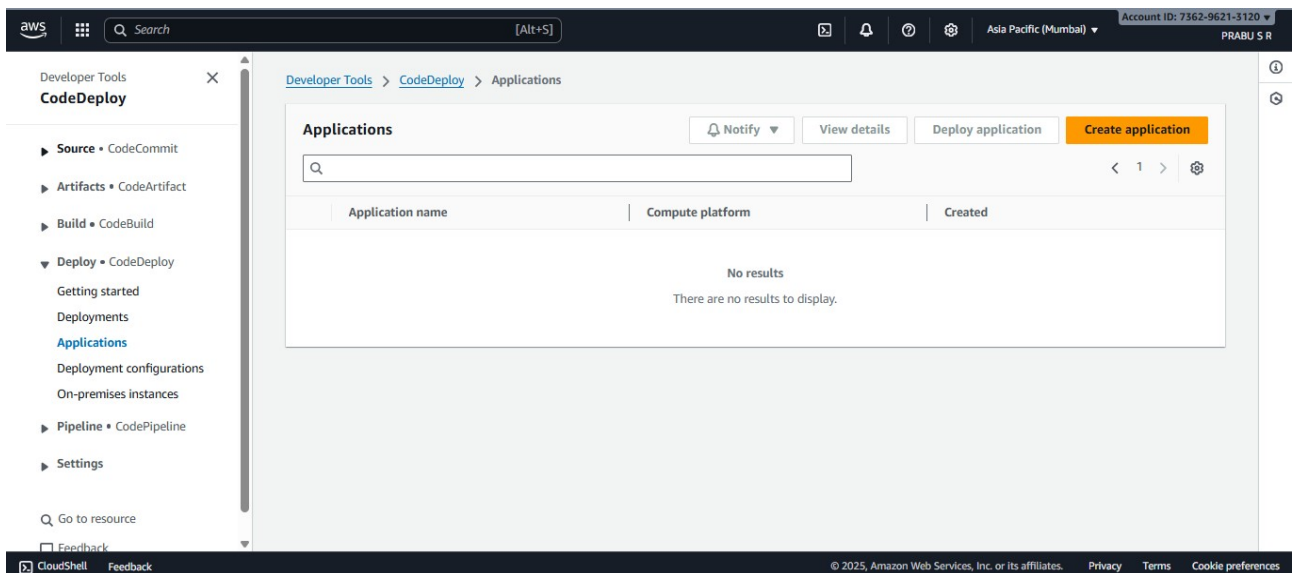
EC2 > Instances > Launch an instance

✓ Success

Successfully initiated launch of instance (i-0ffe69997ef4c7649)

► Launch log

3. i created codedeploy application



after creating code deploy simultaneously create deployment group

aws

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Account ID: 7362-9621-3120

PRABU S R

Developer Tools > CodeDeploy > Applications > CICD-CDAPP-27-09-2025 > Create deployment group

Create deployment group

Application

Application
CICD-CDAPP-27-09-2025
Compute type
EC2/On-premises

Deployment group name

Enter a deployment group name

100 character limit

Service role

aws

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Account ID: 7362-9621-3120

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Service role

Service role

Enter a service role
Enter a service role with CodeDeploy permissions that grants AWS CodeDeploy access to your target instances.

Deployment type

Choose how to deploy your application

☒ In-place
Updates the instances in the deployment group with the latest application revisions. During a deployment, each instance will be briefly taken offline for its update

☐ Blue/green
Replaces the instances in the deployment group with new instances and deploys the latest application revision to them. After instances in the replacement environment are registered with a load balancer, instances from the original environment are deregistered and can be terminated.

Environment configuration

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

aws

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Account ID: 7362-9621-3120

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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

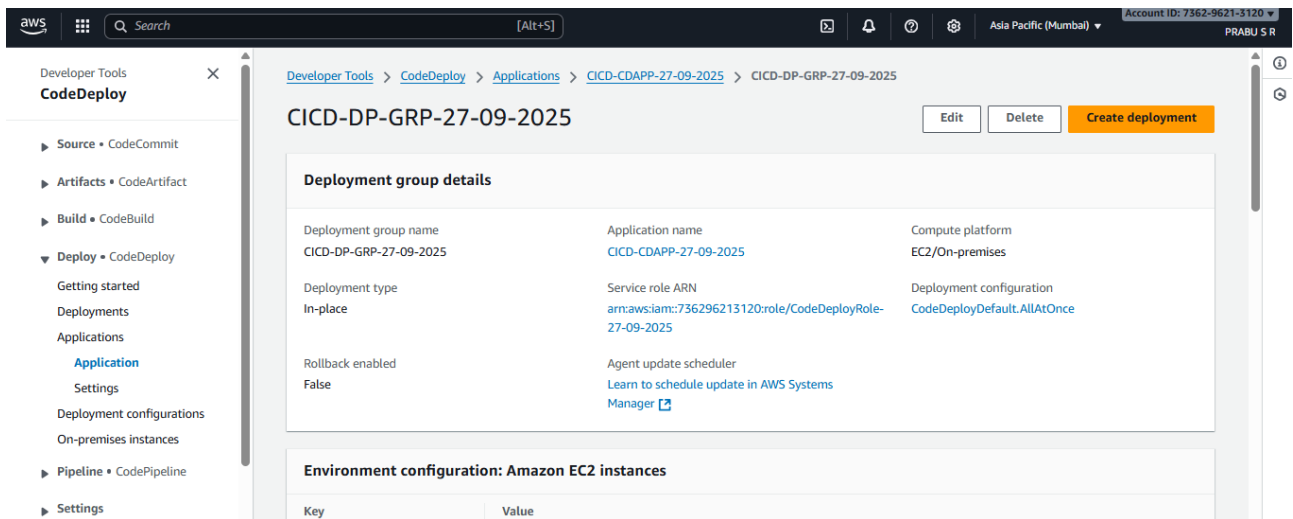
☒ Amazon EC2 instances
1 unique matched instance. [Click here for details](#)

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.

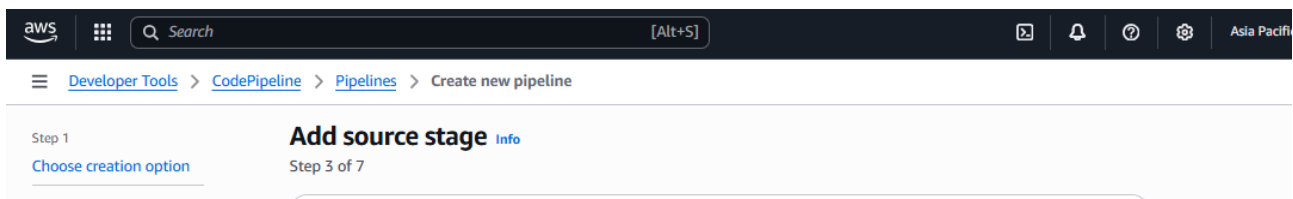
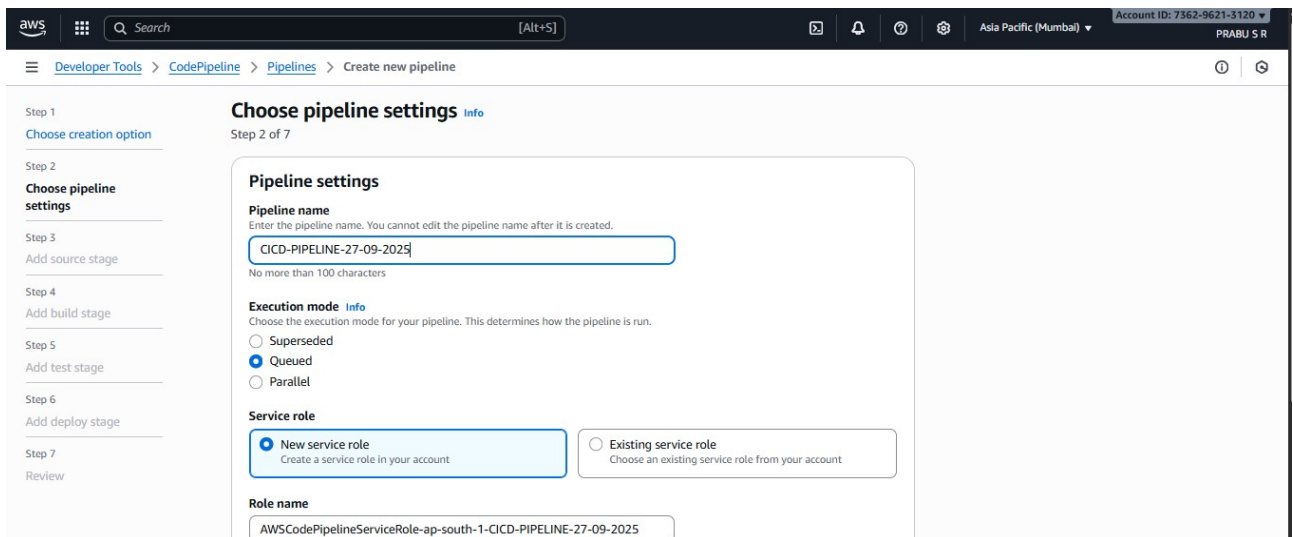
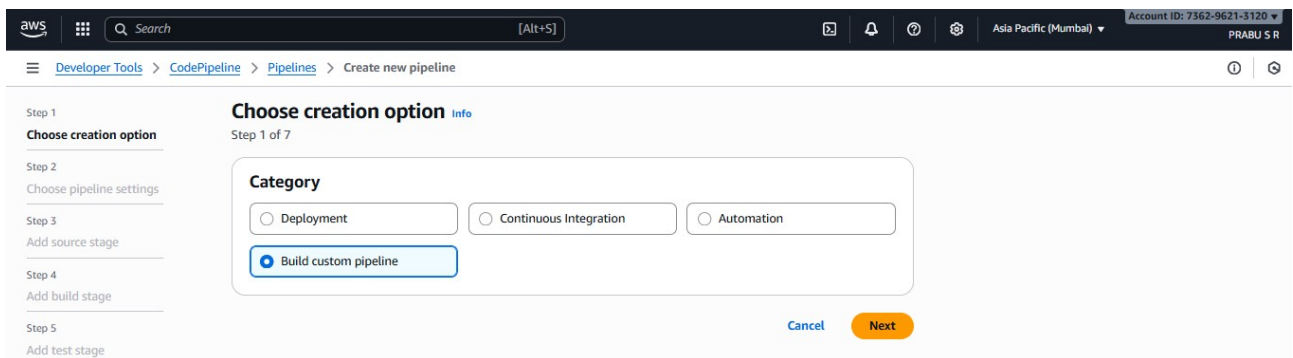
Tag group 1

Key	Value - optional	
<input type="text" value="Name"/>	<input type="text" value="AWS-CICD-WebserverEC2-27-09-2025"/>	Remove tag

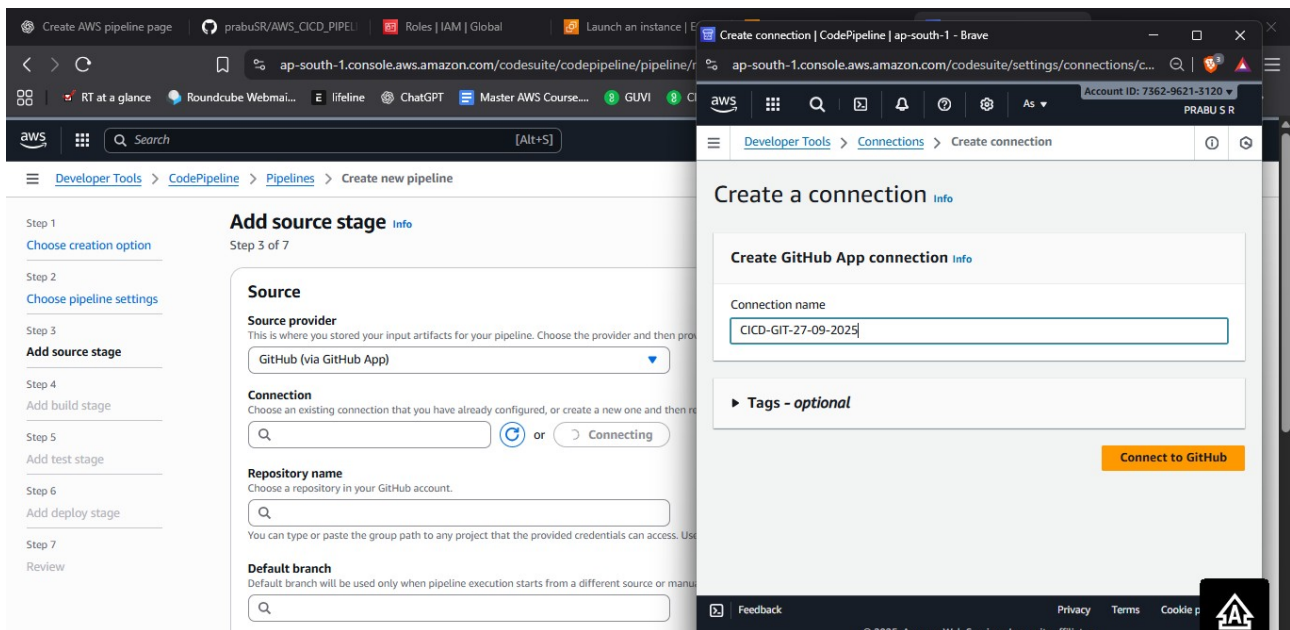
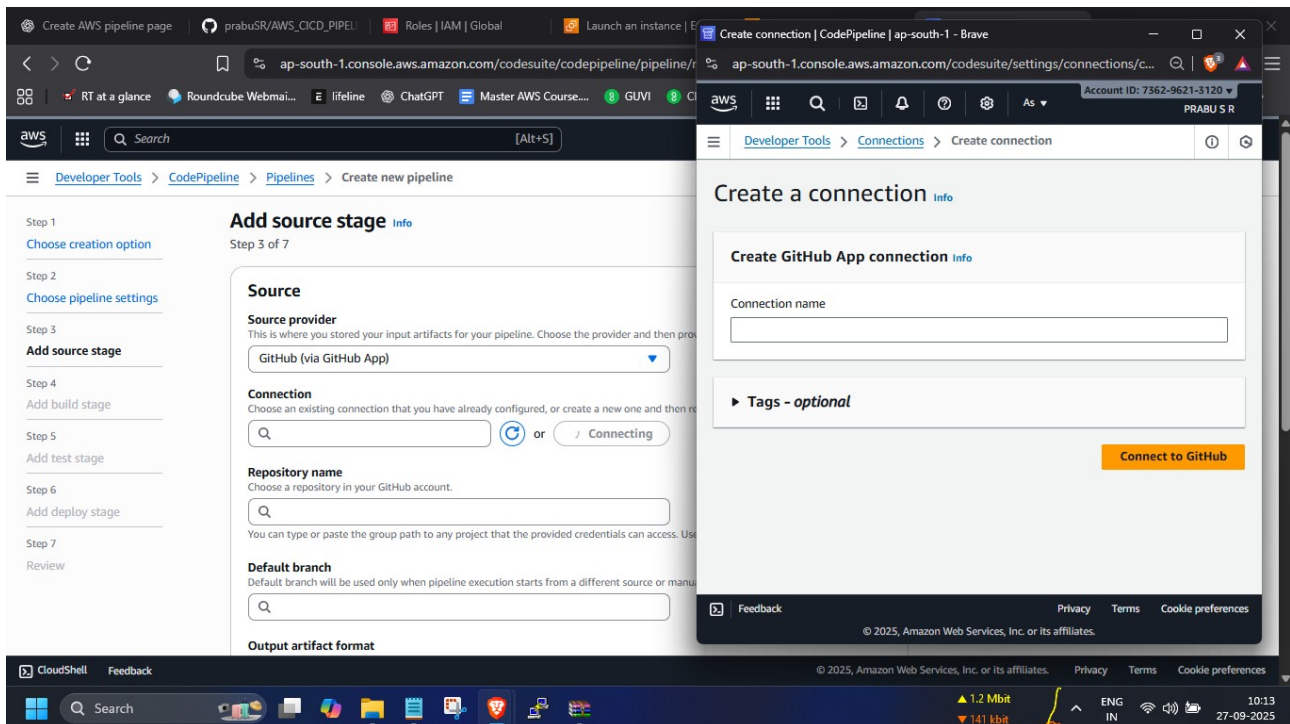
☐ On-premises instances



4. i created a cicd pipeline





here, we need to connect to our github application getting permission from github by aws.




AWS Connector for GitHub by Amazon Web Services would like permission to:

 Verify your GitHub identity (prabuSR)

 Know which resources you can access

 Act on your behalf

 [Learn more](#)

[Learn more about AWS Connector for GitHub](#)

Cancel

Authorize AWS Connector for
GitHub

Authorizing will redirect to
<https://redirect.codestar.aws>

Installing AWS Connector for GitHub - Brave

github.com/apps/aws-connector-for-github/installations/new/permissions?target_id=227430841

aws

Install & Authorize AWS Connector for GitHub

Install & Authorize on your personal account PRABU S R

for these repositories:

☒ **All repositories**
This applies to all current and future repositories owned by the resource owner.
Also includes public repositories (read-only).

☐ **Only select repositories**
Select at least one repository. Also includes public repositories (read-only).

with these permissions:


☒ **Read** access to actions, deployments, environments, issues, and

☐ **All repositories**


This applies to all current and future repositories owned by the resource owner. Also includes public repositories (read-only).

☒ **Only select repositories**


Select at least one repository. Also includes public repositories (read-only).

 **Select repositories** ▾


Selected 1 repository.

 prabuSR/AWS_CICD_PIPELINE_CODEDEPLOY ×

with these permissions:

 **Select repositories** ▾

Selected 1 repository.

 prabuSR/AWS_CICD_PIPELINE_CODEDEPLOY ×

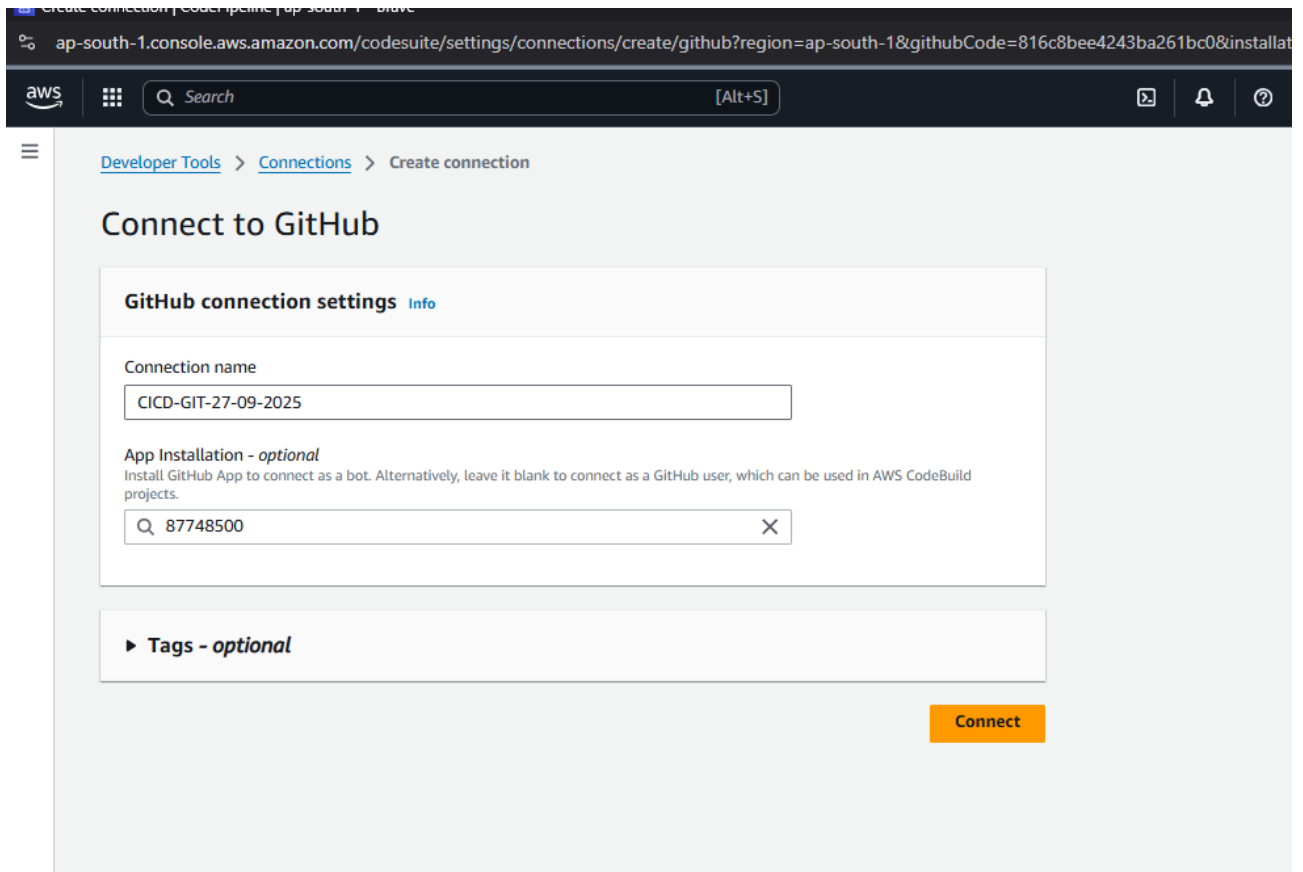
with these permissions:

- ✓ **Read** access to actions, deployments, environments, issues, and metadata
- ✓ **Read and write** access to administration, code, commit statuses, pull requests, and repository hooks

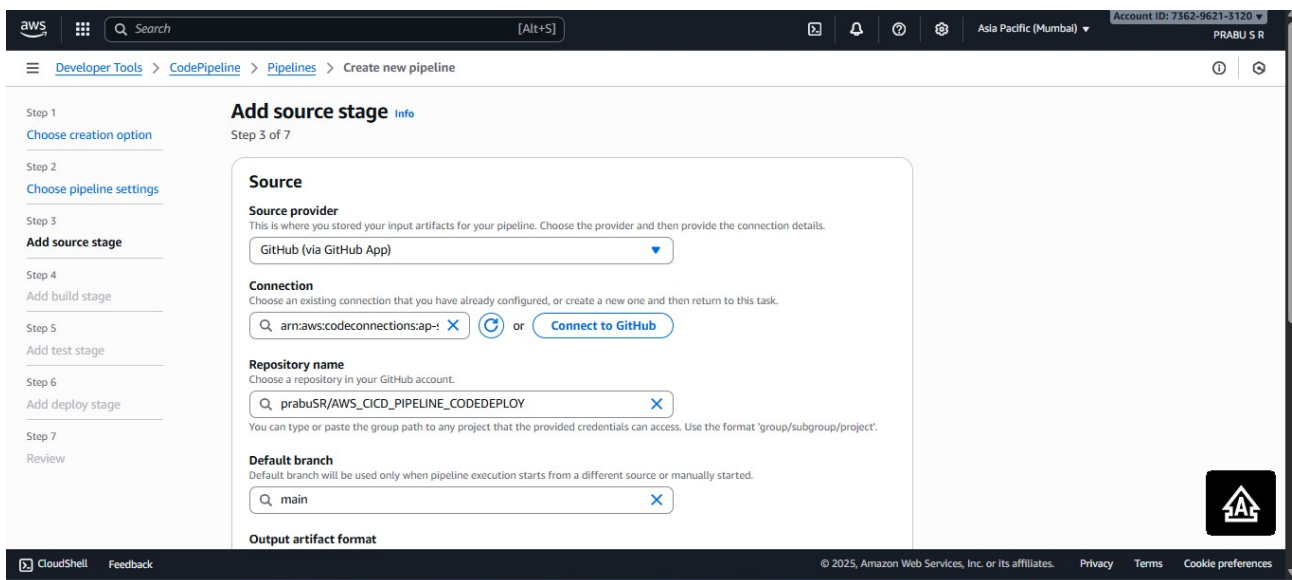
Install & Authorize

[Cancel](#)

Next: you'll be redirected to <https://redirect.codestar.aws/return>



after clicking connect it will automatically redirect to add source stage



skip this build stage

aws

Search

[Alt+S]

Developer Tools

>

CodePipeline

>

Pipelines

>

Create new pipeline

Step 1

Choose creation option

Step 2

Choose pipeline settings

Step 3

Add source stage

Step 4

Add build stage

Step 5

Add test stage

Step 6

Add deploy stage

Step 7

Review

Add build stage

Info

Step 4 of 7

Build - optional

Build provider

Choose the tool you want to use to run build commands and specify artifacts for your build action.

☒ Commands

☐ Other build providers

Commands

Specify the shell commands to run with your compute action in CodePipeline. You do not need to create any resources in CodeBuild. Note: Using compute time for this action will incur separate charges in AWS CodeBuild.

ls

echo "Hello World"

Environment variables - optional

Key value pair that is supplied to actions with managed compute.

Add environment variable

VPC ID

Specify the VPC ID that your compute action will use.

Skip build stage

aws

Search

[Alt+S]

Developer Tools

>

CodePipeline

>

Pipelines

>

Create new pipeline

Step 1

Choose creation option

Step 2

Choose pipeline settings

Step 3

Add source stage

Step 4

Add build stage

Step 5

Add test stage

Step 6

Add deploy stage

Step 7

Review

Add deploy stage

Info

Step 6 of 7

You cannot skip this stage

Pipelines must have at least two stages. Your second stage must be either a build, test or deployment stage. Choose a provider for either the build stage, test stage or deployment stage.

Deploy

Deploy provider

Choose how you want to deploy your application or content. Choose the provider, and then provide the configuration details for that provider.

AWS CodeDeploy

Region

Asia Pacific (Mumbai)

Input artifacts

Choose an input artifact for this action. [Learn more](#)

SourceArtifact

Defined by: Source

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Developer Tools > CodePipeline > Pipelines > Create new pipeline

Choose an input artifact for this action. [Learn more](#)

SourceArtifact
Defined by: Source

No more than 100 characters

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.

Q CID-CDAPP-27-09-2025

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.

Q CID-DP-GRP-27-09-2025

☒ Configure automatic rollback on stage failure

☐ Enable automatic retry on stage failure

Cancel Previous Next

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Developer Tools > CodePipeline > Pipelines > CID-PIPELINE-27-09-2025

Introducing the new pipeline experience
We've redesigned the pipeline view to streamline the monitoring and debugging experience. [Let us know what you think.](#) Or [go back to the old experience.](#) [Don't show again](#)

Success
Congratulations! The pipeline CID-PIPELINE-27-09-2025 has been created.

CID-PIPELINE-27-09-2025 [Edit](#) [Stop execution](#) [Create trigger](#) [Clone pipeline](#) [Release change](#)

[Pipeline](#) [Executions](#) [Triggers](#) [Settings](#) [Tags](#) [Stage](#)

Source f8c87fe4-26ce-4f19-8e46-d54fce18339a In progress: 1
Source 2 minutes ago

Deploy Didn't Run
Deploy AWS CodeDeploy

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check once with ec2 instance security group inbound rules, need to be http/ssh allowed anywhere, then only it will work in browser.

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EC2 > Security Groups > sg-08fb1ee4e7232f4af - default > Edit inbound rules

Edit inbound rules [Info](#)
Inbound rules control the incoming traffic that's allowed to reach the instance.

Security group rule ID	Type	Protocol	Port range	Source	Description - optional	
sg-0ea025f3c3b14aedef	All traffic	All	All	Custom		Delete
-	HTTP	TCP	80	Anyw...		Delete
-	SSH	TCP	22	Anyw...		Delete

[Add rule](#)

[sg-08fb1ee4e7232f4af](#)

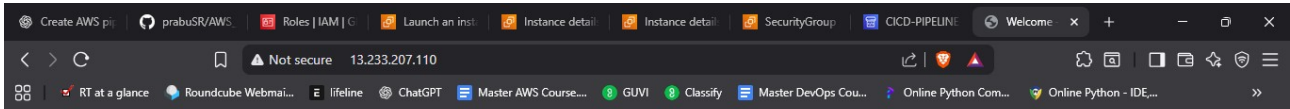
[0.0.0.0](#) [0.0.0.0](#)

[Rules with source of 0.0.0.0 or ::/0 allow all IP addresses to access your instance. We recommend setting security group rules to allow access from known IP addresses only.](#)

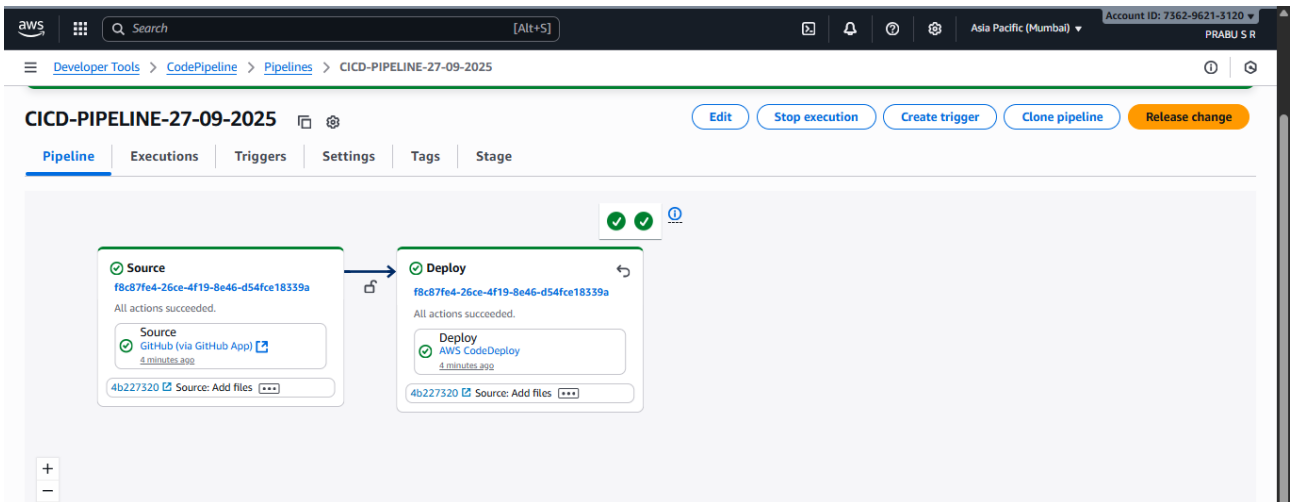
Cancel [Preview changes](#) [Save rules](#)

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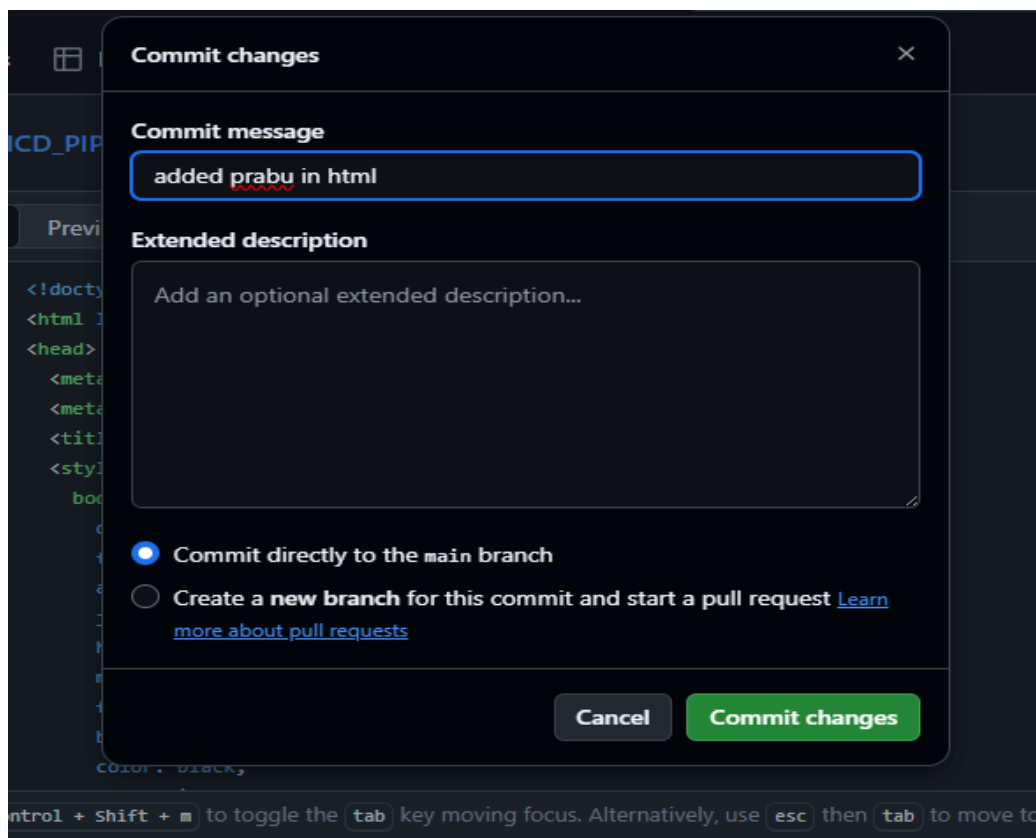
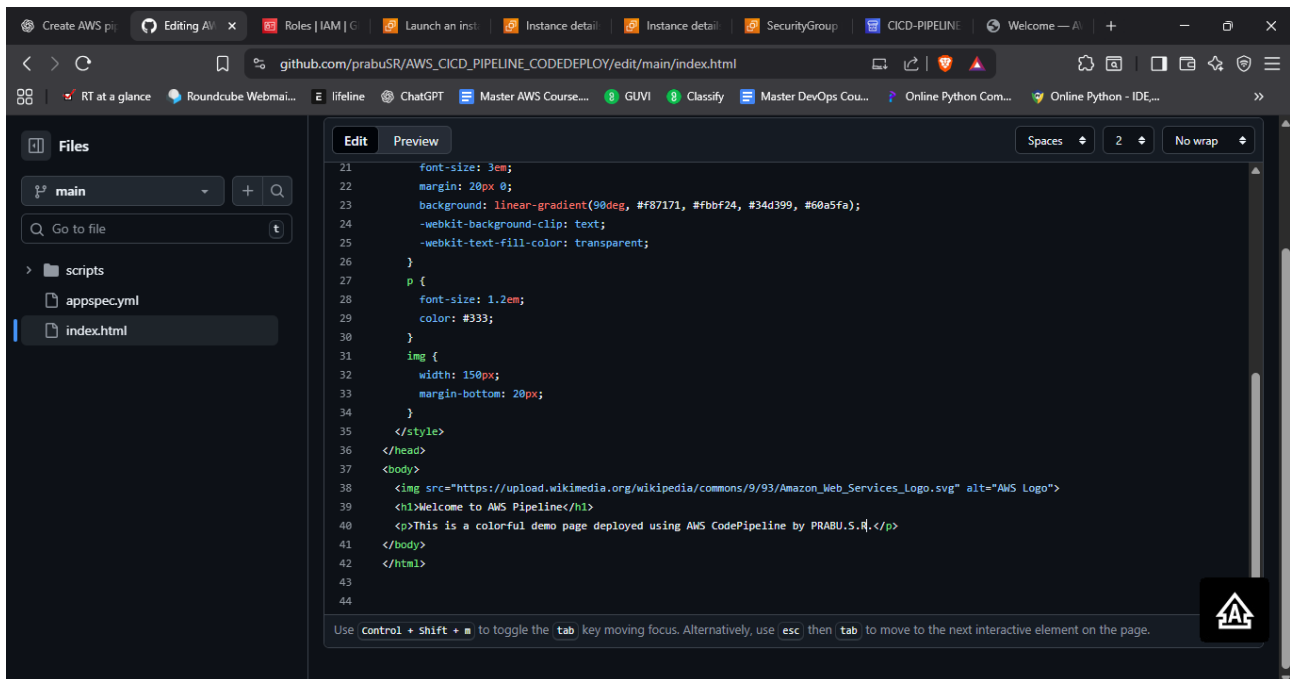
paste the public ip in browser



This is a colorful demo page deployed using AWS CodePipeline.



i going to do small change in code how this cicd works



once i give commit changes the pipeline automatically update and deployment

aws Search [Alt+S] Account ID: 7362-9621-3120 PRABU S R

Developer Tools > CodePipeline > Pipelines > CICD-PIPELINE-27-09-2025

CICD-PIPELINE-27-09-2025

Edit Stop execution Create trigger Clone pipeline Release change

Pipeline Executions Triggers Settings Tags Stage

Source 9f255fd7-7e6e-4c1b-acba-0c389b117e8b In progress: 1

Deploy f8c87fe4-26ce-4f19-8e46-d54fce18339a All actions succeeded.

Deploy AWS CodeDeploy 6 minutes ago

4b227320 Source: Add Files

aws Search [Alt+S] Account ID: 7362-9621-3120 PRABU S R

Developer Tools > CodePipeline > Pipelines > CICD-PIPELINE-27-09-2025

CICD-PIPELINE-27-09-2025

Edit Stop execution Create trigger Clone pipeline Release change

Pipeline Executions Triggers Settings Tags Stage

Source 9f255fd7-7e6e-4c1b-acba-0c389b117e8b All actions succeeded.

Source GitHub (via GitHub App) 2 minutes ago

270efa51 Source: added prab

Deploy 9f255fd7-7e6e-4c1b-acba-0c389b117e8b In progress: 1

Deploy AWS CodeDeploy 2 minutes ago

270efa51 Source: added prab

aws Search [Alt+S]

Developer Tools > CodePipeline > Pipelines > CICD-PIPELINE-27-09-2025

CICD-PIPELINE-27-09-2025

Edit Stop execution

Pipeline Executions Triggers Settings Tags Stage

Source 9f255fd7-7e6e-4c1b-acba-0c389b117e8b All actions succeeded.

Source GitHub (via GitHub App) 3 minutes ago

270efa51 Source: added prab

Deploy 9f255fd7-7e6e-4c1b-acba-0c389b117e8b All actions succeeded.

Deploy AWS CodeDeploy 2 minutes ago

270efa51 Source: added prab

