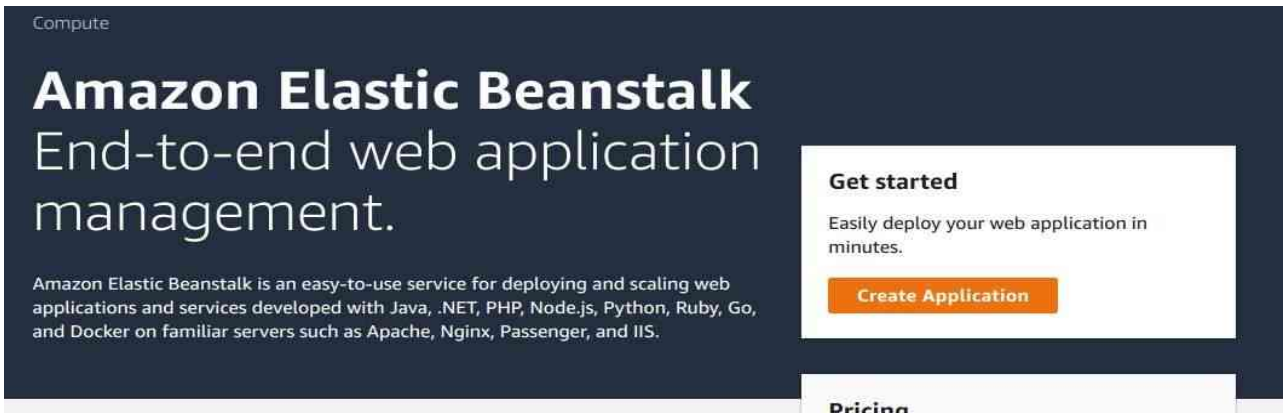
Semester: V
Academic Year: 2021-22
Class / Branch: TE IT
Subject: Advanced Devops Lab (ADL)
Name of Instructor: Prof. Manjusha K.

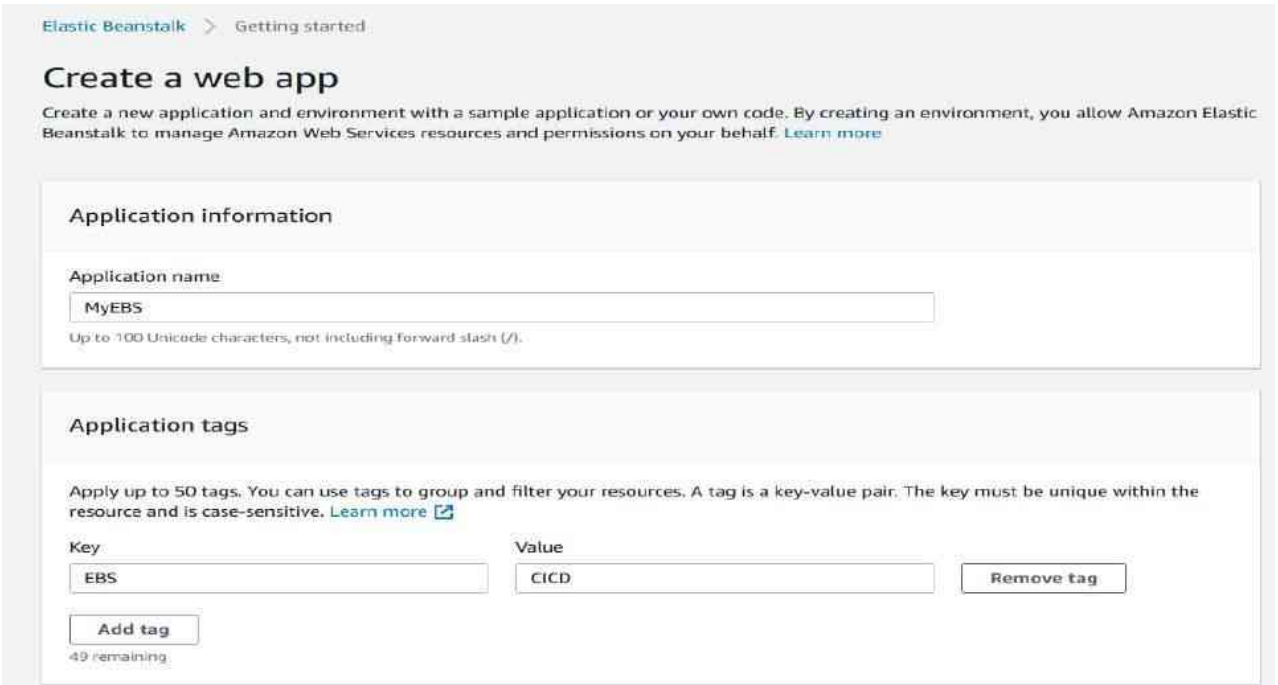
Name of Student:
Student ID:

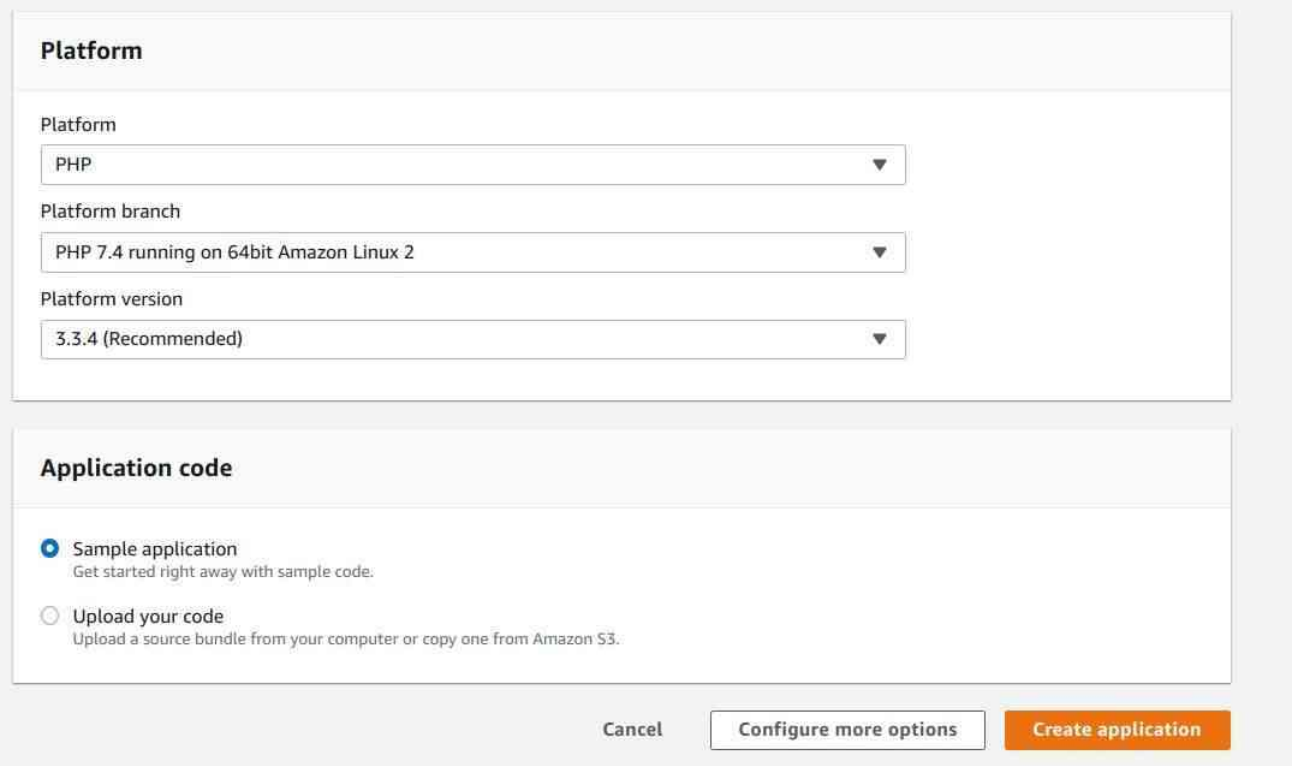
EXPERIMENT NO. 02

Aim: To Build Your Application using AWS CodeBuild and Deploy on S3 / SEBS using AWS CodePipeline, deploy Sample Application on EC2 instance using AWS CodeDeploy.

Step1: Create a deployment environment


Compute
Amazon Elastic Beanstalk
End-to-end web application management.
Amazon Elastic Beanstalk is an easy-to-use service for deploying and scaling web applications and services developed with Java, .NET, PHP, Node.js, Python, Ruby, Go, and Docker on familiar servers such as Apache, Nginx, Passenger, and IIS.
Get started
Easily deploy your web application in minutes.
Create Application
Pricing


Elastic Beanstalk > Getting started
Create a web app
Create a new application and environment with a sample application or your own code. By creating an environment, you allow Amazon Elastic Beanstalk to manage Amazon Web Services resources and permissions on your behalf. Learn more
Application information
Application name
MyEBS
Up to 100 Unicode characters, not including forward slash (/).
Application tags
Apply up to 50 tags. You can use tags to group and filter your resources. A tag is a key-value pair. The key must be unique within the resource and is case-sensitive. Learn more
Key
EBS
Value
CICD
Remove tag
Add tag
49 remaining

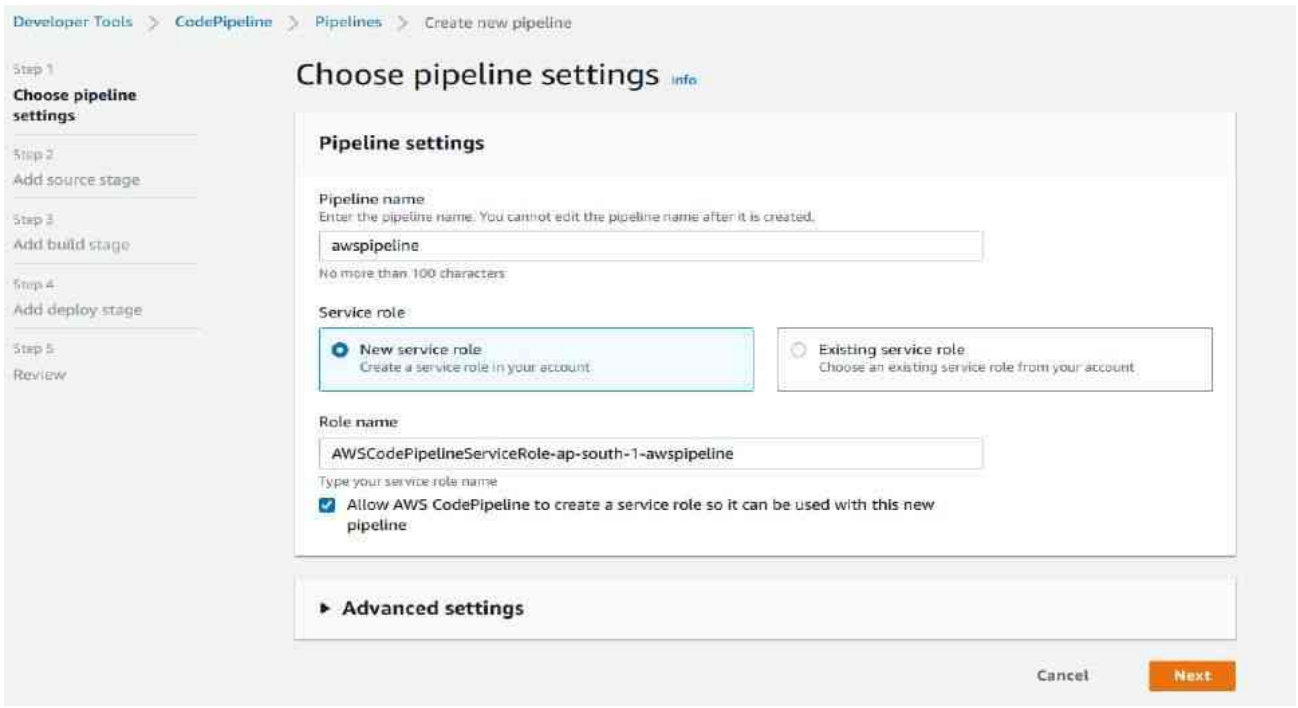


Step2: Get a copy of the sample code

In this step, you will retrieve a copy of the sample app’s code and choose a source to host the code.

The pipeline takes code from the source and then performs actions on it.

You can use one of three options as your source: a GitHub repository, an Amazon S3 bucket, or an AWS CodeCommit repository. Select your preference and follow the steps below:



a. If you plan to use Amazon S3 as your source, you will retrieve the sample code from the AWS GitHub repository, save it to your computer, and upload it to an Amazon S3 bucket.

- Visit our GitHub repository containing the sample code at

  https://github.com/imoisharma/aws-codepipeline-s3-codedeploy-linux-2.0

- Click the dist folder.

b. Save the source files to your computer:

- Click the file named aws-codepipeline-s3-aws-codedeploy_linux.zip
- Click View Raw.
- Save the sample file to your local computer.

c. open the Amazon S3 console and create your Amazon S3 bucket:

- Click Create Bucket

- Bucket Name: type a unique name for your bucket, such as awscodepipeline-demobucket-variables. All bucket names in Amazon S3 must be unique, so use one of your own, not one with the name shown in the example.
- Region: In the drop-down, select the region where you will create your pipeline, such as ap-South-1
- Click Create.

d.The console displays the newly created bucket, which is empty.

- Click Properties.
- Expand Versioning and select Enable Versioning. When versioning is enabled, Amazon S3 saves every version of every object in the bucket.

e. You will now upload the sample code to the Amazon S3 bucket:

- Click Upload.
- Follow the on-screen directions to upload the .zip file containing the sample code you downloaded from GitHub.

Create bucket Info

Buckets are containers for data stored in S3. Learn more

General configuration

Bucket name

awscodepipeline-demobucket-variables1

Bucket name must be unique and must not contain spaces or uppercase letters. See rules for bucket naming

AWS Region

Asia Pacific (Mumbai) ap-south-1

Copy settings from existing bucket - *optional*

Only the bucket settings in the following configuration are copied.

Choose bucket

Block Public Access settings for this bucket

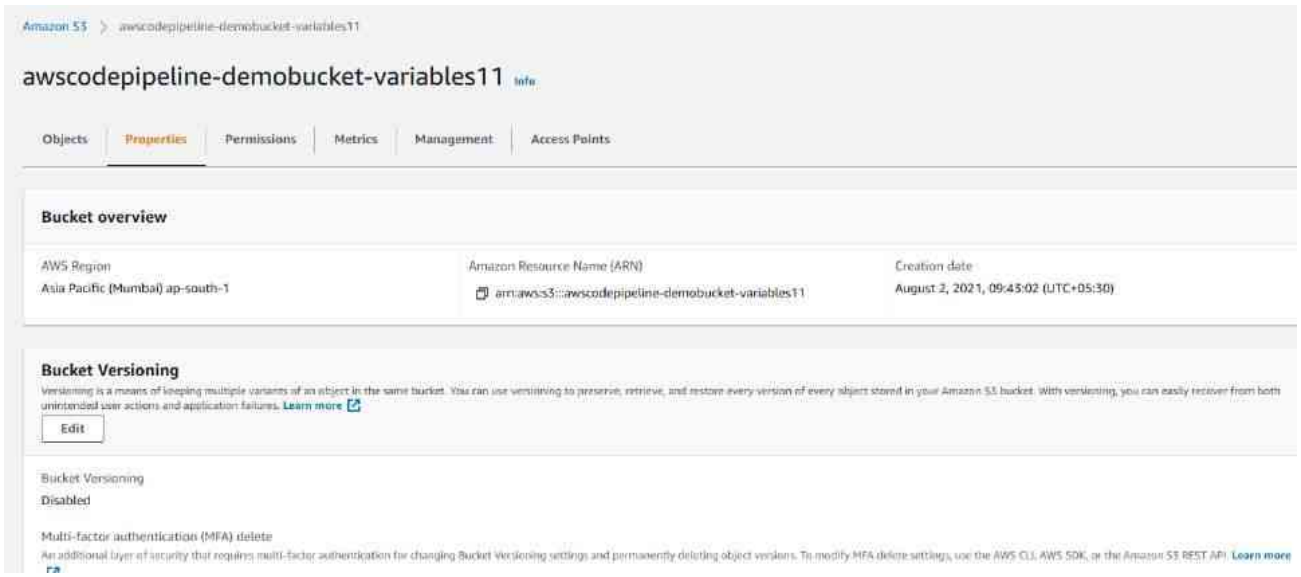
Public access is granted to buckets and objects through access control lists (ACLs), bucket policies, access point policies, or all. In order to ensure that public access to this bucket and its objects is blocked, turn on Block all public access. These settings apply only to this bucket and its access points. AWS recommends that you turn on Block all public access, but before applying any of these settings, ensure that your applications will work correctly without public access. If you require some level of public access to this bucket or objects within, you can customize the individual settings below to suit your specific storage use cases. Learn more

Block *all* public access

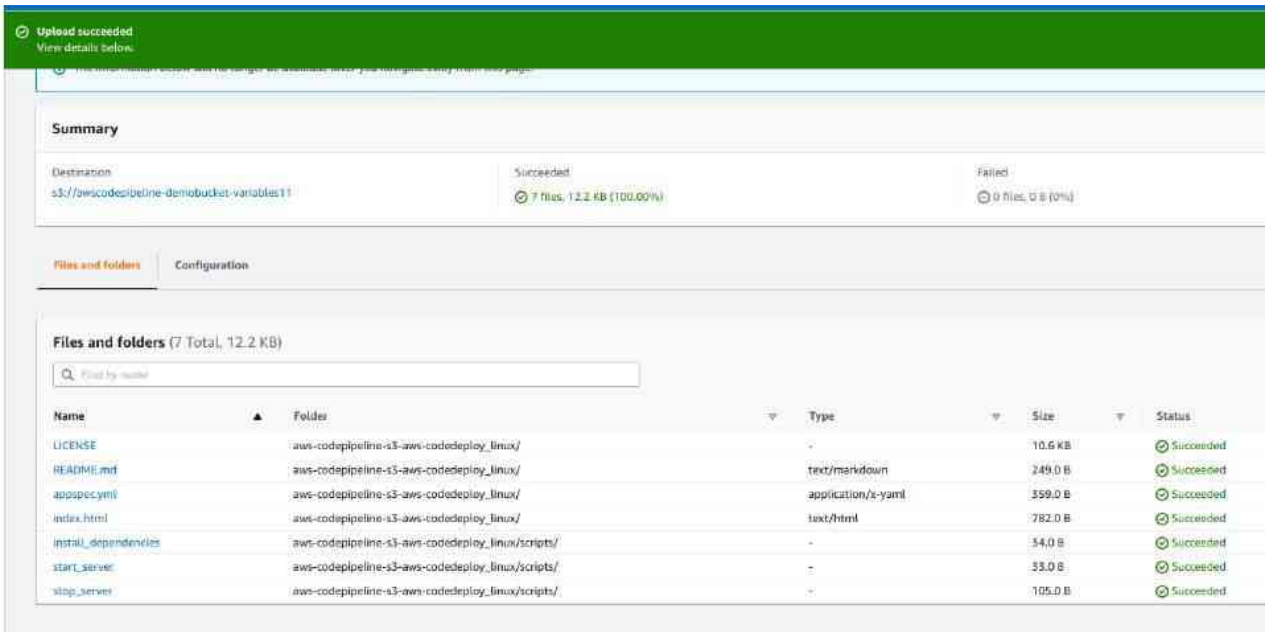
Turning this setting on is the same as turning on all four settings below. Each of the following settings are independent of one another.

Block public access to buckets and objects granted through *new* access control lists (ACLs)

S3 will block public access permissions applied to newly added buckets or objects, and prevent the creation of new public access



you can upload directly zip file here from https://github.com/imoisharma/aws-codepipeline-s3-codedeploy-linux-2.0

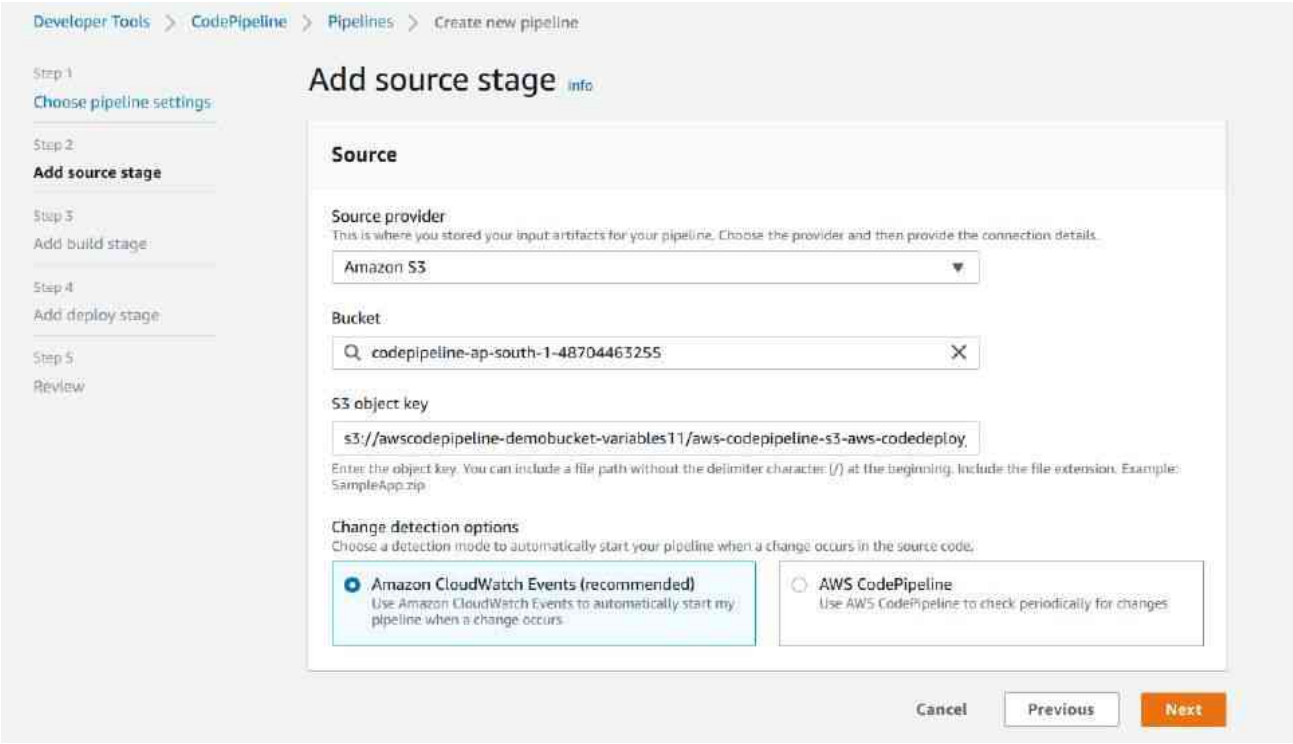


Step3: Create your Pipeline

In this step, you will create and configure a simple pipeline with two actions: source and deploy. You will provide CodePipeline with the locations of your source repository and deployment environment.

A true continuous deployment pipeline requires a build stage, where code is compiled and unit tested. CodePipeline lets you plug your preferred build provider into your pipeline. However, in this we will skip the build stage.

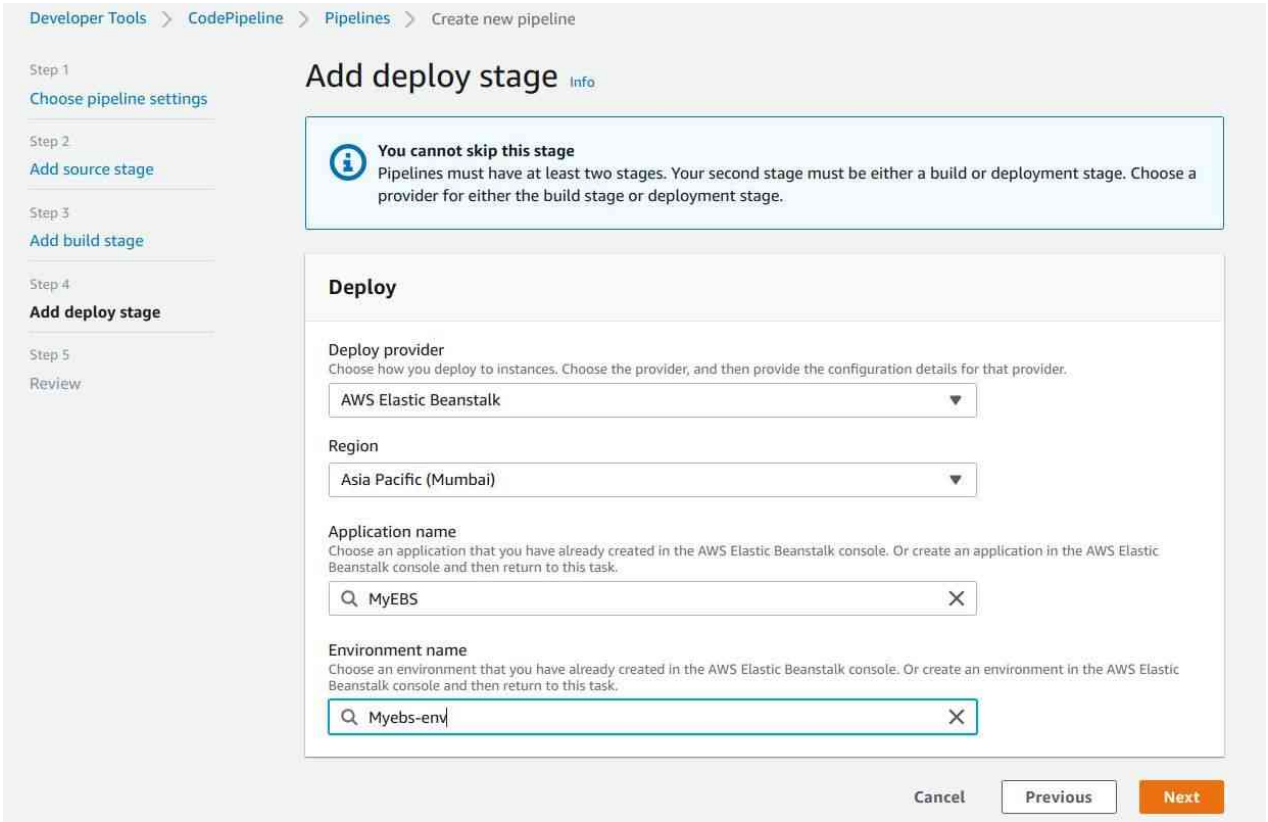
Goto Pipeline again and create it

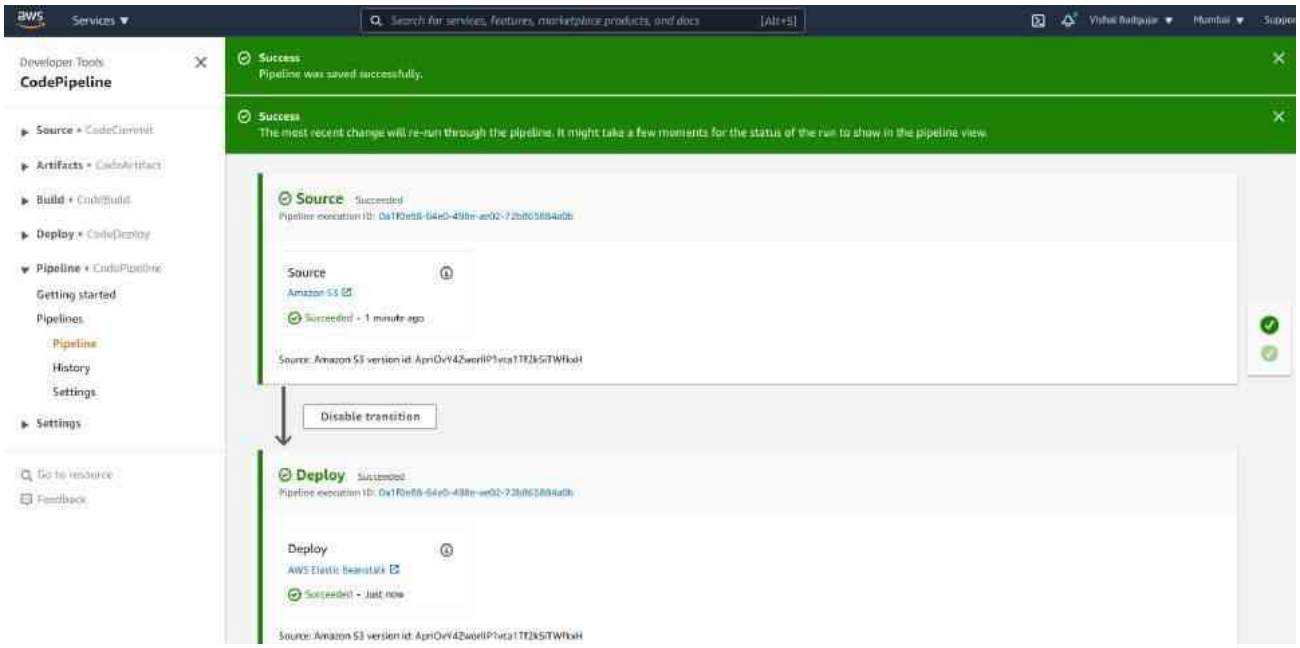


In above you can give zip file name in S3 object Key and choose bucket name which you created

In Step 4: Deploy Stage:

- Deployment provider: Click AWS Elastic Beanstalk.
- Application name: MYEBS.
- Environment name: Click Myebs-env.
- Click Next step.

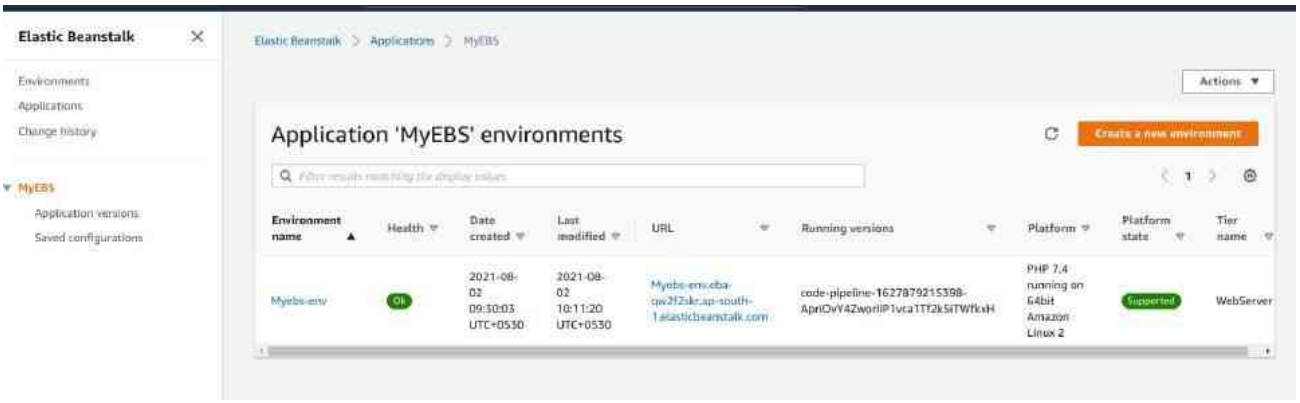




After your pipeline is created, the pipeline status page appears and the pipeline automatically starts to run. You can view progress as well as success and failure messages as the pipeline perform each action.

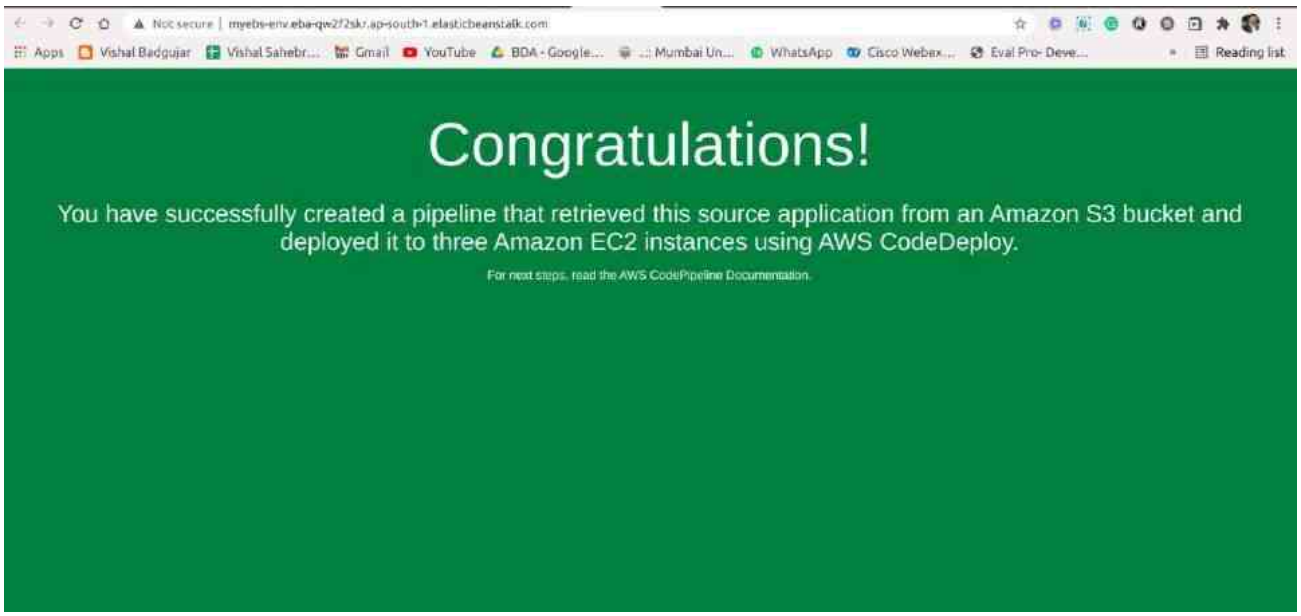
To verify your pipeline ran successfully, monitor the progress of the pipeline as it moves through each stage. The status of each stage will change from No executions yet to In Progress, and then to either Succeeded or Failed. The pipeline should complete the first run within a few minutes.

Now go to your EBS environment and click on the URL to view the sample website you deployed.



You have successfully created an automated software release pipeline using AWS CodePipeline!

Using CodePipeline, you created a pipeline that uses GitHub, Amazon S3, or AWS CodeCommit as the source location for application code and then deploys the code to an Amazon EC2 instance managed by AWS Elastic Beanstalk.



Step 5: Commit a change and then update your app

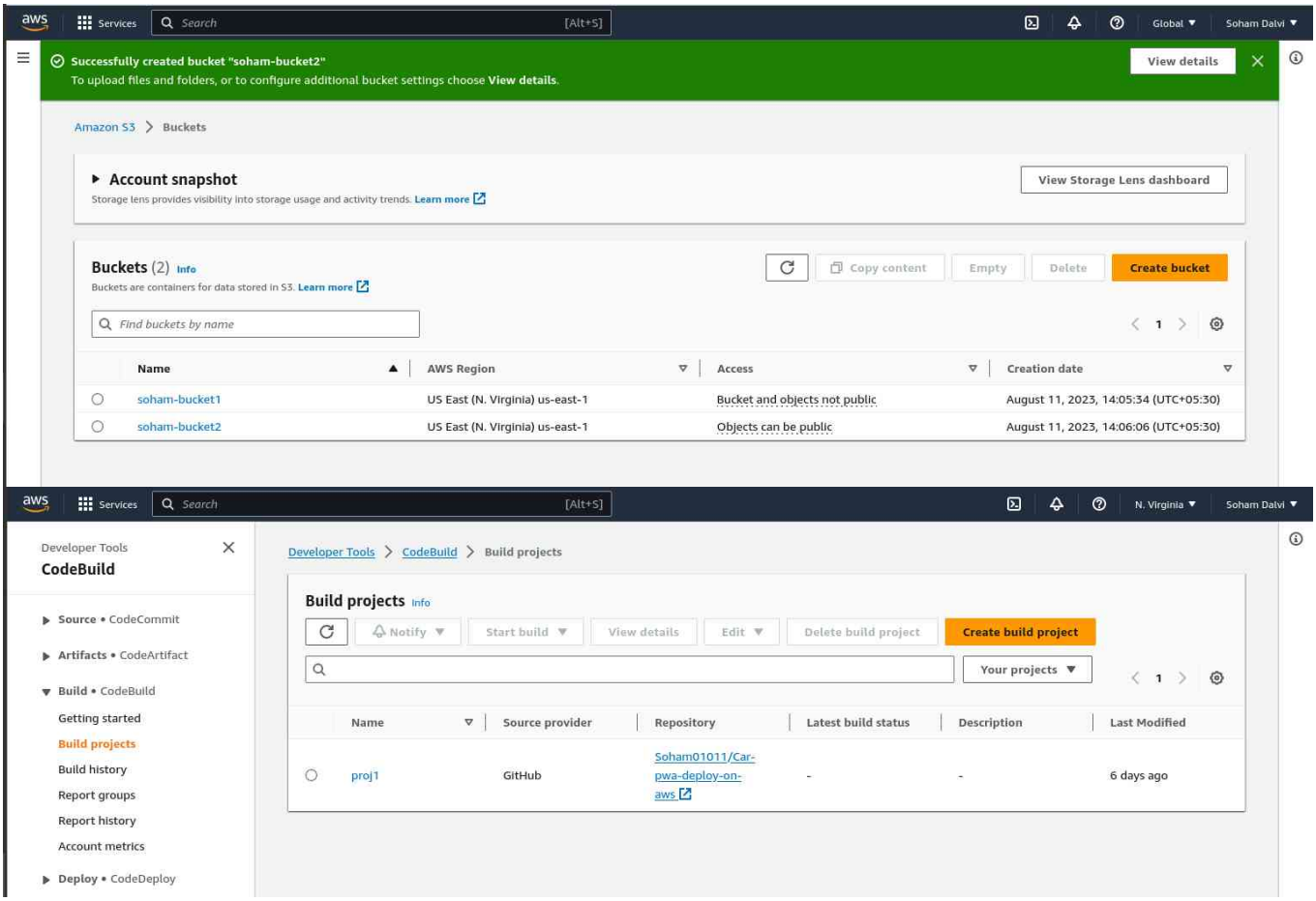
Step 6: Clean up your resources

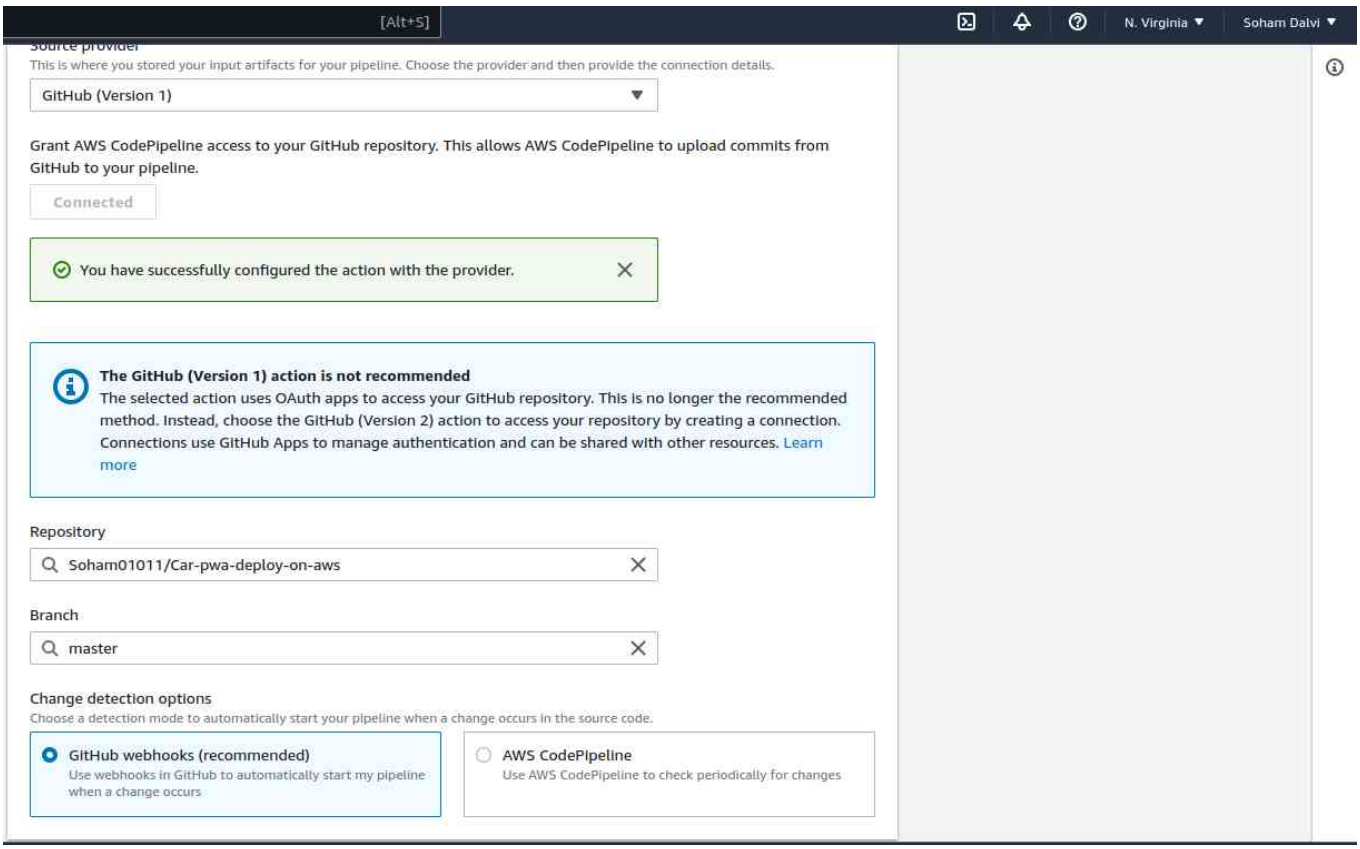
To avoid future charges, you will delete all the resources you launched throughout this tutorial, which includes the pipeline, the Elastic Beanstalk application, and the source you set up to host the code.

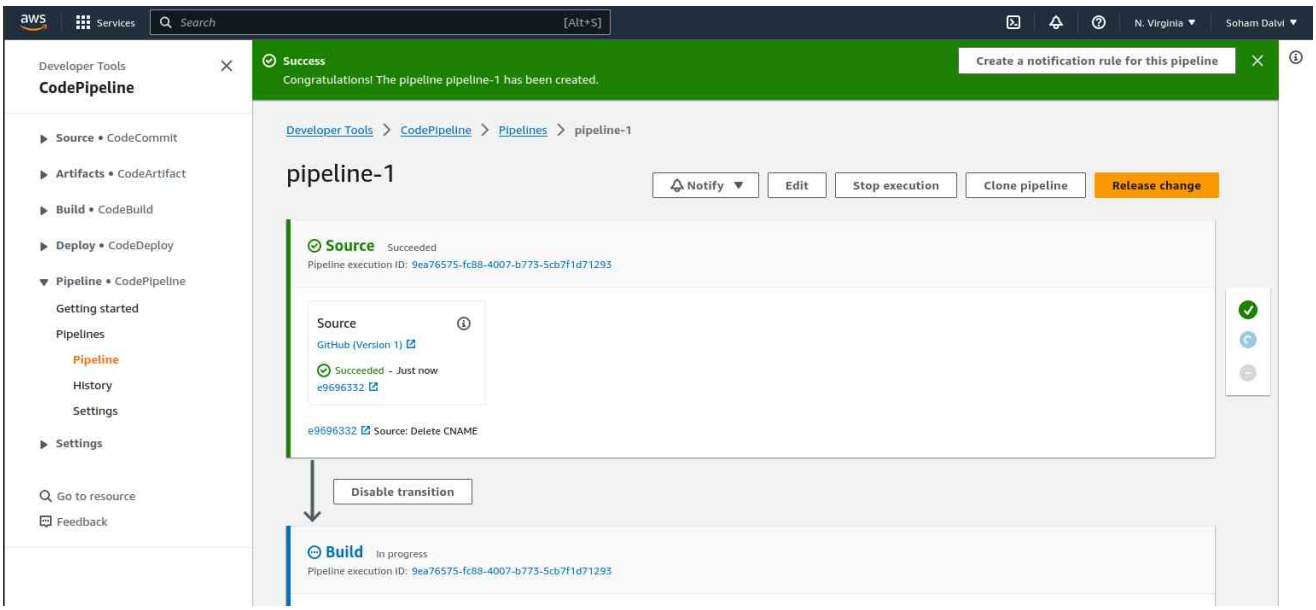
a. First, you will delete your pipeline:

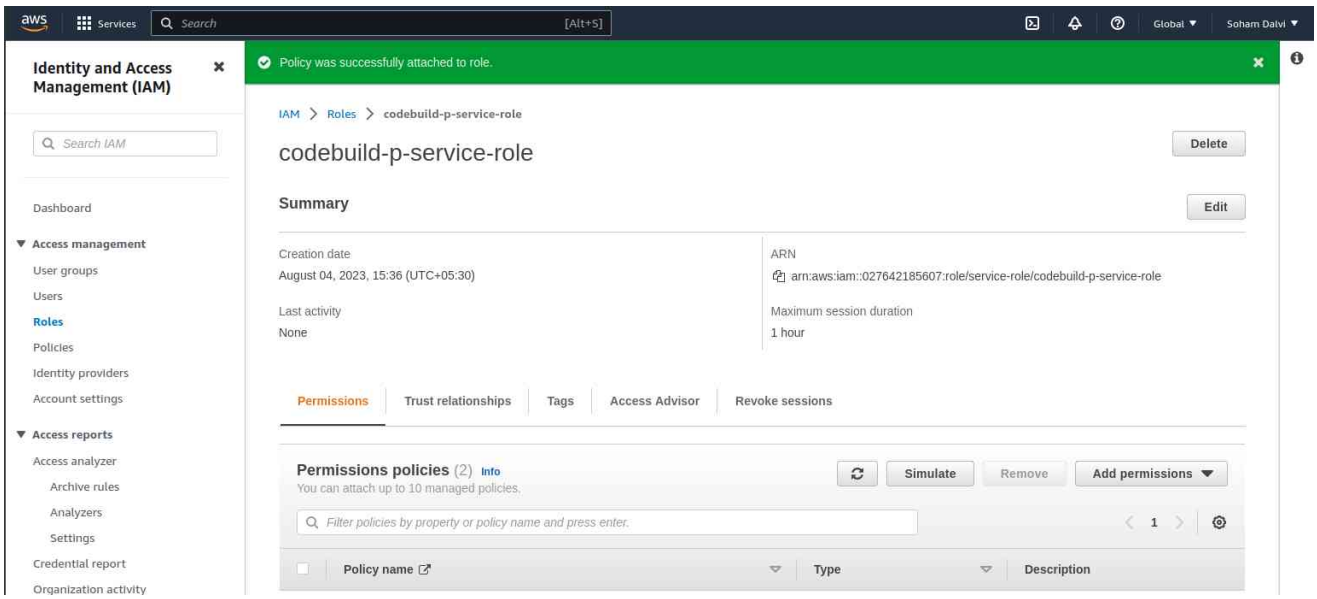
b. Second, delete your Elastic Beanstalk application:

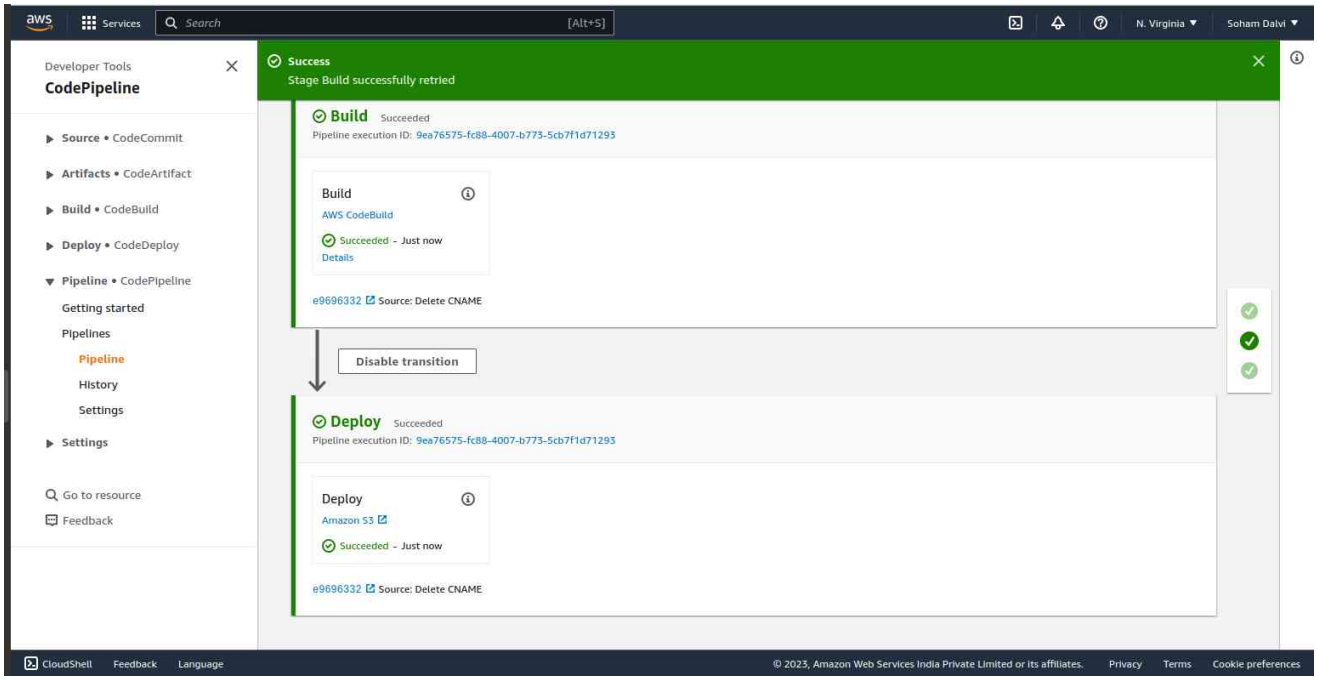
OUTPUT:

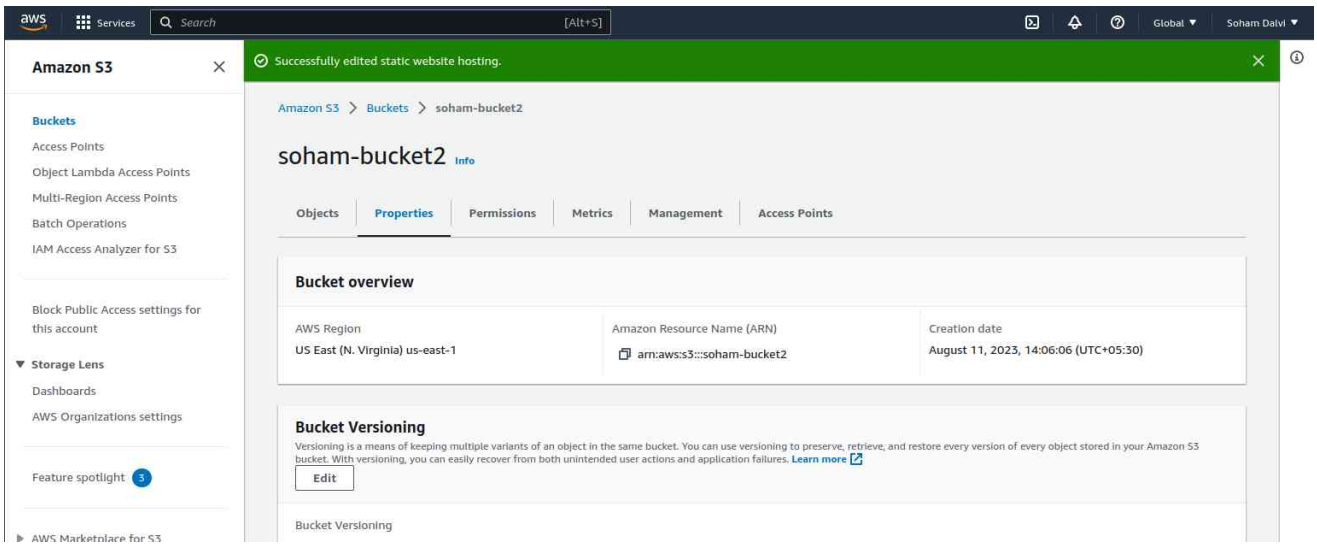


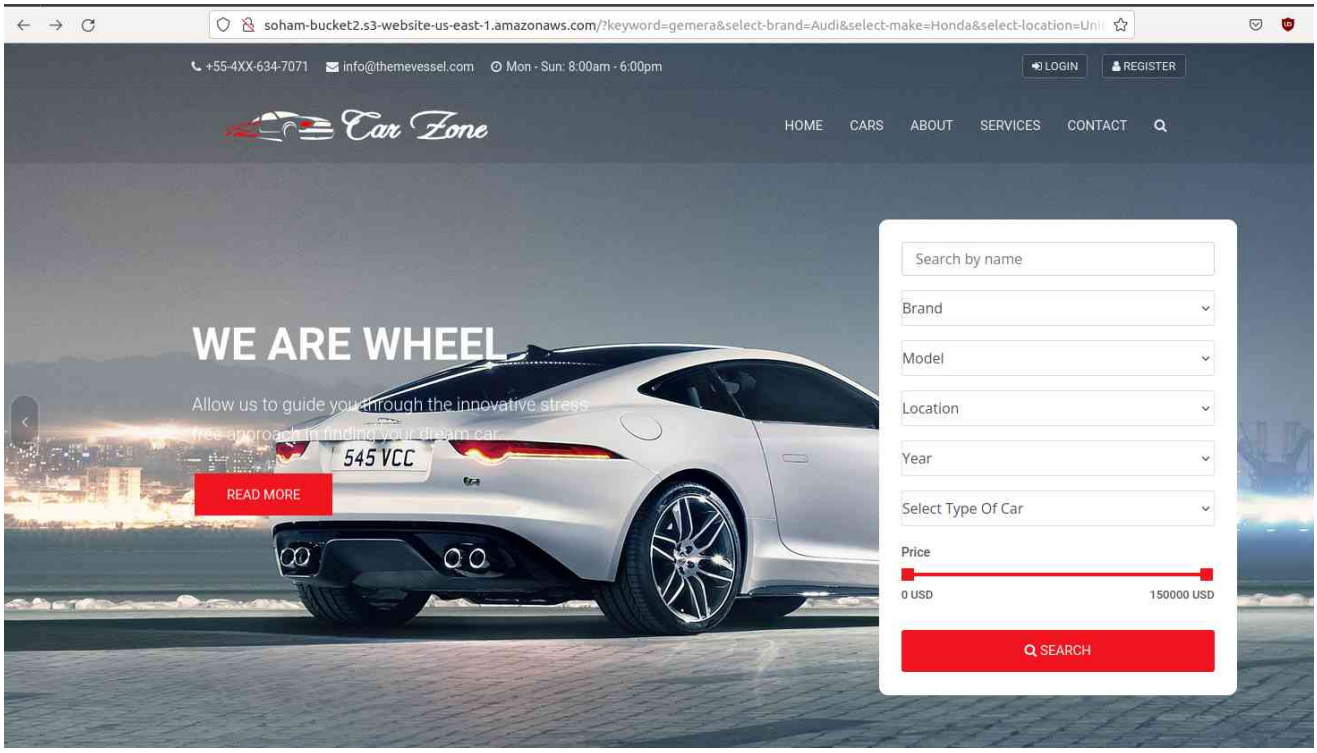

[Alt+S]
N. Virginia
Soham Dalvi
This is where you stored your input artifacts for your pipeline. Choose the provider and then provide the connection details.
GitHub (Version 1)
Grant AWS CodePipeline access to your GitHub repository. This allows AWS CodePipeline to upload commits from GitHub to your pipeline.
Connected
You have successfully configured the action with the provider.
The GitHub (Version 1) action is not recommended
The selected action uses OAuth apps to access your GitHub repository. This is no longer the recommended method. Instead, choose the GitHub (Version 2) action to access your repository by creating a connection. Connections use GitHub Apps to manage authentication and can be shared with other resources. Learn more
Repository
Soham01011/Car-pwa-deploy-on-aws
Branch
master
Change detection options
Choose a detection mode to automatically start your pipeline when a change occurs in the source code.
GitHub webhooks (recommended)
Use webhooks in GitHub to automatically start my pipeline when a change occurs
AWS CodePipeline
Use AWS CodePipeline to check periodically for changes


aws
Services
Search
[Alt+S]
N. Virginia
Soham Dalvi
Developer Tools
CodePipeline
Source • CodeCommit
Artifacts • CodeArtifact
Build • CodeBuild
Deploy • CodeDeploy
Pipeline • CodePipeline
Getting started
Pipelines
Pipeline
History
Settings
Settings
Go to resource
Feedback
Success
Congratulations! The pipeline pipeline-1 has been created.
Create a notification rule for this pipeline
Developer Tools > CodePipeline > Pipelines > pipeline-1
pipeline-1
Notify
Edit
Stop execution
Clone pipeline
Release change
Source Succeeded
Pipeline execution ID: 9ea76575-fc88-4007-b773-5cb7f1d71293
Source
GitHub (Version 1)
Succeeded - Just now
e9696332
e9696332 Source: Delete CNAME
Disable transition
Build In progress
Pipeline execution ID: 9ea76575-fc88-4007-b773-5cb7f1d71293


Services
Search
[Alt+S]
Global
Soham Dalvi
Identity and Access Management (IAM)
Policy was successfully attached to role.
IAM > Roles > codebuild-p-service-role
codebuild-p-service-role
Delete
Summary
Edit
Creation date
August 04, 2023, 15:36 (UTC+05:30)
ARN
arn:aws:iam::027642185607:role/service-role/codebuild-p-service-role
Last activity
None
Maximum session duration
1 hour
Permissions
Trust relationships
Tags
Access Advisor
Revoke sessions
Permissions policies (2) Info
You can attach up to 10 managed policies.
Simulate
Remove
Add permissions
Filter policies by property or policy name and press enter.
Policy name
Type
Description
Dashboard
Access management
User groups
Users
Roles
Policies
Identity providers
Account settings
Access reports
Access analyzer
Archive rules
Analyzers
Settings
Credential report
Organization activity


Services
Search
[Alt+S]
N. Virginia
Soham Dalvi
Developer Tools
CodePipeline
Success
Stage Build successfully retried
Build Succeeded
Pipeline execution ID: 9ea76575-fc88-4007-b773-5cb7f1d71293
Build
AWS CodeBuild
Succeeded - Just now
Details
e9696332 Source: Delete CNAME
Disable transition
Deploy Succeeded
Pipeline execution ID: 9ea76575-fc88-4007-b773-5cb7f1d71293
Deploy
Amazon S3
Succeeded - Just now
e9696332 Source: Delete CNAME
Source • CodeCommit
Artifacts • CodeArtifact
Build • CodeBuild
Deploy • CodeDeploy
Pipeline • CodePipeline
Getting started
Pipelines
Pipeline
History
Settings
Settings
Go to resource
Feedback
CloudShell
Feedback
Language
© 2023, Amazon Web Services India Private Limited or its affiliates.
Privacy
Terms
Cookie preferences





Conclusion:Hence we understood how to host a website with S3 bucket instance on AWS.