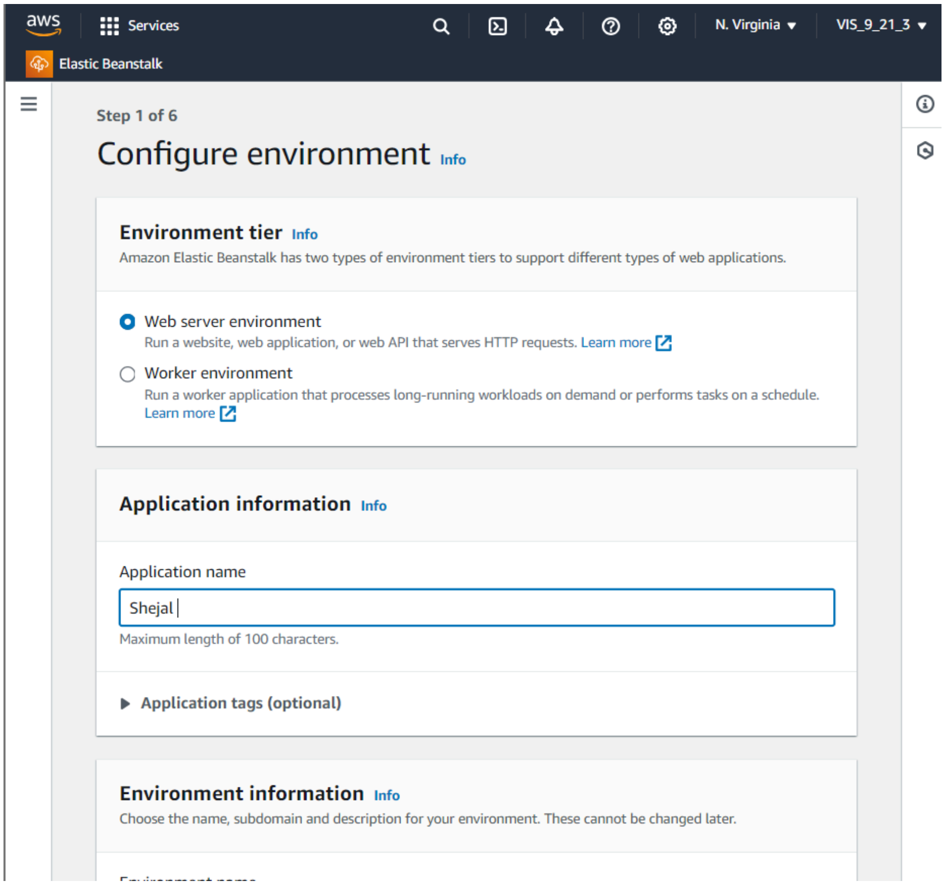
Name:Shejal Nilesh Tiwari Div/Roll No: D15C/57

EXPERIMENT NO: 2

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. Your continuous deployment pipeline will need a target environment containing virtual servers, or Amazon EC2 instances, where it will deploy sample code. You will prepare this environment before creating the pipeline.

1.Go to the AWS Management Console and navigate to Elastic Beanstalk.
Click on **Create Application**.
Add name to your application



Step 1 of 6

Configure environment Info

Environment tier Info

Amazon Elastic Beanstalk has two types of environment tiers to support different types of web applications.

● Web server environment
Run a website, web application, or web API that serves HTTP requests. Learn more

○ Worker environment
Run a worker application that processes long-running workloads on demand or performs tasks on a schedule. Learn more

Application information Info

Application name: Shejal

Maximum length of 100 characters.

▶ Application tags (optional)

Environment information Info

Choose the name, subdomain and description for your environment. These cannot be changed later.

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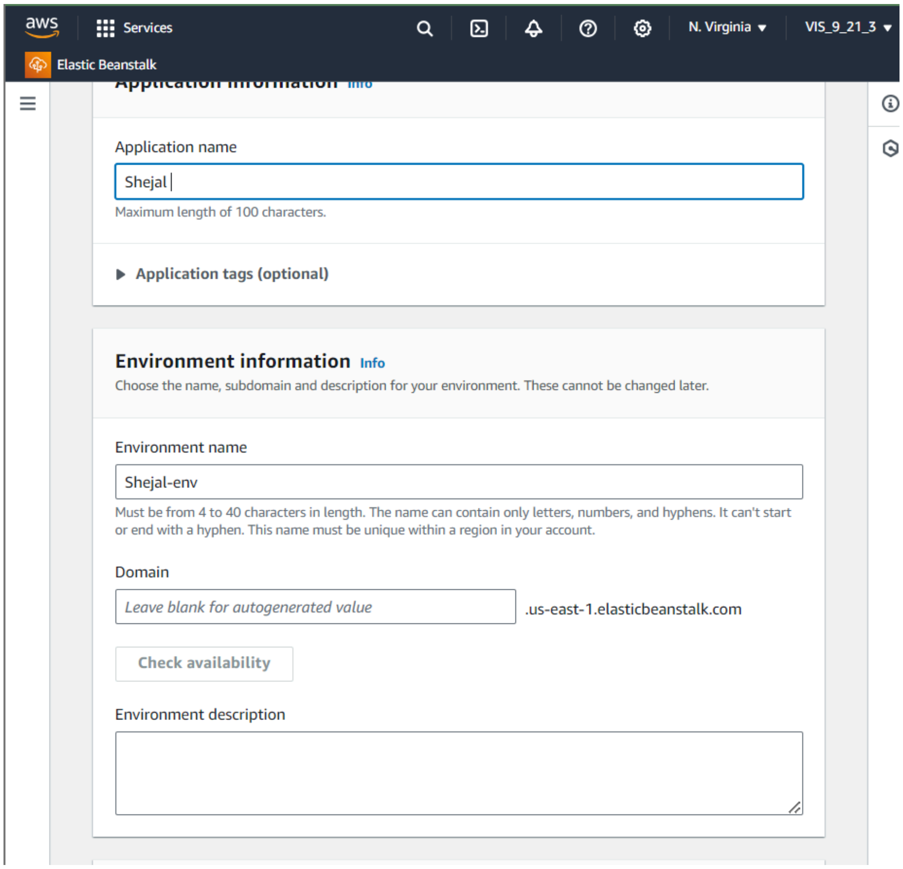


Application information Info

Application name

Shejal

Maximum length of 100 characters.

▶ Application tags (optional)

Environment information Info

Choose the name, subdomain and description for your environment. These cannot be changed later.

Environment name

Shejal-env

Must be from 4 to 40 characters in length. The name can contain only letters, numbers, and hyphens. It can't start or end with a hyphen. This name must be unique within a region in your account.

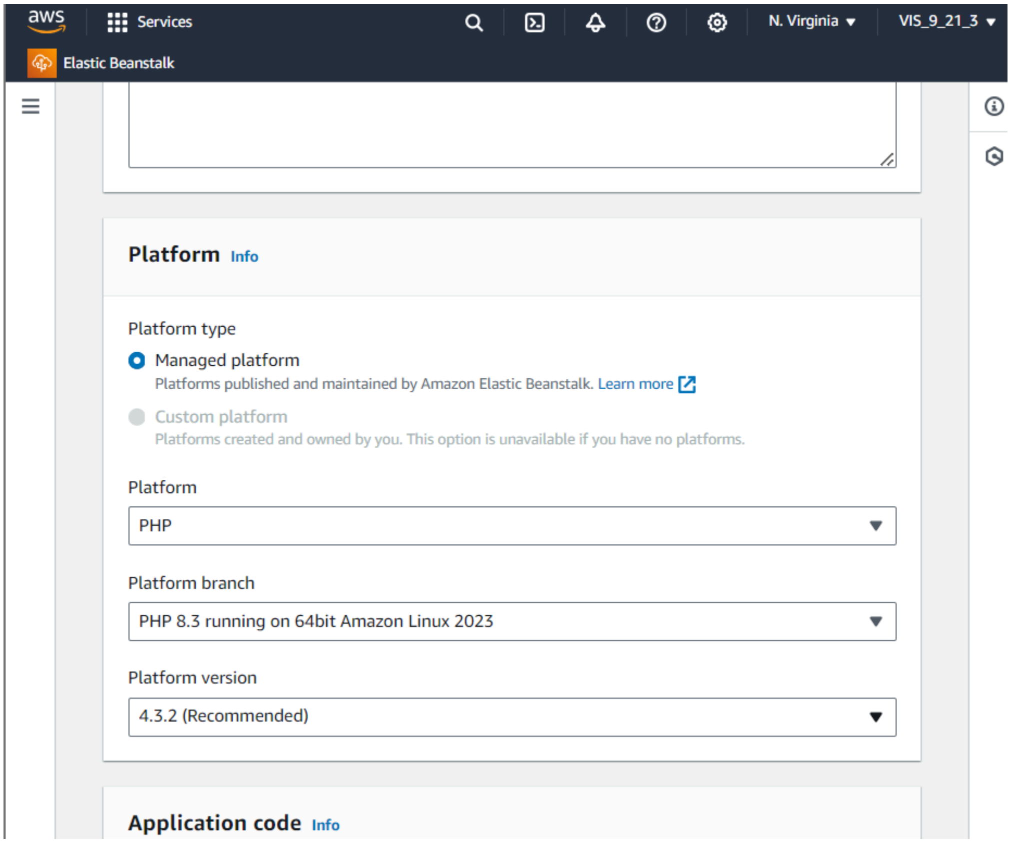
Domain

Leave blank for autogenerated value .us-east-1.elasticbeanstalk.com

Environment description

2. Configure PHP Environment:

- Choose PHP as the platform for your Elastic Beanstalk environment, ensuring compatibility with your PHP application.



Platform Info

Platform type

● Managed platform
Platforms published and maintained by Amazon Elastic Beanstalk. Learn more

○ Custom platform
Platforms created and owned by you. This option is unavailable if you have no platforms.

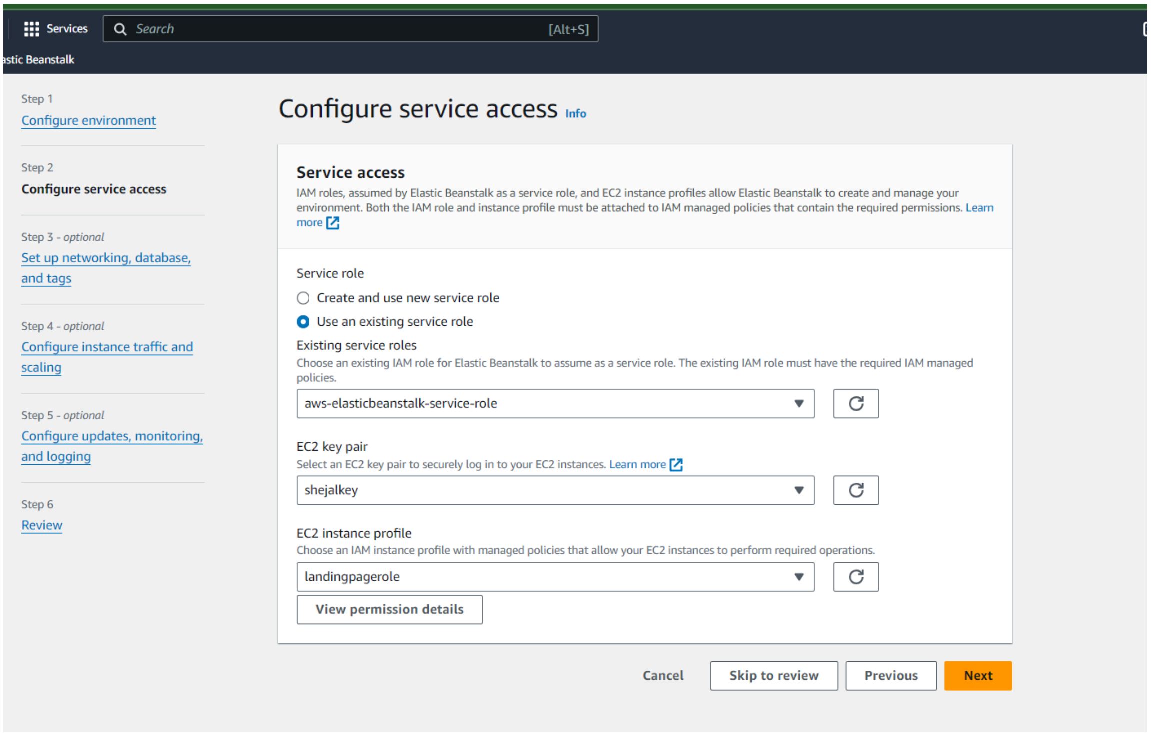
Platform: PHP

Platform branch: PHP 8.3 running on 64bit Amazon Linux 2023

Platform version: 4.3.2 (Recommended)

Application code Info

3.In configure service access select “use an existing service role”
Also you need to create key and instance profile first before adding it in the below dropdown.



Configure service access Info

Service access

IAM roles, assumed by Elastic Beanstalk as a service role, and EC2 instance profiles allow Elastic Beanstalk to create and manage your environment. Both the IAM role and instance profile must be attached to IAM managed policies that contain the required permissions. Learn more

Service role

○ Create and use new service role

● Use an existing service role

Existing service roles

Choose an existing IAM role for Elastic Beanstalk to assume as a service role. The existing IAM role must have the required IAM managed policies.

aws-elasticbeanstalk-service-role

EC2 key pair

Select an EC2 key pair to securely log in to your EC2 instances. Learn more

shejalkey

EC2 instance profile

Choose an IAM instance profile with managed policies that allow your EC2 instances to perform required operations.

landingpagerole

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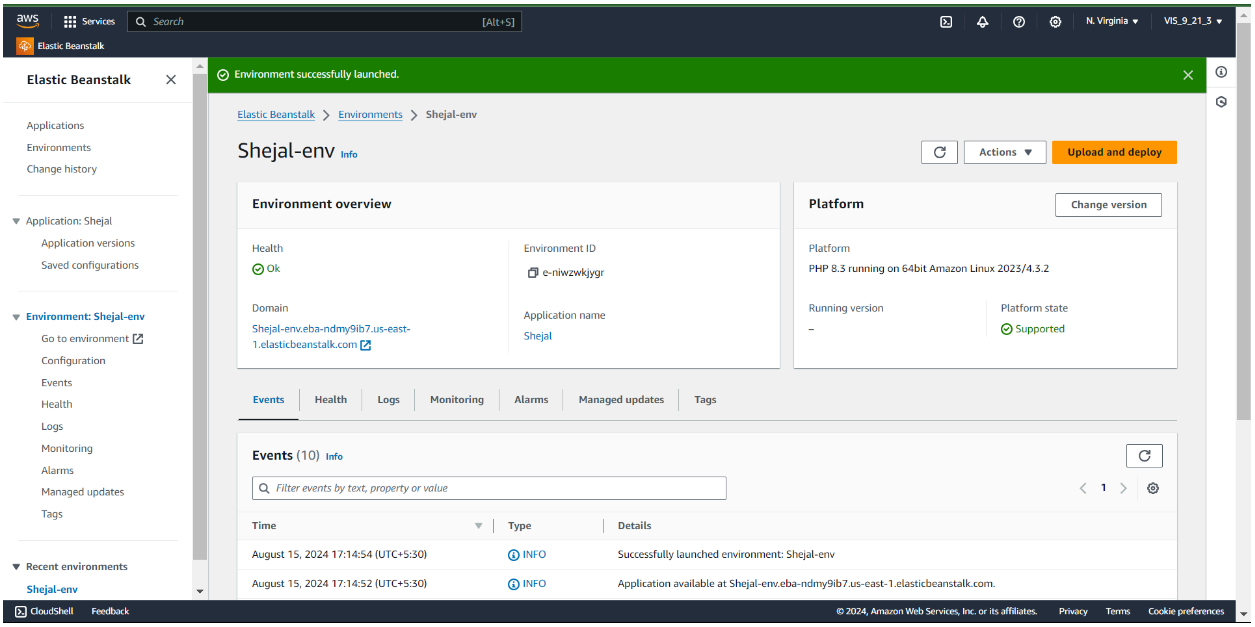
4.Directly select next to all the optional settings.
Your environment will be created successfully .



Environment successfully launched.

Shejal-env Info

Environment overview

Health: Ok

Environment ID: e-niwzwkjygr

Domain: Shejal-env.eba-ndmy9ib7.us-east-1.elasticbeanstalk.com

Application name: Shejal

Platform

Platform: PHP 8.3 running on 64bit Amazon Linux 2023/4.3.2

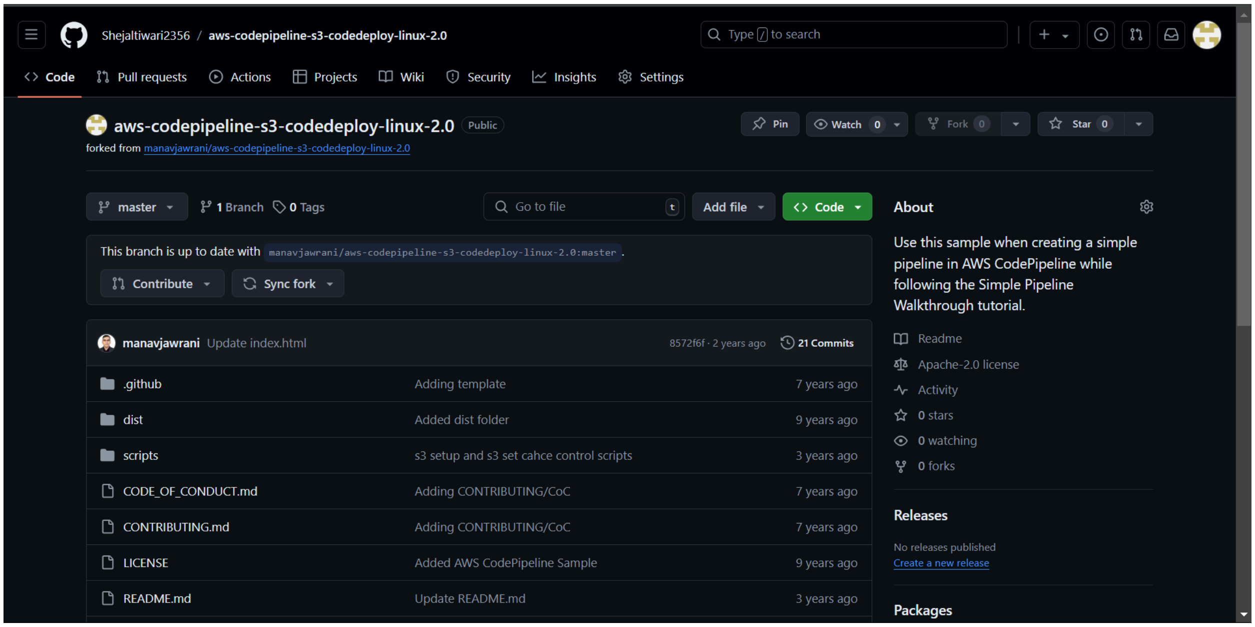
Running version: –

Platform state: Supported

Events (10) Info

Time	Type	Details
August 15, 2024 17:14:54 (UTC+5:30)	INFO	Successfully launched environment: Shejal-env
August 15, 2024 17:14:52 (UTC+5:30)	INFO	Application available at Shejal-env.eba-ndmy9ib7.us-east-1.elasticbeanstalk.com.

5.You need to fork this repository.



aws-codepipeline-s3-codedeploy-linux-2.0 Public

forked from manavjawrani/aws-codepipeline-s3-codedeploy-linux-2.0

This branch is up to date with manavjawrani/aws-codepipeline-s3-codedeploy-linux-2.0:master .

manavjawrani Update index.html 8572f6f · 2 years ago 21 Commits

.github	Adding template	7 years ago
dist	Added dist folder	9 years ago
scripts	s3 setup and s3 set cahce control scripts	3 years ago
CODE_OF_CONDUCT.md	Adding CONTRIBUTING/CoC	7 years ago
CONTRIBUTING.md	Adding CONTRIBUTING/CoC	7 years ago
LICENSE	Added AWS CodePipeline Sample	9 years ago
README.md	Update README.md	3 years ago

About

Use this sample when creating a simple pipeline in AWS CodePipeline while following the Simple Pipeline Walkthrough tutorial.

Releases

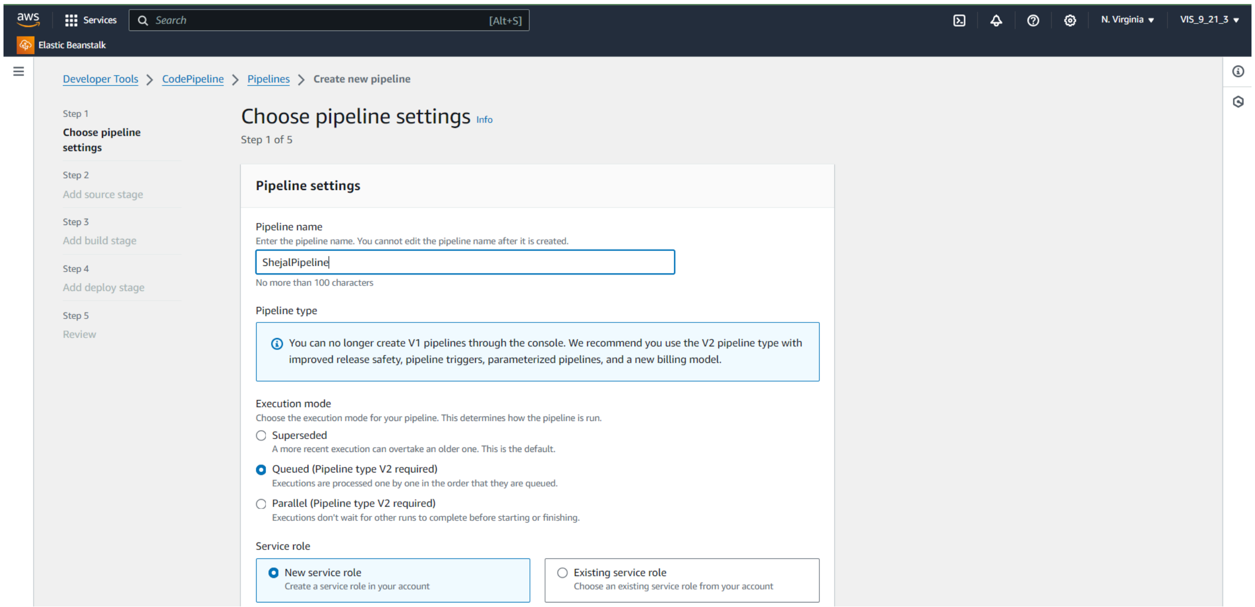
No releases published

Create a new release

6.Open CodePipeline:

- Navigate to the AWS Management Console and open CodePipeline.
- Click "Create pipeline."

Create a codepipeline add name for your pipeline.



Developer Tools > CodePipeline > Pipelines > Create new pipeline

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
Step 1 of 5

Pipeline settings

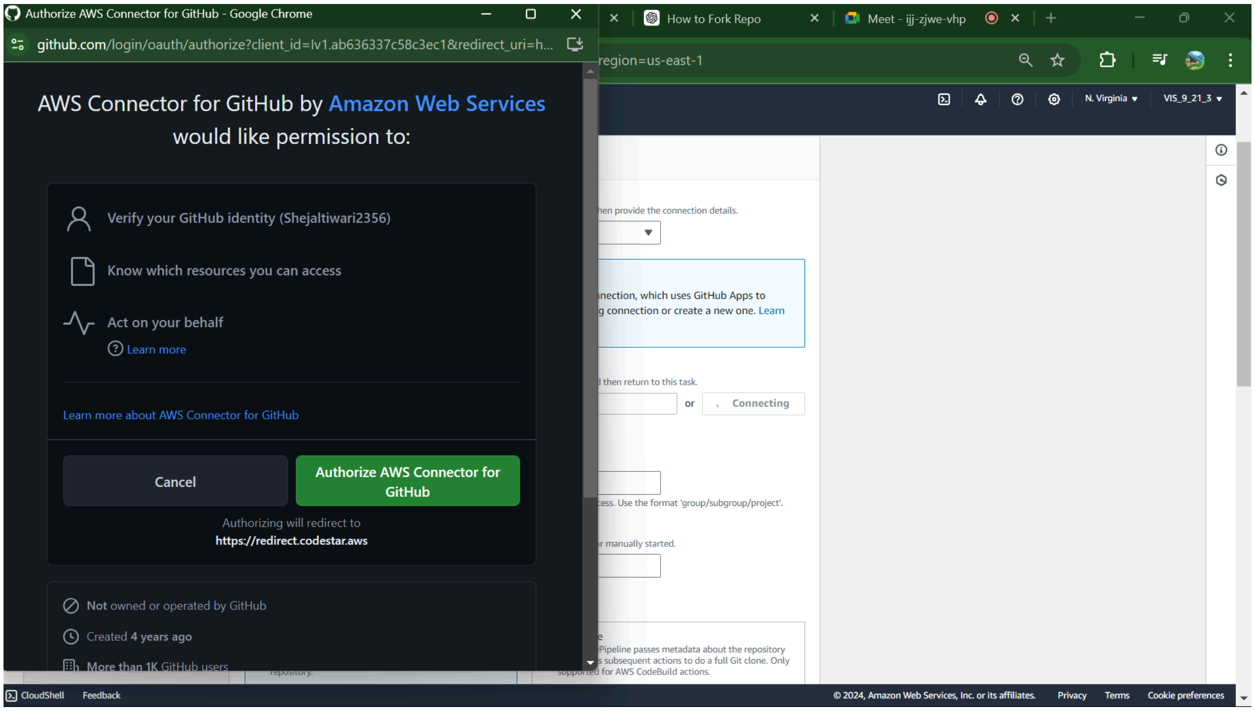
Pipeline name
Enter the pipeline name. You cannot edit the pipeline name after it is created.
ShejalPipeline
No more than 100 characters

Pipeline type
You can no longer create V1 pipelines through the console. We recommend you use the V2 pipeline type with improved release safety, pipeline triggers, parameterized pipelines, and a new billing model.

Execution mode
Choose the execution mode for your pipeline. This determines how the pipeline is run.
○ Superseded
A more recent execution can overtake an older one. This is the default.
● Queued (Pipeline type V2 required)
Executions are processed one by one in the order that they are queued.
○ Parallel (Pipeline type V2 required)
Executions don't wait for other runs to complete before starting or finishing.

Service role
● New service role
Create a service role in your account
○ Existing service role
Choose an existing service role from your account

7.After selecting the github version
We need to connect it to the repository for that we will add git connect



Authorize AWS Connector for GitHub - Google Chrome
github.com/login/oauth/authorize?client_id=Iv1.ab636337c58c3ec1&redirect_uri=h...

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

Verify your GitHub identity (Shejaltiwari2356)
Know which resources you can access
Act on your behalf
Learn more

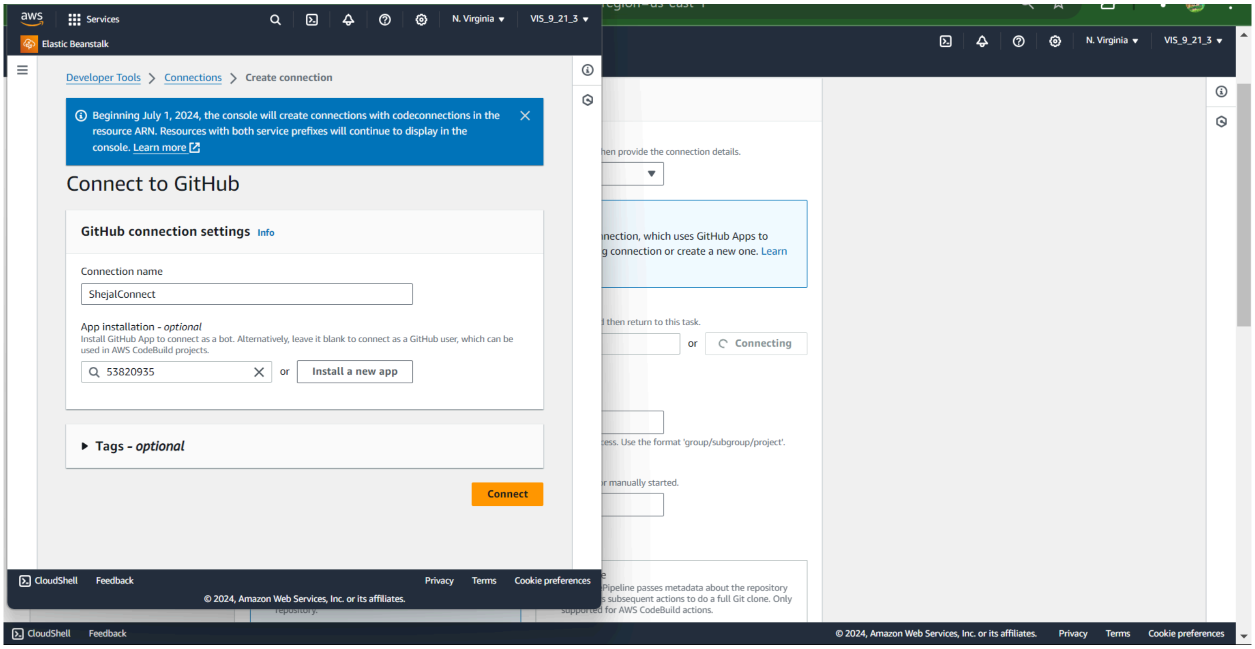
Learn more about AWS Connector for GitHub

Cancel
Authorize AWS Connector for GitHub

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

Not owned or operated by GitHub
Created 4 years ago
More than 1K GitHub users

9.Create a connection in your github give connection name.



Developer Tools > Connections > Create connection

Beginning July 1, 2024, the console will create connections with codeconnections in the resource ARN. Resources with both service prefixes will continue to display in the console. Learn more

Connect to GitHub

GitHub connection settings Info

Connection name: ShejalConnect

App installation - *optional*
Install GitHub App to connect as a bot. Alternatively, leave it blank to connect as a GitHub user, which can be used in AWS CodeBuild projects.

53820935 or Install a new app

▸ Tags - *optional*

Connect

hen provide the connection details.

nection, which uses GitHub Apps to
g connection or create a new one. Learn

l then return to this task.

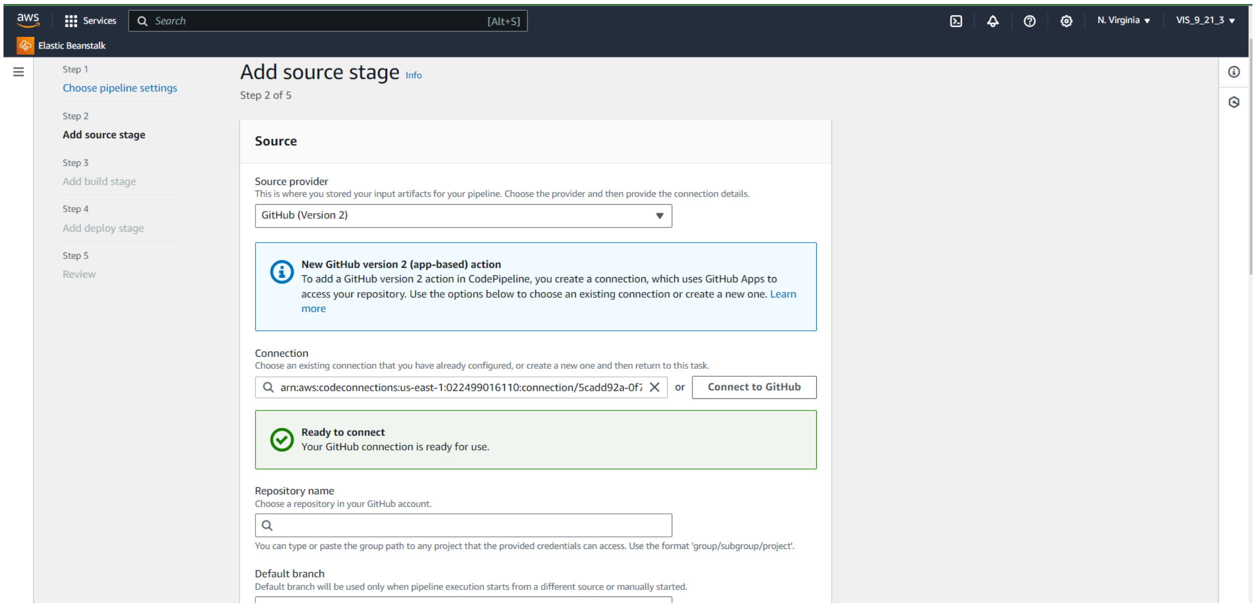
or Connecting

ess. Use the format 'group/subgroup/project'.

r manually started.

Pipeline passes metadata about the repository
s subsequent actions to do a full Git clone. Only
supported for AWS CodeBuild actions.

10.select version 2 for your githhub.



Add source stage Info

Step 2 of 5

Source

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

GitHub (Version 2)

New GitHub version 2 (app-based) action
To add a GitHub version 2 action in CodePipeline, you create a connection, which uses GitHub Apps to access your repository. Use the options below to choose an existing connection or create a new one. Learn more

Connection
Choose an existing connection that you have already configured, or create a new one and then return to this task.

arn:aws:codeconnections:us-east-1:022499016110:connection/5cadd92a-0f7 or Connect to GitHub

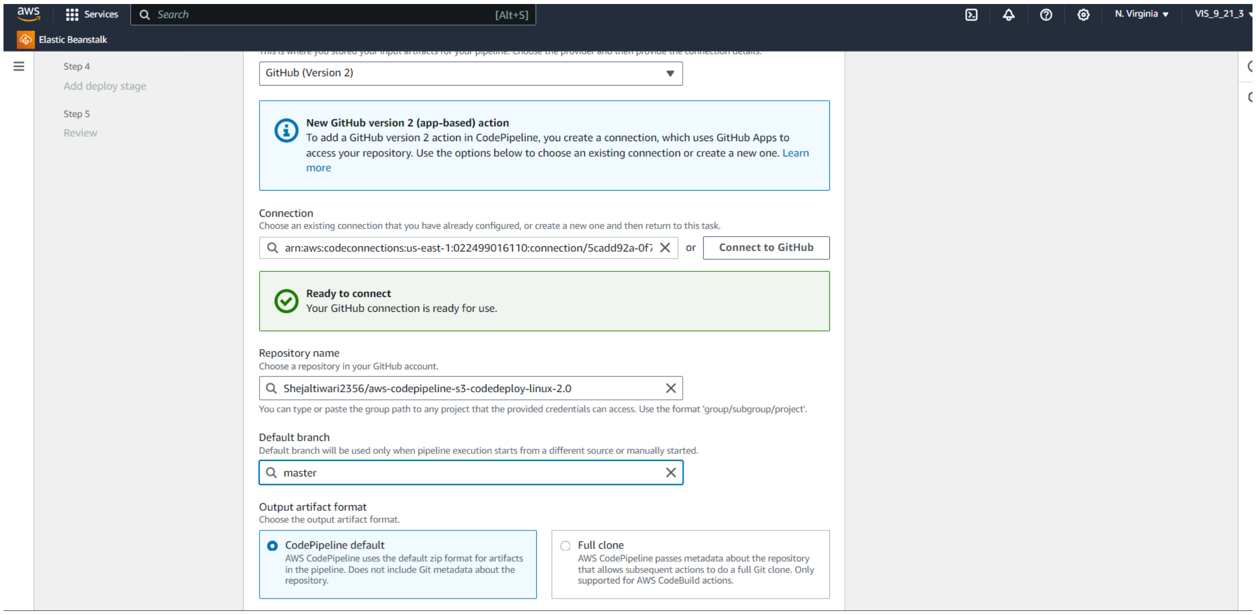
Ready to connect
Your GitHub connection is ready for use.

Repository name
Choose a repository in your GitHub account.

You can type or paste the group path to any project that the provided credentials can access. Use the format 'group/subgroup/project'.

Default branch
Default branch will be used only when pipeline execution starts from a different source or manually started.

11. Select branch for the repository here we have selected master branch.



GitHub (Version 2)

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arn:aws:codeconnections:us-east-1:022499016110:connection/5cadd92a-0f7 or Connect to GitHub

Ready to connect
Your GitHub connection is ready for use.

Repository name
Choose a repository in your GitHub account.
Shejaltiwari2356/aws-codepipeline-s3-codedeploy-linux-2.0
You can type or paste the group path to any project that the provided credentials can access. Use the format 'group/subgroup/project'.

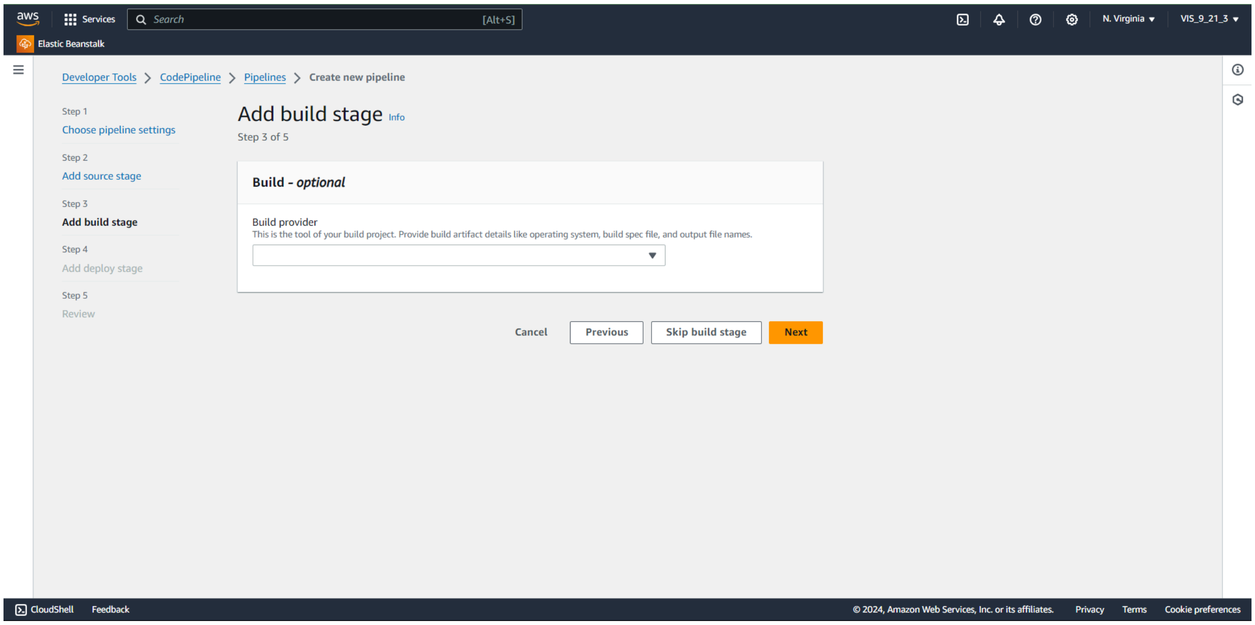
Default branch
Default branch will be used only when pipeline execution starts from a different source or manually started.
master

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.

12. You can skip build stage.



Developer Tools > CodePipeline > Pipelines > Create new pipeline

Add build stage Info

Step 3 of 5

Build - *optional*

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

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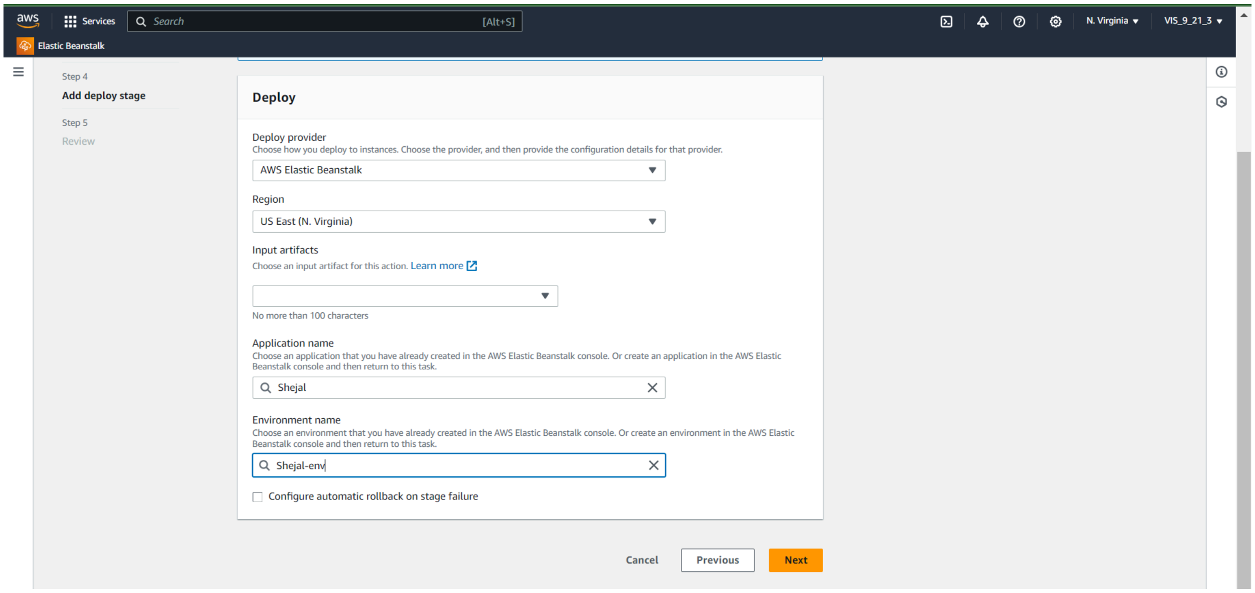
13. To Deploy select on next.



Deploy

Deploy provider
Choose how you deploy to instances. Choose the provider, and then provide the configuration details for that provider.
AWS Elastic Beanstalk ▾

Region
US East (N. Virginia) ▾

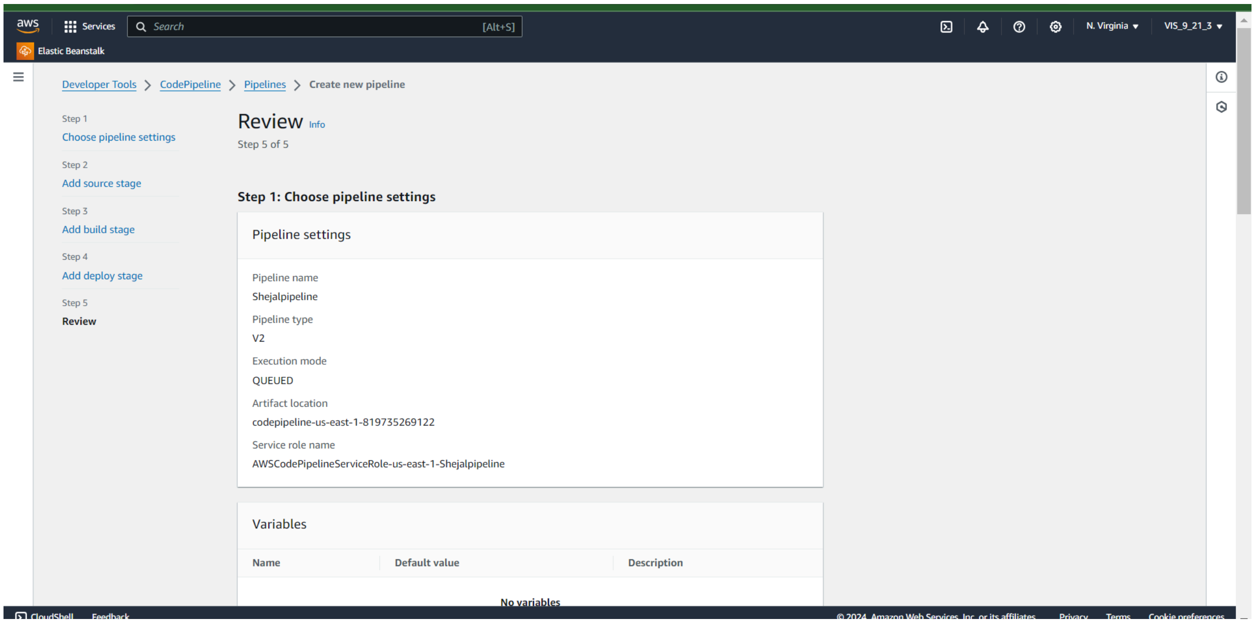
Input artifacts
Choose an input artifact for this action. Learn more
▾
No more than 100 characters

Application name
Choose an application that you have already created in the AWS Elastic Beanstalk console. Or create an application in the AWS Elastic Beanstalk console and then return to this task.
Shejal

Environment name
Choose an environment that you have already created in the AWS Elastic Beanstalk console. Or create an environment in the AWS Elastic Beanstalk console and then return to this task.
Shejal-env

□ Configure automatic rollback on stage failure

14. Review all the settings created.



Review Info
Step 5 of 5

Step 1: Choose pipeline settings

Pipeline settings

Pipeline name
Shejalpipeline

Pipeline type
V2

Execution mode
QUEUED

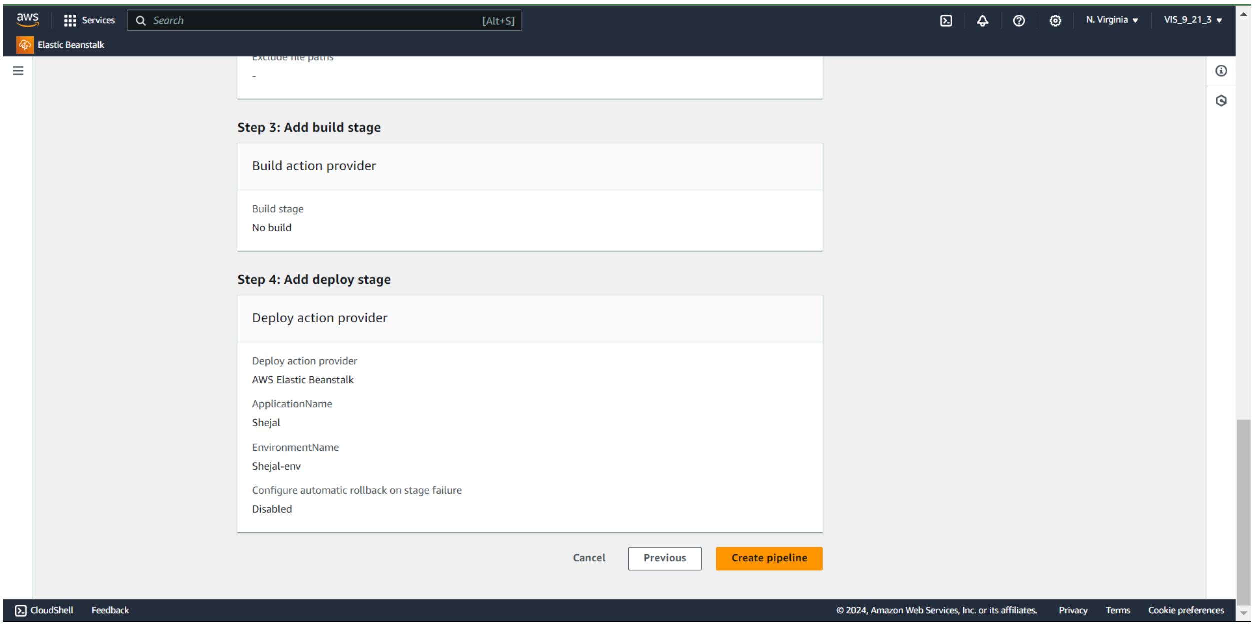
Artifact location
codepipeline-us-east-1-819735269122

Service role name
AWSCodePipelineServiceRole-us-east-1-Shejalpipeline

Variables

Name	Default value	Description

No variables



Exclude file paths
-

Step 3: Add build stage

Build action provider

Build stage
No build

Step 4: Add deploy stage

Deploy action provider

Deploy action provider
AWS Elastic Beanstalk

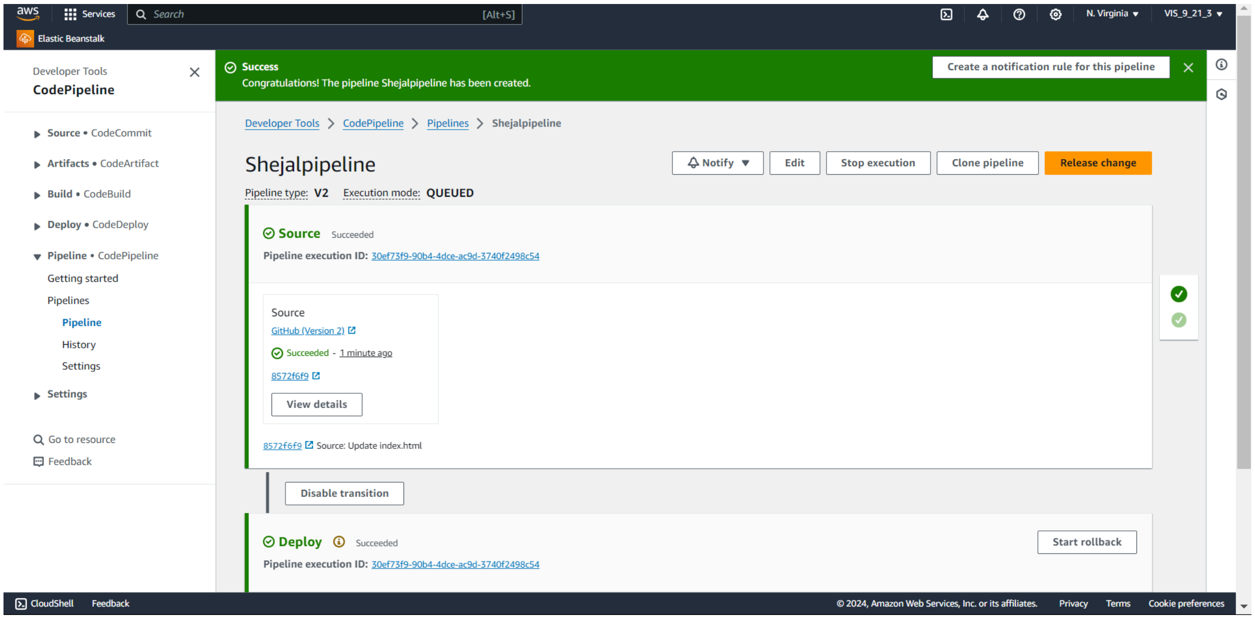
ApplicationName
Shejal

EnvironmentName
Shejal-env

Configure automatic rollback on stage failure
Disabled

Cancel | Previous | Create pipeline

15.Wait till the pipeline gets successfully deployed.



Success
Congratulations! The pipeline Shejalpipeline has been created.

Create a notification rule for this pipeline

Developer Tools > CodePipeline > Pipelines > Shejalpipeline

Shejalpipeline

Notify | Edit | Stop execution | Clone pipeline | Release change

Pipeline type: V2 Execution mode: QUEUED

Source Succeeded
Pipeline execution ID: 30ef73f9-90b4-4dce-ac9d-3740f2498c54

Source
GitHub (Version 2)
Succeeded - 1 minute ago
8572f6f9
View details

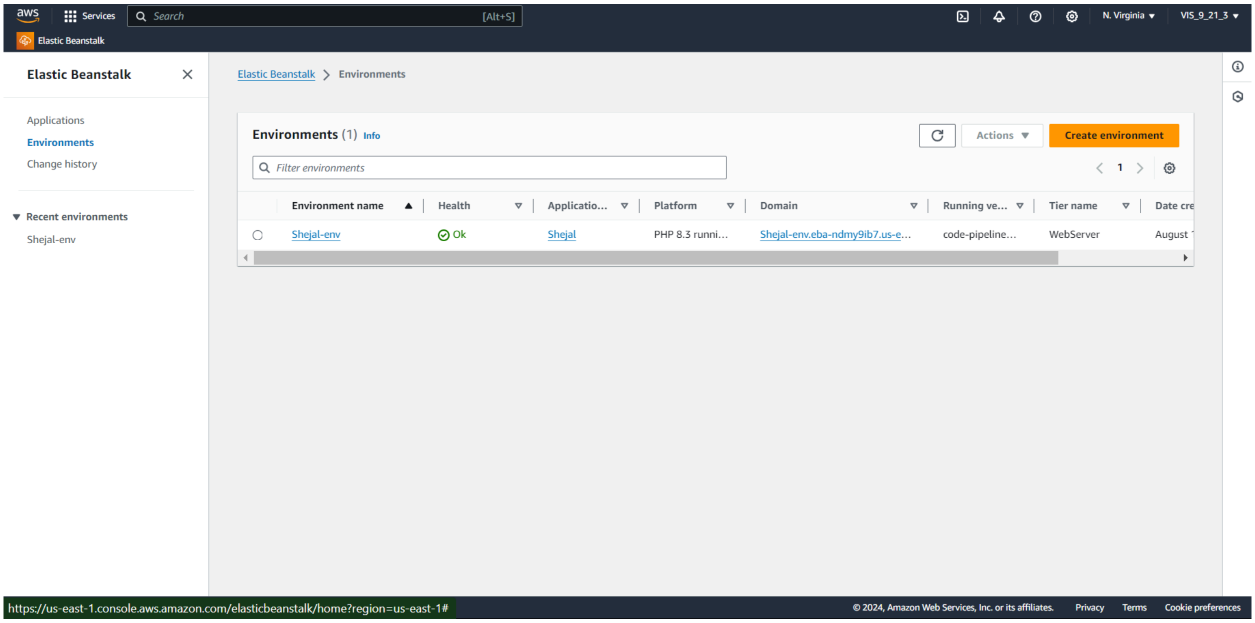
8572f6f9 Source: Update index.html

Disable transition

Deploy Succeeded
Pipeline execution ID: 30ef73f9-90b4-4dce-ac9d-3740f2498c54

Start rollback

16.Go back to your environment and click on the domain to see the deployed github repository

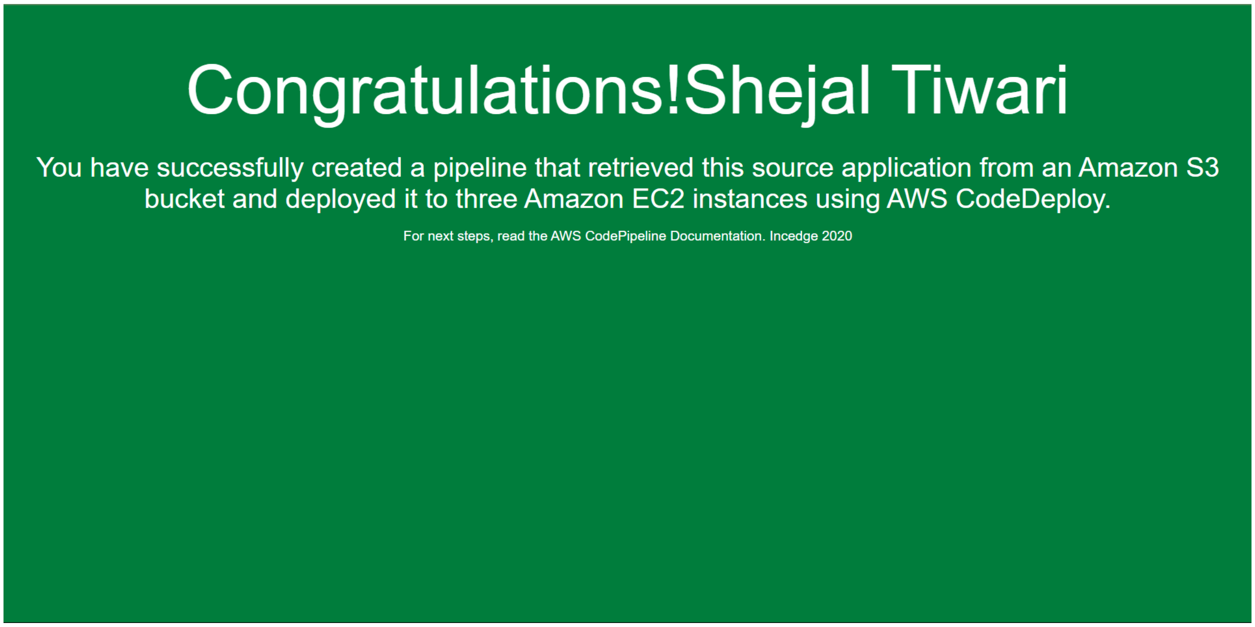


Environments (1) Info

	Environment name ▲	Health	Applicatio...	Platform	Domain	Running ve...	Tier name	Date cre
○	Shejal-env	✓ Ok	Shejal	PHP 8.3 runni...	Shejal-env.eba-ndmy9ib7.us-e...	code-pipeline...	WebServer	August

https://us-east-1.console.aws.amazon.com/elasticbeanstalk/home?region=us-east-1#

17. To see the proper working of pipeline. Go to github make the changes in the code commit it. Here I have added the my name in the index.html file. The changes can be seen instantly.



Congratulations!Shejal Tiwari

You have successfully created a pipeline that retrieved this source application from an Amazon S3 bucket and deployed it to three Amazon EC2 instances using AWS CodeDeploy.

For next steps, read the AWS CodePipeline Documentation. Incedge 2020