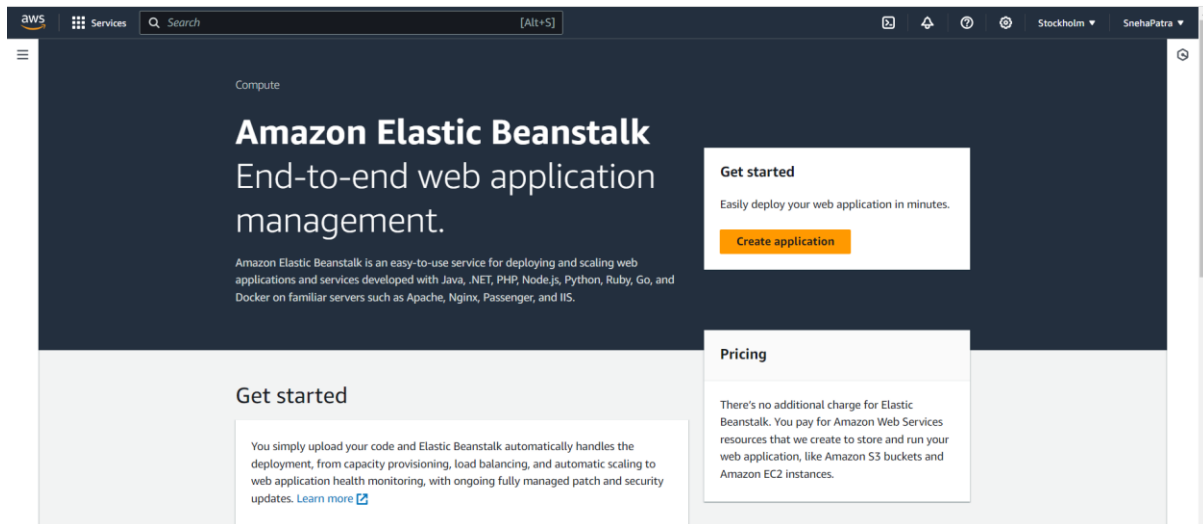


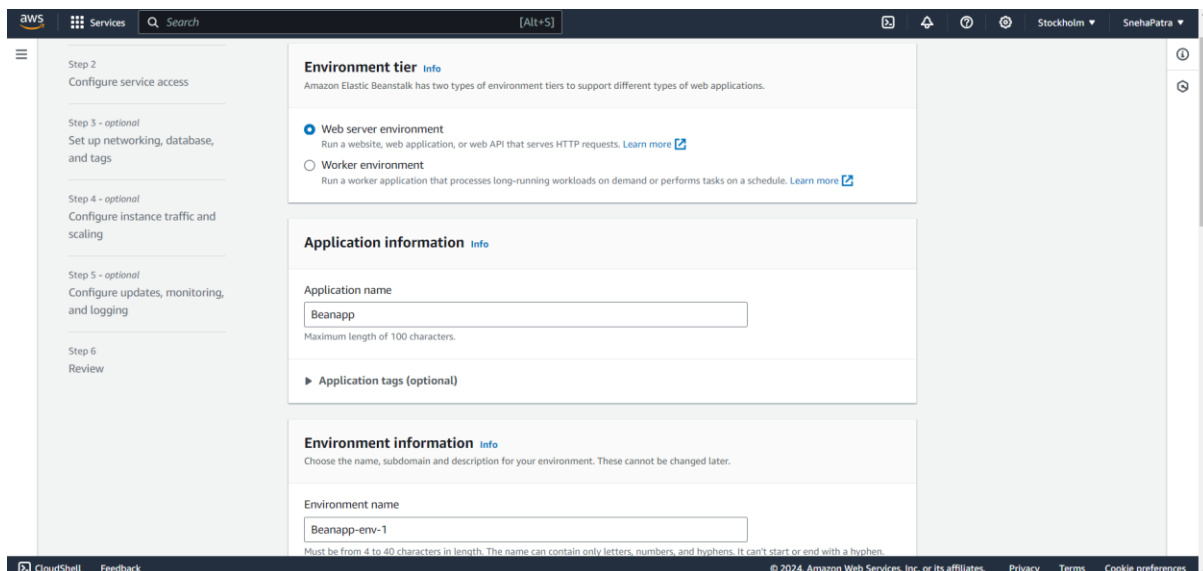
EXPERIMENT 2- BEANSTALK

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.

1. Open the aws console and then search Elastic Beanstalk and click on create application.



2. Configure the environment by adding your application name.



3. Choose PHP and click next.

The screenshot shows the AWS Elastic Beanstalk console during the 'Configure service access' step. The 'Platform' section is expanded, showing 'Managed platform' selected. The 'Platform' dropdown is set to 'PHP', the 'Platform branch' is 'PHP 8.3 running on 64bit Amazon Linux 2023', and the 'Platform version' is '4.3.2 (Recommended)'. The 'Application code' section is also expanded, showing 'Sample application' selected. The 'Presets' section is visible below, with 'Custom configuration' selected. The 'Next' button is highlighted in orange.

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

☒ Sample application
Application versions that you have uploaded.

☐ Existing version
Application versions that you have uploaded.

☐ Upload your code
Upload a source bundle from your computer or copy one from Amazon S3.

Presets Info

Start from a preset that matches your use case or choose custom configuration to unset recommended values and use the service's default values.

Configuration presets

- ☐ Single instance (free tier eligible)
- ☐ Single instance (using spot instance)
- ☐ High availability
- ☐ High availability (using spot and on-demand instances)
- ☒ Custom configuration

Cancel Next

4. Add your key pair and also select EC2 instance profile.

The screenshot shows the AWS Elastic Beanstalk console during the 'Configure service access' step. The 'Service access' section is expanded, showing 'Use an existing service role' selected. The 'Existing service roles' dropdown is set to 'aws-elasticbeanstalk-service-role'. The 'EC2 key pair' dropdown is set to 'AppKey'. The 'EC2 instance profile' dropdown is set to 'new-user'. The 'View permission details' button is visible. The 'Next' button is highlighted in orange.

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](#)

AppKey

EC2 instance profile

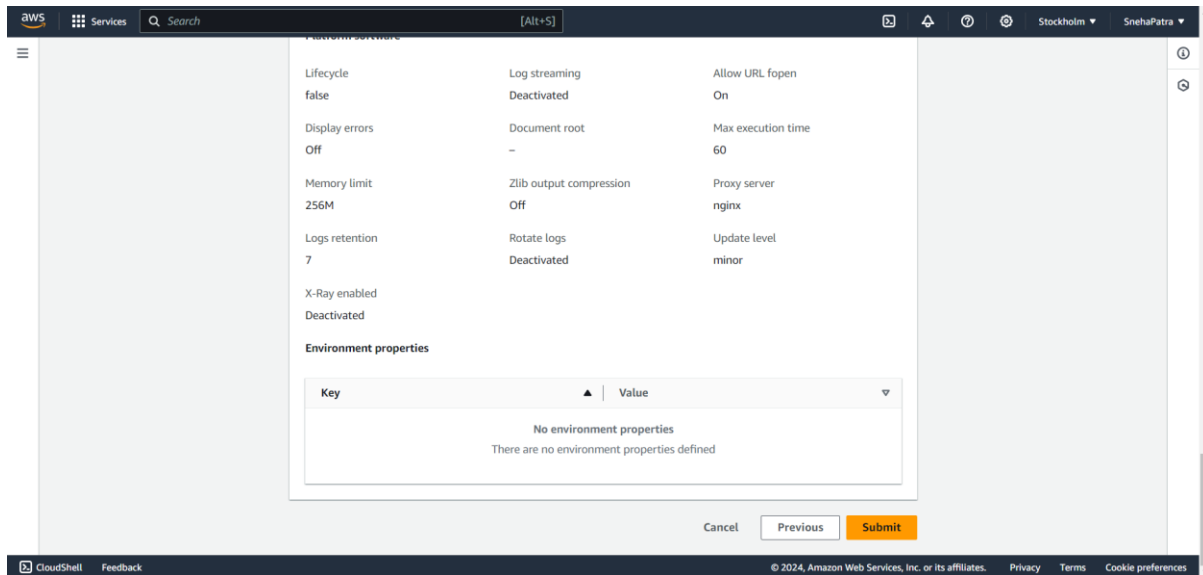
Choose an IAM instance profile with managed policies that allow your EC2 instances to perform required operations.

new-user

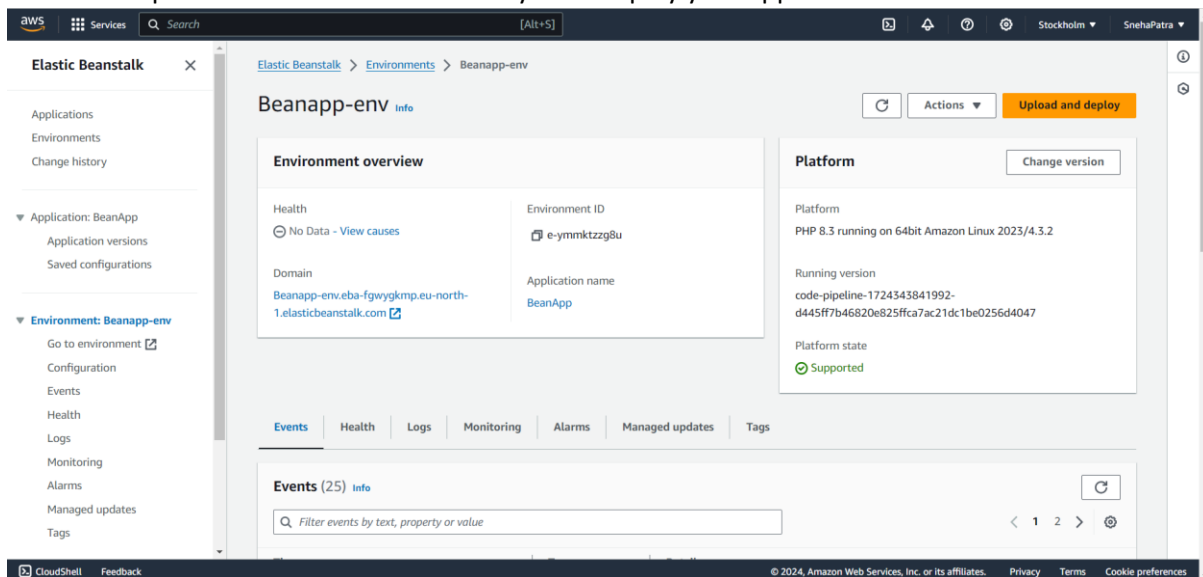
View permission details

Cancel Skip to review Previous Next

5. After selecting skip to review then select submit.

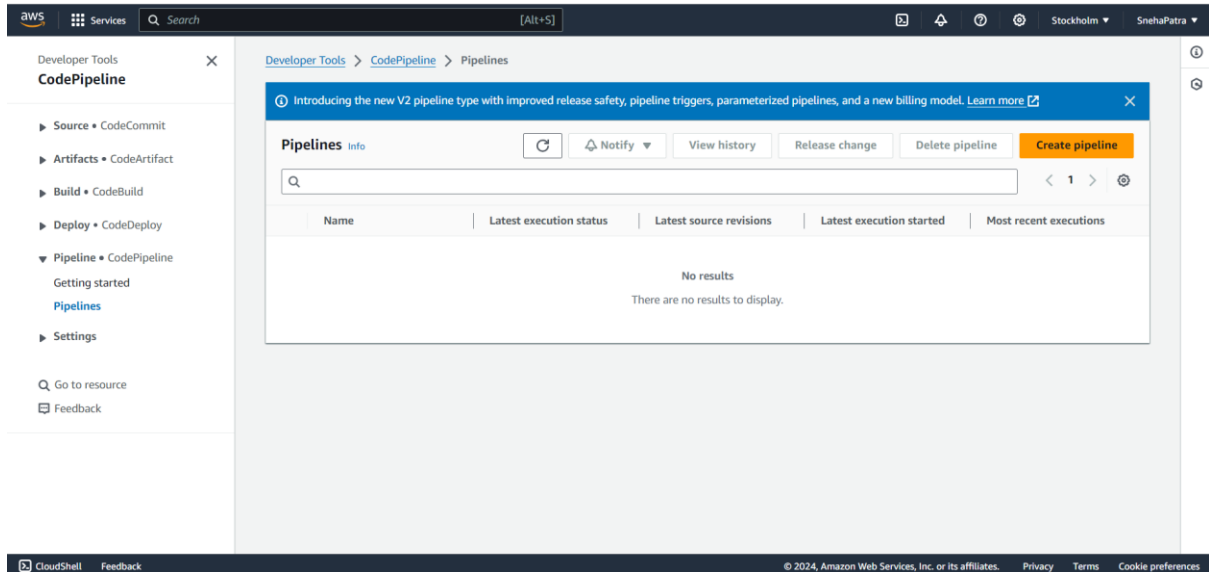


6. Your sample environment is created for you to deploy your application.

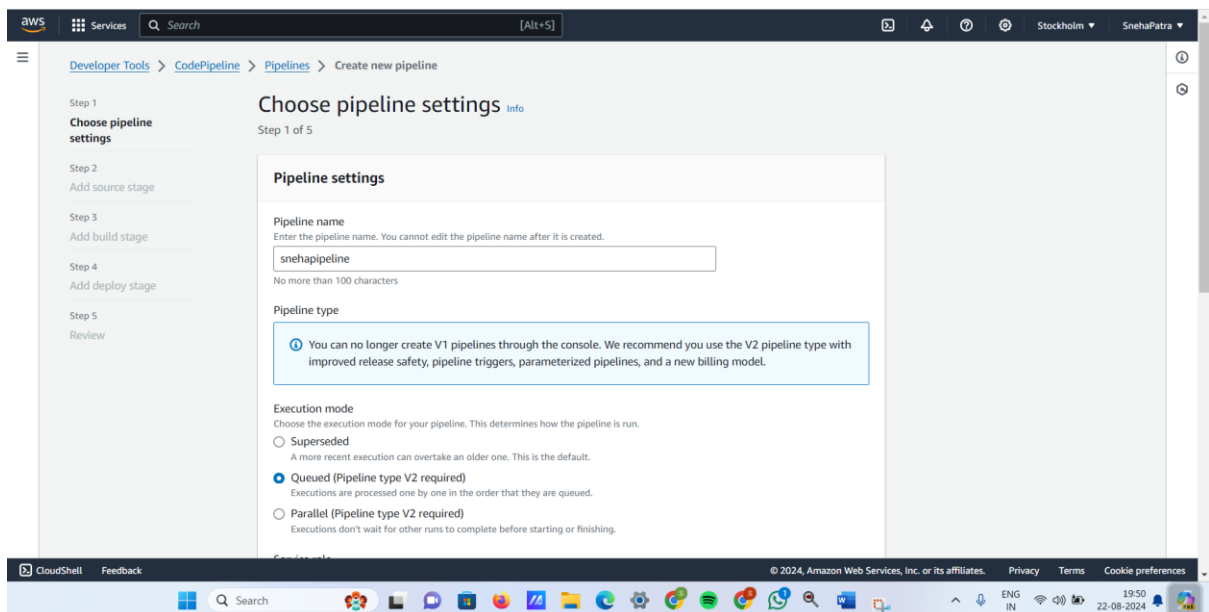


NOW LET US CREATE PIPELINE:

1. Select CodePipeline and create a new pipeline



2. Name Your pipeline.



The screenshot shows the AWS IAM console interface for creating a pipeline service role. The 'Role name' field is populated with 'AWSCodePipelineServiceRole-eu-north-1-snehapipeline'. The checkbox 'Allow AWS CodePipeline to create a service role so it can be used with this new pipeline' is checked. The 'Variables' section indicates that no variables are currently defined at the pipeline level, with an 'Add variable' button and a note that up to 50 variables can be added. A warning message states: 'The first pipeline execution will fail if variables have no default values.' An 'Advanced settings' section is collapsed. At the bottom, there are 'Cancel' and 'Next' buttons.

Role name
AWSCodePipelineServiceRole-eu-north-1-snehapipeline
Type your service role name
☒ Allow AWS CodePipeline to create a service role so it can be used with this new pipeline

Variables
You can add variables at the pipeline level. You can choose to assign the value when you start the pipeline. Choosing this option requires pipeline type V2. [Learn more](#)

No variables defined at the pipeline level in this pipeline.

[Add variable](#)
You can add up to 50 variables.

The first pipeline execution will fail if variables have no default values.

Advanced settings

Cancel Next

4. In the source stage select Github v2 as the provider and then connect your github.

The screenshot displays the authorization screen for the AWS Connector for GitHub. It lists the permissions being requested: 'Verify your GitHub identity (Sneha0321)', 'Know which resources you can access', and 'Act on your behalf'. A 'Learn more' link is provided for the third permission. Below the permissions list, there are 'Cancel' and 'Authorize AWS Connector for GitHub' buttons. A message states: 'Authorizing will redirect to https://redirect.codestar.aws'. At the bottom, it notes 'Not owned or operated by GitHub' and 'Created 4 years ago'.

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


- Verify your GitHub identity (Sneha0321)
- 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



Install AWS Connector for GitHub

Install on your personal account Sneha0321 





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:

eu-north-1.console.aws.amazon.com/codesuite/settings/connections/create/github?re...

 Services    More ▾


 [Developer Tools](#) > ... > [Create connection](#)  

Connect to GitHub


GitHub connection settings [Info](#)

Connection name

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.

 or

► **Tags - optional**

 CloudShell [Feedback](#) [Privacy](#) [Terms](#) [Cookie preferences](#)
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5. After establishing connection select repository and branch name.

The screenshot shows the AWS CodePipeline console interface. At the top, there's a header with the AWS logo, 'Services', a search bar, and a user profile 'SnehaPatra'. The main content area is titled 'access your repository. Use the options below to choose an existing connection or create a new one. [Learn more](#)'. Below this, there's a 'Connection' section with a text input field containing 'arn:aws:codeconnections:eu-north-1:337909754951:connection/067fd013-0' and a 'Connect to GitHub' button. A green checkmark icon and the text 'Ready to connect Your GitHub connection is ready for use.' are displayed. The 'Repository name' section has a text input field with 'Sneha0321/aws-codepipeline-s3-codedeploy-linux-2.0'. The 'Default branch' section has a text input field with 'master'. The 'Output artifact format' section has two radio buttons: 'CodePipeline default' (selected) and 'Full clone'.

6. Add deploy stage.

The screenshot shows the 'Add deploy stage' configuration page in the AWS CodePipeline console. The page title is 'Add deploy stage' with an 'info' icon. Below the title, it says 'Step 4 of 5'. A blue box with an information icon contains the text: 'You cannot skip this stage. Pipelines must have at least two stages. Your second stage must be either a build or deployment stage. Choose a provider for either the build stage or deployment stage.' The 'Deploy' section has a 'Deploy provider' dropdown menu set to 'AWS Elastic Beanstalk'. Below it, the 'Region' dropdown menu is set to 'US East (N. Virginia)'. The 'Input artifacts' section has a text input field and a 'Learn more' link. The 'Application name' section has a text input field and a note: '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.'

7. Review your pipeline.

aws

Services

Search

[Alt+S]

2

🔔

🔍

🔄

Stockholm

SnehaPatra

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

Mywebapp

EnvironmentName

Mywebapp-env

Configure automatic rollback on stage failure

Disabled

Cancel

Previous

Create pipeline

8. Now your pipeline is created.

Services

[Alt+S]

Stockholm

SnehaPatra

Developer Tools

CodePipeline

- Source • CodeCommit
- Artifacts • CodeArtifact
- Build • CodeBuild
- Deploy • CodeDeploy
- Pipeline • **CodePipeline**
 - Getting started
 - Pipelines
 - Pipeline**
 - History
 - Settings
- Settings

☐ Feedback

first-pipeline

Notify

Edit

Stop execution

Clone pipeline

Release change

Pipeline type: **V2** Execution mode: **QUEUED**

Source Succeeded

Pipeline execution ID: [dd734fec-90e3-4a65-b033-e0cd3ef0e26f](#)

Source

[GitHub \(Version 2\)](#)

Succeeded - 53 minutes ago

[d445ff7b](#)

View details

[d445ff7b](#) Source: Update index.html

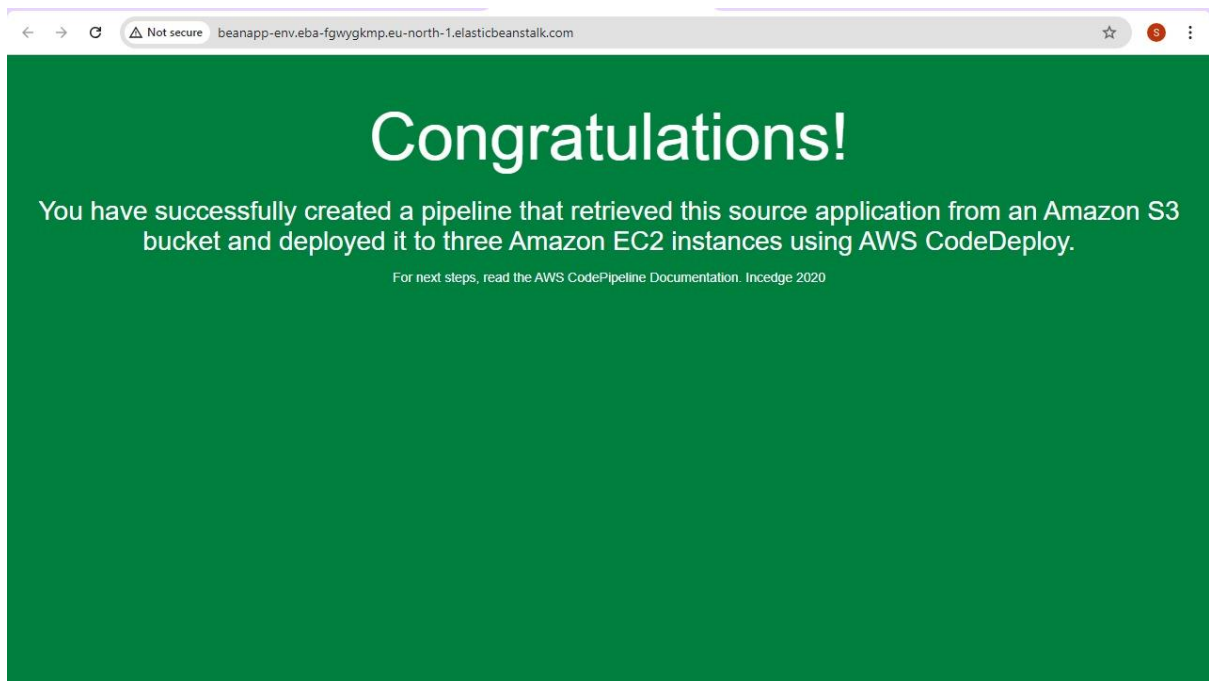
Disable transition

Deploy Succeeded

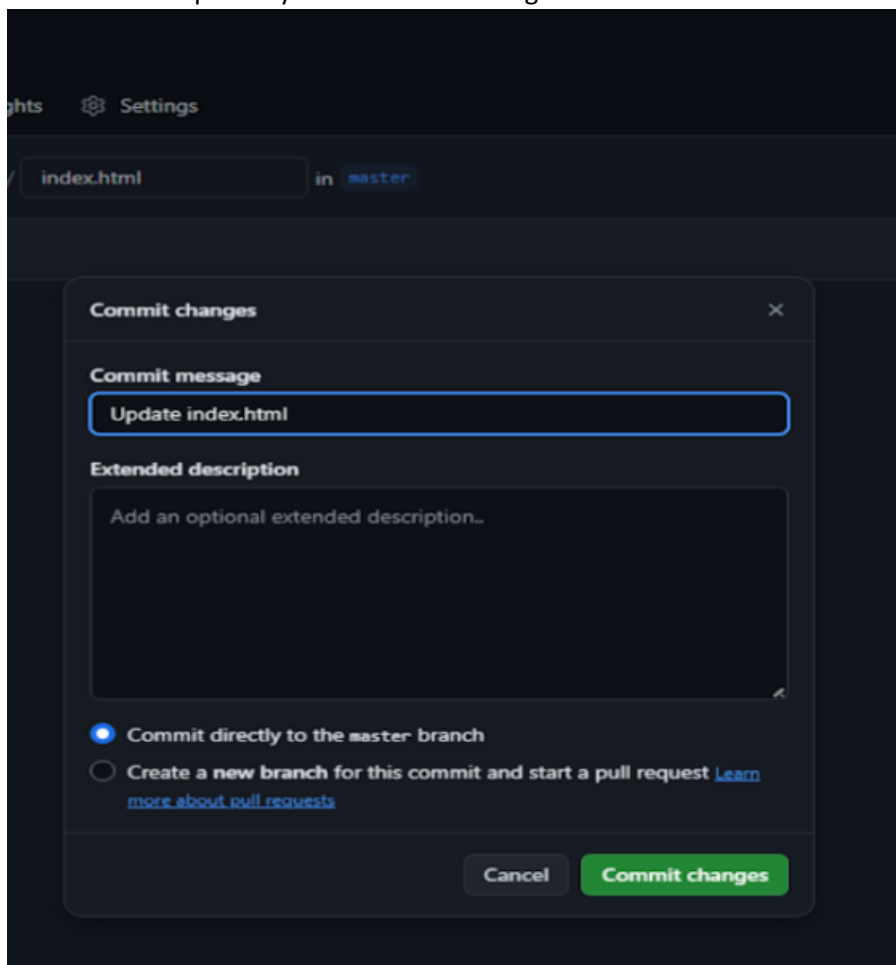
Pipeline execution ID: [dd734fec-90e3-4a65-b033-e0cd3ef0e26f](#)

Start rollback

9. This is the website hosted in our beanstalk environment.



10. Go to the repository and make the changes in the index.html file and commit them



11.The changes that are committed will reflect on url once you refreshed it.

The screenshot displays the AWS CodePipeline console interface. The left sidebar shows the navigation menu with 'CodePipeline' selected. The main content area shows the 'first-pipeline' in a 'Succeeded' state. Below the pipeline list, a large green banner displays a congratulatory message.

Pipeline Details:

Name	Latest execution status	Latest source revisions	Latest execution started	Most recent executions
first-pipeline (Type: V2 Execution mode: QUEUED)	Succeeded	Source - d445ff7b Update index.html	1 hour ago	View details

Deployment Confirmation Message:

Congratulations! This is my first deployment-Sneha Patra D15A 41

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](#). Inc4edge 2020