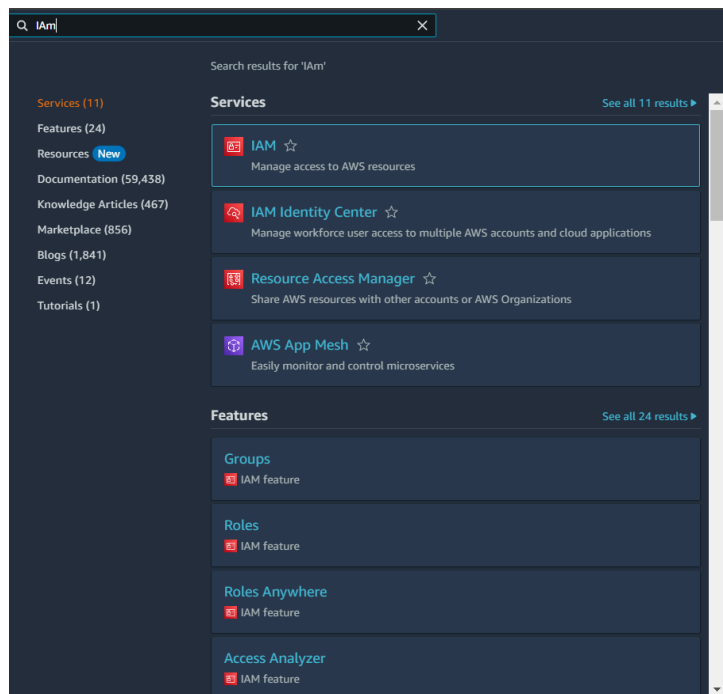


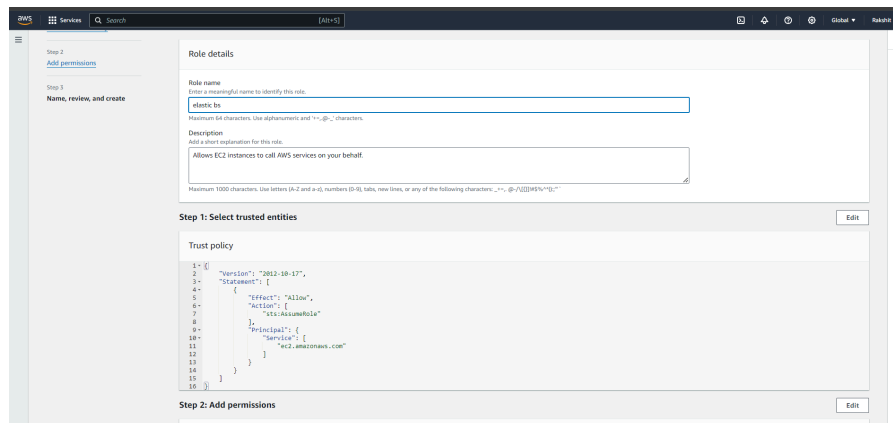
Experiment No: 2

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.

Step 1: Search for IAM , Go to Roles section and click on create a role.



Step 2: Fill the role details. Select AWS service and enable web tier and work tier permissions.



Step 1
Select trusted entity

Step 2
Add permissions

Step 3
Name, review, and create

Select trusted entity

Trusted entity type

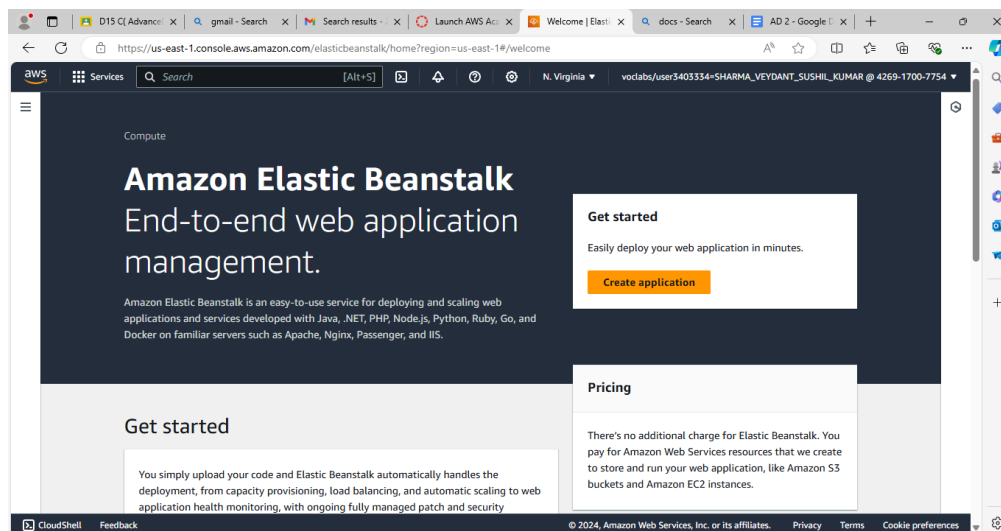
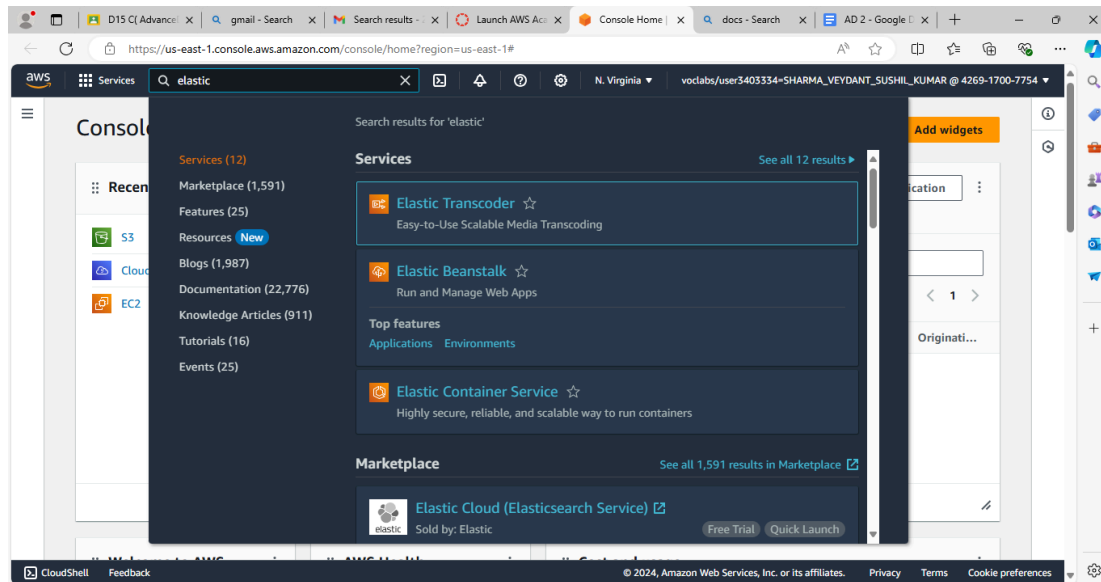
- ☒ **AWS service**
Allow AWS services like EC2, Lambda, or others to perform actions in this account.
- ☐ **AWS account**
Allow entities in other AWS accounts belonging to you or a 3rd party to perform actions in this account.
- ☐ **Web identity**
Allows users federated by the specified external web identity provider to assume this role to perform actions in this account.
- ☐ **SAML 2.0 federation**
Allow users federated with SAML 2.0 from a corporate directory to perform actions in this account.
- ☐ **Custom trust policy**
Create a custom trust policy to enable others to perform actions in this account.

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

Service or use case
EC2

Choose a use case for the specified service.
Use case
☒ EC2

Step 3: Search elastic beanstalk . After loading the page click on Create application.



Step 4: Create application , provide application name and environment

Application information [Info](#)

Application name
aws50
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
Aws50-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 [Check availability](#)

Environment description

Platform [Info](#)

Platform type
☒ Managed platform
Platforms published and maintained by Amazon Elastic Beanstalk. [Learn more](#)

Select the platform.

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
4.3.1 (Recommended)

Application code [Info](#)

☒ Sample application

Click on 'Use existing service role' in the service menu . Assign the service role as the one create in IAM, also assign the key pair.

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.

elastic-bs [Refresh](#)

EC2 key pair
Select an EC2 key pair to securely log in to your EC2 instances. [Learn more](#)

rakshit [Refresh](#)

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

elastic-bs [Refresh](#)

[View permission details](#)

[Cancel](#) [Skip to review](#) [Previous](#) [Next](#)




Name: Veydant Sharma Class: D15C

Roll No.:50

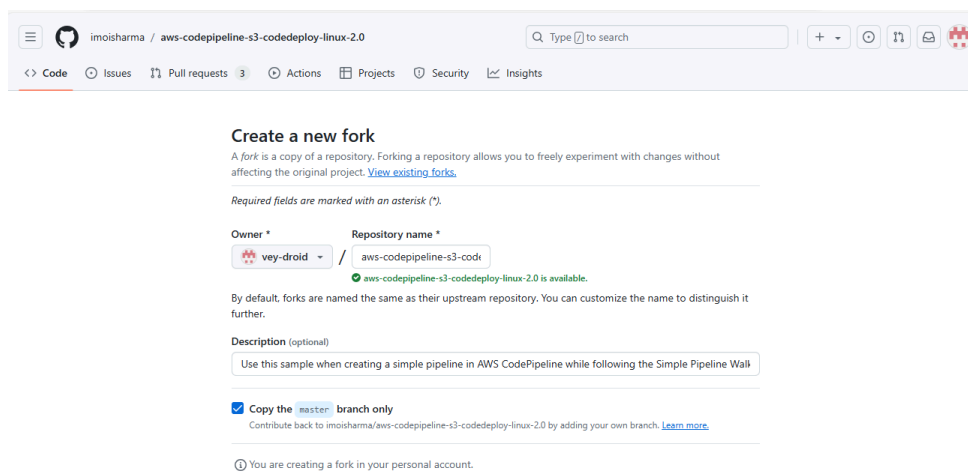
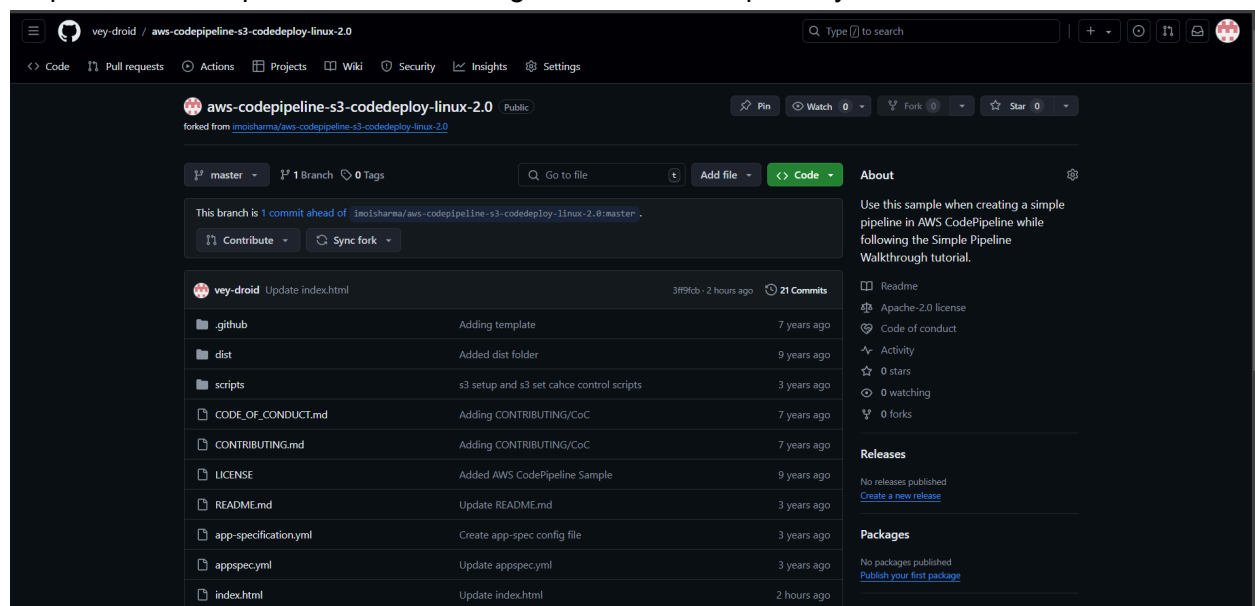
Keep the rest of the settings as default. Wait for the environment to be created/launched successfully.

Veydant-env Info

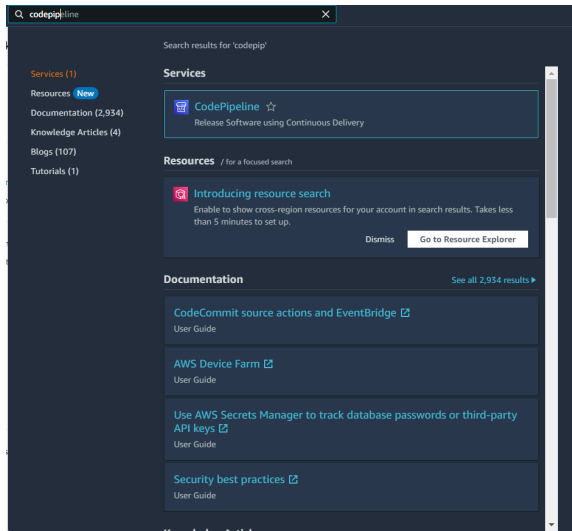
Environment overview

Health  Warning - View causes	Environment ID  e-7zgnddfmz5
Domain veydant-env.eba-dzw33k82.us-east-1.elasticbeanstalk.com 	Application name veydant

Step 5: Get a sample of the code from github , fork the repository.



Step 6: Go to codepipeline, Create new pipeline.



Step 7: Name the pipeline. Head on to the 'Source' Page.

Pipeline settings

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

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

Role name

Type your service role name


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

On the source page, select source provider as Github V2 , connect github account, and select the repository and the branch.

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.

am:aws:codeconnections:us-east-1:975050293750:connection/eac0d1b2-a1: X or [Connect to GitHub](#)

 **Ready to connect**
Your GitHub connection is ready for use.

Repository name
Choose a repository in your GitHub account.

vey-droid/aws-codepipeline-s3-codedeploy-linux-2.0 X

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 X

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.

Select defaults and skip the build page.

On the deploy page , select provider as AWS Elastic Beanstalk. Select the Application and environment name, then proceed further.

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.

veydant-server X

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.

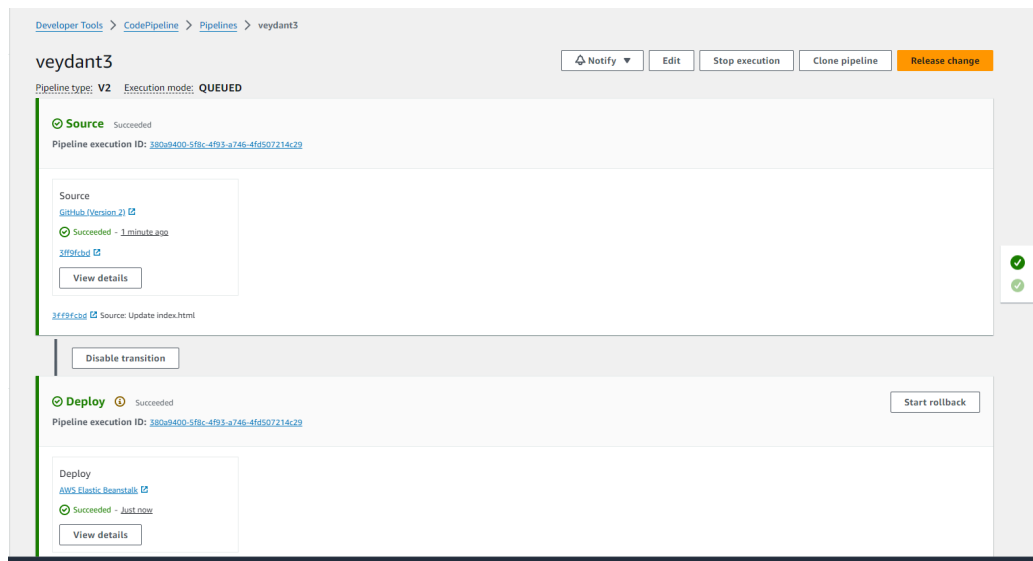
Veydant-server-env X

☐ Configure automatic rollback on stage failure

Name: Veydant Sharma Class: D15C

Roll No.:50

Step 8: The pipeline will be launched in a few moments, once it is successfully created head over to elastic beanstalk environment.



Step 9: A URL will be created on the environment page, that is the hosted link, click on it.

