

St. Francis Institute of Technology, Mumbai-400 103
Department of Information Technology

A.Y. 2024-2025

Class: TE-ITA/B, Semester: V

Subject: **Advanced DevOps Lab**

Experiment – 3: 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. **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.
2. **Objectives:** After study of this experiment, the student will be able to
 - Build an application using AWS CodeBuild and Deploy on S3 using CodePipeline.
 - Deploy an application on EC2 using AWS CodeDeploy.
3. **Outcomes:** After study of this experiment, the student will be able to
 - Build an application using AWS CodeBuild and Deploy on S3 using CodePipeline.
 - Deploy an application on EC2 using AWS CodeDeploy.
4. **Prerequisite:** Fundamentals of cloud computing
5. **Requirements:** PC and Internet
6. **Pre-Experiment Exercise:**

Brief Theory:

AWS CodePipeline:

AWS CodePipeline is a continuous delivery service you can use to model, visualize, and automate the steps required to release your software. You can quickly model and configure the different stages of a software release process. CodePipeline automates the steps required to release your software changes continuously.

CICD:

CodePipeline is a *continuous delivery* service that automates the building, testing, and deployment of your software into production.

Continuous delivery is a software development methodology where the release process is automated. Every software change is automatically built, tested, and deployed to production. Before the final push to production, a person, an automated test, or a business rule decides when the final push should occur. Although every successful software change can be immediately released to production with continuous delivery, not all changes need to be released right away.

Continuous integration is a software development practice where members of a team use a version control system and frequently integrate their work to the same location, such as a main branch. Each change is built and verified to detect integration errors as quickly as possible. Continuous integration is focused on automatically building and testing code, as compared to *continuous delivery*, which automates the entire software release process up to production.

Features:

You can use CodePipeline to help you automatically build, test, and deploy your applications in the cloud. Specifically, you can:

1. **Automate your release processes:** CodePipeline fully automates your release process from end to end, starting from your source repository through build, test, and deployment. You can prevent changes from moving through a pipeline by including a manual approval action in any stage except a Source stage. You can release when you want, in the way you want, on the systems of your choice, across one instance or multiple instances.
2. **Establish a consistent release process:** Define a consistent set of steps for every code change. CodePipeline runs each stage of your release according to your criteria.
3. **Speed up delivery while improving quality:** You can automate your release process to allow your developers to test and release code incrementally and speed up the release of new features to your customers.
4. **Use your favorite tools:** You can incorporate your existing source, build, and deployment tools into your pipeline. For a full list of AWS services and third-party tools currently supported by CodePipeline..
5. **View progress at a glance:** You can review real-time status of your pipelines, check the details of any alerts, retry failed actions, view details about the source revisions used in the latest pipeline execution in each stage, and manually rerun any pipeline.
6. **View pipeline history details:** You can view details about executions of a pipeline, including start and end times, run duration, and execution IDs.

You will create the pipeline using AWS CodePipeline, a service that builds, tests, and deploys your code every time there is a code change. You will use your GitHub account, an Amazon Simple Storage Service (S3) bucket, or an AWS CodeCommit repository as the source location for the sample app's code. You will also use AWS Elastic Beanstalk as the deployment target for the sample app. Your completed pipeline will be able to detect changes made to the source

repository containing the sample app and then automatically update your live sample app.

7. Laboratory Exercise

1) To simplify the process of setting up and configuring EC2 instances, you will spin up a sample environment using AWS Elastic Beanstalk. Elastic Beanstalk lets you easily host web applications without needing to launch, configure, or operate virtual servers on your own. It automatically provisions and operates the infrastructure (e.g. virtual servers, load balancers, etc.) and provides the application stack (e.g. OS, language and framework, web and application server, etc.) for you. 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.

Step1: Create a deployment environment

Step 2: Get the copy of Sample Code

In this step you will retrieve the sample app's code and choose a source to host the code. Pipeline takes the code and performs actions on it.

You can use three options.

- GitHub Repository
- Amazon S3 Bucket
- AWS CodeCommit Repository

Open Amazon S3 console and Create your S3 Bucket:

- Create Bucket
- Upload the code to Bucket
- Select Bucket and Click on Upload (Right Corner)
- Add Files --→ upload zip file from downloads of your computer. Click on Upload Button

Step 3: Create 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.

Create new pipeline:

Source Provider = Amazon S3,

Bucket = YourBucketName,

S3 Object Key = Copy S3 Uri from Amazon S3 bucket.

Add Deploy Stage:

Review the settings and create the pipeline.

Add deploy stage and Give details :

Deployment provider : AWS Elastic Beanstalk,

Region,

Application Name and Environment Name...(Auto suggested.)

Pipeline created successfully.

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.

Step 4: Activate your pipeline to deploy your code

Step 5: Commit a change and then update your app

In this step, you will revise the sample code and commit the change to your repository.

CodePipeline will detect your updated sample code and then automatically initiate deploying it to

1. Visit your copy of the repository that you forked in GitHub.
 - Open index.html
 - Select edit icon
2. Update the webpage text on line 30.
3. Commit the change to the repository.
4. Return to the pipeline in the CodePipeline console. In a few minutes, the Source changes to blue, indicating that the pipeline has detected the changes made to the source repository. Once this occurs, it will automatically move the updated code to Elastic Beanstalk.
 - After the pipeline status displays Succeeded, in the status area for the Beta stage, click AWS Elastic Beanstalk.
5. The AWS Elastic Beanstalk console opens with the details of the deployment. Select the environment you created earlier. And click the URL again from EBS environment again.

Step 6: Clean up the resources

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

First, you will delete your pipeline:

- In the pipeline view, click Edit.
- Click Delete.
- Type in the name of your pipeline and click Delete.

Second, delete your Elastic Beanstalk application:

- Visit the Elastic Beanstalk console.
- Click Actions.
- Then click Terminate Environment.
- We have successfully created an automated software release pipeline using AWS CodePipeline! Using CodePipeline, We 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. Pipeline will automatically deploy your code every time there is a code change.

8. Post-Experiments Exercise**A. Extended Theory:**

- Deploy Web Application using Elastic BeanStalk
- AWS Storage Service: S3

B. Questions:

- Q.1 Does AWS Elastic Beanstalk store anything in Amazon S3?
Q.2 What database solutions can we use with AWS Elastic Beanstalk?

C. Conclusion:

Write the significance of the topic studied in the experiment.

D. References:

- A. <https://aws.amazon.com/elasticbeanstalk/faqs/#>
B. <https://docs.aws.amazon.com/AmazonS3/latest/userguide/UsingBucket.html>
-

In-Lab Exercise:

1. We will start by creating a Role for EC2. Go to IAM then roles then Create Role and Fill the Form as follows:

The screenshot shows the AWS IAM console 'Create role' page, Step 1: Select trusted entity. The page title is 'Select trusted entity' with an 'Info' link. The left sidebar shows the navigation path: IAM > Roles > Create role. The main content area is titled 'Trusted entity type' and contains five radio button options:

- AWS service** (selected): 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.

 Below these options is a section titled 'Use case' with the description 'Allow an AWS service like EC2, Lambda, or others to perform actions in this account.' It contains a dropdown menu labeled 'Service or use case' with 'EC2' selected. At the bottom, it says 'Choose a use case for the specified service.'

The screenshot shows the AWS IAM console 'Create role' page, Step 2: Add permissions. The page title is 'Use case' with the description 'Allow an AWS service like EC2, Lambda, or others to perform actions in this account.' It contains a dropdown menu labeled 'Service or use case' with 'EC2' selected. Below this, it says 'Choose a use case for the specified service.' and lists several radio button options:

- EC2** (selected): Allows EC2 instances to call AWS services on your behalf.
- EC2 Role for AWS Systems Manager: Allows EC2 instances to call AWS services like CloudWatch and Systems Manager on your behalf.
- EC2 Spot Fleet Role: Allows EC2 Spot Fleet to request and terminate Spot instances on your behalf.
- EC2 - Spot Fleet Auto Scaling: Allows Auto Scaling to access and update EC2 spot fleets on your behalf.
- EC2 - Spot Fleet Tagging: Allows EC2 to launch spot instances and attach tags to the launched instances on your behalf.
- EC2 - Spot Instances: Allows EC2 Spot instances to launch and manage spot instances on your behalf.
- EC2 - Spot Fleet: Allows EC2 Spot Fleet to launch and manage spot fleet instances on your behalf.
- EC2 - Scheduled Instances: Allows EC2 Scheduled instances to manage instances on your behalf.

 At the bottom right, there are 'Cancel' and 'Next' buttons.

Create role | IAM | Global

us-east-1.console.aws.amazon.com/iam/home?region=ap-south-1#/roles/create?trustedEntityType=AWS_SERVICE&selectedService=EC2&selectedUseCase=EC2

Step 3
Name, review, and create

Filter by Type
All types 14 matches

Policy name	Type	Description
<input checked="" type="checkbox"/> AdministratorAccess-AWSElasticBeanstalk	AWS managed	Grants account ad
<input type="checkbox"/> AWSElasticBeanstalkCustomPlatformforEC2Role	AWS managed	Provide the instan
<input type="checkbox"/> AWSElasticBeanstalkEnhancedHealth	AWS managed	AWS Elastic Beanst
<input type="checkbox"/> AWSElasticBeanstalkManagedUpdatesCustomerRolePolicy	AWS managed	This policy is for th
<input checked="" type="checkbox"/> AWSElasticBeanstalkMulticontainerDocker	AWS managed	Provide the instan
<input type="checkbox"/> AWSElasticBeanstalkReadOnly	AWS managed	Grants read-only p
<input type="checkbox"/> AWSElasticBeanstalkRoleCore	AWS managed	AWSElasticBeansta
<input type="checkbox"/> AWSElasticBeanstalkRoleCWL	AWS managed	(Elastic Beanstalk c
<input type="checkbox"/> AWSElasticBeanstalkRoleECS	AWS managed	(Elastic Beanstalk c
<input type="checkbox"/> AWSElasticBeanstalkRoleRDS	AWS managed	(Elastic Beanstalk c
<input type="checkbox"/> AWSElasticBeanstalkRoleSNS	AWS managed	(Elastic Beanstalk c
<input type="checkbox"/> AWSElasticBeanstalkRoleWorkerTier	AWS managed	(Elastic Beanstalk c
<input checked="" type="checkbox"/> AWSElasticBeanstalkWebTier	AWS managed	Provide the instan
<input checked="" type="checkbox"/> AWSElasticBeanstalkWorkerTier	AWS managed	Provide the instan

CloudShell Feedback

© 2024, Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookie preferences

ENG IN 13:30 08-08-2024

Create role | IAM | Global

us-east-1.console.aws.amazon.com/iam/home?region=ap-south-1#/roles/create?trustedEntityType=AWS_SERVICE&selectedService=EC2&selectedUseCase=EC2&policies=arn%3Aa...

Step 3
Name, review, and create

Role name
Enter a meaningful name to identify this role.
EXP3EB
Maximum 64 characters. Use alphanumeric and '+', '@', '_' characters.

Description
Add a short explanation for this role.
Allows EC2 instances to call AWS services 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

Trust policy

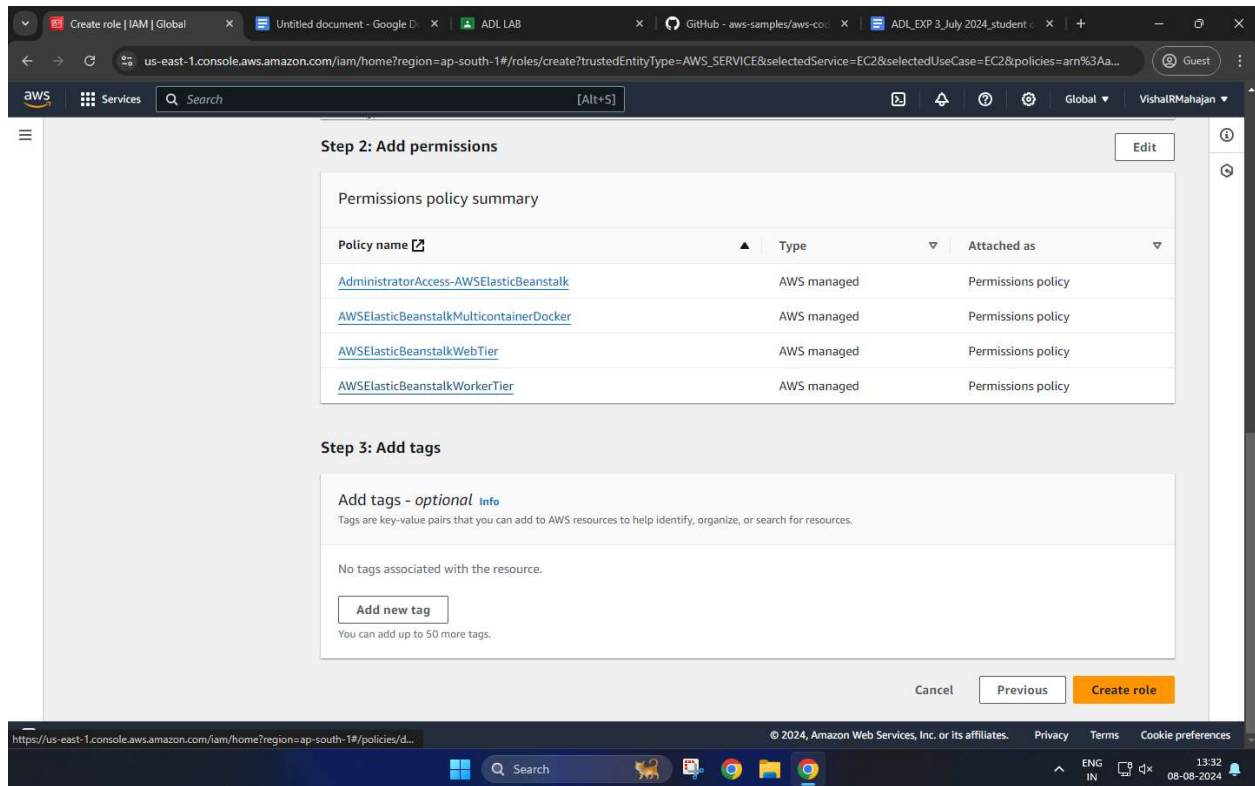
```
1 {  
2   "Version": "2012-10-17",  
3   "Statement": [  
4     {  
5       "Effect": "Allow",  
6       "Action": [  
7         "sts:AssumeRole"  
8       ],  
9       "Principal": {  
10        "Service": [  
11          "ec2.amazonaws.com"  
12        ]  
13      }  
14    }  
15  ]  
16 }
```

Step 2: Add permissions

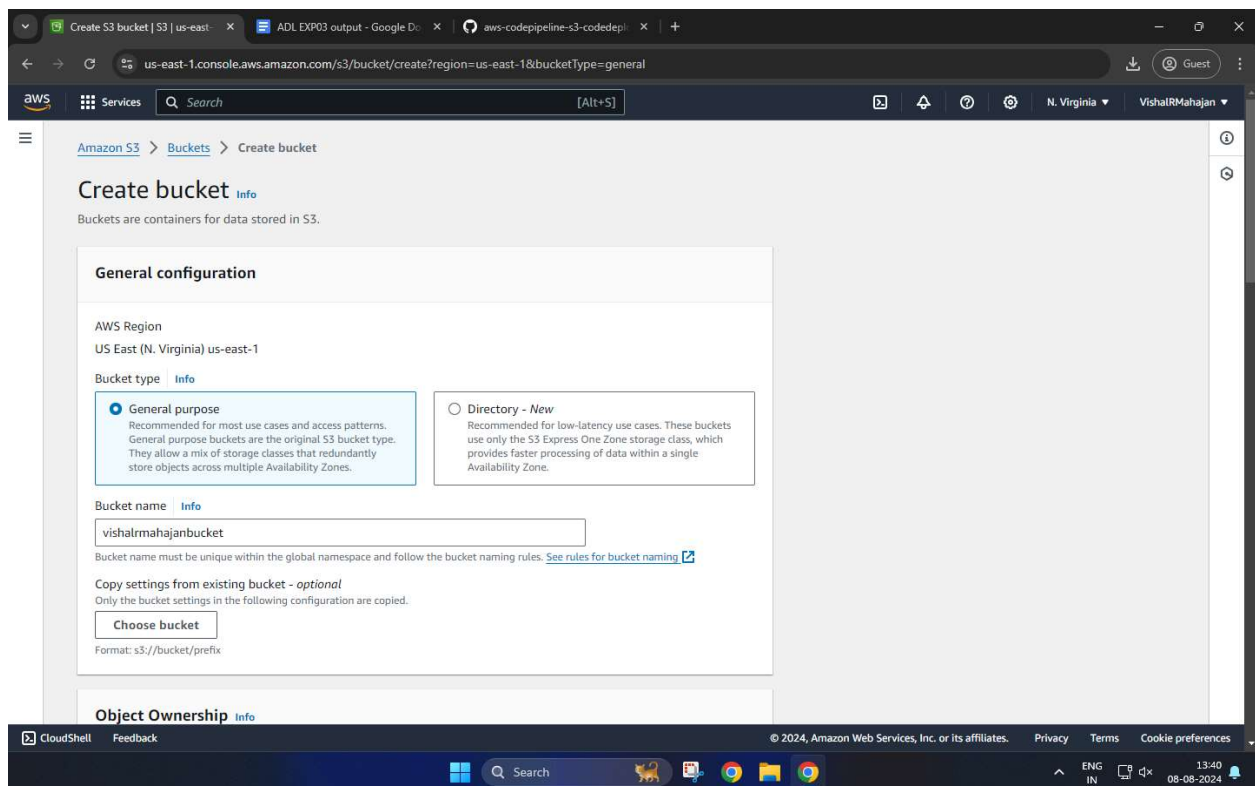
CloudShell Feedback

© 2024, Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookie preferences

ENG IN 13:32 08-08-2024



2. After Creating a Role for EC2. We will create a S3 bucket.



Create S3 bucket | S3 | us-east-1 | ADL EXP03 output - Google D... | aws-codepipeline-s3-codedeploy | +

us-east-1.console.aws.amazon.com/s3/bucket/create?region=us-east-1&bucketType=general

Format: s3://bucket/prefix

Object Ownership [Info](#)

Control ownership of objects written to this bucket from other AWS accounts and the use of access control lists (ACLs). Object ownership determines who can specify access to objects.

☒ **ACLs disabled (recommended)**
All objects in this bucket are owned by this account. Access to this bucket and its objects is specified using only policies.

☐ **ACLs enabled**
Objects in this bucket can be owned by other AWS accounts. Access to this bucket and its objects can be specified using ACLs.

Object Ownership
Bucket owner enforced

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 ACLs for existing buckets and objects. This setting doesn't change any existing permissions that allow public access to S3 resources using ACLs.

☒ **Block public access to buckets and objects granted through any access control lists (ACLs)**
S3 will ignore all ACLs that grant public access to buckets and objects.

CloudShell Feedback

© 2024, Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookie preferences

ENG IN 13:40 08-08-2024

Create S3 bucket | S3 | us-east-1 | ADL EXP03 output - Google D... | aws-codepipeline-s3-codedeploy | +

us-east-1.console.aws.amazon.com/s3/bucket/create?region=us-east-1&bucketType=general

Bucket Versioning

Versioning is a means of keeping multiple variants of an object in the same bucket. You can use versioning to preserve, retrieve, and restore every version of every object stored in your Amazon S3 bucket. With versioning, you can easily recover from both unintended user actions and application failures. [Learn more](#)

Bucket Versioning

☐ Disable

☒ Enable

Tags - optional (0)

You can use bucket tags to track storage costs and organize buckets. [Learn more](#)

No tags associated with this bucket.

[Add tag](#)

Default encryption [Info](#)

Server-side encryption is automatically applied to new objects stored in this bucket.

Encryption type [Info](#)

☒ **Server-side encryption with Amazon S3 managed keys (SSE-S3)**

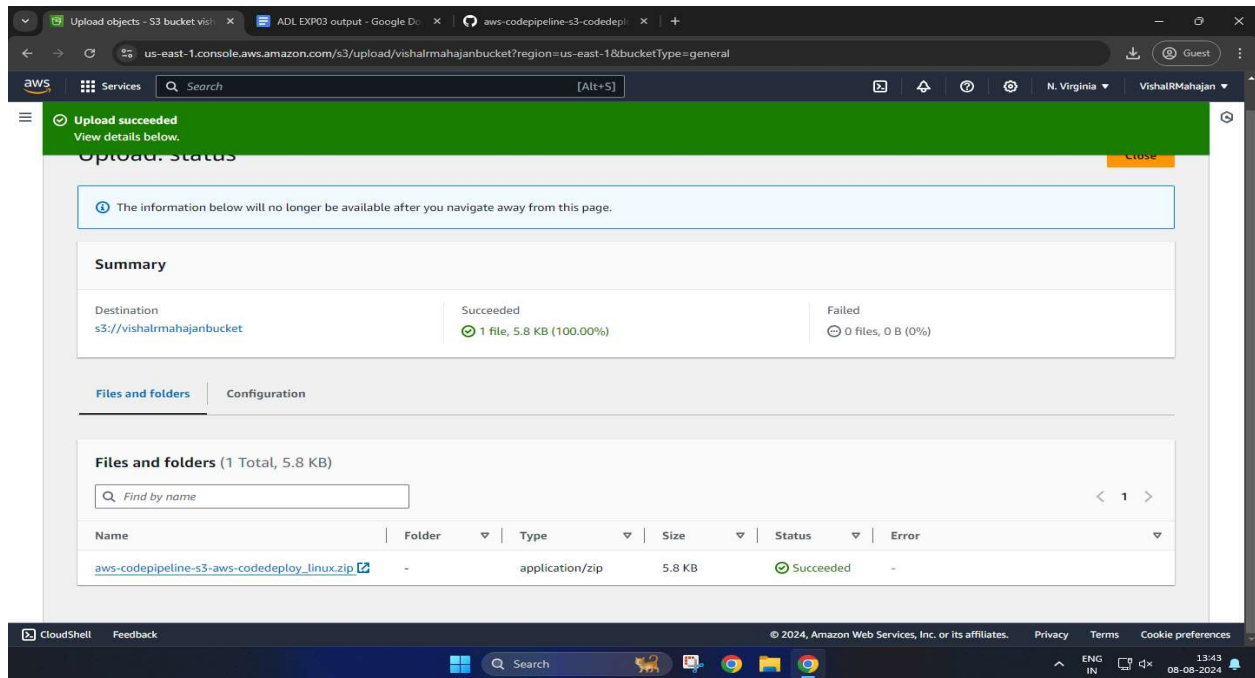
☐ Server-side encryption with AWS Key Management Service keys (SSE-KMS)

☐ Dual-layer server-side encryption with AWS Key Management Service keys (DSSE-KMS)
Secure your objects with two separate layers of encryption. For details on pricing, see [DSSE-KMS pricing on the Storage tab of the Amazon S3 pricing page](#).

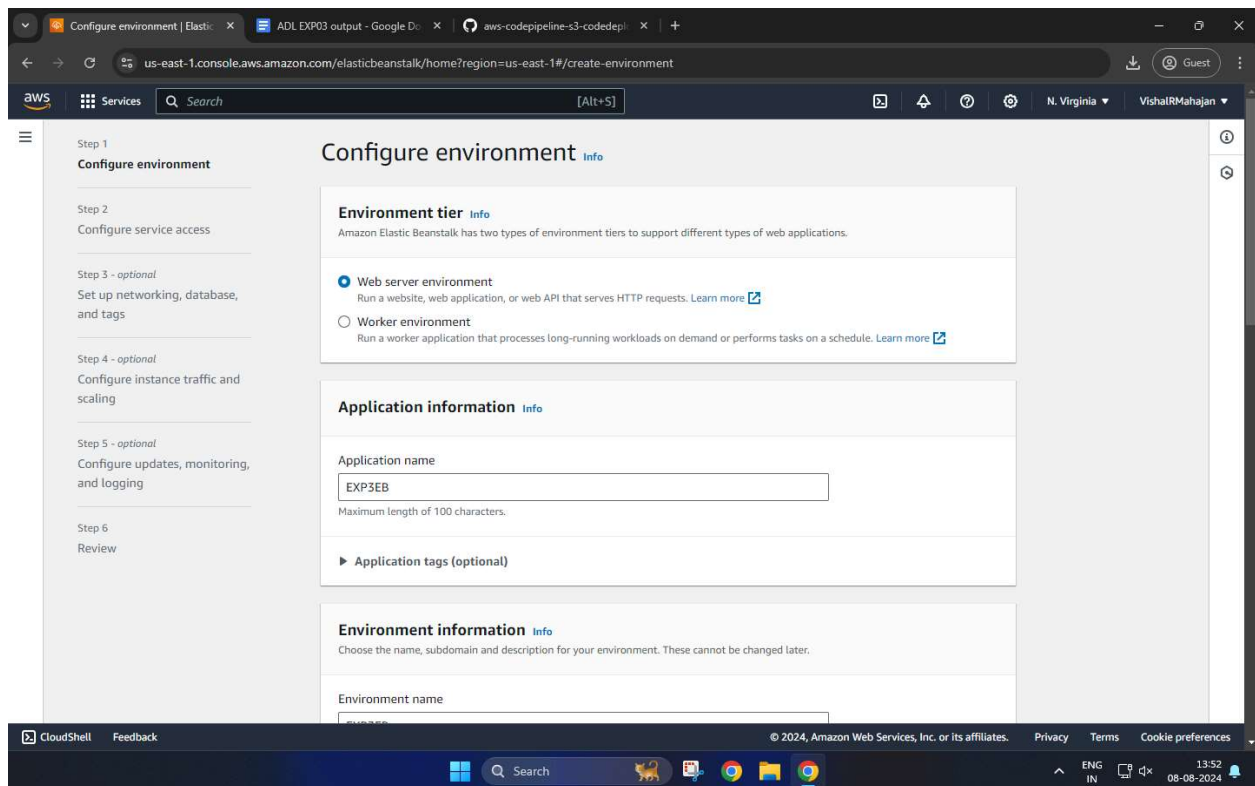
CloudShell Feedback

© 2024, Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookie preferences

ENG IN 13:41 08-08-2024



3. After Successfully creating a S3 Bucket, we will use Elastic Beanstalk Environment to simplify the process of setting up and Configuring EC2 Instances.



Configure environment | Elastic Beanstalk | AWS

ADL EXP03 output - Google Drive | aws-codepipeline-s3-codedeploy

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

Guest

Services

Search

[Alt+S]

N. Virginia

VishalRMahajan

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

Environment name

EXP3EB-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

VishalRMahajan

.us-east-1.elasticbeanstalk.com

Check availability

VishalRMahajan.us-east-1.elasticbeanstalk.com is available

Environment description

Elastic BeanStalk For web deployment

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

CloudShell

Feedback

© 2024, Amazon Web Services, Inc. or its affiliates.

Privacy

Terms

Cookie preferences

ENG

IN

13:53

08-08-2024

Configure environment | Elastic Beanstalk | AWS

ADL EXP03 output - Google Drive | aws-codepipeline-s3-codedeploy

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

Guest

Services

Search

[Alt+S]

N. Virginia

VishalRMahajan

Platform branch

PHP 8.3 running on 64bit Amazon Linux 2023

Platform version

4.3.1 (Recommended)

Application code

Info

☒ Sample application

☐ 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

CloudShell

Feedback

© 2024, Amazon Web Services, Inc. or its affiliates.

Privacy

Terms

Cookie preferences

ENG

IN

13:53

08-08-2024

Configure service access | Elastic Beanstalk

ADL EXP03 output - Google Drive

aws-codepipeline-s3-codedeploy

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

Services

Search

[Alt+S]

N. Virginia

VishalRMahajan

Step 1
Configure environment

Step 2
Configure service access

Step 3 - optional
Set up networking, database, and tags

Step 4 - optional
Configure instance traffic and scaling

Step 5 - optional
Configure updates, monitoring, and logging

Step 6
Review

Configure service access

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.

EXP3EB

EC2 key pair

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

Choose a key pair

EC2 instance profile

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

EXP3EB

View permission details

Cancel

Skip to review

Previous

Next

CloudShell

Feedback

© 2024, Amazon Web Services, Inc. or its affiliates.

Privacy

Terms

Cookie preferences

ENG

IN

13:55

08-08-2024

Set up networking, database, and tags

ADL EXP03 output - Google Drive

aws-codepipeline-s3-codedeploy

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

Services

Search

[Alt+S]

N. Virginia

VishalRMahajan

Step 1
Configure environment

Step 2
Configure service access

Step 3 - optional
Set up networking, database, and tags

Step 4 - optional
Configure instance traffic and scaling

Step 5 - optional
Configure updates, monitoring, and logging

Step 6
Review

Set up networking, database, and tags - optional

Virtual Private Cloud (VPC)

VPC

Launch your environment in a custom VPC instead of the default VPC. You can create a VPC and subnets in the VPC management console. [Learn more](#)

vpc-02eee5e6c36fd32f4 | (172.31.0.0/16)

Create custom VPC

Instance settings

Choose a subnet in each AZ for the instances that run your application. To avoid exposing your instances to the Internet, run your instances in private subnets and load balancer in public subnets. To run your load balancer and instances in the same public subnets, assign public IP addresses to the instances. [Learn more](#)

Public IP address

Assign a public IP address to the Amazon EC2 instances in your environment.

☒ Activated

Instance subnets

Filter instance subnets

Availability Zone

Subnet

CIDR

Name

CloudShell

Feedback

© 2024, Amazon Web Services, Inc. or its affiliates.

Privacy

Terms

Cookie preferences

ENG

IN

13:59

08-08-2024

Set up networking, database, a...

ADL EXP03 output - Google D...

aws-codepipeline-s3-codedepi...

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

Guest

Services

Search

[Alt+S]

N. Virginia

VishalRMahajan

Activated

Instance subnets

Filter instance subnets

	Availability Zone	Subnet	CIDR	Name
<input checked="" type="checkbox"/>	us-east-1a	subnet-03e72e448...	172.31.0.0/20	
<input type="checkbox"/>	us-east-1b	subnet-04d91be9a...	172.31.80.0/20	
<input type="checkbox"/>	us-east-1f	subnet-0844909a7...	172.31.64.0/20	
<input type="checkbox"/>	us-east-1e	subnet-087d9acb4...	172.31.48.0/20	
<input type="checkbox"/>	us-east-1d	subnet-0b257544...	172.31.32.0/20	
<input type="checkbox"/>	us-east-1c	subnet-0bb8d654...	172.31.16.0/20	

Database Info

Integrate an RDS SQL database with your environment. [Learn more](#)

Database subnets

If your Elastic Beanstalk environment is attached to an Amazon RDS, choose subnets for your database instances. [Learn more](#)

Choose database subnets (6)

Filter database subnets

CloudShell

Feedback

© 2024, Amazon Web Services, Inc. or its affiliates.

Privacy

Terms

Cookie preferences

ENG

IN

14:00

08-08-2024

Configure instance traffic and...

ADL EXP03 output - Google D...

aws-codepipeline-s3-codedepi...

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

Guest

Services

Search

[Alt+S]

N. Virginia

VishalRMahajan

Your environment's platform supports both IMDSv1 and IMDSv2. To enforce IMDSv2, deactivate IMDSv1. [Learn more](#)

IMDSv1

With the current setting, the environment enables only IMDSv2.

☒ Deactivated

EC2 security groups

Select security groups to control traffic.

EC2 security groups (1)

Filter security groups

	Group name	Group ID	Name
<input checked="" type="checkbox"/>	default	sg-0c59f110439511520	

Capacity Info

Configure the compute capacity of your environment and auto scaling settings to optimize the number of instances used.

Auto scaling group

Environment type

Select a single-instance or load-balanced environment. You can develop and test an application in a single-instance environment to save costs and then upgrade to a load-balanced environment when the application is ready for production. [Learn more](#)

Single instance

CloudShell

Feedback

© 2024, Amazon Web Services, Inc. or its affiliates.

Privacy

Terms

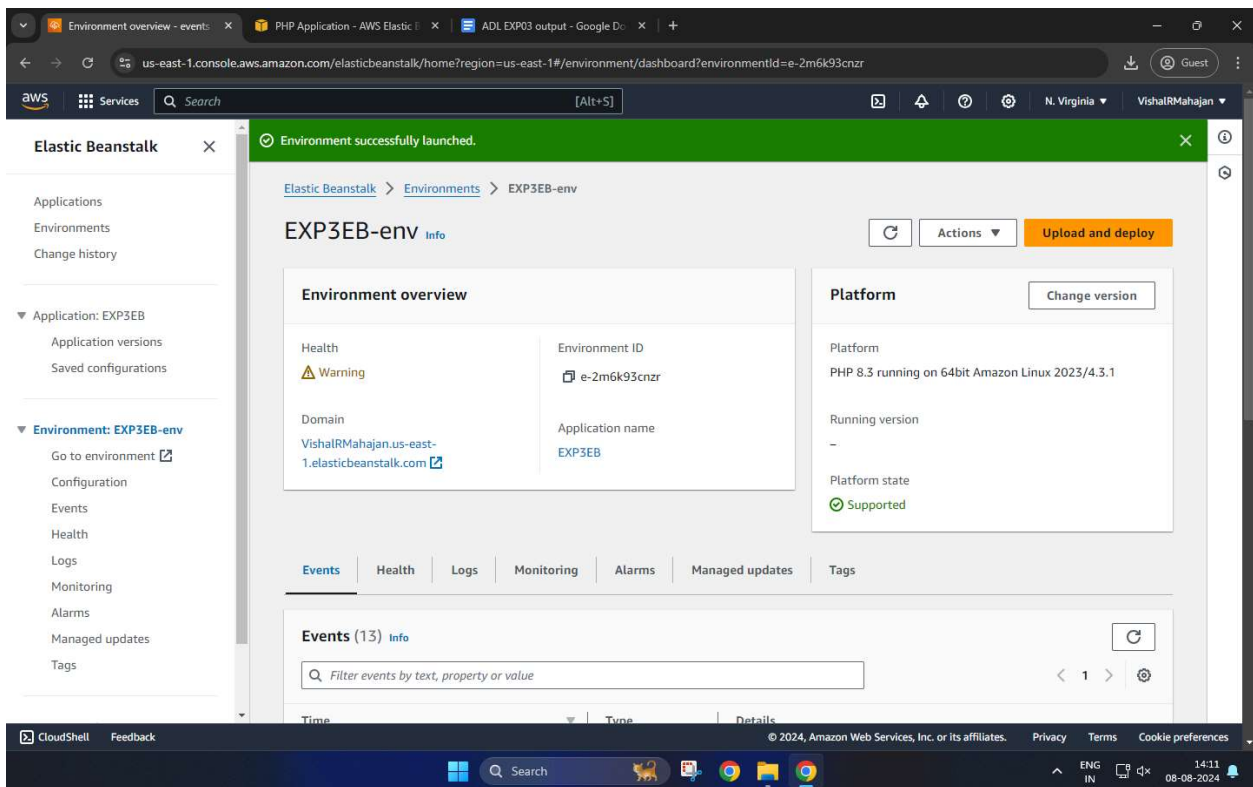
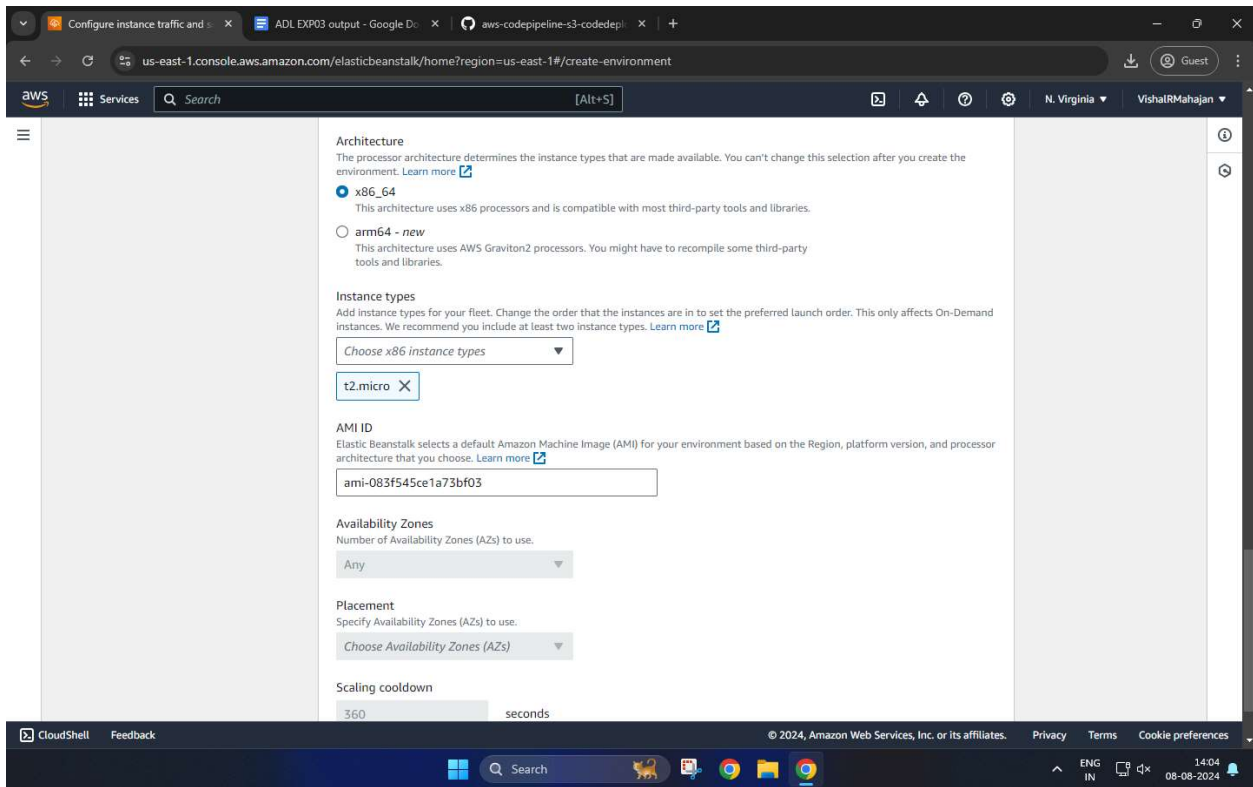
Cookie preferences

ENG

IN

14:03

08-08-2024



4. After Elastic BeanStalk Environment is Successfully created. We will create a code Pipeline for building and deploying our php web application.

The screenshot shows the 'Create new pipeline' page in the AWS CodePipeline console. The browser address bar shows the URL: `us-east-1.console.aws.amazon.com/codesuite/codepipeline/pipeline/new?region=us-east-1`. The left sidebar shows the steps: Step 3 (Add build stage), Step 4 (Add deploy stage), Step 5 (Review), and a 'Review' link. The main form has the following sections:

- Pipeline name:** A text input field containing 'EXP3Pipeline'. A message below states: 'Enter the pipeline name. You cannot edit the pipeline name after it is created. No more than 100 characters.'
- Pipeline type:** A message box states: '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:** Three radio buttons are present:
 - ☐ 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:** Two radio buttons are present:
 - ☒ New service role: Create a service role in your account.
 - ☐ Existing service role: Choose an existing service role from your account.
- Role name:** A text input field containing 'AWSCodePipelineServiceRole-us-east-1-EXP3Pipeline'. Below it, a checkbox is checked: 'Allow AWS CodePipeline to create a service role so it can be used with this new pipeline'.

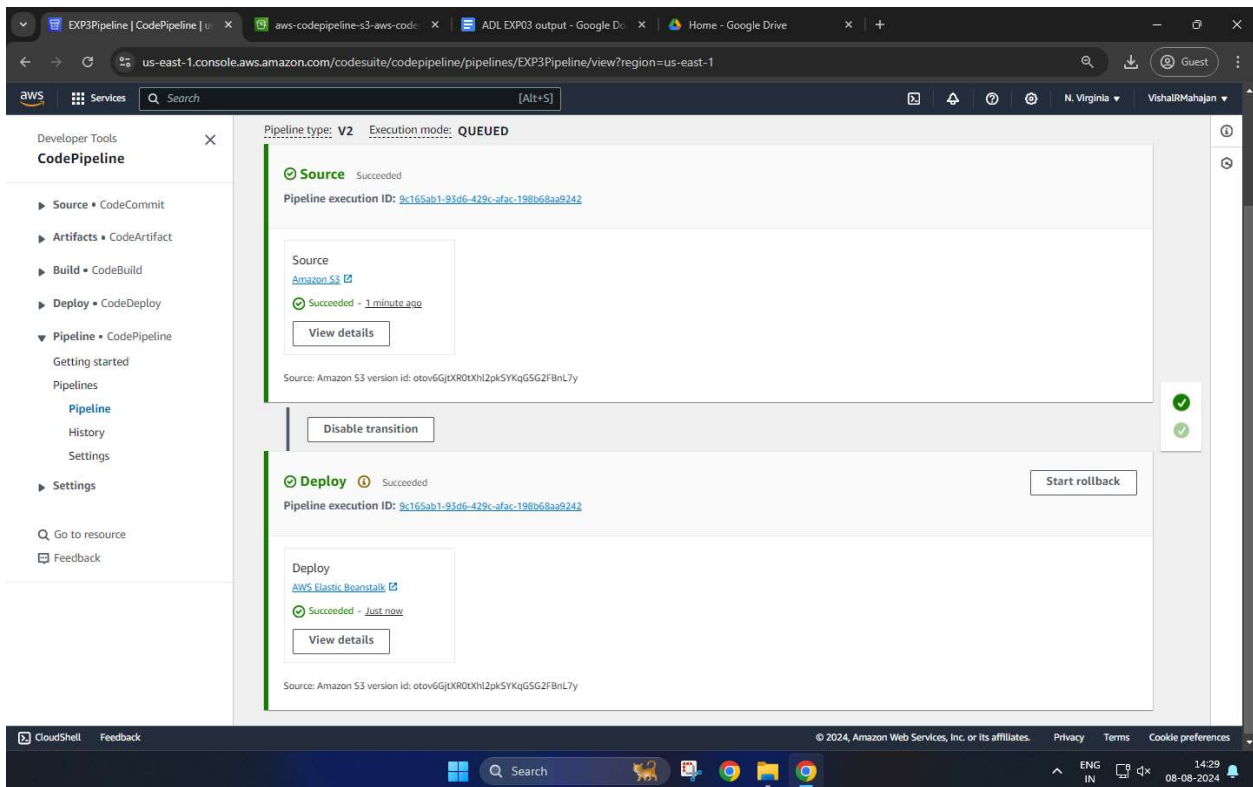
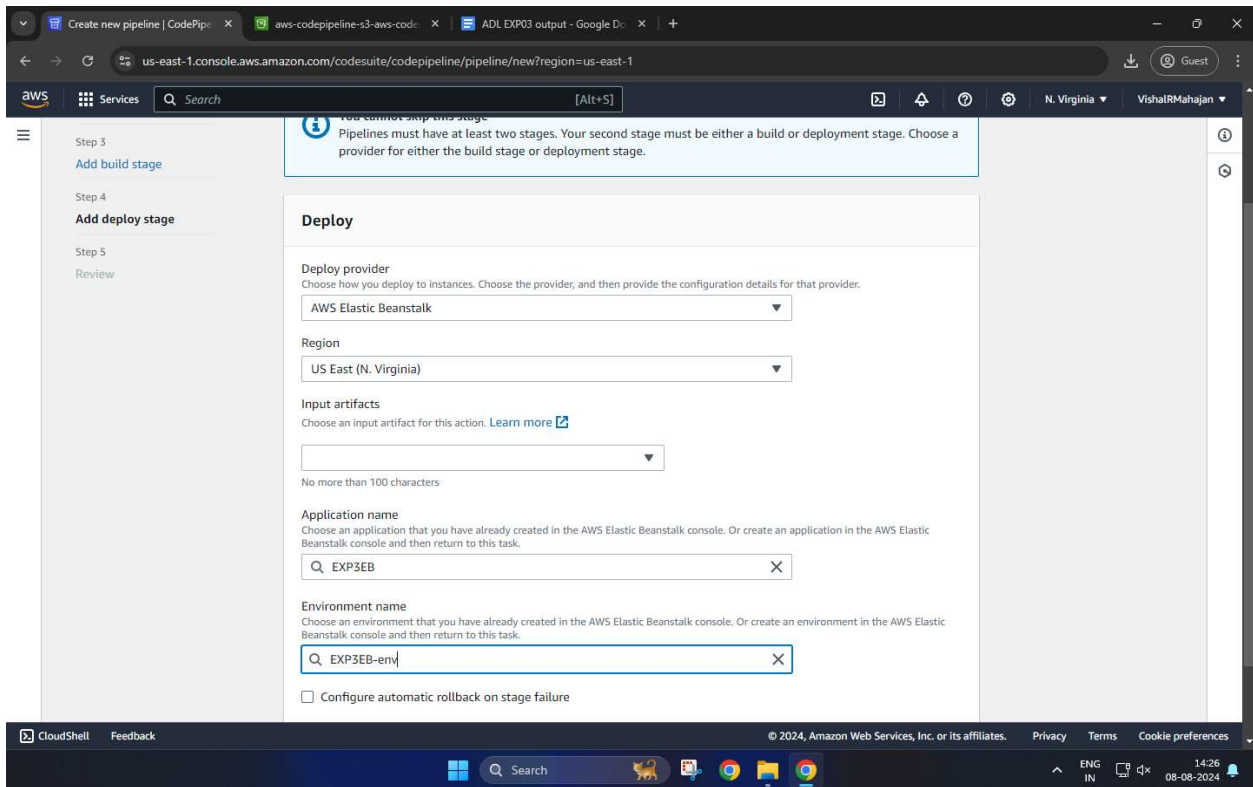
The bottom of the screen shows a Windows taskbar with the date '08-08-2024' and time '14:18'.

The screenshot shows the 'Add source stage' page in the AWS CodePipeline console. The browser address bar shows the URL: `us-east-1.console.aws.amazon.com/codesuite/codepipeline/pipeline/new?region=us-east-1`. The left sidebar shows the steps: Step 1 (Choose pipeline settings), Step 2 (Add source stage), Step 3 (Add build stage), Step 4 (Add deploy stage), Step 5 (Review), and a 'Review' link. The main form has the following sections:

- Source:** A section header for the source stage configuration.
- Source provider:** A dropdown menu showing 'Amazon S3'. A message below states: 'This is where you stored your input artifacts for your pipeline. Choose the provider and then provide the connection details.'
- Bucket:** A text input field containing 'vishalrmahajanbucket'.
- S3 object key:** A text input field containing 'aws-codepipeline-s3-aws-codedeploy_linux.zip'. A message below states: 'Enter the object key. You can include a file path without the delimiter character (/) at the beginning. Include the file extension. Example: SampleApp.zip'.
- Change detection options:** Two radio buttons are present:
 - ☒ Amazon CloudWatch Events (recommended): Use Amazon CloudWatch Events to automatically start my pipeline when a change occurs.
 - ☐ AWS CodePipeline: Use AWS CodePipeline to check periodically for changes.

At the bottom of the form, there are three buttons: 'Cancel', 'Previous', and 'Next'.

The bottom of the screen shows a Windows taskbar with the date '08-08-2024' and time '14:23'.



5. After creating a code pipeline, our php application is deployed.

