

# AWS CODE DEPLOY AND CODE PIPELINE

## INTRODUCTION:

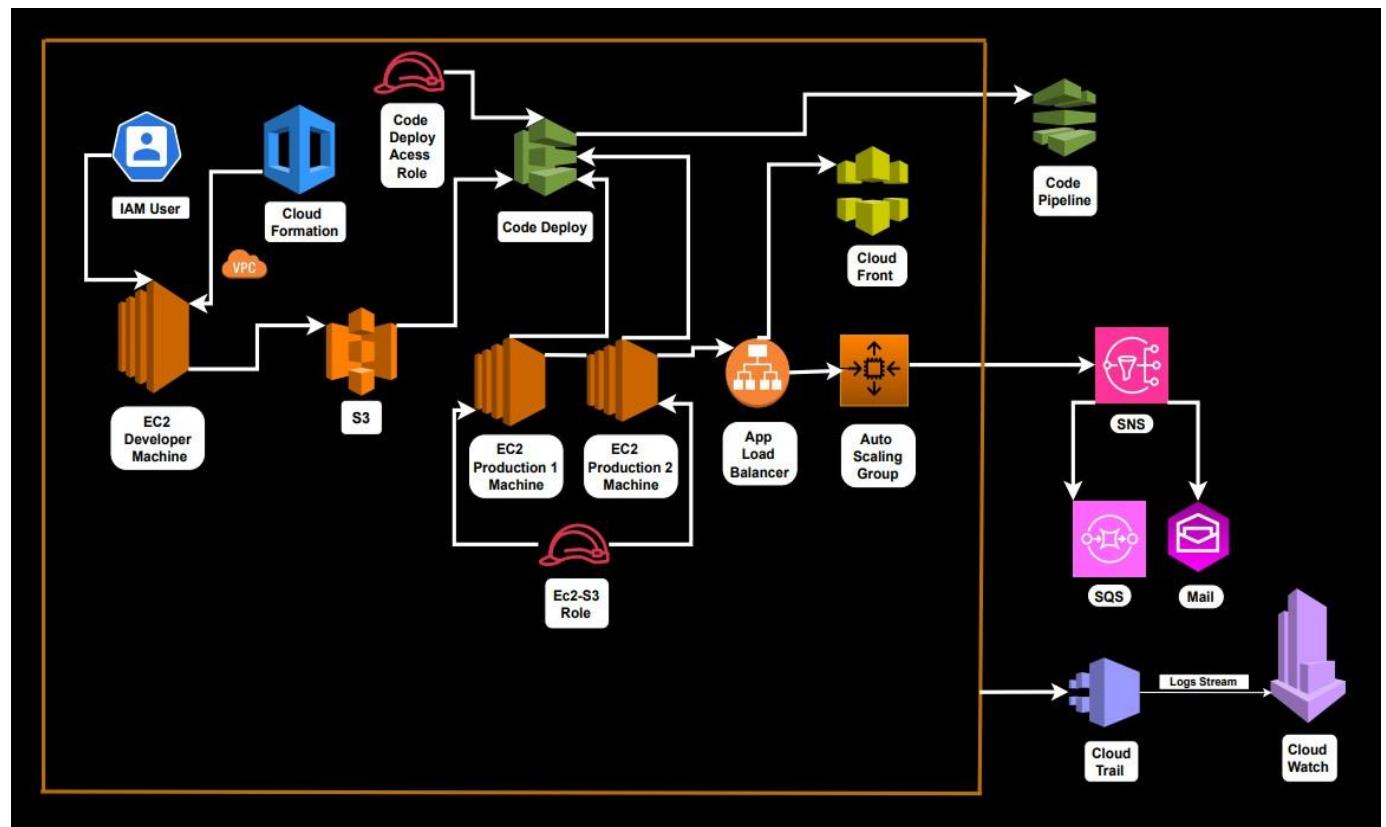
## CODE PIPELINE:

AWS Code Pipeline is a continuous delivery service that enables you to model, visualize, and automate the steps required to release your software. AWS Code Pipeline then builds, tests, and deploys your application according to the defined workflow every time there is a code change.

## CODE DEPLOY:

AWS Code Deploy is a service that automates code deployments to Elastic Compute Cloud (EC2) and on-premises servers. Accelerating how fast a developer can release code allows him to release new features for an application faster and avoid deployment errors in complex applications.

## CODE DEPLOY AND CODE PIPELINE ARCHITECTURE:

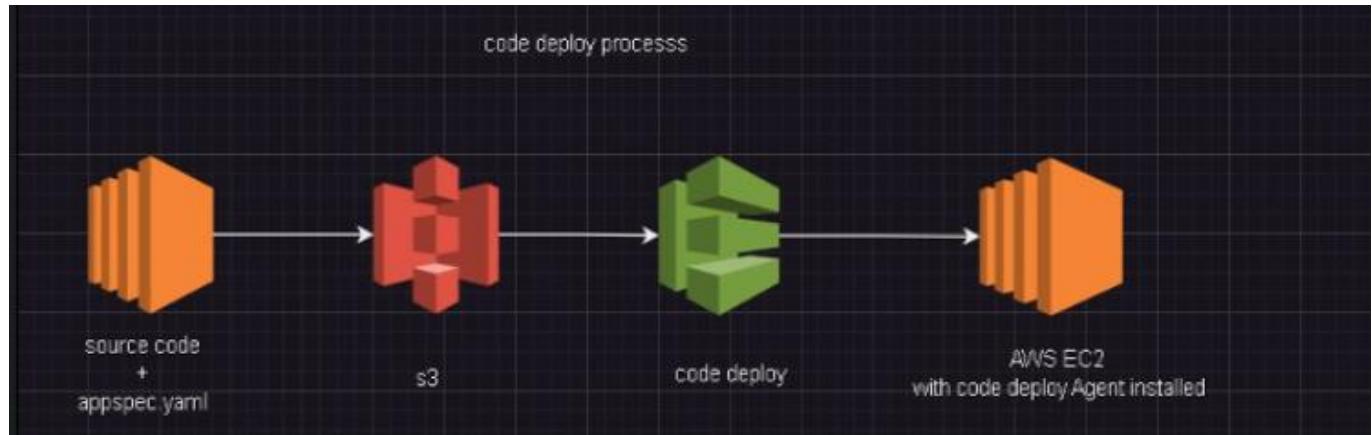


## OBJECTIVE TO THE AWS CODE DEPLOY AND CODE PIPELINE:

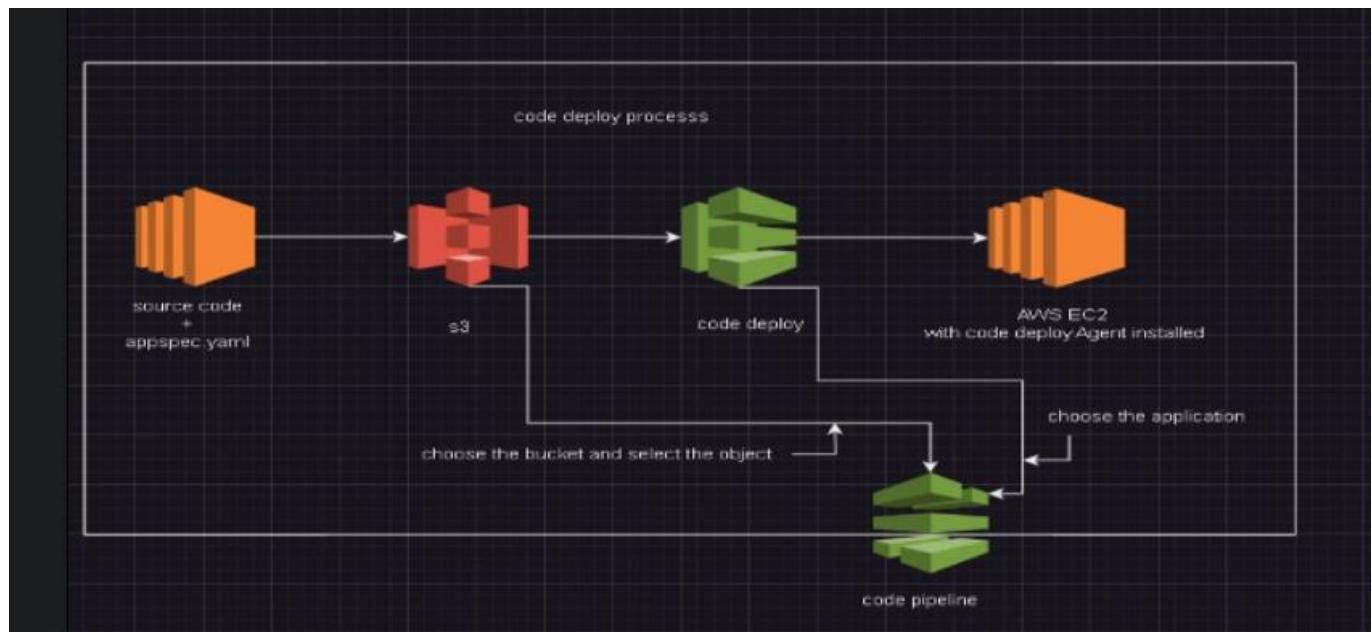
Deployed code and hosted a dynamic web application using a microservice architecture, with a focus on **front-end development** utilizing **HTML and CSS**. The project aims to use a load balancer to **distribute traffic** across different servers based on URL paths and implement autoscaling to **automatically scale servers vertically** when CPU utilization **exceeds 80%**, achieving a **90% improvement in application performance**.

Resolved high-latency issues by integrating CloudFront, **reduced application processing time by 65% through caching, leading to a 25% cost reduction** and efficiently delivering content to users. The goal is to manage and scale the web application efficiently, ensuring high availability, security, performance optimization, and using AWS Code Deploy & AWS Code Pipeline.

### CODE DEPLOY:



### CODE PIPELINE:



## **CODE DEPLOY AND CODE PIPELINE PROJECT STEPS:**

Code Deploy is an AWS deployment service that can automate application deployments to Amazon EC2 instances, on-premises instances, or Lambda functions. This is a one-time deployment; you may also have to use the AWS Code Pipeline for scheduling deployments.

### **Setup in brief:**

I have used two EC2 instances of Amazon Linux 2. First is the web server we will be configuring, also called the Code Deploy agent. The second and Third EC2 machine is supposed to be used by the developer where the codes are programmed. The names of the resources in the experiment are arbitrary and may name the resources your own.

### **Project Step-By-Step concept**

1. Create **IAM Roles** for EC2-S3 & Code Deploy access.
2. Create an **IAM user** account for Developer Machine.
3. Create **VPC** using with help of the **Cloud Formation** service.
4. Create 3 **EC2** instances – 1 Developer Machine & 2 Production Machine.
5. Create **SQS & SNS** for Communication service.
6. Create **Cloud Trail** for Logs that stream on **Cloud Watch**.
7. Create an **S3 Bucket** to store website files.
8. Connect the IAM user in Developer Machine **CLI**.
9. Install and prepare the Code Deploy agent on the webserver in the Production Machine.
10. Create the code from the Developer Machine.
11. Create a **Code Deploy** Application and Push the code to the S3 bucket from the Developer machine.
12. Create a Deployment Group to include the webserver.
13. Create Deployment to push the code to the webserver.
14. Create an **App Load Balancer** for path-based routing and **Auto-Scaling Group**.
15. Create **Cloud Front** with App LB.
16. Browse the Website.
17. Create a **Code Pipeline** S3 bucket.
18. Re-edit the website in Developer Machine.
19. Copy the website file to the S3 bucket.
20. Refresh the website changes will show.

### **AWS SERVICES USED:**

**IAM, VPC, Cloud Formation, EC2, SQS, SNS, Cloud Trail, Cloud Watch, S3, Code Deploy, App Load Balancer & Auto Scaling Group, Cloud Front, Code Pipeline.**

## Step 1: Create IAM Roles for EC2-S3 & Code Deploy access.

### a) EC2 – S3 full access:

IAM Service

Roles: Select EC2 Use Case

**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.

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

Service or use case  
EC2

Then select S3 full access policy

**Add permissions** Info

**Permissions policies (1/960)** Info

Choose one or more policies to attach to your new role.

Filter by Type  
Q s3 All types 10 matches < 1 > ⌂

Policy name	Type	Description
<input type="checkbox"/> AmazonDMSRedshiftS3...	AWS managed	Provides access to manage S3 settings...
<input checked="" type="checkbox"/> AmazonS3FullAccess	AWS managed	Provides full access to all buckets via t...
<input type="checkbox"/> AmazonS3ObjectLamb...	AWS managed	Provides AWS Lambda functions permi...
<input type="checkbox"/> AmazonS3OutpostsFull...	AWS managed	Provides full access to Amazon S3 on ...
<input type="checkbox"/> AmazonS3OutpostsRea...	AWS managed	Provides read only access to Amazon S...

**Name, review, and create**

**Role details**

**Role name**  
Enter a meaningful name to identify this role.  
  
Maximum 64 characters. Use alphanumeric and '+-=\_,@-\_` characters.

**Description**  
Add a short explanation for this role.  
  
Maximum 1000 characters. Use letters (A-Z and a-z), numbers (0-9), tabs, new lines, or any of the following characters: \_+=., @-/[\{\}]!#\$%^&\*();`~`

b) Create a Code-Deploy role:

Code Deploy Use Case

Select trusted entity [Info](#)

**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  
▼

Choose a use case for the specified service.

Attach a permission policy

Add permissions [Info](#)

**Permissions policies (1) [Info](#)**  
The type of role that you selected requires the following policy.

Policy name [Edit](#) ▲ | Type

 [AWSCodeDeployRole](#) AWS managed

▶ Set permissions boundary - *optional*

Name, review, and create

**Role details**

**Role name**  
Enter a meaningful name to identify this role.

Maximum 64 characters. Use alphanumeric and '+=\_,@-' characters.

**Description**  
Add a short explanation for this role.

Maximum 1000 characters. Use letters (A-Z and a-z), numbers (0-9), tabs, new lines, or any of the following characters: '\_+=,. @-/[\{\}]\#%\$%^\*();,:`~`

## Step 2: Create an IAM user account for Developer Machine

Go to users and add a user

### User details

User name

The user name can have up to 64 characters. Valid characters: A-Z, a-z, 0-9, and + = , . @ \_ - (hyphen)

Provide user access to the AWS Management Console - optional  
If you're providing console access to a person, it's a best practice [to manage their access in IAM Identity Center](#).

i If you are creating programmatic access through access keys or service-specific credentials for AWS CodeCommit or Amazon Keyspaces, you can generate them after you create this IAM user. [Learn more](#)

Cancel Next

Add permission

### Set permissions

Add user to an existing group or create a new one. Using groups is a best-practice way to manage user's permissions by job functions. [Learn more](#)

**Permissions options**

Add user to group  
Add user to an existing group, or create a new group. We recommend using groups to manage user permissions by job function.

Copy permissions  
Copy all group memberships, attached managed policies, and inline policies from an existing user.

Attach policies directly  
Attach a managed policy directly to a user. As a best practice, we recommend attaching policies to a group instead. Then, add the user to the appropriate group.

**Permissions policies (1239)**

Choose one or more policies to attach to your new user.

Filter by Type

Policy name	Type	Attached entities
<a href="#">AccessAnalyzerServiceRolePolicy</a>	AWS managed	0
<a href="#">AdministratorAccess</a>	AWS managed - job function	4

## Create Access Key

Permissions | Groups | Tags | **Security credentials** | Access Advisor

**Console sign-in**

Console sign-in link  
https://hari2000.signin.aws.amazon.com/console

Console password  
Not enabled

**Enable console access**

**Multi-factor authentication (MFA) (0)**

Use MFA to increase the security of your AWS environment. Signing in with MFA requires an authentication code from an MFA device. Each user can have a maximum of 8 MFA devices assigned. [Learn more](#)

**Remove** | **Resync** | **Assign MFA device**

Type	Identifier	Certifications	Created on
No MFA devices. Assign an MFA device to improve the security of your AWS environment			
<b>Assign MFA device</b>			

**Access keys (0)**

Use access keys to send programmatic calls to AWS from the AWS CLI, AWS Tools for PowerShell, AWS SDKs, or direct AWS API calls. You can have a maximum of two access keys (active or inactive) at a time. [Learn more](#)

**Create access key**

No access keys. As a best practice, avoid using long-term credentials like access keys. Instead, use tools which provide short term credentials. [Learn more](#)

### Use case

**Command Line Interface (CLI)**

You plan to use this access key to enable the AWS CLI to access your AWS account.

**Local code**

You plan to use this access key to enable application code in a local development environment to access your AWS account.

**Application running on an AWS compute service**

You plan to use this access key to enable application code running on an AWS compute service like Amazon EC2, Amazon ECS, or AWS Lambda to access your AWS account.

**Third-party service**

You plan to use this access key to enable access for a third-party application or service that monitors or manages your AWS resources.

**Application running outside AWS**

You plan to use this access key to authenticate workloads running in your data center or other infrastructure outside of AWS that needs to access your AWS resources.

## Retrieve access keys Info

### Access key

If you lose or forget your secret access key, you cannot retrieve it. Instead, create a new access key and remember the new key ID and secret access key.

**Access key**

AKIAU6GDYZ7CTSNYGGTI

**Secret access key**

\*\*\*\*\* [Show](#)

### Step 3: Create VPC using with help of **Cloud Formation** service.

#### Create a Stack

The screenshot shows the AWS CloudFormation Stacks page. At the top, there is a navigation bar with 'CloudFormation' and 'Stacks'. Below the navigation, there is a header with 'Stacks (0)' and buttons for 'Delete', 'Update', and 'Stack actions'. There is also a 'Filter status' dropdown set to 'Active' and a 'View nested' checkbox. A search bar labeled 'Filter by stack name' is present. The main area has columns for 'Stack name', 'Status', and 'Created time'. A message 'No stacks' and 'No stacks to display' is centered. A prominent orange 'Create stack' button is at the bottom, along with a link to 'View getting started guide'.

#### Upload a YAML Code for creating VPC

The screenshot shows the 'Specify template' step of the CloudFormation wizard. It starts with a 'Prepare template' section explaining that every stack is based on a template. Three options are provided: 'Choose an existing template' (selected), 'Use a sample template', and 'Build from Application Composer'. The 'Choose an existing template' option allows uploading or choosing an existing template. The next section, 'Template source', asks for selecting a template to generate an Amazon S3 URL. Three options are shown: 'Amazon S3 URL' (disabled), 'Upload a template file' (selected), and 'Sync from Git - new'. The 'Upload a template file' section includes a 'Choose file' button and a text input field containing 'Cloud formation creations (1).txt'. A note at the bottom says 'JSON or YAML formatted file'.

## Specify stack details

### Provide a stack name

Stack name

myvpc

Stack name must be 1 to 128 characters, start with a letter, and only contain alphanumeric characters. Character count: 5/128.

The screenshot shows the CloudFormation console interface. On the left, the navigation path is "CloudFormation > Stacks > myvpc". The main area displays the "myvpc" stack details. The "Events" tab is selected, showing one event: "CREATE\_IN\_PROGRESS" for the stack itself, timestamped 2024-08-26 14:51:22 UTC+0530. Other tabs include "Stack info", "Resources", "Outputs", "Parameters", and "Template". On the left sidebar, under "Stacks (1)", the "myvpc" stack is listed with its status as "CREATE\_IN\_PROGRESS".

**VPC** was created

The screenshot shows the "Your VPCs" section in the AWS Management Console. It lists two VPCs: "myvpc-VPC" and another unnamed VPC. Both are in an "Available" state. The table columns are: Name, VPC ID, State, IPv4 CIDR, and IPv6 CIDR. A "Create VPC" button is visible at the top right.

Name	VPC ID	State	IPv4 CIDR	IPv6 CIDR
myvpc-VPC	vpc-06e16904a1fe991cd	Available	10.1.0.0/16	-
-	vpc-0dcac49e5fd20028f	Available	172.31.0.0/16	-

The screenshot shows the "NAT gateways" section in the AWS Management Console. It lists one NAT gateway named "NAT-myvpc". The table columns are: Name, NAT gateway ID, Connectivity..., and State. The gateway is in a "Public" state and is "Available". A search bar is at the top, and a "Find resources by attribute or tag" button is available.

Name	NAT gateway ID	Connectivity...	State
NAT-myvpc	nat-0450cb1d8afaed2df	Public	Available

## Step 4: Create 3 EC2 instances – 1 Developer Machine & 2 Production Machine.

- Create 1 instance for the Developer Machine

The screenshot shows the 'Launch an instance' wizard. At the top, the navigation path is 'EC2 > Instances > Launch an instance'. The main section is titled 'Name and tags' with an 'Info' link. A 'Name' field contains the value 'Developer Machine'. To the right of the name field is a link 'Add additional tags'.

The screenshot shows the 'Quick Start' section of the EC2 console. It features a grid of quick-launch icons for various operating systems: Amazon Linux, macOS, Ubuntu, Windows, Red Hat, and SUSE. To the right of the grid is a search icon and a link 'Browse more AMIs' with a note: 'Including AMIs from AWS, Marketplace and the Community'. Below the grid, a section titled 'Amazon Machine Image (AMI)' displays the selected 'Amazon Linux 2 AMI (HVM) - Kernel 5.10, SSD Volume Type'. The AMI ID is 'ami-0e1a3a59369c81682'. The status 'Free tier eligible' is shown with a dropdown arrow. The description for this AMI states: 'Amazon Linux 2 comes with five years support. It provides Linux kernel 5.10 tuned for optimal performance on Amazon EC2, systemd 219, GCC 7.3, Glibc 2.26, Binutils 2.29.1, and the latest software packages through extras. This AMI is the successor of the Amazon Linux AMI that is now under maintenance only mode and has been removed from this wizard.' Below the description, the 'Architecture' is listed as '64-bit (x86)' with a dropdown arrow, and the 'AMI ID' is 'ami-0e1a3a59369c81682'. A green button indicates it is a 'Verified provider'.

## ▼ Instance type [Info](#) | [Get advice](#)

### Instance type

t2.micro

Free tier eligible

Family: t2 1 vCPU 1 GiB Memory Current generation: true  
On-Demand Linux base pricing: 0.0116 USD per Hour  
On-Demand SUSE base pricing: 0.0116 USD per Hour  
On-Demand Windows base pricing: 0.0162 USD per Hour  
On-Demand RHEL base pricing: 0.026 USD per Hour

All generations

[Compare instance types](#)

Additional costs apply for AMIs with pre-installed software

## ▼ Key pair (login) [Info](#)

You can use a key pair to securely connect to your instance. Ensure that you have access to the selected key pair before you launch the instance.

Key pair name - required

LIN

[Create new key pair](#)

## ▼ Network settings [Info](#)

### Subnet [Info](#)

subnet-0a78929b1ec5b1fc3

myvpc-Public-A

VPC: vpc-06e16904a1fe991cd Owner: 339712987077  
Availability Zone: us-east-2a Zone type: Availability Zone  
IP addresses available: 246 CIDR: 10.1.10.0/24

[Create new subnet](#)

When you specify a subnet, a network interface is automatically added to your template.

### Firewall (security groups) [Info](#)

A security group is a set of firewall rules that control the traffic for your instance. Add rules to allow specific traffic to reach your instance.

[Select existing security group](#)

[Create security group](#)

**b) Create a 2 instance for Production Machine**

**Launch an instance** [Info](#)

Amazon EC2 allows you to create virtual machines, or instances, that run on the AWS Cloud. Quickly get started by following the simple steps below.

<b>Name and tags</b> <a href="#">Info</a>	<b>Number of instances</b> <a href="#">Info</a>
Name <input type="text" value="Production Machine"/> <a href="#">Add additional tags</a>	2
When launching more than 1 instance, scaling will be applied.	
<b>Software Image (AMI)</b> Amazon Linux 2023 AMI 2023.09.0 (ami-0490fddec0cbe88b)	
<b>Virtual server type (instance type)</b> t2.micro	

**Instances (3)** [Info](#) Last updated less than a minute ago [C](#) Connect Instance state ▾ Actions ▾ Launch instances

Find Instance by attribute or tag (case-sensitive) All states ▾ < 1 >

<input type="checkbox"/>	Name ↴	Instance ID	Instance state	Instance type	Status check	Alarm status
<input type="checkbox"/>	Developer Mac...	i-020ff79cfda1138a7	<span>Running</span> <a href="#">View details</a> <a href="#">Get security groups</a>	t2.micro	<span>✓ 2/2 checks passed</span>	<a href="#">View alarms</a> +
<input type="checkbox"/>	Production Ma...	i-0dadd7b9bbe7045bd	<span>Running</span> <a href="#">View details</a> <a href="#">Get security groups</a>	t2.micro	<span>✓ 2/2 checks passed</span>	<a href="#">View alarms</a> +

**Instances (1/3)** [Info](#) Last updated less than a minute ago [C](#) Connect Instance state ▾ Actions ▾ Launch instances

Find Instance by attribute or tag (case-sensitive) All states ▾

<input type="checkbox"/>	Name ↴	Instance ID	Instance state	Instance type	Actions
<input type="checkbox"/>	Developer Mac...	i-067cccfb49c5a4857	<span>Running</span> <a href="#">View details</a> <a href="#">Get security groups</a>	t2.micro	<a href="#">Connect</a> <a href="#">View details</a> <a href="#">Manage instance state</a> <a href="#">Instance settings</a> <a href="#">Networking</a> <a href="#">Security</a> <a href="#">Image and templates</a> <a href="#">Monitor and troubleshoot</a>
<input checked="" type="checkbox"/>	Production Ma...	i-0ef3bfce030904732	<span>Running</span> <a href="#">View details</a> <a href="#">Get security groups</a>	t2.micro	
<input type="checkbox"/>	production Ma...	i-0b6e0d007b61bcaa9	<span>Running</span> <a href="#">View details</a> <a href="#">Get security groups</a>	t2.micro	<a href="#">Change security groups</a> <a href="#">Get Windows password</a> <a href="#">Modify IAM role</a>

**Modify IAM role** [Info](#)

Attach an IAM role to your instance.

Instance ID <input checked="" type="checkbox" value="i-0ef3bfce030904732"/> i-0ef3bfce030904732 (Production Machine)	<a href="#">Create new IAM role</a>
IAM role Select an IAM role to attach to your instance or create a new role if you haven't created any. The role you select replaces any roles that are currently attached to your instance.	
<input type="text" value="ec2_accessing_s3"/> <a href="#">Create new IAM role</a>	<a href="#">Cancel</a> <a href="#">Update IAM role</a>

## Step 5: Create SQS & SNS for Communication service.

### a) Create a SQS

#### Create queue

**Details**

Type  
Choose the queue type for your application or cloud infrastructure.

**Standard Info**  
At-least-once delivery, message ordering isn't preserved

- At-least once delivery
- Best-effort ordering

**FIFO Info**  
First-in-first-out delivery, message ordering is preserved

- First-in-first-out delivery
- Exactly-once processing

i You can't change the queue type after you create a queue.

Name  
  
A queue name is case-sensitive and can have up to 80 characters. You can use alphanumeric characters, hyphens (-), and underscores (\_).

#### Access policy Info

Define who can access your queue.

Choose method

**Basic**  
Use simple criteria to define a basic access policy.

**Advanced**  
Use a JSON object to define an advanced access policy.

Define who can send messages to the queue

Only the queue owner  
Only the owner of the queue can send messages to the queue.

Only the specified AWS accounts, IAM users and roles  
Only the specified AWS account IDs, IAM users and roles can send messages to the queue.

Define who can receive messages from the queue

Only the queue owner  
Only the owner of the queue can receive messages from the queue.

Only the specified AWS accounts, IAM users and roles

Only the specified AWS account IDs, IAM users and roles can receive messages.

**JSON (read-only)**

```
{  
  "Version": "2012-10-17",  
  "Id": "__default_policy_ID",  
  "Statement": [  
    {  
      "Sid": "__owner_statement",  
      "Effect": "Allow",  
      "Principal": {  
        "AWS": "339712987077"  
      },  
      "Action": [  
        "SQS:*"  
      ],  
      "Resource": "arn:aws:sqs:us-east-1:339712987077:SQS-Test-Queue"  
    }  
  ]}
```

## b) Create a SNS

The screenshot shows the 'Topics' page in the Amazon SNS console. At the top, there are buttons for 'Edit', 'Delete', 'Publish message', and a prominent orange 'Create topic' button. Below these are search and navigation controls. A table header row includes columns for 'Name', 'Type', and 'ARN'. A message below the table states 'No topics' and 'To get started, create a topic.' A large 'Create topic' button is located at the bottom right of the main content area.

The screenshot shows the 'Create topic' wizard in the 'Details' step. It has tabs for 'Type' (selected) and 'Info'. Under 'Type', it says 'Topic type cannot be modified after topic is created'. Two options are shown: 'FIFO (first-in, first-out)' and 'Standard'. 'Standard' is selected. Both options have associated bullet points. Below this is a 'Name' input field containing 'sns\_notif'. A note below the input says 'Maximum 256 characters. Can include alphanumeric characters, hyphens (-) and underscores (\_).'

The screenshot shows the 'Subscriptions' tab for the topic 'sns\_notif'. The top navigation bar includes tabs for 'Subscriptions', 'Access policy', 'Data protection policy', 'Delivery policy (HTTP/S)', and 'Delivery status logging'. Below the tabs is a 'Create subscription' button. A search bar and navigation controls are present. A table header row includes columns for 'ID', 'Endpoint', 'Status', and 'Protocol'. A message below the table states 'No subscriptions found' and 'You don't have any subscriptions to this topic.' A 'Create subscription' button is located at the bottom right.

**Details**

Topic ARN  
 X

Protocol  
The type of endpoint to subscribe  
 ▼

Endpoint  
Only Amazon SQS standard queues will be listed and can receive notifications from an Amazon SNS standard topic.  
 X

Enable raw message delivery

ⓘ After your subscription is created, you must confirm it. [Info](#)

Amazon SNS > Subscriptions > Create subscription

## Create subscription

**Details**

Topic ARN  
 X

Protocol  
The type of endpoint to subscribe  
 ▼

Endpoint  
An email address that can receive notifications from Amazon SNS.



Amazon SQS > Queues > sqs\_msg > Subscribe to Amazon SNS topic

## Subscribe to Amazon SNS topic Info

**Amazon SNS topic**  
To allow your queue to receive messages from an Amazon SNS topic, subscribe it to an Amazon SNS topic.

Specify an Amazon SNS topic available for this queue.  
 ▼

Save Cancel

## Step 6: Create Cloud Trail for Logs that stream on Cloud Watch.

The screenshot shows the AWS CloudTrail Trails page. At the top, there is a breadcrumb navigation: CloudTrail > Trails. Below the header, there is a table with columns: Name, Home region, Multi-region trail, Insights, Organization trail, S3 bucket, Log file prefix, Cloud Watch Logs log group, and Status. A search bar is located at the top right. Below the table, a message says "No trails" and "No trails to display." At the bottom right of the table area is a "Create trail" button.

## Choose trail attributes

### General details

A trail created in the console is a multi-region trail. [Learn more](#)

#### Trail name

Enter a display name for your trail.

3-128 characters. Only letters, numbers, periods, underscores, and dashes are allowed.

Enable for all accounts in my organization

To review accounts in your organization, open AWS Organizations. [See all accounts](#)

#### Storage location [Info](#)

Create new S3 bucket

Create a bucket to store logs for the trail.

Use existing S3 bucket

Choose an existing bucket to store logs for this trail.

#### Trail log bucket and folder

Enter a new S3 bucket name and folder (prefix) to store your logs. Bucket names must be globally unique.

Logs will be stored in aws-cloudtrail-logs-339712987077-6e0d32a3/AWSLogs/339712987077

## CloudWatch Logs - optional

Configure CloudWatch Logs to monitor your trail logs and notify you when specific activity occurs. Standard CloudWatch Logs charges apply. [Learn more](#)

CloudWatch Logs | [Info](#)

Enabled

Log group [Info](#)

New

Existing

Log group name

aws-cloudtrail-logs-339712987077-138b875e

1-512 characters. Only letters, numbers, dashes, underscores, forward slashes, and periods are allowed.

IAM Role [Info](#)

AWS CloudTrail assumes this role to send CloudTrail events to your CloudWatch Logs log group.

New

Existing

Role name

CloudtrailRoleForCloudWatchLogs\_service\_logs

## Choose log events

### Events [Info](#)

Record API activity for individual resources, or for all current and future resources in AWS account.

Event type

Choose the type of events that you want to log.

Management events

Capture management operations performed on your AWS resources.

Data events

Log the resource operations performed on or within a resource.

Insights events

Identify unusual activity, errors, or user behavior in your account.

### Management events [Info](#)

Management events show information about management operations performed on resources in your account.

**CloudWatch**

- Favorites and recents
- Dashboards
- Alarms** 1 2 0
- In alarm
- All alarms
- Logs**
- Log groups
- Log Anomalies
- Live Tail
- Logs Insights
- Contributor Insights
- Metrics**
- All metrics
- Explorer
- Streams

4 hours ago

Retention  
Never expire

Stored bytes

**Log streams** Tags Anomaly detection Metric filters Subscription filters Contributor Insights Dail >

**Log streams (4)**

Log stream	Last event time
<a href="#">339712987077_CloudTrail_us-east-2_3</a>	2024-08-26 13:36:13 (UTC)
<a href="#">339712987077_CloudTrail_us-east-2_4</a>	2024-08-26 13:34:03 (UTC)
<a href="#">339712987077_CloudTrail_us-east-2_2</a>	2024-08-26 13:26:17 (UTC)
<a href="#">339712987077_CloudTrail_us-east-2</a>	2024-08-26 13:22:47 (UTC)

**CloudWatch**

- Favorites and recents
- Dashboards
- Alarms** 1 2 0
- In alarm
- All alarms
- Logs**
- Log groups
- Log Anomalies
- Live Tail
- Logs Insights
- Contributor Insights
- Metrics**
- All metrics
- Explorer
- Streams
- X-Ray traces

2024-08-26T13:29:39.152Z {"eventVersion": "1.09", "userIdentity": {"type": "AssumedRole", "principalId": "AROAU6GDY27CVKZDYL..."}

2024-08-26T13:29:39.152Z {"eventVersion": "1.10", "userIdentity": {"type": "AssumedRole", "principalId": "AROAU6GDY27CVKZDYL..."}

2024-08-26T13:29:39.152Z {"eventVersion": "1.09", "userIdentity": {"type": "Root", "principalId": "339712987077", "arn": "arn:aws:iam:..."}

2024-08-26T13:29:39.153Z {"eventVersion": "1.10", "userIdentity": {"type": "AssumedRole", "principalId": "AROAU6GDY27CVKZDYL..."}

2024-08-26T13:29:39.153Z {"eventVersion": "1.10", "userIdentity": {"type": "AssumedRole", "principalId": "AROAU6GDY27CVKZDYL..."}

2024-08-26T13:29:39.153Z {"eventVersion": "1.09", "userIdentity": {"type": "Root", "principalId": "339712987077", "arn": "arn:aws:iam:..."}

2024-08-26T13:29:39.153Z {"eventVersion": "1.09", "userIdentity": {"type": "Root", "principalId": "339712987077", "arn": "arn:aws:iam:..."}

2024-08-26T13:29:39.153Z {"eventVersion": "1.10", "userIdentity": {"type": "AssumedRole", "principalId": "AROAU6GDY27CVKZDYL..."}

2024-08-26T13:29:39.153Z {"eventVersion": "1.10", "userIdentity": {"type": "AssumedRole", "principalId": "AROAU6GDY27CVKZDYL..."}

2024-08-26T13:29:39.153Z {"eventVersion": "1.09", "userIdentity": {"type": "AWSService", "invokedBy": "cloudtrail.amazonaws.com"}}, {"eventVersion": "1.10", "userIdentity": {"type": "AssumedRole", "principalId": "AROAU6GDY27CVKZDYL..."}}

2024-08-26T13:29:39.153Z {"eventVersion": "1.09", "userIdentity": {"type": "AssumedRole", "principalId": "AROAU6GDY27CVKZDYL..."}}

2024-08-26T13:36:13.645Z {"eventVersion": "1.09", "userIdentity": {"type": "Root", "principalId": "339712987077", "arn": "arn:aws:iam:..."}}

2024-08-26T13:36:13.645Z {"eventVersion": "1.10", "userIdentity": {"type": "AssumedRole", "principalId": "AROAU6GDY27CVKZDYL..."}}

2024-08-26T13:36:13.645Z {"eventVersion": "1.10", "userIdentity": {"type": "AssumedRole", "principalId": "AROAU6GDY27CVKZDYL..."}}

2024-08-26T13:36:13.645Z {"eventVersion": "1.10", "userIdentity": {"type": "AssumedRole", "principalId": "AROAU6GDY27CVKZDYL..."}}

Back to top ^

**CloudWatch**

CloudWatch > Log groups > [aws-cloudtrail-logs-339712987077-138b875e](#) > [339712987077\\_CloudTrail\\_us-east-2\\_3](#)

**Log events**

You can use the filter bar below to search for and match terms, phrases, or values in your log events. [Learn more about filter patterns](#)

**Actions** Start tailing Create metric filter

**Filter events - press enter to search**

1m 1h UTC timezone Display

**Timestamp** Message

There are older events to load. [Load more](#).

2024-08-26T13:29:39.152Z {"eventVersion": "1.09", "userIdentity": {"type": "Root", "principalId": "339712987077", "arn": "arn:aws:iam:..."}}

{  
    "eventVersion": "1.09",  
    "userIdentity": {  
        "type": "Root",  
        "principalId": "339712987077",  
        "arn": "arn:aws:iam:339712987077:root",  
        "accountId": "339712987077",  
        "accessKeyId": "ASIAU6GDY27C3A5HS100",  
        "userName": "hari2000",  
        "sessionContext": {  
            "attributes": {  
                "creationDate": "2024-08-26T09:14:10Z",  
                "mfaAuthenticated": "false"  
            }  
        }  
    }

## Step 7: Create an S3 Bucket to store website files.

### Create bucket Info

Buckets are containers for data stored in S3.

#### General configuration

##### AWS Region

US East (Ohio) us-east-2

##### Bucket name Info

homebuckey

Bucket name must be unique within the global namespace and follow the bucket naming rules. [See rules for bucket naming](#) ↗

##### Copy settings from existing bucket - *optional*

Only the bucket settings in the following configuration are copied.

[Choose bucket](#)

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.

**⚠** We recommend disabling ACLs, unless you need to control access for each object individually or to have the object writer own the data they upload. Using a bucket policy instead of ACLs to share data with users outside of your account simplifies permissions management and auditing.

#### Object Ownership

##### Bucket owner preferred

If new objects written to this bucket specify the bucket-owner-full-control canned ACL, they are owned by the bucket owner. Otherwise, they are owned by the object writer.

##### Object writer

The object writer remains the object owner.

## 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.

#### **Block public access to buckets and objects granted through new public bucket or access point policies**

S3 will block new bucket and access point policies that grant public access to buckets and objects. This setting doesn't change any existing policies that allow public access to S3 resources.

#### **Block public and cross-account access to buckets and objects through any public bucket or access point policies**

S3 will ignore public and cross-account access for buckets or access points with policies that grant public access to buckets and objects.

## 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

### Bucket Key

Using an S3 Bucket Key for SSE-KMS reduces encryption costs by lowering calls to AWS KMS. S3 Bucket Keys aren't supported for DSSE-KMS. [Learn more](#)

- Disable  
 Enable

## ► Advanced settings

 After creating the bucket, you can upload files and folders to the bucket, and configure additional bucket settings.

Cancel

Create bucket

## Step 8: Connect the IAM user to the Developer Machine CLI.

Put a Developer Machine IP in Putty

The screenshot shows two windows side-by-side. On the left is the AWS CloudWatch Instances console, displaying a list of three EC2 instances. The first instance, 'Developer Mac...', is selected and highlighted in blue. Its details are shown in a modal window below: Instance ID i-067cccfb49c5a4857, Public IPv4 address 3.138.37.9, and Instance state Running. On the right is the PuTTY Configuration dialog box. In the 'Session' category, the Host Name is set to 3.138.37.97 and the Port is 22. The Connection type is set to SSH. The 'Saved Sessions' section contains a single entry named 'Default Settings'. At the bottom, the 'Open' button is highlighted in blue.

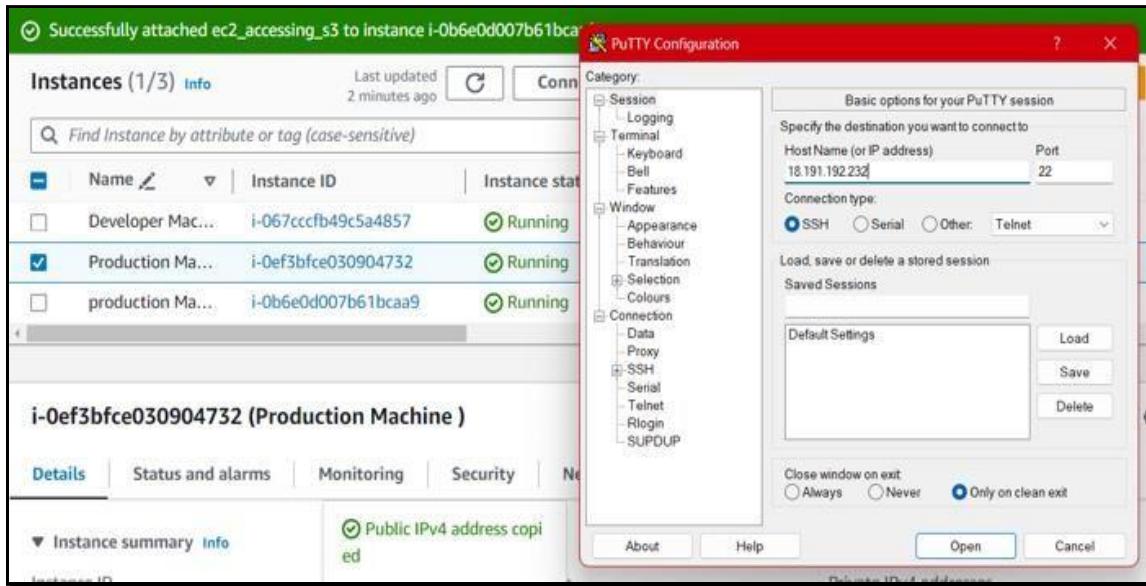
Connect IAM user in Developer Machine CLI

```
root@ip-172-31-1-16:~#
[ec2-user@ip-172-31-1-16 ~]$ login as: ec2-user
[ec2-user@ip-172-31-1-16 ~]$ Authenticating with public key "LIN"
,#
~\ #####
~~ \##### Amazon Linux 2
~~ \### AL2 End of Life is 2025-06-30.
~~ \#/
~~ V~' -->
~~ / A newer version of Amazon Linux is available!
~~ . / Amazon Linux 2023, GA and supported until 2028-03-15
~/m/ https://aws.amazon.com/linux/amazon-linux-2023/

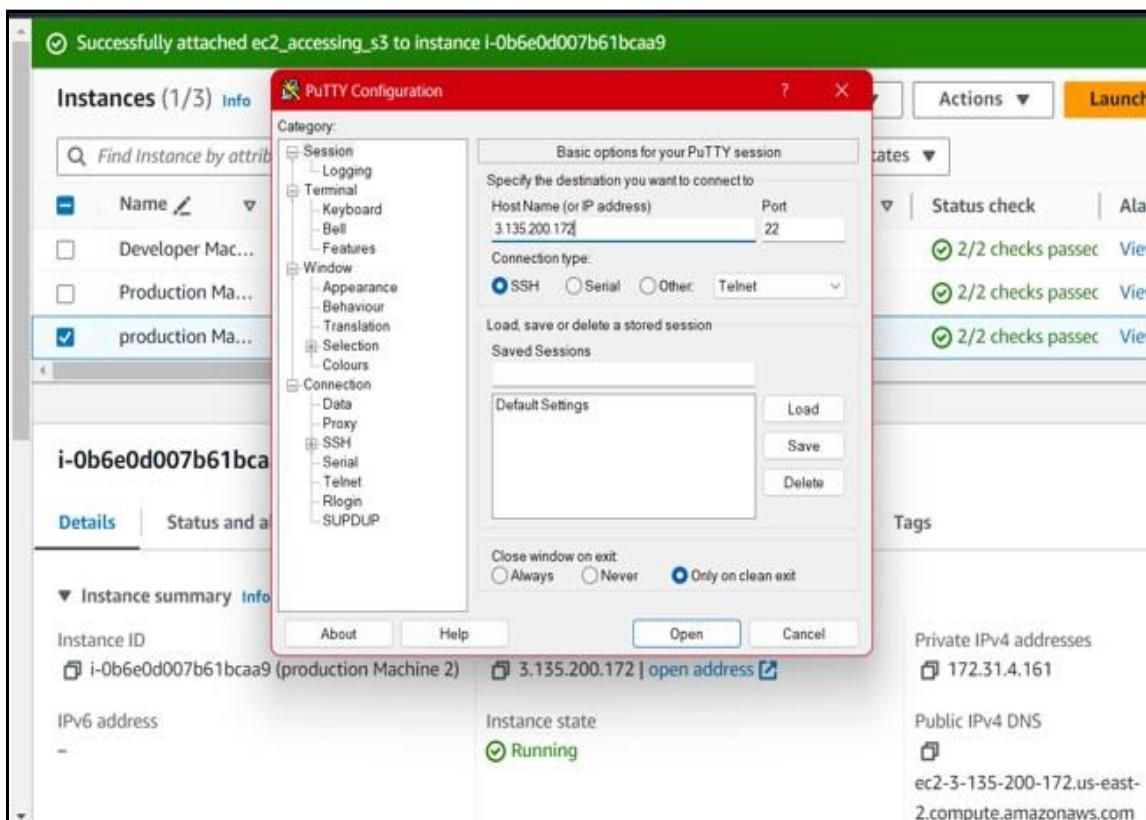
[ec2-user@ip-172-31-1-16 ~]$ sudo -i
[root@ip-172-31-1-16 ~]# aws configure
AWS Access Key ID [None]: AKIAU6GDYZ7CTSNEYGGTI
AWS Secret Access Key [None]: dFBKZK+nRQIqlGgtTfnCupChY7aSW4BWZ06mM5E3
Default region name [None]: us-east-2
Default output format [None]: json
[root@ip-172-31-1-16 ~]# aws s3 ls
2024-08-28 04:34:04 homebuckey
[root@ip-172-31-1-16 ~]#
```

## Step 9: Install and prepare the Code Deploy agent on the webserver in 2 Production Machines.

### a) Put a Production Machine 1 IP in Putty



### b) Put a Production Machine 2 IP in Putty



```
root@ip-172-31-10-226:~  
└─ login as: ec2-user  
└─ Authenticating with public key "LIN"  
      #  
      ~\_\_ #####_ Amazon Linux 2  
      ~~ \_\_ #####\ AL2 End of Life is 2025-06-30.  
      ~~ \###/  
      ~~ \#/ V~!__->  
      ~~ / A newer version of Amazon Linux is available!  
      ~~ / /  
      ~~ / / Amazon Linux 2023, GA and supported until 2028-03-15.  
      ~~ / / https://aws.amazon.com/linux/amazon-linux-2023/  
  
[ec2-user@ip-172-31-10-226 ~]$ sudo -i  
[root@ip-172-31-10-226 ~]# yum install ruby -y
```

aws codedeploy agent install

All Videos Images Shopping News Books Web More Tools

Amazon AWS Documentation https://docs.aws.amazon.com > latest > userguide > coded...

**Install the CodeDeploy agent**

You can also install the CodeDeploy agent directly from an S3 bucket with the command line. For the recommended version to install, see Version history of the ...

AWS Docs https://docs.aws.amazon.com > latest > userguide > coded...

**Install the CodeDeploy agent for Amazon Linux or RHEL**

AWS supports the latest minor version of the CodeDeploy agent. Currently the latest minor version is 1.7.x. To check that the service is running, run the ...

**bucket-name** is the name of the Amazon S3 bucket that contains the CodeDeploy Resource Kit files for your region, and **region-identifier** is the identifier for your region.

For example:

`https://aws-codedeploy-us-east-2.s3.us-east-2.amazonaws.com/latest/install`

```
[root@ip-172-31-10-226 ~]# 
Verifying : ruby-libs-2.0.0.648-36.amzn2.0.10.x86_64 3/9
Verifying : rubygem-json-1.7.7-36.amzn2.0.10.x86_64 4/9
Verifying : rubygem-io-console-0.4.2-36.amzn2.0.10.x86_64 5/9
Verifying : rubygems-2.0.14.1-36.amzn2.0.10.noarch 6/9
Verifying : rubygem-rdoc-4.0.0-36.amzn2.0.10.noarch 7/9
Verifying : ruby-2.0.0.648-36.amzn2.0.10.x86_64 8/9
Verifying : rubygem-psych-2.0.0-36.amzn2.0.10.x86_64 9/9

Installed:
  ruby.x86_64 0:2.0.0.648-36.amzn2.0.10

Dependency Installed:
  ruby-irb.noarch 0:2.0.0.648-36.amzn2.0.10
  ruby-libs.x86_64 0:2.0.0.648-36.amzn2.0.10
  rubygem-bigdecimal.x86_64 0:1.2.0-36.amzn2.0.10
  rubygem-io-console.x86_64 0:0.4.2-36.amzn2.0.10
  rubygem-json.x86_64 0:1.7.7-36.amzn2.0.10
  rubygem-psych.x86_64 0:2.0.0-36.amzn2.0.10
  rubygem-rdoc.noarch 0:4.0.0-36.amzn2.0.10
  rubygems.noarch 0:2.0.14.1-36.amzn2.0.10

Complete!
[root@ip-172-31-10-226 ~]# wget https://aws-codedeploy-us-east-2.s3.us-east-2.amazonaws.com/latest/install
```

```
[root@ip-172-31-10-226 ~]# 
--2024-08-28 04:40:58--  https://aws-codedeploy-us-east-2.s3.us-east-2.amazonaws.com/latest/install
Resolving aws-codedeploy-us-east-2.s3.us-east-2.amazonaws.com (aws-codedeploy-us-east-2.s3.us-east-2.amazonaws.com)... 52.219.233.58, 3.5.128.175, 3.5.130.118,
...
Connecting to aws-codedeploy-us-east-2.s3.us-east-2.amazonaws.com (aws-codedeploy-us-east-2.s3.us-east-2.amazonaws.com)|52.219.233.58|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 19045 (19K) []
Saving to: 'install'

100%[=====>] 19,045      --.-K/s   in 0.001s

2024-08-28 04:40:58 (22.6 MB/s) - 'install' saved [19045/19045]

[root@ip-172-31-10-226 ~]# ls -lrt
total 20
-rw-r--r-- 1 root root 19045 Feb 29 21:45 install
[root@ip-172-31-10-226 ~]# chmod 777 install
[root@ip-172-31-10-226 ~]# ls
install
[root@ip-172-31-10-226 ~]# ./install auto
I, [2024-08-28T04:41:44.286734 #3423] INFO -- : Starting Ruby version check.
I, [2024-08-28T04:41:44.287008 #3423] INFO -- : Starting update check.
```

```
root@ip-172-31-10-226:~#
[Download packages:
Running transaction check
Running transaction test
Transaction test succeeded
Running transaction

pre hook : 1
Checking if there is already a process named codedeploy-agent running.
  Installing : codedeploy-agent-1.7.0-92.noarch

post hook : 1
Check if there is a codedeployagent config file.
Start codedeploy-agent in post hook if this is a first install.
  Verifying : codedeploy-agent-1.7.0-92.noarch

Installed:
  codedeploy-agent.noarch 0:1.7.0-92

Complete!
I, [2024-08-28T04:41:46.857406 #3423] INFO -- : Update check complete.
I, [2024-08-28T04:41:46.857470 #3423] INFO -- : Stopping updater.
[root@ip-172-31-10-226 ~]# service codedeploy-agent status
The AWS CodeDeploy agent is running as PID 3501
[root@ip-172-31-10-226 ~]# ]
```

```
root@ip-172-31-4-161:var/www/html/register
[Verifying : codedeploy-agent-1.7.0-92.noarch

Installed:
  codedeploy-agent.noarch 0:1.7.0-92

Complete!
I, [2024-08-28T04:45:01.429682 #3425] INFO -- : Update check complete.
I, [2024-08-28T04:45:01.429741 #3425] INFO -- : Stopping updater.
[root@ip-172-31-4-161 ~]# service codedeploy-agent status
The AWS CodeDeploy agent is running as PID 3503
```

**Step 10:** Create the code from the Developer Machine.

```
root@ip-172-31-1-16:~/deploy_dir/sampleapp
└─ login as: ec2-user
└─ Authenticating with public key "LIN"
   ┌──#
   └──#####
      ┌── Amazon Linux 2
      └── AL2 End of Life is 2025-06-30.
      ┌──#
      └── V~'__->
         ┌── /
         └── A newer version of Amazon Linux is available!
         ┌── /_/
         └── Amazon Linux 2023, GA and supported until 2028-03-15.
         ┌── /m/
         └── https://aws.amazon.com/linux/amazon-linux-2023/

[ec2-user@ip-172-31-1-16 ~]$ sudo -i
[root@ip-172-31-1-16 ~]# aws configure
AWS Access Key ID [None]: AKIAU6GDYZ7CTSNEYGGTI
AWS Secret Access Key [None]: dFBKZK+nRQIqlGgtTfnCupChY7aSW4BWZ06mM5E3
Default region name [None]: us-east-2
Default output format [None]: json
[root@ip-172-31-1-16 ~]# aws s3 ls
2024-08-28 04:34:04 homebuckey
[root@ip-172-31-1-16 ~]# mkdir deploy_dir
[root@ip-172-31-1-16 ~]# cd deploy_dir/
[root@ip-172-31-1-16 deploy_dir]# mkdir sampleapp
[root@ip-172-31-1-16 deploy_dir]# cd sampleapp/
[root@ip-172-31-1-16 sampleapp]# pwd
/root/deploy_dir/sampleapp
[root@ip-172-31-1-16 sampleapp]# vi index.html
```

```
<div class="footer">
  <center>
    <h1>Contact</h1>
    <h2>+91 9876543210 | btreesystems@gmail.com</h2>
    <p>
      <a class="links" href="https://www.youtube.com/@btreesystems">Youtube</a>
    <!--
      <a class="links" href="https://www.instagram.com/btreesystems/?hl=en">Instagram</a> |
      <a class="links" href="https://www.linkedin.com/company/btreesystems/?originalSubdomain=in">Linkedin</a>
    -->
    </p>
  </center>

</div>

</body>
</html>
```

```
'      #
~\ _ ####_      Amazon Linux 2
~~ \#####\      AL2 End of Life is 2025-06-30.
~~  \##|      ~`-'>
~~   \|/      A newer version of Amazon Linux is available!
~~ .-' /      Amazon Linux 2023, GA and supported until 2028-03-15.
~/m' \_      https://aws.amazon.com/linux/amazon-linux-2023/
[ec2-user@ip-172-31-1-16 ~]$ sudo -i
[root@ip-172-31-1-16 ~]# aws configure
AWS Access Key ID [None]: AKIAU6GDYZ7CTSNEYGGTI
AWS Secret Access Key [None]: dFBKZK+nRQIqlGgtTfnCupChY7aSW4BWZO6mM5E3
Default region name [None]: us-east-2
Default output format [None]: json
[root@ip-172-31-1-16 ~]# aws s3 ls
2024-08-28 04:34:04 homebuckey
[root@ip-172-31-1-16 ~]# mkdir deploy_dir
[root@ip-172-31-1-16 ~]# cd deploy_dir/
[root@ip-172-31-1-16 deploy_dir]# mkdir sampleapp
[root@ip-172-31-1-16 deploy_dir]# cd sampleapp/
[root@ip-172-31-1-16 sampleapp]# pwd
/root/deploy_dir/sampleapp
[root@ip-172-31-1-16 sampleapp]# vi index.html
[root@ip-172-31-1-16 sampleapp]# vi appspec.html
```

```
version: 0.0
os: linux
files:
- source: /index.html
  destination: /var/www/html
hooks:
  BeforeInstall:
- location: scripts/httpd_install.sh
  timeout: 300
  runas: root
- location: scripts/httpd_start.sh
  timeout: 300
  runas: root
  ApplicationStop:
- location: scripts/httpd_stop.sh
  timeout: 300
  runas: root
```

```
[root@ip-10-1-10-106 sampleapp]# vi index.html
[root@ip-10-1-10-106 sampleapp]# vi appspec.yaml
[root@ip-10-1-10-106 sampleapp]# mkdir scripts
[root@ip-10-1-10-106 sampleapp]# cd scripts/
[root@ip-10-1-10-106 scripts]# █
```

```
[root@ip-10-1-10-106 sampleapp]# cd scripts/
[root@ip-10-1-10-106 scripts]# touch httpd_install.sh
[root@ip-10-1-10-106 scripts]# touch httpd_start.sh
[root@ip-10-1-10-106 scripts]# touch httpd_stop.sh
[root@ip-10-1-10-106 scripts]# ls
httpd_install.sh  httpd_start.sh  httpd_stop.sh
[root@ip-10-1-10-106 scripts]# vi httpd install.sh
```

```
#!/bin/bash
yum install -y httpd
~
```

```
[root@ip-10-1-10-106 sampleapp]# cd scripts/
[root@ip-10-1-10-106 scripts]# touch httpd_install.sh
[root@ip-10-1-10-106 scripts]# touch httpd_start.sh
[root@ip-10-1-10-106 scripts]# touch httpd_stop.sh
[root@ip-10-1-10-106 scripts]# ls
httpd_install.sh  httpd_start.sh  httpd_stop.sh
[root@ip-10-1-10-106 scripts]# vi httpd_install.sh
[root@ip-10-1-10-106 scripts]# vi httpd start.sh
```

```
#!/bin/bash
systemctl start httpd
systemctl enable httpd
~
```

```
[root@ip-10-1-10-106 sampleapp]# cd scripts/
[root@ip-10-1-10-106 scripts]# touch httpd_install.sh
[root@ip-10-1-10-106 scripts]# touch httpd_start.sh
[root@ip-10-1-10-106 scripts]# touch httpd_stop.sh
[root@ip-10-1-10-106 scripts]# ls
httpd_install.sh  httpd_start.sh  httpd_stop.sh
[root@ip-10-1-10-106 scripts]# vi httpd_install.sh
[root@ip-10-1-10-106 scripts]# vi httpd_start.sh
[root@ip-10-1-10-106 scripts]# vi httpd_stop.sh
```

```
#!/bin/bash
systemctl stop httpd
systemctl disable httpd
~
```

```
[root@ip-10-1-10-106 sampleapp]# aws deploy create-application --application-name sampleapp
{
    "applicationId": "9b40548c-9923-4890-b97c-0aea87d1d03c"
```

```
[root@ip-10-1-10-106 scripts]# mkdir deploy
[root@ip-10-1-10-106 scripts]# cd deploy
[root@ip-10-1-10-106 deploy]# mkdir sampleapp
[root@ip-10-1-10-106 deploy]# ls
sampleapp
[root@ip-10-1-10-106 deploy]# rmdir sampleapp
[root@ip-10-1-10-106 deploy]# ls
[root@ip-10-1-10-106 deploy]# mkdir sample
[root@ip-10-1-10-106 deploy]# cd sample
[root@ip-10-1-10-106 sample]# pwd
/root/deploy_dir/sampleapp/scripts/deploy/sample
[root@ip-10-1-10-106 sample]# vi index.html
```



The screenshot shows a terminal window with the following content:

```
root@ip-10-1-10-106:~/deploy_dir/sampleapp/scripts/deploy/sample
border-inline-color: black;
}
.tabs{
margin-left: 90px;
}
.naming{
border-radius: 10px;
background-color: black;
color: white;
}
</style>
</head>
<body>
<div class="register">
<center>
<h1>BTREE SYSTEM</h1>
<h4>Training | Career Building | Freshers Guide</h4>
<p>Empowering young students to level up their skills through training in software development technologies <a href="#">More</a></p>
<hr>
</center>
<center>
<h2>Registration Form</h2>
<form class =tabs>
<table class="table">
<tr>
<td >Name:</td>
<td><input class="names" type="text" placeholder="Enter your name"></td>
</tr>
-- INSERT --
35.25      22%
```

```
[root@ip-10-1-10-106 sample]# vi appspec.yaml
[root@ip-10-1-10-106 sample]# aws deploy push --application-name sample --s3-location s3://homebuckey/sample.zip
/root/deploy_dir/sampleapp/scripts/deploy/sample/appspec.yml was not found
[root@ip-10-1-10-106 sample]# mv appspec.yaml appspec.yml
```

```
root@ip-172-31-1-16:~/deploy_dir/sampleapp/scripts/deploy/sample

version: 0.0
os: linux
files:
- source: /index.html
  destination: /var/www/html/register
hooks:
  BeforeInstall:
- location: scripts/httpd_install.sh
  timeout: 300
  runas: root
- location: scripts/httpd_start.sh
  timeout: 300
  runas: root
  ApplicationStop:
- location: scripts/httpd_stop.sh
  timeout: 300
  runas: root
```

```
[root@ip-10-1-10-106 sample]# mkdir scripts
[root@ip-10-1-10-106 sample]# cd scripts/
[root@ip-10-1-10-106 scripts]# vi httpd_install.sh
[root@ip-10-1-10-106 scripts]# vi httpd_start.sh
[root@ip-10-1-10-106 scripts]# vi httpd_stop.sh
[root@ip-10-1-10-106 scripts]# cd ..
```

**Step 11: Create Code Deploy Application and Push the code to S3 bucket from Developer machine.**

```
[root@ip-10-1-10-106 sampleapp]# mv appspec.yaml appspec.yml
[root@ip-10-1-10-106 sampleapp]# ls
appspec.yml index.html scripts
[root@ip-10-1-10-106 sampleapp]# aws deploy push --application-name sampleapp --s3-location s3://homebuckey/sampleapp.zip
To deploy with this revision, run:
aws deploy create-deployment --application-name sampleapp --s3-location bucket=homebuckey,key=sampleapp.zip,bundleType=zip,eTag=cdb94f395d5d3cd1c2d9d8c79ae73a3b --deployment-group-name <deployment-group-name> --deployment-config-name <deployment-config-name> --description <description>
[root@ip-10-1-10-106 sampleapp]#
```

```
[root@ip-10-1-10-106 sample]# aws deploy push --application-name sample --s3-location s3://homebuckey/sample.zip
/root/deploy_dir/sampleapp/scripts/deploy/sample/appspec.yml was not found
[root@ip-10-1-10-106 sample]# mv appspec.yaml appspec.yml
[root@ip-10-1-10-106 sample]# aws deploy push --application-name sample --s3-location s3://homebuckey/sample.zip
To deploy with this revision, run:
aws deploy create-deployment --application-name sample --s3-location bucket=homebuckey,key=sample.zip,bundleType=zip,Tag=a9684a8c21ae4ba26c340cbe0dcbe8e4,version=0TwI8laVxBsgXtv148ZiCQQS02aKbAAF --deployment-group-name <deployment-group-name> --deployment-config-name <deployment-config-name> --description <description>
[root@ip-10-1-10-106 sample]#
```

## Step 12: Create a Deployment Group to include a webserver.

### Application details

Name	sampleapp	Compute platform	EC2/On-premises
------	-----------	------------------	-----------------

Deployments | **Deployment groups** | Revisions

### Deployment groups

Name	Status	Last attempted d...	Last successful de...	Trigger count
No deployment groups				

[View details](#) | [Edit](#) | [Create deployment group](#)

## Create deployment group

### Application

Application  
sampleapp  
Compute type  
EC2/On-premises

### Deployment group name

Enter a deployment group name  
ec2\_deployment  
100 character limit

### Service role

Enter a service role  
Enter a service role with CodeDeploy permissions that grants AWS CodeDeploy access to your target instances.

arn:aws:iam::339712987077:role/ec2\_code\_deploy

### Deployment type

Choose how to deploy your application

In-place  
Updates the instances in the deployment group with the latest application revisions. During a deployment, each instance will be briefly taken offline for its update

Blue/green  
Replaces the instances in the deployment group with new instances and deploys the latest application revision to them. After instances in the replacement environment are registered with a load balancer, instances from the original environment are deregistered and can be terminated.

## Environment configuration

Select any combination of Amazon EC2 Auto Scaling groups, Amazon EC2 instances, and on-premises instances to add to this deployment

Amazon EC2 Auto Scaling groups

Amazon EC2 instances

1 unique matched instance. [Click here for details](#)

You can add up to three groups of tags for EC2 instances to this deployment group.

**One tag group:** Any instance identified by the tag group will be deployed to.

**Multiple tag groups:** Only instances identified by all the tag groups will be deployed to.

Tag group 1

Key

Value - optional

Name X

Production Machine X

[Remove tag](#)

[Add tag](#)

[+ Add tag group](#)

## Agent configuration with AWS Systems Manager [Info](#)



We recommend configuring your CodeDeploy Agent install and updates with AWS Systems Manager.

AWS Systems Manager provides more control over CodeDeploy Agent version updates and rollbacks than installing using other methods. [Learn more](#)

### Install AWS CodeDeploy Agent

Never

Only once

Now and schedule updates

## Deployment settings

### Deployment configuration

Choose from a list of default and custom deployment configurations. A deployment configuration is a set of rules that determines how fast an application is deployed and the success or failure conditions for a deployment.

CodeDeployDefault.AllAtOnce

▼

or

[Create deployment configuration](#)

### Load balancer

Select a load balancer to manage incoming traffic during the deployment process. The load balancer blocks traffic from each instance while it's being deployed to and allows traffic to it again after the deployment succeeds.

Enable load balancing

### ► Advanced - optional

[Cancel](#)

[Create deployment group](#)

## Application

Application  
sampleapp  
Compute type  
EC2/On-premises

## Deployment group name

Enter a deployment group name

regis

100 character limit

## Environment configuration

Select any combination of Amazon EC2 Auto Scaling groups, Amazon EC2 instances, and on-premises instances to add to this deployment

Amazon EC2 Auto Scaling groups

Amazon EC2 instances

1 unique matched instance. [Click here for details](#) 

You can add up to three groups of tags for EC2 instances to this deployment group.

**One tag group:** Any instance identified by the tag group will be deployed to.

**Multiple tag groups:** Only instances identified by all the tag groups will be deployed to.

Tag group 1

Key

Value - optional

Name X

production Machine 2 X

Remove tag

Add tag

+ Add tag group

**Step 13:** Create Deployment to push the code to the webserver.

Q ec2\_deployment X

Compute platform  
EC2/On-premises

Deployment type  
In-place

Managed hook execution role  
The IAM role used by the CodeDeploy Managed Hook function to perform actions. [Edit Managed Hook execution](#)

Revision type  
 My application is stored in Amazon S3  My application is stored in GitHub

Revision location  
Copy and paste the Amazon S3 bucket where your revision is stored  
Q s3://homebuckey/sampleapp.zip?eTag=180b38246ed155b5bc5097030b829c X  
s3://bucket-name/folder/object.[zip|tar|tgz]

Revision file type  
.zip ▾

Developer Tools > CodeDeploy > Deployments > d-PNPC3WPR6

## d-PNPC3WPR6

### Deployment status

Installing application on your instances

1 of 1 instances updated

Succeeded

100%

Deployment type

In-place

Managed hook execution role

The IAM role used by the CodeDeploy Managed Hook function to perform actions. [Edit Managed Hook execution role.](#)

Revision type

My application is stored in Amazon S3

My application is stored in GitHub

Revision location

Copy and paste the Amazon S3 bucket where your revision is stored

s3://homebuckey/sample.zip?eTag=ec8e3f3cf2fa3f9ee520fb95638fa7b X

s3://bucket-name/folder/object.[zip|tar|tgz]

Revision file type

.zip



## Application details

Name

sampleapp

Compute platform

EC2/On-premises

Deployments

Deployment groups

Revisions

### Deployment groups

[View details](#)

[Edit](#)

[Create deployment group](#)



< 1 > ⌂

Name	Status	Last attempted d...	Last successful de...	Trigger count
<input type="radio"/> regis	<span style="color: green;">✔ Succeeded</span>	Aug 28, 2024 2:18...	Aug 28, 2024 2:18...	0
<input type="radio"/> ec2_deployment	<span style="color: green;">✔ Succeeded</span>	Aug 28, 2024 12:1...	Aug 28, 2024 12:1...	0

## Step 14: Create App Load Balancer for path-based routing and Auto-Scaling Group.

### Create a 2-Target Group

The screenshot shows the 'Target groups' page in the AWS EC2 console. At the top, there is a search bar labeled 'Filter target groups'. Below it is a table header with columns: Name, ARN, Port, Protocol, and Target type. A message below the table states 'No target groups' and 'You don't have any target groups in us-east-2'.

This screenshot shows the first step of the 'Create target group' wizard. It includes sections for selecting a target type (IP addresses, Lambda function, Application Load Balancer), entering a target group name ('hometarged'), choosing a protocol and port ('HTTP : 80'), and setting health check parameters.

**Target group name:** hometarged

**Protocol : Port:** HTTP : 80

This screenshot shows the second step of the 'Create target group' wizard, focusing on 'Health checks'. It allows specifying the protocol, path, and custom health check configurations.

**Health check protocol:** HTTP

**Health check path:** /index.html

Up to 1024 characters allowed.

Available instances (1/3)				
	Instance ID	Name	State	Security groups
<input checked="" type="checkbox"/>	i-0ef3bfce030904732	Production Machine	<span>Running</span>	linsg
<input type="checkbox"/>	i-0b6e0d007b61bcaa9	production Machine 2	<span>Running</span>	linsg
<input type="checkbox"/>	i-067cccfb49c5a4857	Developer Machine	<span>Running</span>	linsg

**O selected**

Ports for the selected instances  
Ports for routing traffic to the selected instances.

80  
1-65535 (separate multiple ports with commas)

1 selection is now pending below. Include more or register targets when ready.

### Review targets

Targets (1)							<input type="button" value="Remove all pending"/>
<input type="button" value="Filter targets"/>							<input type="button" value="Show only pending"/>
Instance ID	Name	Port	State	Security groups	Zone	Private IP	
i-0ef3bfce030904732	Production Machine	80	<span>Running</span>	linsg	us-east-2a	172.31.10.10	

Target group name

A maximum of 32 alphanumeric characters including hyphens are allowed, but the name must not begin or end with a hyphen.

Protocol : Port  
Choose a protocol for your target group that corresponds to the Load Balancer type that will route traffic to it. Some protocols now include anomaly detection for the targets and you can set mitigation options once your target group is created. This choice cannot be changed after creation

1-65535

Health check protocol

Health check path  
Use the default path of "/" to perform health checks on the root, or specify a custom path if preferred.  
  
Up to 1024 characters allowed.

**Filter instances**

Instance ID	Name	State	Security groups
i-0ef3bfce030904732	Production Machine	Running	linsg
<input checked="" type="checkbox"/> i-0b6e0d007b61bcaa9	production Machine 2	Running	linsg
<input type="checkbox"/> i-067cccfb49c5a4857	Developer Machine	Running	linsg

**1 selected**

**Ports for the selected instances**  
Ports for routing traffic to the selected instances.

80

1-65535 (separate multiple ports with commas)

**Include as pending below**

1 selection is now pending below. Include more or register targets when ready.

**Review targets**

**Targets (1)**

**Remove all pending**

**Filter targets**

**Show only pending**

Instance ID	Name	Port	State	Security groups	Zone	Private IP
i-0b6e0d007b61bcaa9	production Machine 2	80	Running	linsg	us-east-2a	172.31

1 pending

Cancel Previous **Create target group**

[EC2](#) > Target groups

**Target groups (2) [Info](#)**

**Create target group**

**Filter target groups**

Name	ARN	Port	Protocol	Target type
<input checked="" type="checkbox"/> registertarget	arn:aws:elasticloadbalancing:us-east-2:123456789012:targetgroup/registertarget/6347444444444444	80	HTTP	Instance
<input type="checkbox"/> hometarget	arn:aws:elasticloadbalancing:us-east-2:123456789012:targetgroup/hometarget/6347444444444444	80	HTTP	Instance

## Create an APP Load Balancer for path-based routing

EC2 > Load balancers

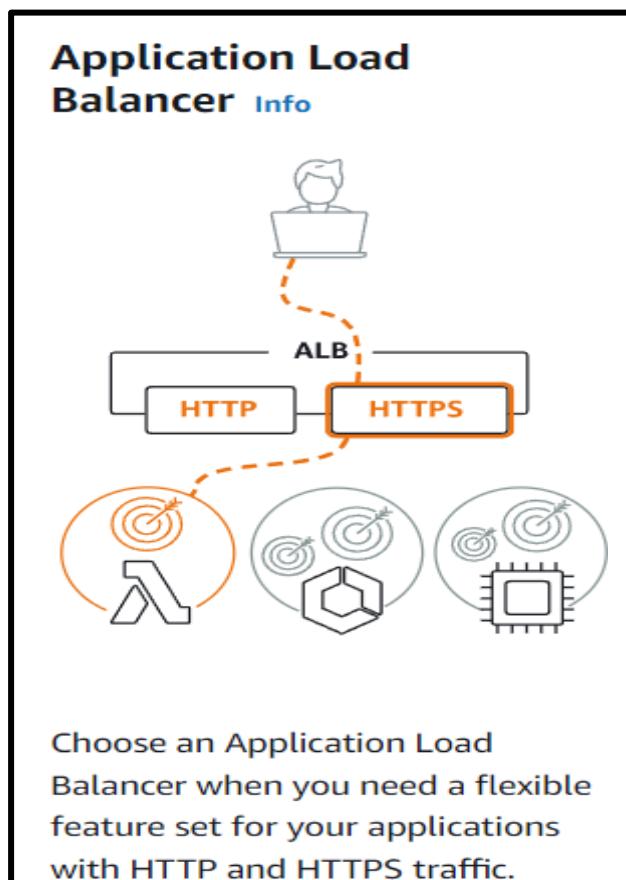
### Load balancers

Elastic Load Balancing scales your load balancer capacity automatically in response to changes in incoming traffic.

Filter load balancers

No load balancers  
You don't have any load balancers in us-east-1.

Name	DNS name	State	VPC ID	Availability Zones
------	----------	-------	--------	--------------------



EC2 > Load balancers > Create Application Load Balancer

### Create Application Load Balancer Info

The Application Load Balancer distributes incoming HTTP and HTTPS traffic across multiple targets such as Amazon EC2 instances, microservices, and AWS Lambda functions. It can route traffic based on request attributes. When the load balancer receives a connection request, it evaluates the listener rules in priority order to determine which target to forward the request to. If no rule applies, or if none are applicable, it selects a target from the target group for the rule action.

▶ How Application Load Balancers work

#### Basic configuration

Load balancer name

Name must be unique within your AWS account and can't be changed after the load balancer is created.

AppLB

A maximum of 32 alphanumeric characters including hyphens are allowed, but the name must not begin or end with a hyphen.

Scheme Info

Scheme can't be changed after the load balancer is created.

Internet-facing

An internet-facing load balancer routes requests from clients over the internet to targets. Requires a public subnet. [Learn more](#)

Internal

An internal load balancer routes requests from clients to targets using private IP addresses. Compatible with the IPv4 and Dualstack IP.

## Security groups Info

A security group is a set of firewall rules that control the traffic to your load balancer. Select an existing security group or create a new one.

### Security groups

Select up to 5 security groups

http&https

sg-0603609b6cb12b51b VPC: vpc-0dcac49e5fd20028f



## Listeners and routing Info

A listener is a process that checks for connection requests using the port and protocol you configure. The rules that you define for a listener determine how the load balancer routes traffic to its registered targets.

### ▼ Listener HTTP:80

Protocol

Port

Default action Info

HTTP ▾

: 80  
1-65535

Forward to

hometarget

Target type: Instance, IPv4

HTTP ▾

[Create target group](#)

[EC2](#) > Load balancers

## Load balancers (1/1)

Elastic Load Balancing scales your load balancer capacity automatically in response to changes in incoming traffic.



Actions ▾

Create load balancer

Filter load balancers

< 1 >

Name

DNS name

State

VPC ID

Availability Zones

AppLB

AppLB-1275407115.us-ea...

Active

vpc-0dcac49e5fd20028f

2 Availability Zones

[Listeners and rules](#)

[Network mapping](#)

[Resource map - new](#)

[Security](#)

[Monitoring](#)

[Integrations](#)

[Attributes](#)

## Listeners and rules (1/1) Info

A listener checks for connection requests on its configured protocol and port. Traffic received by the listener is routed according to the rules you define.



Manage rules ▾

Manage listener ▾

Add listener

Filter listeners

View listener details

Edit listener

Add SSL certificates for SNI

Manage tags

Delete listener

Protocol:Port

▼

Default action

▼

Rules

HTTP:80

Not reachable

Forward to target group

- [hometarget](#) 1 (100%)
- Target group stickiness: Off

1 rule

ARN

Not applicable

## Default actions Info

The default action is used if no other rules apply. Choose the default action for traffic on this listener.

### Routing actions

Forward to target groups

Redirect to URL

Return fixed response

#### Forward to target group Info

Choose a target group and specify routing weight or [Create target group](#).

##### Target group

Weight Percent

hometarget

HTTP ▾



1

50%

Remove

Target type: Instance, IPv4

registertarget

HTTP ▾



1

50%

Remove

Target type: Instance, IPv4

Add target group

You can add up to 3 more target groups.

## Listener rules (1) Info

Rule limits



Actions ▾

Add rule

Traffic received by the listener is routed according to the default action and any additional rules. Rules are evaluated in priority order from the lowest value to the highest value.

Filter rules



Name tag

Priority ▲

Conditions (If)

Actions (Then)

Default

Last

(default)

If no other rule applies

Forward to target group

- [hometarget](#): 1 (50%)
- [registertarget](#): 1 (50%)
- Target group stickiness: Off

## Create a Template

EC2 > Launch templates > Create launch template

### Create launch template

Creating a launch template allows you to create a saved instance configuration that can be reused, shared and launched at a later time. Templates can have multiple versions.

#### Launch template name and description

Launch template name - *required*  
autoscaletemps  
Must be unique to this account. Max 128 chars. No spaces or special characters like '&', '\*', '@'.

Template version description  
A prod webserver for MyApp  
Max 255 chars

Auto Scaling guidance | [Info](#)  
Select this if you intend to use this template with EC2 Auto Scaling  
 Provide guidance to help me set up a template that I can use with EC2 Auto Scaling

Recents | Quick Start

Don't include in launch template  Recently launched  Currently in use

[Browse more AMIs](#)  
Including AMIs from AWS, Marketplace and the Community

Amazon Machine Image (AMI)

amzn2-ami-kernel-5.10-hvm-2.0.20240816.0-x86\_64-gp2  
ami-0e1a3a59369c81682  
2024-08-17T04:11:27.000Z Architecture: 64-bit (x86) Virtualization: hvm ENA enabled: true Root device type: ebs

Description  
Amazon Linux 2 Kernel 5.10 AMI 2.0.20240816.0 x86\_64 HVM gp2

Architecture x86\_64 AMI ID ami-0e1a3a59369c81682 [Verified provider](#)

▼ Instance type [Info](#) | [Get advice](#) Advanced

Instance type

t2.micro Free tier eligible  
Family: t2 1 vCPU 1 GiB Memory Current generation: true  
On-Demand Linux base pricing: 0.0116 USD per Hour  
On-Demand SUSE base pricing: 0.0116 USD per Hour  
On-Demand Windows base pricing: 0.0162 USD per Hour  
On-Demand RHEL base pricing: 0.026 USD per Hour

All generations [Compare instance types](#)

Additional costs apply for AMIs with pre-installed software

▼ Key pair (login) [Info](#)

You can use a key pair to securely connect to your instance. Ensure that you have access to the selected key pair before you launch the instance.

Key pair name

LIN

 Create new key pair

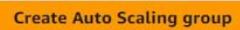
## Create a Auto scaling Group

**Amazon EC2 Auto Scaling**  
helps maintain the availability of your applications

Auto Scaling groups are collections of Amazon EC2 instances that enable automatic scaling and fleet management features. These features help you maintain the health and availability of your applications.

### Create Auto Scaling group

Get started with EC2 Auto Scaling by creating an Auto Scaling group.

 Create Auto Scaling group

## Choose launch template [Info](#)

Specify a launch template that contains settings common to all EC2 instances that are launched by this Auto Scaling group.

### Name

Auto Scaling group name

Enter a name to identify the group.

ASG

Must be unique to this account in the current Region and no more than 255 characters.

### Name

Auto Scaling group name

Enter a name to identify the group.

ASG

Must be unique to this account in the current Region and no more than 255 characters.

### Launch template [Info](#)

 For accounts created after May 31, 2023, the EC2 console only supports creating Auto Scaling groups with launch templates. Creating Auto Scaling groups with launch configurations is not recommended but still available via the CLI and API until December 31, 2023.

#### Launch template

Choose a launch template that contains the instance-level settings, such as the Amazon Machine Image (AMI), instance type, key pair, and security groups.

autoscaletemps



## Choose a Home target Group in the APP Load Balancer

### Load balancing Info

Use the options below to attach your Auto Scaling group to an existing load balancer, or to a new load balancer that you define.

No load balancer

Traffic to your Auto Scaling group will not be fronted by a load balancer.

Attach to an existing load balancer

Choose from your existing load balancers.

Attach to a new load balancer

Quickly create a basic load balancer to attach to your Auto Scaling group.

### Attach to an existing load balancer

Select the load balancers that you want to attach to your Auto Scaling group.

Choose from your load balancer target groups

This option allows you to attach Application, Network, or Gateway Load Balancers.

Choose from Classic Load Balancers

#### Existing load balancer target groups

Only instance target groups that belong to the same VPC as your Auto Scaling group are available for selection.

Select target groups



hometarget | HTTP



Application Load Balancer: APPLB

### VPC Lattice integration options Info

To improve networking capabilities and scalability, integrate your Auto Scaling group with VPC Lattice. VPC Lattice facilitates communications between AWS services and helps you connect and manage your applications across compute services in AWS.

Select VPC Lattice service to attach

No VPC Lattice service

VPC Lattice will not manage your Auto Scaling group's network access and connectivity with other services.

Attach to VPC Lattice service

Incoming requests associated with specified VPC Lattice target groups will be routed to your Auto Scaling group.

Create new VPC Lattice service

#### EC2 health checks

Always enabled

#### Additional health check types - optional Info

Turn on Elastic Load Balancing health checks Recommended

Elastic Load Balancing monitors whether instances are available to handle requests. When it reports an unhealthy instance, EC2 Auto Scaling can replace it on its next periodic check.

EC2 Auto Scaling will start to detect and act on health checks performed by Elastic Load Balancing. To avoid unexpected terminations, first verify the settings of these health checks in the [Load Balancer console](#)

Turn on VPC Lattice health checks

VPC Lattice can monitor whether instances are available to handle requests. If it considers a target as failed a health check, EC2 Auto Scaling replaces it after its next periodic check.

## Additional settings

Monitoring [Info](#)

Enable group metrics collection within CloudWatch

Default instance warmup [Info](#)

The amount of time that CloudWatch metrics for new instances do not contribute to the group's aggregated instance metrics, as their usage data is not reliable yet.

Enable default instance warmup

[Cancel](#)

[Skip to review](#)

[Previous](#)

[Next](#)

## Group size [Info](#)

Set the initial size of the Auto Scaling group. After creating the group, you can change its size to meet demand, either manually or by using automatic scaling.

### Desired capacity type

Choose the unit of measurement for the desired capacity value. vCPUs and Memory(GiB) are only supported for mixed instances groups configured with a set of instance attributes.

Units (number of instances)



### Desired capacity

Specify your group size.

3



## Scaling [Info](#)

You can resize your Auto Scaling group manually or automatically to meet changes in demand.

### Scaling limits

Set limits on how much your desired capacity can be increased or decreased.

Min desired capacity

1

Max desired capacity

3

Equal or less than desired capacity

Equal or greater than desired capacity

## Automatic scaling - optional

Choose whether to use a target tracking policy [Info](#)

You can set up other metric-based scaling policies and scheduled scaling after creating your Auto Scaling group.

No scaling policies

Your Auto Scaling group will remain at its initial size and will not dynamically resize to meet demand.

Target tracking scaling policy

Choose a CloudWatch metric and target value and let the scaling policy adjust the desired capacity in proportion to the metric's value.

Scaling policy name

Target Tracking Policy

**Metric type** [Info](#)

Monitored metric that determines if resource utilization is too low or high. If using EC2 metrics, better scaling performance.

 Average CPU utilization ▾**Target value** 80**Instance warmup** [Info](#) 300 seconds Disable scale in to create only a scale-out policy**Instance maintenance policy** [Info](#)

Control your Auto Scaling group's availability during instance replacement events. This includes health checks, instance refreshes, maximum instance lifetime features and events that happen automatically to keep your group balanced, called rebalancing events.

## Choose a replacement behavior depending on your availability requirements

**Mixed behavior** No policy

For rebalancing events, new instances will launch before terminating others. For all other events, instances terminate and launch at the same time.

**Prioritize availability** Launch before terminating

Launch new instances and wait for them to be ready before terminating others. This allows you to go above your desired capacity by a given percentage and may temporarily increase costs.

**Control costs** Terminate and launch

Terminate and launch instances at the same time. This allows you to go below your desired capacity by a given percentage and may temporarily reduce availability.

**Flexible** Custom behavior

Set custom values for the minimum and maximum amount of available capacity. This gives you greater flexibility in setting how far below and over your desired capacity EC2 Auto Scaling goes when replacing instances.

**Set healthy percentage**

Set the maximum percentage of your desired capacity that can be in service during instance replacement events.

Min

 100

Max

 % to 110

% of 3 instances

① Your group's scaling limits will be temporarily exceeded based on current calculations.

► View capacity during replacements based on your desired capacity

**Add notifications - optional** [Info](#)

Send notifications to SNS topics whenever Amazon EC2 Auto Scaling launches or terminates the EC2 instances in your Auto Scaling group.

**▼ Notification 1**[Remove](#)**SNS Topic**

Choose an SNS topic to use to send notifications

 sns\_notif (ariharasudhanr1@gmail.com, +1 more) ▾[Create a topic](#)**Event types**

Notify subscribers whenever instances

- Launch
- Terminate
- Fail to launch
- Fail to terminate

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

**Step 5: Add notifications**

**Notifications**

Notification 1	Event types
SNS Topic sns_notif (ariharasudhanr1@gmail.com, +1 more)	<input checked="" type="checkbox"/> Launch <input checked="" type="checkbox"/> Terminate <input checked="" type="checkbox"/> Fail to launch <input checked="" type="checkbox"/> Fail to terminate

**Step 6: Add tags**

**Tags (0)**

Key	Value	Tag new instances
No tags		

**Create Auto Scaling group**

[EC2](#) > Auto Scaling groups

**Auto Scaling groups (1/1) [Info](#)**

<a href="#">C</a>	<a href="#">Launch configurations</a>	<a href="#">Launch templates</a>	<a href="#">Actions</a> ▾	<a href="#">Create Auto Scaling group</a>												
<input type="text"/> Search your Auto Scaling groups	<span style="float: right;">&lt; 1 &gt; ⌂</span>															
<table border="1"> <thead> <tr> <th><input checked="" type="checkbox"/> Name</th> <th>Launch template/configuration</th> <th>Instances</th> <th>Status</th> <th>Desired capacity</th> <th>Min</th> </tr> </thead> <tbody> <tr> <td><input checked="" type="checkbox"/> ASG</td> <td><a href="#">autoscaletemp</a>   Version Default</td> <td>0</td> <td><span style="color: #ccc;">Updating capacity...</span></td> <td>3</td> <td>1</td> </tr> </tbody> </table>					<input checked="" type="checkbox"/> Name	Launch template/configuration	Instances	Status	Desired capacity	Min	<input checked="" type="checkbox"/> ASG	<a href="#">autoscaletemp</a>   Version Default	0	<span style="color: #ccc;">Updating capacity...</span>	3	1
<input checked="" type="checkbox"/> Name	Launch template/configuration	Instances	Status	Desired capacity	Min											
<input checked="" type="checkbox"/> ASG	<a href="#">autoscaletemp</a>   Version Default	0	<span style="color: #ccc;">Updating capacity...</span>	3	1											

[Instances \(1/13\) \[Info\]\(#\)](#)

Last updated 1 minute ago

<a href="#">C</a>	<a href="#">Connect</a>	<a href="#">Instance state</a> ▾	<a href="#">Actions</a> ▾	<a href="#">Launch instances</a> ▾																																										
<input type="text"/> Find Instance by attribute or tag (case-sensitive)																																														
<span style="float: right;">All states ▾</span>																																														
<table border="1"> <thead> <tr> <th><input checked="" type="checkbox"/> Name</th> <th>Instance ID</th> <th>Instance state</th> <th>Instance type</th> <th>Status check</th> <th>Alarm status</th> <th>Avail</th> </tr> </thead> <tbody> <tr> <td><input type="checkbox"/></td> <td>i-00fa93e9298f7c5d5</td> <td>Pending</td> <td>t2.micro</td> <td>-</td> <td><a href="#">View alarms +</a></td> <td>us-east-1</td> </tr> <tr> <td><input type="checkbox"/></td> <td>i-0d24d42edf3a673bd</td> <td>Running</td> <td>t2.micro</td> <td>2/2 checks passed</td> <td><a href="#">View alarms +</a></td> <td>us-east-1</td> </tr> <tr> <td><input checked="" type="checkbox"/></td> <td>Production Ma...</td> <td>Running</td> <td>t2.micro</td> <td>2/2 checks passed</td> <td><a href="#">View alarms +</a></td> <td>us-east-1</td> </tr> <tr> <td><input type="checkbox"/></td> <td>i-0ab548abbca014255</td> <td>Terminated</td> <td>t2.micro</td> <td>-</td> <td><a href="#">View alarms +</a></td> <td>us-east-1</td> </tr> <tr> <td><input type="checkbox"/></td> <td>i-0ff7f8bc3135e4f93</td> <td>Terminated</td> <td>t2.micro</td> <td>-</td> <td><a href="#">View alarms +</a></td> <td>us-east-1</td> </tr> </tbody> </table>					<input checked="" type="checkbox"/> Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Avail	<input type="checkbox"/>	i-00fa93e9298f7c5d5	Pending	t2.micro	-	<a href="#">View alarms +</a>	us-east-1	<input type="checkbox"/>	i-0d24d42edf3a673bd	Running	t2.micro	2/2 checks passed	<a href="#">View alarms +</a>	us-east-1	<input checked="" type="checkbox"/>	Production Ma...	Running	t2.micro	2/2 checks passed	<a href="#">View alarms +</a>	us-east-1	<input type="checkbox"/>	i-0ab548abbca014255	Terminated	t2.micro	-	<a href="#">View alarms +</a>	us-east-1	<input type="checkbox"/>	i-0ff7f8bc3135e4f93	Terminated	t2.micro	-	<a href="#">View alarms +</a>	us-east-1
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<input type="checkbox"/>	i-0ff7f8bc3135e4f93	Terminated	t2.micro	-	<a href="#">View alarms +</a>	us-east-1																																								

**AWS Notifications**

Service: AWS Auto Scaling Time: 2024-08-26T11:25:26.227Z RequestId: 90964639-a6a5-053c-e424-1dafed383581 Event: autoscaling:EC2\_INSTANCE\_TERMINATE

22

**AWS Notifications**

Service: AWS Auto Scaling Time: 2024-08-26T13:26:58.748Z RequestId: 4616463b-6198-f892-3ee7-24a63dc57377 ActivityId: 4616463b-6198-f892-3ee7-24a...

**AWS Notifications** <no-reply@sns.amazonaws.com>

to me ▾

Service: AWS Auto Scaling  
Time: 2024-08-26T13:32:16.711Z  
RequestId: 71f6463b-77b5-ce9e-2aba-548fc8ab0406  
Event: autoscaling:EC2\_INSTANCE\_TERMINATE  
AccountId: 339712987077  
AutoScalingGroupName: homeAGS  
AutoScalingGroupARN: arn:aws:autoscaling:us-east-2:339712987077:autoScalingGroup:05d469b8-21bb-45d9-930d-2554675e2cd2:autoScalingGroupName/homeAGS  
ActivityId: 71f6463b-77b5-ce9e-2aba-548fc8ab0406  
Description: Terminating EC2 instance: i-039259605a0801539  
Cause: At 2024-08-26T13:26:34Z an instance was taken out of service in response to an ELB system health check failure.  
StartTime: 2024-08-26T13:26:34.611Z

Messages (10)

View details Delete

Search messages

ID	Sent	Size	Receive count
<a href="#">17e3cfa9-1971-4c45-b6d2-7cad6d454ff9</a>	2024-08-26T16:43+05:30	910 bytes	1
<a href="#">3010cbc6-4316-41b7-82ac-9e6dcfd3329f</a>	2024-08-26T16:50+05:30	910 bytes	1
<a href="#">7a65d0d7-753d-4dee-94ca-1704897cb779</a>	2024-08-26T16:56+05:30	910 bytes	1
<a href="#">3e167b36-fd28-4b11-a8d7-03b1355d8f3e</a>	2024-08-26T16:58+05:30	950 bytes	1
<a href="#">3a08f1ca-786f-4824-a538-f6c10129b515</a>	2024-08-26T17:01+05:30	911 bytes	1
<a href="#">513a7643-4757-4e69-8435-e997c2b13859</a>	2024-08-26T17:21+05:30	910 bytes	1
<a href="#">c2c927a3-0dc0-41cf-9c1f-cd3bf594677e</a>	2024-08-26T17:27+05:30	911 bytes	1
<a href="#">f00c44e6-83bb-4768-a199-faabdf6d26b9</a>	2024-08-26T17:56+05:30	911 bytes	1
<a href="#">5f34acce-6719-4ae5-9386-1ee812271867</a>	2024-08-26T18:15+05:30	910 bytes	1
<a href="#">cf2eac2b-9df5-4e48-a12e-d26889c677c3</a>	2024-08-26T18:26+05:30	911 bytes	1

Message: 17e3cfa9-1971-4c45-b6d2-7cad6d454ff9

Body Attributes Details

{"Origin": "EC2", "Destination": "AutoScalingGroup", "Progress": 50, "AccountId": "339712987077", "Description": "Launching a new EC2 instance: i-0ff7f8bc3135e4f93", "RequestId": "45464639-90b4-8844-7c01-1343dd0fb92b", "EndTime": "2024-08-26T11:13:41.597Z", "AutoScalingGroupARN": "arn:aws:autoscaling:us-east-1:339712987077:autoScalingGroup:05d469b8-21bb-45d9-930d-2554675e2cd2"}

Done

## Step 15: Create Cloud Front with App LB.

[CloudFront](#) > [Distributions](#) > [Create](#)

### Create distribution

**Origin**

Origin domain  
Choose an AWS origin, or enter your origin's domain name.  
 [X](#)

Protocol [Info](#)  
 HTTP only  
 HTTPS only  
 Match viewer

HTTP port  
Enter your origin's HTTP port. The default is port 80.

Path pattern [Info](#)  
Default (\*)

Compress objects automatically [Info](#)  
 No  
 Yes

**Viewer**

Viewer protocol policy  
 HTTP and HTTPS  
 Redirect HTTP to HTTPS  
 HTTPS only

Allowed HTTP methods  
 GET, HEAD  
 GET, HEAD, OPTIONS  
 GET, HEAD, OPTIONS, PUT, POST, PATCH, DELETE

Cache HTTP methods  
GET and HEAD methods are cached by default.  
 OPTIONS

Restrict viewer access  
If you restrict viewer access, viewers must use CloudFront signed URLs or signed cookies to access your content.  
 No  
 Yes

**Web Application Firewall (WAF)** [Info](#)

Enable security protections  
Keep your application secure from the most common web threats and security vulnerabilities using AWS WAF. Blocked requests are stopped before they reach your web servers.

Do not enable security protections  
Select this option if your application does not need security protections from AWS WAF.

**Settings**

Price class [Info](#)  
Choose the price class associated with the maximum price that you want to pay.  
 Use all edge locations (best performance)  
 Use only North America and Europe  
 Use North America, Europe, Asia, Middle East, and Africa

Alternate domain name (CNAME) - optional  
Add the custom domain names that you use in URLs for the files served by this distribution.

**Distributions (5)** [Info](#)

<input type="checkbox"/>	ID	Description	Type	Domain name	Alternate do...	Origins	Status	Last modified
<input type="checkbox"/>	E3LYMA0ZLQ462J	-	Production	d3o8od6l4cgsx...	-	applb-78095747.us-e...	<input checked="" type="checkbox"/> Enabled	<input type="checkbox"/> Deploying

## Step 16: Browse the Website.

ss

The screenshot shows a web browser window with the URL 18.191.192.232. The page is titled "insproplus.com" and "Java". It features a banner with two video thumbnails: "Watch on YouTube" and "Watch on YouTube". A "FULL COURSE" button is visible. Below the banner, a tagline reads "Unlock Your Tech Potential with Industry Experts & Career-Oriented IT Training" and "Best IT & Software Training Institute". In the center is a large circular placeholder for a profile picture, with a black rectangular redaction box below it. A blue "Enroll" button is centered below the placeholder. Below the button, a message says "Don't Miss it Out ↑ . Hurry ⏪ !". A "Contact" section follows, containing the phone number "+91 9876543210" and email address "@gmail.com". At the bottom, there are links for "Youtube | Instagram | LinkedIn".

The screenshot shows a web browser window with the URL 3.135.200.172/register/. The page title is "SYSTEMS". It features a tagline "Training | Career Building | Freshers Guide" and a subtitle "Empowering young students to level up their skills through training in software development technologies 🎓". Below this is a "Registration Form" section. The form includes fields for Name (text input), Email (text input), Qualification (text input), Gender (radio buttons for Male and Female), Passed Out year (text input), Course (dropdown menu set to "Python Programming"), and Upload your Resume (file input). There are "Reset" and "Submit" buttons at the bottom. A "Home" link is located at the bottom of the form section.

Not secure applb-78095747.us-east-2.elb.amazonaws.com

Java FULL COURSE

Unlock Your Tech Potential with Industry Experts & Career-Oriented IT Training  
Best IT & Software Training Institute



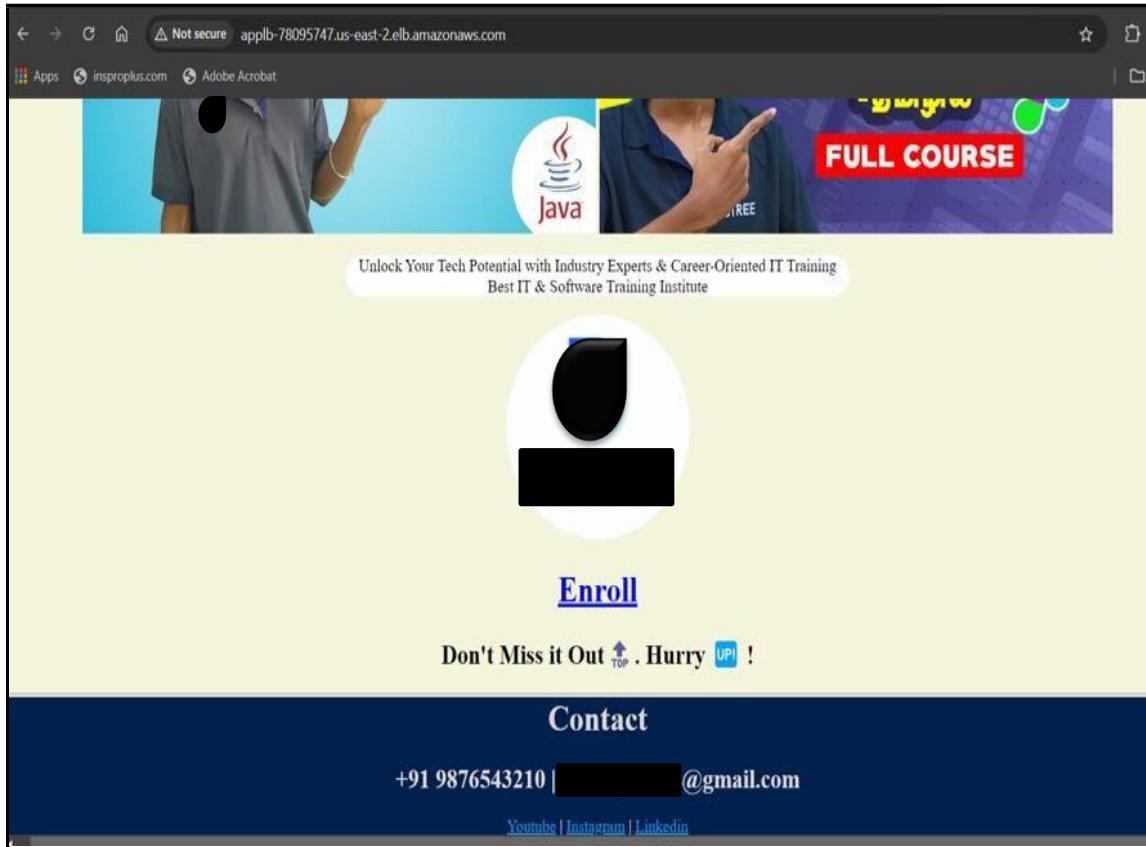
[Enroll](#)

Don't Miss it Out  . Hurry  !

Contact

+91 9876543210 | [@gmail.com](#)

[Youtube](#) | [Instagram](#) | [Linkedin](#)



Not secure applb-78095747.us-east-2.elb.amazonaws.com/register/

systems

Training | Career Building | Freshers Guide

Empowering young students to level up their skills through training in software development technologies  

### Registration Form

Name:

Email:

Qualification:

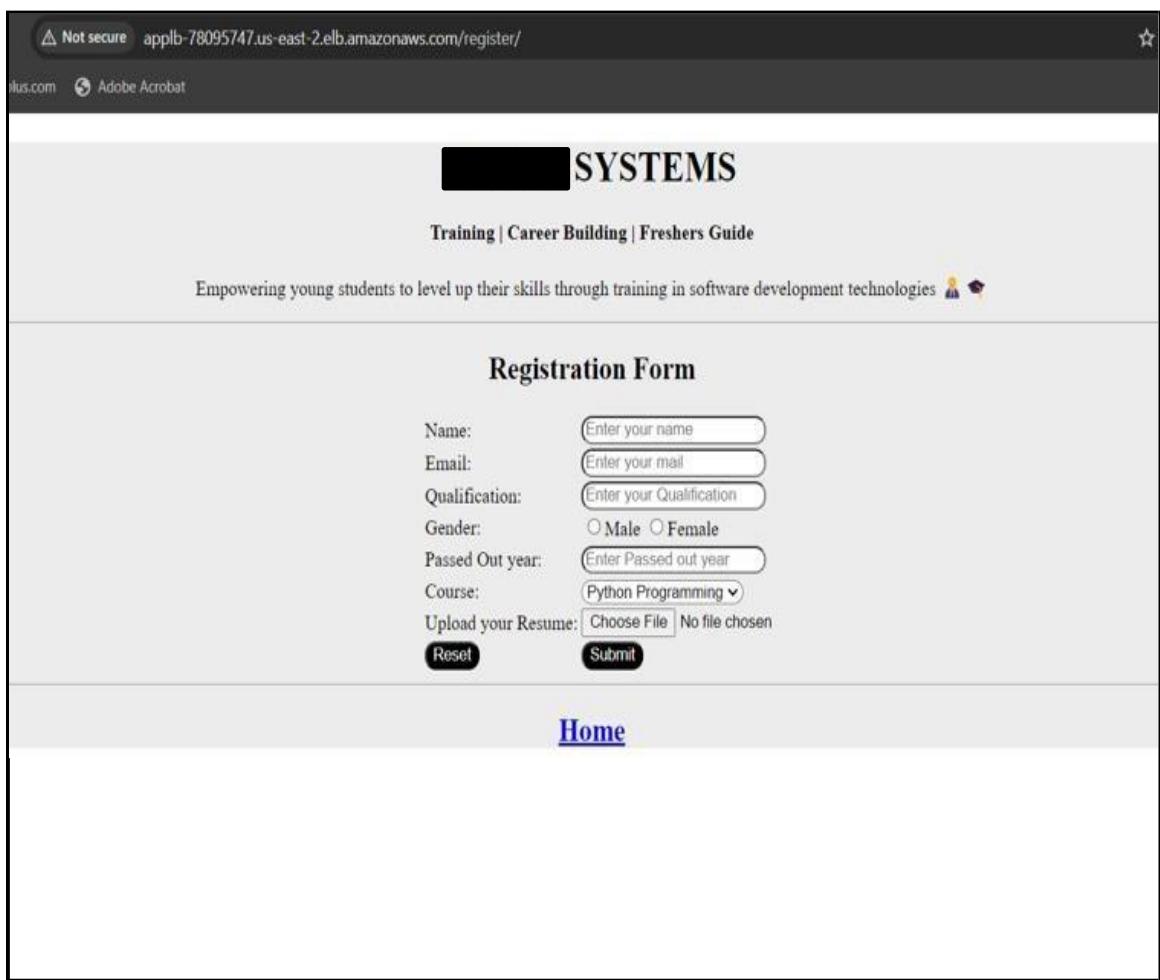
Gender:  Male  Female

Passed Out year:

Course:

Upload your Resume:

[Home](#)



Unlock Your Tech Potential with Industry Experts & Career-Oriented IT Training  
Best IT & Software Training Institute

**Enroll**

Don't Miss it Out . Hurry !

Contact

+91 9876543210 | [REDACTED]@gmail.com

[Youtube](#) | [Instagram](#) | [Linkedin](#)

SYSTEMS

Training | Career Building | Freshers Guide

Empowering young students to level up their skills through training in software development technologies

**Registration Form**

Name:

Email:

Qualification:

Gender:  Male  Female

Passed Out year:

Course:

Upload your Resume:  No file chosen

[Home](#)

## Step 17: Create Code Pipeline S3 bucket.

### Enable Bucket Versioning

### Edit Bucket Versioning Info

**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](#)

Suspend  
This suspends the creation of object versions for all operations but preserves any existing object versions.

Enable

**After enabling Bucket Versioning, you might need to update your lifecycle rules to manage previous versions of objects.**

Multi-factor authentication (MFA) delete

An additional layer of security that requires multi-factor authentication for changing Bucket Versioning settings and permanently deleting object versions. To modify MFA delete settings, use the AWS CLI, AWS SDK, or the Amazon S3 REST API. [Learn more](#)

Disabled

[Cancel](#) [Save changes](#)

### Create Pipeline

Developer Tools > CodePipeline > Pipelines

**Introducing the new V2 pipeline type with improved release safety, pipeline triggers, parameterized pipelines, and a new billing model. [Learn more](#)** X

### Pipelines Info

Notify  View history  Release change  Delete pipeline

Q

Name	Latest execution status	Latest source revisions	Latest execution started	Most recent executions
No results				
There are no results to display.				

## Create 1<sup>st</sup> Code Pipeline.

### 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.

No more than 100 characters

##### Pipeline type

i 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)

### Source

#### Source provider

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



#### Bucket



#### S3 object key

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

Choose a detection mode to automatically start your pipeline when a change occurs in the source code.

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

Cancel

Previous

Next

### Deploy

**Deploy provider**  
Choose how you deploy to instances. Choose the provider, and then provide the configuration details for that provider.

AWS CodeDeploy

**Region**  
US East (Ohio)

**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 CodeDeploy console. Or create an application in the AWS CodeDeploy console and then return to this task.

sampleapp

**Deployment group**  
Choose a deployment group that you have already created in the AWS CodeDeploy console. Or create a deployment group in the AWS CodeDeploy console and then return to this task.

ec2\_deployment

Configure automatic rollback on stage failure

### Step 4: Add deploy stage

**Deploy action provider**

Deploy action provider  
AWS CodeDeploy

ApplicationName  
sampleapp

DeploymentGroupName  
ec2\_deployment

Configure automatic rollback on stage failure  
Disabled

[Cancel](#) [Previous](#) [Create pipeline](#)

Developer Tools > CodePipeline > Pipelines

Introducing the new V2 pipeline type with improved release safety, pipeline triggers, parameterized pipelines, and a new billing model. [Learn more](#)

**Pipelines** [Info](#)

<a href="#">C</a>	<a href="#">Notify</a>	<a href="#">View history</a>	<a href="#">Release change</a>	<a href="#">Delete pipeline</a>	<a href="#">Create pipeline</a>
<a href="#">Q</a>					
Name	Latest execution status	Latest source revisions	Latest execution started	Most recent executions	
homecodepipeline <a href="#">(Type: V2   Execution mode: QUEUED)</a>	<a href="#">In progress</a>	Source: Amazon S3 version id: null	Just now	<a href="#">View details</a>	

Create 2<sup>nd</sup> Code Pipeline.

## 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.

No more than 100 characters

#### Pipeline type

- i 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.

## Source

#### Source provider

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



#### Bucket



#### S3 object key

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

Choose a detection mode to automatically start your pipeline when a change occurs in the source code.

**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

Cancel

Previous

Next

**Deploy provider**  
Choose how you deploy to instances. Choose the provider, and then provide the configuration details for that provider.

AWS CodeDeploy

**Region**

US East (Ohio)

**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 CodeDeploy console. Or create an application in the AWS CodeDeploy console and then return to this task.

sampleapp

**Deployment group**  
Choose a deployment group that you have already created in the AWS CodeDeploy console. Or create a deployment group in the AWS CodeDeploy console and then return to this task.

register\_deploy

Configure automatic rollback on stage failure

Developer Tools > CodePipeline > Pipelines

Introducing the new V2 pipeline type with improved release safety, pipeline triggers, parameterized pipelines, and a new billing model. [Learn more](#)

**Pipelines** Info

[C](#) [Notify](#) [View history](#) [Release change](#) [Delete pipeline](#) [Create pipeline](#)

[Q](#) [<](#) [1](#) [>](#) [①](#)

Name	Latest execution status	Latest source revisions	Latest execution started	Most recent executions
registercodepipeline <a href="#">e</a> (Type: V2   Execution mode: QUEUED)	<span>✔ Succeeded</span>	Source: Amazon S3 version id: null	2 minutes ago	<span>✔ View details</span>
homecodepipeline <a href="#">e</a> (Type: V2   Execution mode: QUEUED)	<span>✔ Succeeded</span>	Source: Amazon S3 version id: null	11 minutes ago	<span>✔ View details</span>

## Step 18: Re-edit the website in Developer Machine.

```
[root@ip-172-31-1-16 sample]# cd ..
[root@ip-172-31-1-16 deploy]# cd ..
[root@ip-172-31-1-16 scripts]# cd ..
[root@ip-172-31-1-16 sampleapp]# vi index.html
[root@ip-172-31-1-16 sampleapp]# zip -r ../sampleapp.zip .
  adding: scripts/ (stored 0%)
  adding: scripts/httpd_install.sh (stored 0%)
  adding: scripts/httpd_start.sh (deflated 21%)
  adding: scripts/httpd_stop.sh (deflated 21%)
  adding: scripts/deploy/ (stored 0%)
  adding: scripts/deploy/sample/ (stored 0%)
  adding: scripts/deploy/sample/index.html (deflated 68%)
  adding: scripts/deploy/sample/scripts/ (stored 0%)
  adding: scripts/deploy/sample/scripts/httpd_install.sh (stored 0%)
  adding: scripts/deploy/sample/scripts/httpd_start.sh (deflated 21%)
  adding: scripts/deploy/sample/scripts/httpd-stop.sh (deflated 21%)
  adding: scripts/deploy/sample/appspec.yml (deflated 52%)
  adding: appspec.yml (deflated 52%)
  adding: index.html (deflated 60%)
[root@ip-172-31-1-16 sampleapp]# cd ..
[root@ip-172-31-1-16 deploy_dir]# ls
sampleapp  sampleapp.zip
```

```
root@ip-172-31-1-16~/deploy_dir/sampleapp
 <br>
<h1>
<a href="register.html">Enroll</a>
</h1>
<h2 class="hurry">Don't Miss it Out! Hurry !</h2>
</center>

<hr>

<div class="footer">
<center>
<h1>Contact</h1>
<h2>+91 0123456789 | btreesystems@gmail.com</h2>
<p>
<a class="links" href="https://www.youtube.com/@btreesystems">Youtube</a> |
<a class="links" href="https://www.instagram.com/btreesystems/?hl=en">Instagram</a> |
<a class="links" href="https://www.linkedin.com/company/btreesystems/?originalSubdomain=in">Linkedin</a>
</p>
</center>
</div>

</body>
</html>
-- INSERT --
```

```
[root@ip-172-31-1-16 deploy_dir]# aws s3 cp sampleapp.zip s3://homebuckey
upload: ./sampleapp.zip to s3://homebuckey/sampleapp.zip
[root@ip-172-31-1-16 deploy_dir]# cd ./sample/
-bash: cd: ./sample/: No such file or directory
[root@ip-172-31-1-16 deploy_dir]# cd ./sample
-bash: cd: ./sample: No such file or directory
[root@ip-172-31-1-16 deploy_dir]# cd sampleapp
[root@ip-172-31-1-16 sampleapp]# pwd
/root/deploy_dir/sampleapp
[root@ip-172-31-1-16 sampleapp]# ls
appspec.yml index.html scripts
[root@ip-172-31-1-16 sampleapp]# cd /scripts/deploy/sample
-bash: cd: /scripts/deploy/sample: No such file or directory
[root@ip-172-31-1-16 sampleapp]# cd /scripts
-bash: cd: /scripts: No such file or directory
[root@ip-172-31-1-16 sampleapp]# cd scripts
[root@ip-172-31-1-16 scripts]# cd deploy/sample
[root@ip-172-31-1-16 sample]# vi index.html
```

```
root@ip-172-31-1-16:~/deploy_dir/sampleapp/scripts/deploy/sample
}

.file{
    border-inline-color: black;
}

.tabs{
    margin-left: 90px;
}
.naming{
    border-radius: 10px;
    background-color: black;
    color: white;
}
</style>
</head>
<body>
    <div class="register">
        <center>
            <h1>BTREE SYSTEMS FORM</h1>
            <h4>Training | Career Building | Freshers Guide</h4>
            <p>Empowering young students to level up their skills through training in software development technologies <a href="#">More</a></p>
            <hr>
        </center>
        <center>
            <h2>Registration Form</h2>

            <form class =tabs>
                <table class="table">

                    <tr>
                        <td>Name:</td>
-- INSERT --
```

**Step 19:** Copy the website file to the S3 bucket.

```
[root@ip-172-31-1-16 sampleapp]# zip -r ../sampleapp.zip .
  adding: scripts/ (stored 0%)
  adding: scripts/httpd_install.sh (stored 0%)
  adding: scripts/httpd_start.sh (deflated 21%)
  adding: scripts/httpd_stop.sh (deflated 21%)
  adding: scripts/deploy/ (stored 0%)
  adding: scripts/deploy/sample/ (stored 0%)
  adding: scripts/deploy/sample/index.html (deflated 68%)
  adding: scripts/deploy/sample/scripts/ (stored 0%)
  adding: scripts/deploy/sample/scripts/httpd_install.sh (stored 0%)
  adding: scripts/deploy/sample/scripts/httpd_start.sh (deflated 21%)
  adding: scripts/deploy/sample/scripts/httpd-stop.sh (deflated 21%)
  adding: scripts/deploy/sample/appspec.yml (deflated 52%)
  adding: appspec.yml (deflated 52%)
  adding: index.html (deflated 60%)
[root@ip-172-31-1-16 sampleapp]# cd ..
[root@ip-172-31-1-16 deploy_dir]# ls
sampleapp  sampleapp.zip
[root@ip-172-31-1-16 deploy_dir]# aws s3 cp sampleapp.zip s3://homebuckey
upload: ./sampleapp.zip to s3://homebuckey/sampleapp.zip
[root@ip-172-31-1-16 deploy dir]#
```

homebuckey Info

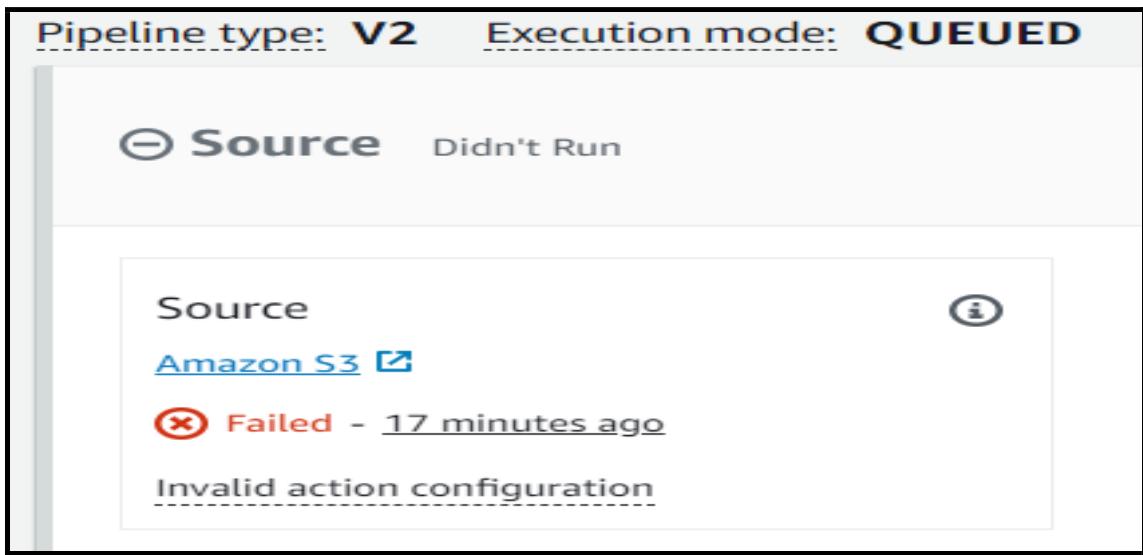
Objects (2) Info

Objects are the fundamental entities stored in Amazon S3. You can use [Amazon S3 inventory](#) to get a list of all objects in your bucket. For others to access your objects, you'll need to explicitly grant them permissions. [Learn more](#)

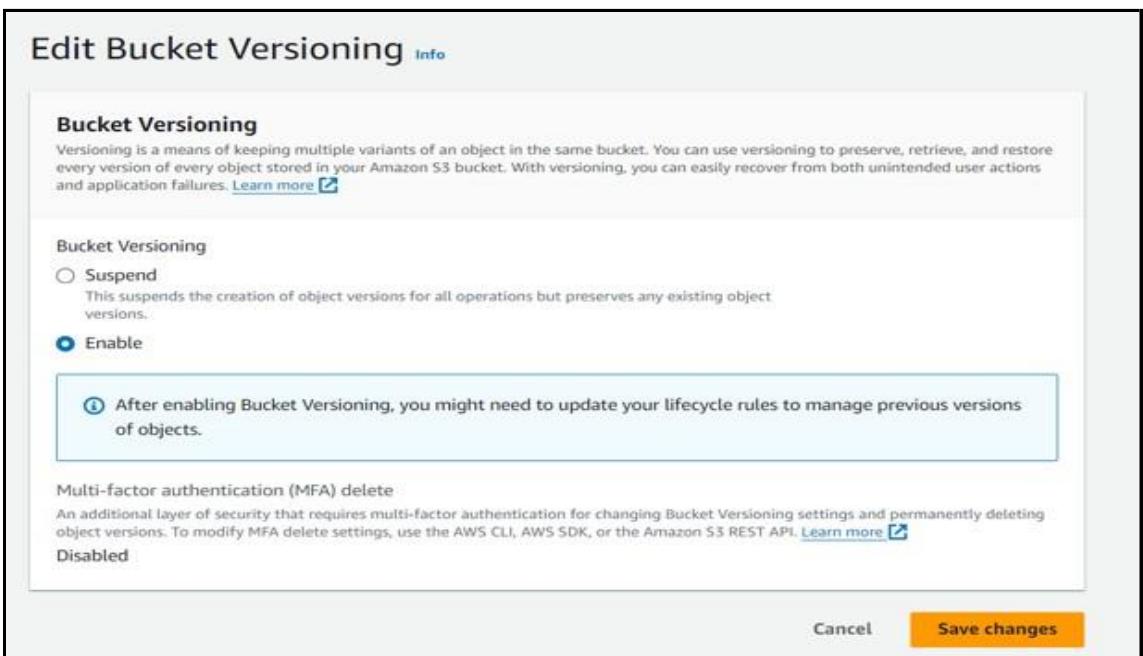
Show versions < 1 > ⌂

<input type="checkbox"/>	Name	Type	Last modified	Size	Storage class
<input type="checkbox"/>	<a href="#">sample.zip</a>	zip	August 26, 2024, 18:34:56 (UTC+05:30)	2.0 KB	Standard
<input type="checkbox"/>	<a href="#">sampleapp.zip</a>	zip	August 26, 2024, 17:09:02 (UTC+05:30)	3.3 KB	Standard

## CHALLENGES FACED:



## TROUBLESHOOT:



## LESSON LEARNED:

- Hands-on experience with all Amazon web services.
- Good understanding of networking concepts including VPN, VPC, Route table, subnet, and internet gateways.
- Acquired proficiency in how a website works from Developer to End user.

## OUTPUT:

**Step 20:** Refresh the website changes will show.

The screenshot shows a web browser window with the URL `applb-78095747.us-east-2.elb.amazonaws.com`. The page is titled "Java" and features a banner with two "Watch on YouTube" buttons. A large circular placeholder image is centered on the page. Below it is a blue button labeled "Enroll". A yellow banner at the bottom reads "Don't Miss it Out ↑ . Hurry ⏰ !". The footer is dark blue with contact information: "+91 0123456789 | [REDACTED]@gmail.com" and links to "Youtube", "Instagram", and "Linkedin".

The screenshot shows a web browser window with the URL `applb-78095747.us-east-2.elb.amazonaws.com/register/`. The page title is "SYSTEMS FORM". It includes a sub-header "Training | Career Building | Freshers Guide" and a tagline "Empowering young students to level up their skills through training in software development technologies 🎓💻". The main section is titled "Registration Form" and contains several input fields: Name (text input), Email (text input), Qualification (text input), Gender (radio buttons Male/Female), Passed Out year (text input), Course (dropdown menu Python Programming), and Upload your Resume (file input). At the bottom are "Reset" and "Submit" buttons. A "Home" link is visible at the bottom of the page.

Watch on YouTube

FULL COURSE

Unlock Your Tech Potential with Industry Experts & Career-Oriented IT Training  
Best IT & Software Training Institute

Enroll

Don't Miss it Out ↑ . Hurry ⏱ !

Contact

+91 0123456789 | [REDACTED]@gmail.com

Youtube | Instagram | LinkedIn

SYSTEMS FORM

Training | Career Building | Freshers Guide

Empowering young students to level up their skills through training in software development technologies 🎓💻

Registration Form

Name:

Email:

Qualification:

Gender:  Male  Female

Passed Out year:

Course:

Upload your Resume:  No file chosen

[Home](#)

