

ASSESSMENT - 13

IAM


**TO
THE
NEW™**





1. Create a Role with full access to S3

Create role

Select type of trusted entity

**AWS service**
EC2, Lambda and others

**Another AWS account**
Belonging to you or 3rd party

**Web id**
Cognito or provider

Allows AWS services to perform actions on your behalf. [Learn more](#)

Choose a use case

Common use cases

EC2

Allows EC2 instances to call AWS services on your behalf.


Create role

▼ Attach permissions policies

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

Create policy

Filter policies ▼

	Policy name ▼
<input checked="" type="checkbox"/>	 AmazonS3FullAccess

Create role

1

2

Review

Provide the required information below and review this role before you create it.

Role name*

Role1-for-s3FullAccess

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

Role description

Allows EC2 instances to call AWS services on your behalf.

Maximum 1000 characters. Use alphanumeric and '+=, @, _' characters.

Trusted entities

AWS service: ec2.amazonaws.com

Policies



AmazonS3FullAccess



Add ARN(s)



Amazon Resource Names (ARNs) uniquely identify AWS resources. Resources are unique to each service. [Learn more](#)

Specify ARN for role

[List ARNs manually](#)

arn:aws:iam::044650439222:role/Role1-for-s3FullAccess

Account *

044650439222

☐ Any

Role name with path *

Role1-for-s3FullAccess

☐ Any

Cancel

Add

2. Create another which has the policy to assume the previous Role

Create policy

A policy defines the AWS permissions that you can assign to a user, group, or role. You can create and edit a policy in the visual editor and using JSON. L

Visual editor

JSON

[Expand all](#) | [Collapse all](#)

▼ STS (1 action)

▶ Service

STS

▶ Actions

Write

AssumeRole

▼ Resources

☒ Specific

[close](#) ☐ All resources

role ?

arn:aws:iam::044650439222:role/Role1-for-s3FullAccess

[Add ARN to restrict access](#)

Create policy

Review policy

Name*

Use alphanumeric and '+=, @-_' characters. Maximum 128 characters.

Description

Maximum 1000 characters. Use alphanumeric and '+=, @-_' characters.

Summary	<input type="text" value="Filter"/>		
	Service ▼	Access level	Resource
	Allow (1 of 223 services) Show remaining 222		
	STS	Limited: Write	RoleName string like Role1-for-s3FullAccess

✔ PolicyForAssumedRole has been created.

Create policy

Policy actions ▾

Filter policies ▾

🔍 PolicyForAssumed

	Policy name ▾	Type	Used as
● ▶	PolicyForAssumedRole	Customer managed	None

Create role

▾ Attach permissions policies

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

Create policy

Filter policies ▾

🔍 PolicyForAssumed

	Policy name ▾
<input checked="" type="checkbox"/> ▶	PolicyForAssumedRole

Create role

1

2

Review

Provide the required information below and review this role before you create it.

Role name*
Use alphanumeric and '+,=, @, -, _' characters. Maximum 64 characters.

Role description

Maximum 1000 characters. Use alphanumeric and '+,=, @, -, _' characters.



Trusted entities AWS service: ec2.amazonaws.com

Policies [PolicyForAssumedRole](#) 

[Create role](#) [Delete role](#)

<input type="text" value="Q Role"/>	
Role name ▼	Trusted entities
<input type="checkbox"/> AWSServiceRoleForAutoScaling	AWS service: autoscaling (
<input type="checkbox"/> AWSServiceRoleForElasticLoadBalancing	AWS service: elasticloadba
<input type="checkbox"/> AWSServiceRoleForSupport	AWS service: support (Sen
<input type="checkbox"/> AWSServiceRoleForTrustedAdvisor	AWS service: trustedadvise
<input type="checkbox"/> example-role	Account: 044650439222
<input checked="" type="checkbox"/> Role1-for-s3FullAccess	AWS service: ec2
<input checked="" type="checkbox"/> Role2-for-assumed-role	AWS service: ec2

Summary

Role ARN	arn:aws:iam::044650439222:role/Role1-for-s3FullAccess 
Role description	Allows EC2 instances to call AWS services on your behalf. Edit
Instance Profile ARNs	arn:aws:iam::044650439222:instance-profile/Role1-for-s3FullAccess 
Path	/
Creation time	2020-03-02 22:18 UTC+0530
Last activity	Not accessed in the tracking period
Maximum CLI/API session duration	1 hour Edit

PermissionsTrust relationshipsTags (1)Access AdvisorRevoke sessions

You can view the trusted entities that can assume the role and the access conditions for the role. [Show policy document](#)

Edit trust relationship

Trusted entities

The following trusted entities can assume this role.

Trusted entities

The identity provider(s) ec2.amazonaws.com

Conditions

The following conditions de

There are no conditions as

Edit Trust Relationship

You can customize trust relationships by editing the following access control policy document.

Policy Document

```
1 {
2   "Version": "2012-10-17",
3   "Statement": [
4     {
5       "Effect": "Allow",
6       "Principal": {
7         "AWS": "arn:aws:iam::044650439222:role/Role2-for-assumed-role",
8         "Service": "ec2.amazonaws.com",
9       },
10      "Action": "sts:AssumeRole"
11    }
12  ]
13 }
```

Summary

Role ARN	arn:aws:iam::044650439222:role/F
Role description	Allows EC2 instances to call AWS
Instance Profile ARNs	arn:aws:iam::044650439222:instar
Path	/
Creation time	2020-03-02 22:18 UTC+0530
Last activity	Not accessed in the tracking period
Maximum CLI/API session duration	1 hour Edit

Permissions

Trust relationships

Tags (1)

Access Advisor

You can view the trusted entities that can assume the role and the access condit

Edit trust relationship

Trusted entities

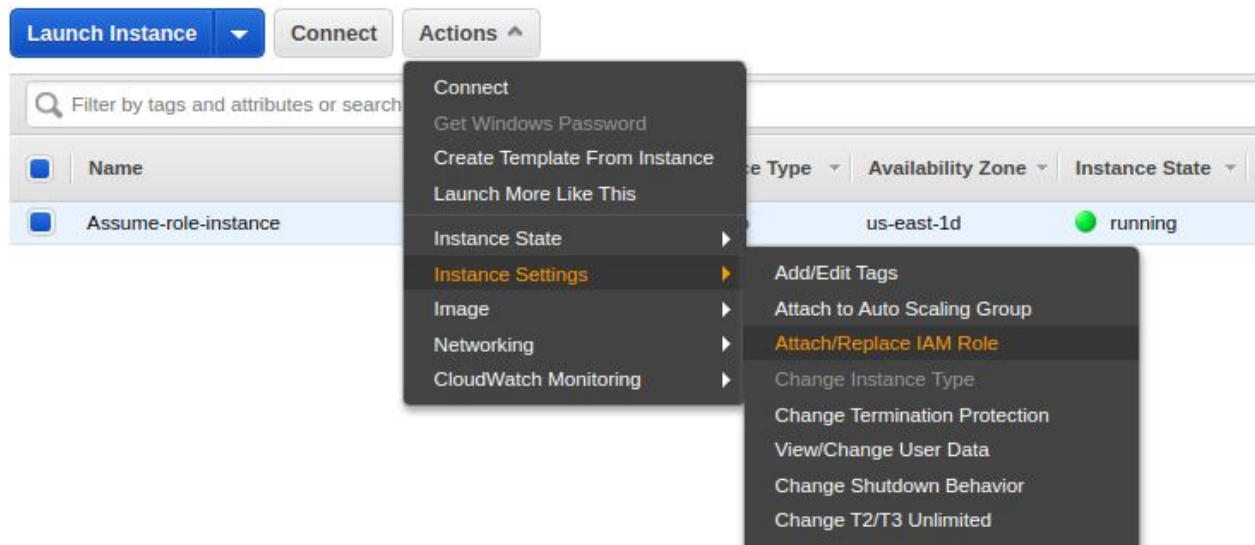
The following trusted entities can assume this role.

Trusted entities

The identity provider(s) ec2.amazonaws.com

arn:aws:iam::044650439222:role/Role1-for-s3FullAccess

3. Attach this to an instance and get an sts token.



[Instances](#) > Attach/Replace IAM Role

Attach/Replace IAM Role

Select an IAM role to attach to your instance. If you don't have any IAM roles, choose Create new IAM role to create a role in the IAM console. If an IAM role is already attached to your instance, the IAM role you choose will replace the existing role.

Instance ID i-0c637857c13b0e658 (Assume-role-instance) ⓘ

IAM role*

[Create new IAM role](#) ⓘ

```
garima@garima:~$ ssh -i /home/garima/Downloads/newawskeypair.pem ubuntu@34.229.127.49
Welcome to Ubuntu 18.04.3 LTS (GNU/Linux 4.15.0-1057-aws x86_64)

 * Documentation:  https://help.ubuntu.com
 * Management:    https://landscape.canonical.com
 * Support:       https://ubuntu.com/advantage

System information as of Mon Mar  2 17:15:24 UTC 2020

System load:  0.0          Processes:            88
Usage of /:   14.0% of 7.69GB Users logged in:      0
Memory usage: 15%         IP address for eth0: 172.31.23.120
Swap usage:   0%
```

```
ubuntu@ip-172-31-23-120:~$ aws sts get-caller-identity
{
  "UserId": "AROAUZK7UI3NK3C6UGPV:i-0c637857c13b0e658",
  "Account": "044650439222",
  "Arn": "arn:aws:sts::044650439222:assumed-role/Role2-for-assumed-role/i-0c637857c13b0e658"
}
ubuntu@ip-172-31-23-120:~$
```

```
ubuntu@ip-172-31-23-120:~$ aws sts assume-role --role-arn arn:aws:iam::044650439222:role/Role1-for-s3FullAccess --role-session-name garima
{
  "Credentials": {
    "SessionToken": "FwoGZXIvYXZdEGsaDADCaKRV1uijfo0WtQyKqAaaxdD4qPBpzB6U4lyvWgumyFJhPphlzHn6+WCGaFQyLsKsV1h6Z80kB8LyP/fg0gD5TDB4bftVxwQDsft5iPmS6Z/u4PQkJNSBMK0YX55Z00LTdRjZUqbwnql+AyUw+ERng708cBSUb0pfgvLAfykbiQqjBJdiu/DFe5Jc0vk0jvEHemVXk1BoISAekaGl6YaHA/X8HEOU0VaKGS06UecM/pNfSFx9vhxJK0qL9fIFMi1hWIY/5ATMKOAYZkKZsJv7Hu4lpqTebfMU/l+Z7IoBvjxZMDE6gVfutB4Fqm0=",
    "AccessKeyId": "ASIAQUZK7UI3JQTGEJNY",
    "SecretAccessKey": "4HDDPotEU4XS2DseTmV8R6EpK9uvQzcEd0Ub72lk",
    "Expiration": "2020-03-02T18:44:10Z"
  },
  "AssumedRoleUser": {
    "AssumedRoleId": "AROAUZK7UI3HFOXNYD66:garima",
    "Arn": "arn:aws:sts::044650439222:assumed-role/Role1-for-s3FullAccess/garima"
  }
}
```

```
ubuntu@ip-172-31-23-120:~$ export AWS_ACCESS_KEY_ID=ASIAQUZK7UI3JQTGEJNY
ubuntu@ip-172-31-23-120:~$ export AWS_SECRET_ACCESS_KEY=4HDDPotEU4XS2DseTmV8R6EpK9uvQzcEd0Ub72lk
ubuntu@ip-172-31-23-120:~$ export AWS_SESSION_TOKEN=FwoGZXIvYXZdEGsaDADCaKRV1uijfo0WtQyKqAaaxdD4qPBpzB6U4lyvWgumyFJhPphlzHn6+WCGaFQyLsKsV1h6Z80kB8LyP/fg0gD5TDB4bftVxwQDsft5iPmS6Z/u4PQkJNSBMK0YX55Z00LTdRjZUqbwnql+AyUw+ERng708cBSUb0pfgvLAfykbiQqjBJdiu/DFe5Jc0vk0jvEHemVXk1BoISAekaGl6YaHA/X8HEOU0VaKGS06UecM/pNfSFx9vhxJK0qL9fIFMi1hWIY/5ATMKOAYZkKZsJv7Hu4lpqTebfMU/l+Z7IoBvjxZMDE6gVfutB4Fqm0=
ubuntu@ip-172-31-23-120:~$
```

```
ubuntu@ip-172-31-23-120:~$ aws s3 ls
2019-05-08 15:48:33 garima-essence
2020-02-26 18:14:51 garima-site
2020-03-02 07:16:16 non-public-bucket-garima
ubuntu@ip-172-31-23-120:~$
```

4. Create a group for "Data Administrator" where the user 'Alice' be a member of this group. This group will prepare the data for the analysis. So Provide the following access to the group.

Service: Amazon S3;

Action:

Get*,

List*,

Put*,

ARN: Input and output Buckets (no conditions)


S3 buckets

+ Create bucket

Edit public access settings

Empty

Delete

<input checked="" type="checkbox"/>	Bucket name ▼	Access ⓘ ▼
<input checked="" type="checkbox"/>	 non-public-bucket-garima	Bucket and objects not public

Create policy

A policy defines the AWS permissions that you can assign to a user, group, or role. You can create and edit a policy in the visual editor and u

Visual editor

JSON

Expand all | Collapse all

▼ S3 (75 actions) ⚠ 4 warnings

► Service S3

► Actions List

HeadBucket
ListAllMyBuckets
ListBucket

Read

DescribeJob	GetBucketPolicyStatus
GetAccelerateConfiguration	GetBucketPublicAccessBlock
GetAccessPoint	GetBucketRequestPayment
GetAccessPointPolicy	GetBucketTagging
GetAccessPointPolicyStatus	GetBucketVersioning
GetAccountPublicAccessBlock	GetBucketWebsite
GetAnalyticsConfiguration	GetEncryptionConfiguration
GetBucketAcl	GetInventoryConfiguration
GetBucketCORS	GetLifecycleConfiguration

Add ARN(s)



Amazon Resource Names (ARNs) uniquely identify AWS resources. Resources are unique to each service. [Learn more](#)

Specify ARN for bucket

List ARNs manually

arn:aws:s3:::non-public-bucket-garima

Bucket name *

non-public-bucket-garima

☐ Any

Cancel

Add

▼ Resources

Specific

close

All resources

accesspoint ?

Any resource of type = accesspoint

☒ Any

bucket ?

arn:aws:s3:::non-public-bucket-garima

EDIT

✕

[Add ARN to restrict access](#)

☐ Any

job ?

Any resource of type = job

☒ Any

object ?

Any resource of type = object

☒ Any

Create policy

Review policy

Name*

Use alphanumeric and '+=, @-_' characters. Maximum 128 characters.

Description

Maximum 1000 characters. Use alphanumeric and '+=, @-_' characters.

Summary

<input type="text" value="Filter"/>			
Service ▼	Access level	Resource	Request co
Allow (1 of 223 services) Show remaining 222			
S3	Full: List, Read, Write	Multiple	None

Set Group Name

Specify a group name. Group names can be edited any time.

Group Name:

Example: Developers or ProjectAlpha
Maximum 128 characters

Attach Policy

Select one or more policies to attach. Each group can have up to 10 policies attached.

Filter: Policy Type ▾		<input type="text" value="Data-"/>
		Policy Name ⇅
<input checked="" type="checkbox"/>		Data-Admin-Policy

Add user

Set user details

You can add multiple users at once with the same access type and permissions. [Learn more](#)

User name*

[+ Add another user](#)

Select AWS access type

Select how these users will access AWS. Access keys and autogenerated passwords are provided in the last step.

Access type*

☐

Programmatic access

Enables an **access key ID** and **secret access key** for the AWS API, CLI, and other development tools.

☒

AWS Management Console access

Enables a **password** that allows users to sign-in to the AWS Management Console.

Console password*

☐


Autogenerated password

☒

Custom password

Add user

▼ Set permissions

 Add user to group

 Copy permissions from existing user

 Attach existing policies directly

Add user to an existing group or create a new one. Using groups is a best-practice way to manage user's permissions

Add user to group

Create group

Refresh

Search

Group ▼	Attached policies
<input checked="" type="checkbox"/> Data-Admin	Data-Admin-Policy

Add user

- 1
- 2
- 3
- 4
- 5

 **Success**

You successfully created the users shown below. You can view and download user security credentials. You can also email users instructions for signing in to the AWS Management Console. This is the last time these credentials will be available to download. However, you can create new credentials at any time.

Users with AWS Management Console access can sign-in at: <https://044650439222.signin.aws.amazon.com/console>

Download .csv

User	Email login instructions
<div><div></div><div>Alice</div></div>	<div>Send email</div>

Prevent S3 objects from being deleted for a predefined retention period with S3 Object Lock. [Learn more »](#)

S3 buckets



Search for buckets

All access types

[+ Create bucket](#)

[Edit public access settings](#)

[Empty](#)

[Delete](#)

3 Buckets

<input type="checkbox"/> Bucket name ▼	Access ▼	Region ▼
<input type="checkbox"/> garima-essence	Error	US East (N. Virginia)
<input type="checkbox"/> garima-site	Error	US East (N. Virginia)
<input checked="" type="checkbox"/> non-public-bucket-garima	Bucket and objects not public	US East (N. Virginia)

Resource Groups

Alice @ 0446-5043-9222

EC2

Resources

You are using the following Amazon EC2 resources in the US East (N. Virginia) Region:

Running Instances - Elastic IPs -

Dedicated Hosts - Snapshots -

Account

- Supported
- Default VP
- Console ex
- Settings

5. Create a group for the "Developer group " where the user 'bob ' is a member of this group. This group with Test Newly Developed Features for which they require access to EC2 instances. Provide the following access to this group:

Service: Amazon EC2

Action: *Instances, *Volume, Describe*, CreateTags;

Condition: Dev Subnets only

Create policy

A policy defines the AWS permissions that you can assign to a user, group, or role. You can create and edit a policy in the visual editor and using JSON.

Visual editor

JSON

[Expand all](#) | [Collapse all](#)

▼ EC2 (119 actions) ⚠ 6 warnings

► Service EC2

▼ Actions Specify the actions allowed in EC2 ?
close

🔍 Filter actions

Manual actions (add actions)

- ☒ ec2:*Volume (Edit | Remove)
- ☒ ec2:Describe* (Edit | Remove)
- ☒ ec2:*Instances (Edit | Remove)
- ☒ ec2:CreateTags (Edit | Remove)

Add ARN(s)



Amazon Resource Names (ARNs) uniquely identify AWS resources. Resources are unique to each service. [Learn more](#)

Specify ARN for security-group

[List ARNs manually](#)

arn:aws:ec2:us-east-1:044650439222:security-group/sg-044a56397d1fc7d7d

Region *

us-east-1

☐ Any

Account *

044650439222

☐ Any

Security group id *

sg-044a56397d1fc7d7d

☐ Any

Cancel

Add

Add ARN(s)



Amazon Resource Names (ARNs) uniquely identify AWS resources. Resources are unique to each service. [Learn more](#)

Specify ARN for vpc

[List ARNs manually](#)

arn:aws:ec2:us-east-1:044650439222:vpc/vpc-7f05ba05

Region *

us-east-1

☐ Any

Account *

044650439222

☐ Any

Vpc id *

vpc-7f05ba05

☐ Any

Cancel

Add

Add ARN(s)



Amazon Resource Names (ARNs) uniquely identify AWS resources. Resources are unique to each service. [Learn more](#)

Specify ARN for subnet

[List ARNs manually](#)

arn:aws:ec2:us-east-1:044650439222:subnet/subnet-074b245b

Region *

us-east-1

☐ Any

Account *

044650439222

☐ Any

Subnet id *

subnet-074b245b

☐ Any

Cancel

Add

security-group ?

arn:aws:ec2:us-east-1:044650439222:security-group/sg-044a56397d1fc7d7d

EDIT



[Add ARN](#) to restrict access

snapshot ?

You have not specified resource with type **snapshot**

[Add ARN](#) to restrict access

spot-instance-req... ?

You have not specified resource with type **spot-instance-request**

[Add ARN](#) to restrict access

subnet ?

arn:aws:ec2:us-east-1:044650439222:subnet/subnet-074b245b

EDIT



[Add ARN](#) to restrict access

vpc ?

arn:aws:ec2:us-east-1:044650439222:vpc/vpc-7f05ba05

EDIT



[Add ARN](#) to restrict access

Add ARN(s)



Amazon Resource Names (ARNs) uniquely identify AWS resources. Resources are unique to each service. [Learn more](#)

Specify ARN for volume

[List ARNs manually](#)

arn:aws:ec2:us-east-1:044650439222:volume/vol-0c7ff4eb86baa9b

Region *

us-east-1

☐ Any

Account *

044650439222

☐ Any

Volume id *

vol-0c7ff4eb86baa9b

☐ Any

Cancel

Add

volume ?

arn:aws:ec2:us-east-1:044650439222:volume/vol-0c7ff4eb86baa9b

EDIT



[Add ARN](#) to restrict access

Review policy

Name*

Use alphanumeric and '+=, @-_' characters. Maximum 128 characters.

Description

Maximum 1000 characters. Use alphanumeric and '+=, @-_' characters.

Summary

<input type="text" value="Filter"/>		
Service	Access level	Resource
Allow (1 of 223 services) Show remaining 222		
EC2	Limited: List, Read, Write, Tagging	Multiple

 **Dev-only-subnet** has been created.

Create policy

Policy actions

Filter policies		<input type="text" value="Dev-only-subnet"/>	
	Policy name	Type	Used as
	Dev-only-subnet	Customer managed	None

Set Group Name

Specify a group name. Group names can be edited any time.

Group Name:

Example: Developers or ProjectAlpha
Maximum 128 characters

Attach Policy

Select one or more policies to attach. Each group can have up to 10 policies attached.

Filter:

Policy Type ▾

Dev-only

	Policy Name ↕
<input checked="" type="checkbox"/>	Dev-only-subnet

IAM > Groups > Data-Admin

▼ Summary

Group ARN:	arn:aws:iam::044650439222:group/Data-Admin
Users (in this group):	1
Path:	/
Creation Time:	2020-03-02 23:41 UTC+0530

Users

Permissions

Access Advisor

Managed Policies

The following managed policies are attached to this group. You can attach up to 10 managed policies.

Attach Policy

Policy Name	Actions
Data-Admin-Policy	Show Policy Detach Policy Simulate Policy

Add user

1

2

3

Set user details

You can add multiple users at once with the same access type and permissions. [Learn more](#)

User name*

Bob

[+ Add another user](#)

Select AWS access type

Select how these users will access AWS. Access keys and autogenerated passwords are provided in the last step. [Learn more](#)

Access type*



Programmatic access

Enables an **access key ID** and **secret access key** for the AWS API, CLI, SDK, and other development tools.



AWS Management Console access

Enables a **password** that allows users to sign-in to the AWS Management Console.

Console password*



Autogenerated password



Custom password

Add user

1

▼ Set permissions



Add user to group



Copy permissions from
existing user



Attach existing policies
directly

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 function.

Add user to group

Create group

Refresh

Search

Group ▼

Attached policies



Data-Admin

Data-Admin-Policy



garima-dev

Dev-only-subnet

6. Identify the unused IAM users/credentials using AWS CLI.

```
garima@garima:~$ aws iam list-users
{
  "Users": [
    {
      "Path": "/",
      "UserName": "Alice",
      "UserId": "AIDAUZK7UI3AHCVMV7VO",
      "Arn": "arn:aws:iam::044650439222:user/Alice",
      "CreateDate": "2020-03-02T18:17:25Z",
      "PasswordLastUsed": "2020-03-02T18:20:09Z"
    },
    {
      "Path": "/",
      "UserName": "garimaCC7thsem",
      "UserId": "AIDAUZK7UI3N60UUOJQP",
      "Arn": "arn:aws:iam::044650439222:user/garimaCC7thsem",
      "CreateDate": "2019-11-11T03:39:58Z",
      "PasswordLastUsed": "2019-11-11T03:46:58Z"
    },
    {
      "Path": "/",
      "UserName": "Juhi",
      "UserId": "AIDAUZK7UI3PZW4JMWZ6",
      "Arn": "arn:aws:iam::044650439222:user/Juhi",
      "CreateDate": "2019-11-11T03:39:58Z",
      "PasswordLastUsed": "2019-11-11T03:46:58Z"
    }
  ]
}
```

```
garima@garima:~$ sudo apt-get install jq
[sudo] password for garima:
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following additional packages will be installed:
  libjq1 libonig4
The following NEW packages will be installed:
  jq libjq1 libonig4
0 upgraded, 3 newly installed, 0 to remove and 34 not installed.
Need to get 276 kB of archives.
```



```
garima@garima: ~  
File Edit View Search Terminal Help  
garima@garima:~$ aws iam list-users | jq '.Users[] | select(.PasswordLastUsed=null) | .UserName'  
"Alice"  
"garimaCC7thsem"  
"Juhi"  
"testuser1"  
"testuser2"  
garima@garima:~$
```

7. Identify all the instances having the tag key-value "backup=true" using AWS CLI.

```
garima@garima:~$ aws ec2 describe-instances --filters "Name=tag:backup,Values=true"  
{  
  "Reservations": []  
}  
garima@garima:~$
```

8. An EC2 Instance hosts a Java-based application that accesses an s3 bucket. This EC2 Instance is currently serving production users. Create the role and assign the role to EC2 instance.

Launch Instance

▼

Connect

Actions

▼


🔍

Filter by tags and attributes or search by keyword


<input type="checkbox"/>	Name ▼	Instance ID ▼	Instance Type ▼	Availability Zone ▼	Instance State ▼
<input type="checkbox"/>	my-instance	i-0c637857c13b0e658	t2.micro	us-east-1d	● running

Create role


Select type of trusted entity



AWS service
EC2, Lambda and others



Another AWS account
Belonging to you or 3rd party



Web identity
Cognito or any Open provider

Allows AWS services to perform actions on your behalf. [Learn more](#)

Choose a use case

Common use cases

EC2
Allows EC2 instances to call AWS services on your behalf.

Create role


▼ Attach permissions policies

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

Create policy

Filter policies ▼

Q Amazons3

	Policy name ▼
<input checked="" type="checkbox"/>	▶  AmazonS3FullAccess

Create role

Review

Provide the required information below and review this role before you create it.

Role name*

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

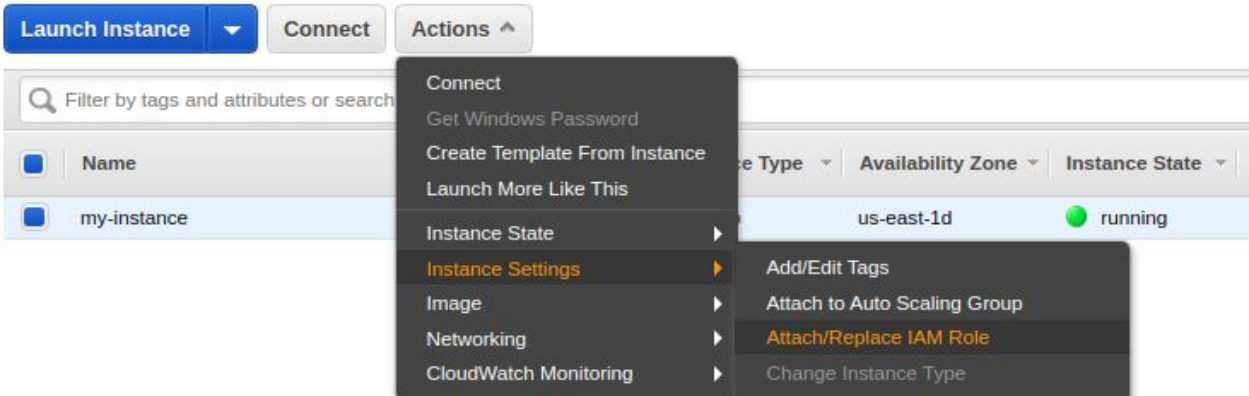
Role description

Allows EC2 instances to call AWS services on your behalf.

Maximum 1000 characters. Use alphanumeric and '+=, @-_' characters.

Trusted entities AWS service: ec2.amazonaws.com

Policies  AmazonS3FullAccess 



[Instances](#) > Attach/Replace IAM Role

Attach/Replace IAM Role

Select an IAM role to attach to your instance. If you don't have any IAM roles, choose Create new IAM role to create a role in the I/ If an IAM role is already attached to your instance, the IAM role you choose will replace the existing role.

Instance ID i-0c637857c13b0e658 (my-instance) 

IAM role*  [Create new IAM role](#)

```
ubuntu@ip-172-31-23-120: ~  
File Edit View Search Terminal Help  
ubuntu@ip-172-31-23-120:~$ aws s3 ls  
2019-05-08 15:48:33 garima-essence  
2020-02-26 18:14:51 garima-site  
2020-03-02 07:16:16 non-public-bucket-garima  
ubuntu@ip-172-31-23-120:~$
```

9. You have both production and development based instances running on your VPC. It is required to ensure that people responsible for the development instances do not have access to work on production instances for better security. Define the tags on the test and production servers and add a condition to the IAMPolicy which allows access to specific tags.

Launch Instance ▼

Connect

Actions ▼

Filter by tags and attributes or search by keyword

<input type="checkbox"/>	Name ▼	Instance ID ▼	Instance Type ▼	Availability Zone ▼	Instance State
<input type="checkbox"/>	my-instance	i-0c637857c13b0e658	t2.micro	us-east-1d	● running
<input checked="" type="checkbox"/>	garima-prod	i-0e86f88a7923b8571	t2.micro	us-east-1b	● running
<input type="checkbox"/>	garima-dev	i-0f92cca4e6722723c	t2.micro	us-east-1a	● running

Add user

1

Set user details

You can add multiple users at once with the same access type and permissions. [Learn more](#)

User name* ✕

✕

[+ Add another user](#)

Select AWS access type

Select how these users will access AWS. Access keys and autogenerated passwords are provided in the last step. [Learn](#)

Access type* ☒ **Programmatic access**
Enables an **access key ID** and **secret access key** for the AWS API, CLI, SI
other development tools.

☒ **AWS Management Console access**
Enables a **password** that allows users to sign-in to the AWS Management C

Console password* ☐ Autogenerated password

☒ Custom password

☒ Show password

Add user

Success

You successfully created the users shown below. You can view and download user security credentials. You can find instructions for signing in to the AWS Management Console. This is the last time these credentials will be available; you can create new credentials at any time.

Users with AWS Management Console access can sign-in at: <https://044650439222.signin.aws.amazon.com/>

Download .csv

	User	Access key ID	Secret access key
▶	✔ garima-dev-user	AKIAQUZK7UI3MNU42PFH	***** Show
▶	✔ garima-prod-user	AKIAQUZK7UI3ETCVVAHB	***** Show

Create policy

A policy defines the AWS permissions that you can assign to a user, group, or role. You can create and edit a policy in the visual editor and use the JSON editor.

Visual editor

JSON

```
1 {
2   "Version": "2012-10-17",
3   "Statement": [ {
4     "Sid": "StartStopIfTags",
5     "Effect": "Allow", "Action": [
6       "ec2:StartInstances",
7       "ec2:StopInstances",
8       "ec2:DescribeTags"
9     ],
10    "Resource": "arn:aws:ec2:region:account-id:instance/*",
11    "Condition": {
12      "StringEquals": {
13        "ec2:ResourceTag/Project": "garima-dev",
14        "aws:PrincipalTag/Department": "garima-dev-user"
15      }
16    }
17  } ]
18 }
19
```

Create policy

A policy defines the AWS permissions that you can assign to a user, group, or role. You can create and edit a policy

Visual editor

JSON

```
2  "Version": "2012-10-17",
3  "Statement": [ {
4      "Sid": "StartStopIfTags",
5      "Effect": "Allow", "Action": [
6          "ec2:StartInstances",
7          "ec2:StopInstances",
8          "ec:DescribeTags"
9      ],
10     "Resource": "arn:aws:ec2:region:account-id:instance/*",
11     "Condition": {
12         "StringEquals": {
13             "ec2:ResourceTag/Project": "garima-prod",
14             "aws:PrincipalTag/Department": "garima-prod-user"
15         }
16     }
17 } ]
18 }
19
20 }
```

10. Create a policy for allowing users to set or rotate their credentials, such as their console password, their programmatic access keys, and their MFA devices.

Create policy

A policy defines the AWS permissions that you can assign to a user, group, or role. You can create and edit a policy in the visual editor and use

Visual editor

JSON

Expand all | Collapse all

▼ IAM (13 actions)

► Service IAM

<div> <div>▶ Actions</div> <div>List</div> </div>		
ListAccessKeys		
ListMFADevices		
ListVirtualMFADevices		
Read		
GetAccessKeyLastUsed		
GetAccountPasswordPolicy		
Write		
ChangePassword	DeleteVirtualMFADevice	UpdateAccountPasswordPolicy
CreateVirtualMFADevice	EnableMFADevice	
DeactivateMFADevice	PassRole	
Permissions management		
DeleteAccountPasswordPolicy		

Resources

☐ Specific

☒ All resources

close

Create policy

Review policy

Name*

NewPolicy

Use alphanumeric and '+=, @-_' characters. Maximum 128 characters.

Description

Maximum 1000 characters. Use alphanumeric and '+=, @-_' characters.

Summary		
<div> <div>Q Filter</div> </div>		
Service ▼	Access level	Resource
Allow (1 of 223 services) Show remaining 222		
IAM	Limited: List, Read, Write, Permissions management	All resources