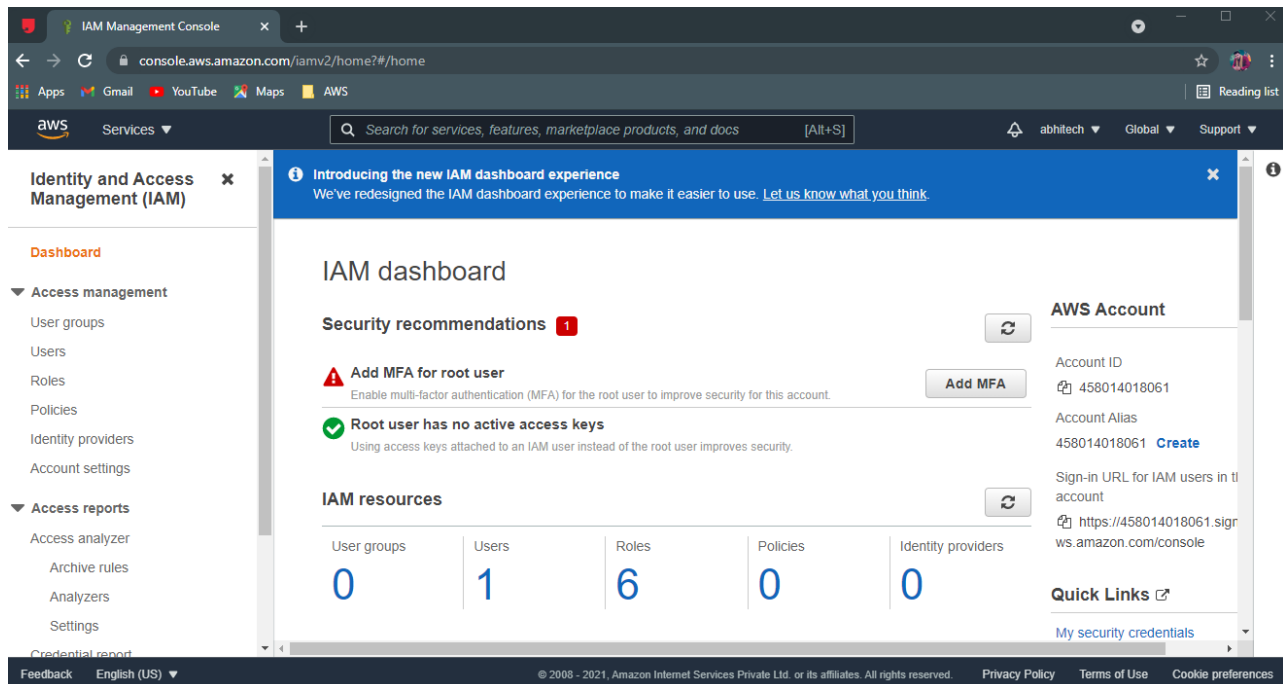


Assignment 1

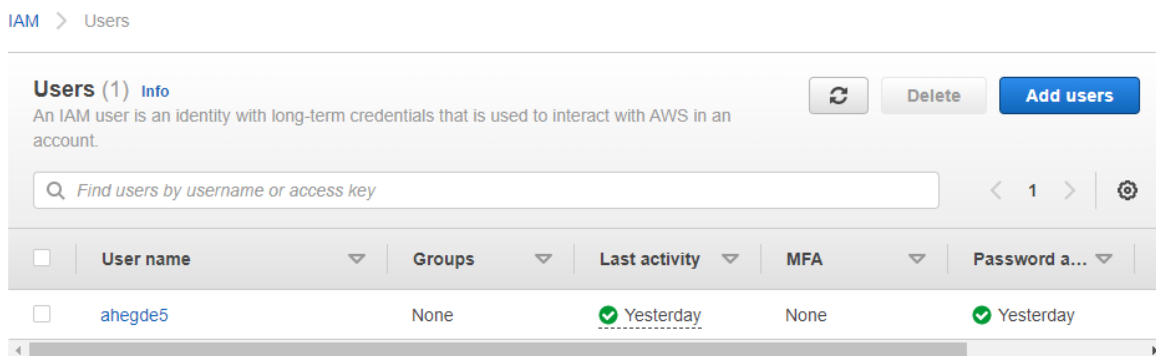
Working with IAM

1. Create an IAM user

a.



b.



c.

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 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

* Required


[Cancel](#)


[Next: Permissions](#)


d.

Add user

Set permissions

 Add user to group

 Copy permissions from existing user





 Attach existing policies directly

Create policy

Filter policies

Search

Showing 682 results

	Policy name	Type	Used as
<input checked="" type="checkbox"/>	 AdministratorAccess	Job function	None
<input type="checkbox"/>	 AdministratorAccess-Amplify	AWS managed	None
<input type="checkbox"/>	 AdministratorAccess-AWSElasticBeanstalk	AWS managed	None
<input type="checkbox"/>	 AlexaForBusinessDeviceSetup	AWS managed	None

Cancel

Previous

Next: Tags

e.

Review

Review your choices. After you create the user, you can view and download the autogenerated password and access key.

User details

User name	abhishek130921
AWS access type	Programmatic access and AWS Management Console access
Console password type	Custom
Require password reset	No
Permissions boundary	Permissions boundary is not set

Permissions summary

The following policies will be attached to the user shown above.

Type	Name
Managed policy	AdministratorAccess


Cancel

Previous

Create user

f.



Add user

 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://\[REDACTED\]signin.aws.amazon.com/console](https://[REDACTED]signin.aws.amazon.com/console)

Download .csv

User	Access key ID	Secret access key	Email login instructions
 abhishek130921	 UQLRD	***** Show	Send email

Close

g.

✓ The user [abhishek130921](#) have been created.

IAM > Users

Users (Selected 1/2) Info							Refresh	Delete	Add users
An IAM user is an identity with long-term credentials that is used to interact with AWS in an account.									
<input type="text" value="Find users by username or access key"/>							< 1 > Settings		
<input type="checkbox"/>	User name	Groups	Last activity	MFA	Password a...	Active			
<input checked="" type="checkbox"/>	abhishek130921	None	Never	None	✓ 1 minute ago	✓ 1 m			
<input type="checkbox"/>	ahegde5	None	✓ Yesterday	None	✓ Yesterday	✓ Yes			

2. Attach an AWS managed policy (S3 full access)

a.

Identity and Access Management (IAM)

Dashboard

Access management

User groups

Users

Roles

Policies

Identity providers

Account settings

Access reports

Access analyzer

Archive rules

Analizers

Settings

Credential report

Organization activity

Introducing the new Policies list experience

We've redesigned the Policies list experience to make it easier to use. [Let us know what you think.](#)

IAM > Policies

Policies (853) [Info](#)

An IAM policy is an object in AWS that defines permissions.

< 1 2 3 4 5 6 7 ... 43 > [Settings](#)

	Policy Name	Type	Used as	Description
<input type="radio"/>	AWSDirectConnectReadOnlyAccess	AWS managed	None	Provides read onl
<input type="radio"/>	AmazonGlacierReadOnlyAccess	AWS managed	None	Provides read onl
<input type="radio"/>	AWSMarketplaceFullAccess	AWS managed	None	Provides the abilit
<input type="radio"/>	ClientVPNServiceRolePolicy	AWS managed	None	Policy to enable A
<input type="radio"/>	AWSSSODirectoryAdministrator	AWS managed	None	Administrator acco
<input type="radio"/>	AWSIoT1ClickReadOnlyAccess	AWS managed	None	Provides read onl

b.

Service S3

Actions

Specify the actions allowed in S3 [?](#)

Manual actions [\(add actions\)](#)

☒ All S3 actions (s3:*)

Access level

☒ List (10 selected)

☒ Read (50 selected)

☒ Tagging (10 selected)

☒ Write (41 selected)

☒ Permissions management (14 selected)

Action warnings [?](#)

s3:CreateJob action requires 1 more action to provide full permissions

s3:PutReplicationConfiguration action requires 1 more action to provide full permissions

Switch to deny permissions [?](#)

Expand all | Collapse all

Resources

Specify **accesspoint** resource ARN for the **GetAccessPointPolicy** and 5 more actions. [?](#)

Specify **bucket** resource ARN for the **GetBucketLocation** and 49 more actions. [?](#)

Specify **job** resource ARN for the **DescribeJob** and 5 more actions. [?](#)

Specify **multiregionaccesspoint** resource ARN for the **CreateMultiRegionAccessPoint** and 5 more actions. [?](#)

c.

Policies (1/854) [Info](#)
A policy is an object in AWS that defines permissions.

↺

Actions ▾

Create Policy

🔍 Filter policies by property or policy name and press enter

< 1 2 3 4 5 6 7 ... 43 >

⚙️

	Policy Name	Type	Used as	Description
<input checked="" type="radio"/>	demo-s3-policy	Customer managed	None	
<input type="radio"/>	AWSDirectConnectReadOnlyAccess	AWS managed	None	Provides read onl

3. Login as IAM user and show that policy is applied. (S3 EC2,IAM)

a.

Policies (856) [Info](#)
A policy is an object in AWS that defines permissions.

↺

Actions ▾

Create Policy

🔍 Filter policies by property or policy name and press enter

< 1 2 3 4 5 6 7 ... 43 >

⚙️

	Policy Name	Type	Used as	Description
<input type="radio"/>	demo-EC2-policy	Customer managed	None	
<input type="radio"/>	demo-s3-policy	Customer managed	None	
<input type="radio"/>	demo_IAM-policy	Customer managed	None	

b. Roles,ec2

Summary

[Delete role](#)

Role ARN	arn:aws:iam::458014018061:role/demo-EC2-role 🔗
Role description	Allows EC2 instances to call AWS services on your behalf. Edit
Instance Profile ARNs	arn:aws:iam::458014018061:instance-profile/demo-EC2-role 🔗
Path	/
Creation time	2021-09-13 10:24 UTC+0530
Last activity	Not accessed in the tracking period
Maximum session duration	1 hour Edit

Permissions Trust relationships Tags Access Advisor Revoke sessions

▾ Permissions policies (1 policy applied)

[Attach policies](#)[+ Add inline policy](#)

Assignment 2

1. Working with EC2 instances / create a EC2 instance

a.

aws

Services

Search for services, features, marketplace products, and docs

[Alt+S]

abhtech

N. Virginia

Support

1. Choose AMI2. Choose Instance Type3. Configure Instance4. Add Storage5. Add Tags6. Configure Security Group7. Review

Step 1: Choose an Amazon Machine Image (AMI)

Cancel and Exit

An AMI is a template that contains the software configuration (operating system, application server, and applications) required to launch your instance. You can select an AMI provided by AWS, our user community, or the AWS Marketplace; or you can select one of your own AMIs.

Search for an AMI by entering a search term e.g. "Windows"

Search by Systems Manager parameter

Quick Start

My AMIs

AWS Marketplace

Community AMIs

☐ Free tier only

Amazon Linux

Free tier eligible

Amazon Linux 2 AMI (HVM), SSD Volume Type - ami-087c17d1fe0178315 (64-bit x86) / ami-029c64b3c205e6cce (64-bit Arm)

Amazon Linux 2 comes with five years support. It provides Linux kernel 4.14 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 approaching end of life on December 31, 2020 and has been removed from this wizard.

Root device type: ebsVirtualization type: hvmENA Enabled: Yes

64-bit (x86)

64-bit (Arm)

Select

Mac

macOS Big Sur 11.5.2 - ami-098c730dfbe1aab81

The macOS Big Sur AMI is an EBS-backed, AWS-supported image. This AMI includes the AWS Command Line Interface, Command Line Tools for Xcode, Amazon SSM Agent, and Homebrew. The AWS Homebrew Tap includes the latest versions of multiple AWS packages included in the

Select

b.

Step 2: Choose an Instance Type

Amazon EC2 provides a wide selection of instance types optimized to fit different use cases. Instances are virtual servers that can run applications. They have varying combinations of CPU, memory, storage, and networking capacity, and give you the flexibility to choose the appropriate mix of resources for your applications. [Learn more](#) about instance types and how they can meet your computing needs.

Filter by: All instance familiesCurrent generationShow/Hide Columns

Currently selected: t2.micro (- ECUS, 1 vCPUs, 2.5 GHz, -, 1 GiB memory, EBS only)

	Family	Type	vCPUs	Memory (GiB)	Instance Storage (GB)	EBS-Optimized Available	Network Performance	IPv6 Support
<input type="checkbox"/>	t2	t2.nano	1	0.5	EBS only	-	Low to Moderate	Yes
<input checked="" type="checkbox"/>	t2	t2.micro Free tier eligible	1	1	EBS only	-	Low to Moderate	Yes
<input type="checkbox"/>	t2	t2.small	1	2	EBS only	-	Low to Moderate	Yes
<input type="checkbox"/>	t2	t2.medium	2	4	EBS only	-	Low to Moderate	Yes
<input type="checkbox"/>	t2	t2.large	2	8	EBS only	-	Low to Moderate	Yes

CancelPreviousReview and LaunchNext: Configure Instance Details

c.

1. Choose AMI2. Choose Instance Type3. Configure Instance4. Add Storage5. Add Tags6. Configure Security Group7. Review

Step 3: Configure Instance Details

Network

vpc-2a423857 (default)

Create new VPC

Subnet

No preference (default subnet in any Availability Zone)

Create new subnet

Auto-assign Public IP

Use subnet setting (Enable)

Placement group

☐ Add instance to placement group

Capacity Reservation

Open

Domain join directory

No directory

Create new directory

IAM role

None

Create new IAM role

Shutdown behavior

Stop

Stop - Hibernate behavior

☐ Enable hibernation as an additional stop behavior

Enable termination protection

☐ Protect against accidental termination

Monitoring

☐ Enable CloudWatch detailed monitoring

d.

1. Choose AMI 2. Choose Instance Type 3. Configure Instance 4. Add Storage 5. Add Tags 6. Configure Security Group 7. Review

Step 4: Add Storage

Your instance will be launched with the following storage device settings. You can attach additional EBS volumes and instance store volumes to your instance, or edit the settings of the root volume. You can also attach additional EBS volumes after launching an instance, but not instance store volumes. [Learn more](#) about storage options in Amazon EC2.

Volume Type ⓘ	Device ⓘ	Snapshot ⓘ	Size (GiB) ⓘ	Volume Type ⓘ	IOPS ⓘ	Throughput (MB/s) ⓘ	Delete on Termination ⓘ	Encryption ⓘ
Root	/dev/xvda	snap-0699a041095ac5492	8	General Purpose SSD (gp2) ▾	100 / 3000	N/A	<input checked="" type="checkbox"/>	Not Encrypt ▾

Add New Volume

Free tier eligible customers can get up to 30 GB of EBS General Purpose (SSD) or Magnetic storage. [Learn more](#) about free usage tier eligibility and usage restrictions.

e.

1. Choose AMI 2. Choose Instance Type 3. Configure Instance 4. Add Storage 5. Add Tags 6. Configure Security Group 7. Review

Step 6: Configure Security Group

A security group is a set of firewall rules that control the traffic for your instance. On this page, you can add rules to allow specific traffic to reach your instance. For example, if you want to set up a web server and allow Internet traffic to reach your instance, add rules that allow unrestricted access to the HTTP and HTTPS ports. You can create a new security group or select from an existing one below. [Learn more](#) about Amazon EC2 security groups.

Assign a security group: ☒ Create a new security group

☐ Select an existing security group

Security group name: launch-wizard-1

Description: launch-wizard-1 created 2021-09-13T10:34:10.799+05:30

Type ⓘ	Protocol ⓘ	Port Range ⓘ	Source ⓘ	Description ⓘ
SSH ▾	TCP	22	Custom ▾ 0.0.0.0/0	e.g. SSH for Admin Desktop ✕

Add Rule

Warning

Rules with source of 0.0.0.0/0 allow all IP addresses to access your instance. We recommend setting security group rules to allow access from known IP addresses only.

Cancel Previous Review and Launch

f.

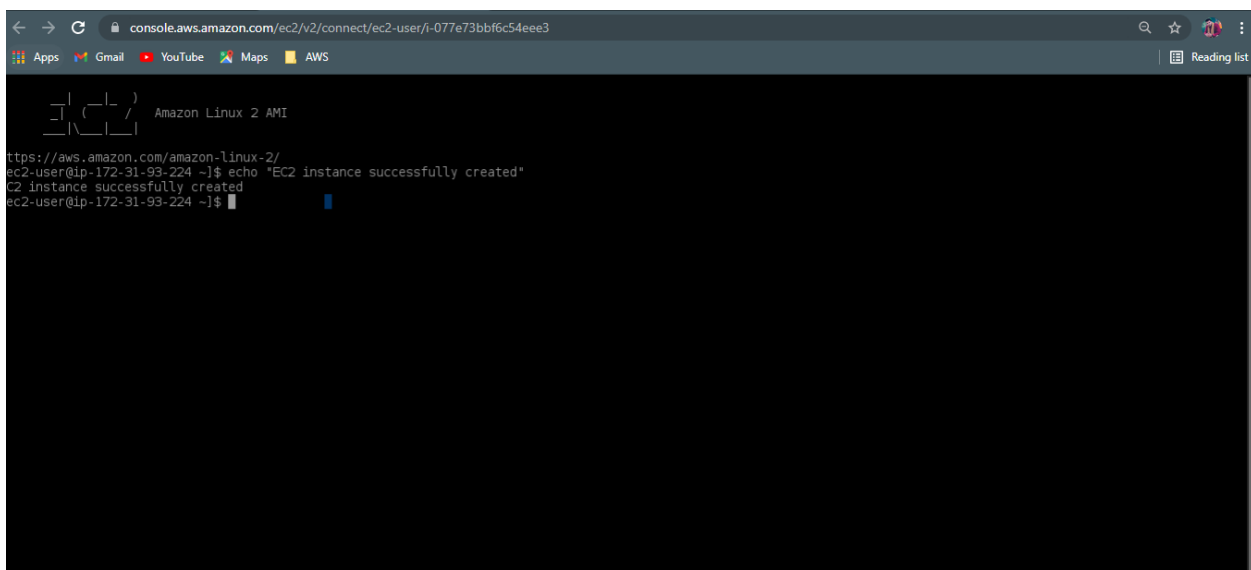
Instances (1) Info Refresh Connect Instance state ▾ Actions ▾ Launch instances ▾

Filter instances

search: i-077e73bbf6c54eee3 × Clear filters

<input type="checkbox"/>	Name ▾	Instance ID ▲	Instance state ▾	Instance type ▾	Status check	Alarm status	Availability Zone
<input type="checkbox"/>	-	i-077e73bbf6c54eee3	Running 🔍	t2.micro	2/2 checks passed	No alarms +	us-east-1a

2. connect to the instance



i-077e73bbf6c54eee3 (demo_instance)

Public IPs: 54.164.32.189 Private IPs: 172.31.93.224

Assignment 3

1. Working with EBS volume

Create an EBS volume and attach to an EC2 instance

a.

```
 _ | ( _ | _ )
 _ | ( _ | _ ) / Amazon Linux 2 AMI
 _ | \ _ | _ |

https://aws.amazon.com/amazon-linux-2/
[ec2-user@ip-172-31-24-147 ~]$ lsblk
NAME        MAJ:MIN RM  SIZE RO TYPE MOUNTPOINT
xvda        202:0    0   8G  0 disk
└─xvda1     202:1    0   8G  0 part /
[ec2-user@ip-172-31-24-147 ~]$
```

b.

The screenshot shows the AWS Management Console interface. At the top, there's a search bar with 'Volume ID: vol-002ce6af1e1036f04'. Below it, a table lists the volume details: Name (EBS_volume...), Volume ID (vol-002ce6af1e1036f04), Size (1 GiB), Volume Type (gp2), IOPS (100), Throughput (-), Snapshot (-), Created (September 13, 2021), Availability Zone (us-east-1a), and State (available). An 'Attach Volume' dialog box is open in the center. It has fields for 'Volume' (vol-002ce6af1e1036f04 (EBS_volume_ec2_instance) in us-east-1a), 'Instance' (Search instance ID or Name tag in us-east-1a), and 'Device'. The 'Attach' button is highlighted in blue. Below the dialog box, there's a 'Volumes' section with a table showing the volume details: Volume ID (vol-002ce6af1e1036f04), Alarm status (None), Snapshot (-), Availability Zone (us-east-1a), Encryption (Not Encrypted), KMS Key ID, KMS Key Aliases, KMS Key ARN, Outposts ARN (-), Size (1 GiB), Created (September 13, 2021 at 11:10:34 AM UTC+5:30), State (available), Attachment information, Volume type (gp2), Product codes (-), and IOPS (100).

c.

```
 _ | ( _ | _ )
 _ | ( _ | _ ) / Amazon Linux 2 AMI
 _ | \ _ | _ |

https://aws.amazon.com/amazon-linux-2/
[ec2-user@ip-172-31-24-147 ~]$ lsblk
NAME        MAJ:MIN RM  SIZE RO TYPE MOUNTPOINT
xvda        202:0    0   8G  0 disk
└─xvda1     202:1    0   8G  0 part /
[ec2-user@ip-172-31-24-147 ~]$ lsblk
NAME        MAJ:MIN RM  SIZE RO TYPE MOUNTPOINT
xvda        202:0    0   8G  0 disk
└─xvda1     202:1    0   8G  0 part /
xvdf        202:80    0   1G  0 disk
[ec2-user@ip-172-31-24-147 ~]$
```

Assignment 4

1. Working with VPC volume

Create your VPC

You successfully created vpc-028337e92d8d037de / demo-vpc

VPC > Your VPCs > vpc-028337e92d8d037de

vpc-028337e92d8d037de / demo-vpc

Actions

Details Info

VPC ID vpc-028337e92d8d037de	State Available	DNS hostnames Disabled	DNS resolution Enabled
Tenancy Default	DHCP options set dopt-7824c305	Main route table rtb-0e1996bd06f0f05a0	Main network ACL acl-02f502f7254729d73
Default VPC No	IPv4 CIDR 10.0.0.0/26	IPv6 pool -	IPv6 CIDR (Network border group) -
Route 53 Resolver DNS Firewall rule groups -	Owner ID 458014018061		

2. Create an internet gateway

Internet gateways (1/2) Info

Filter internet gateways

Create internet gateway

	Name	Internet gateway ID	State	VPC ID	Owner
<input type="checkbox"/>	demo-igs	igw-0b6af5611176462e2	Detached	-	458014018061

3.

VPC > Internet gateways > Attach to VPC (igw-0b6af5611176462e2)

Attach to VPC (igw-0b6af5611176462e2) Info

VPC
Attach an internet gateway to a VPC to enable the VPC to communicate with the internet. Specify the VPC to attach below.

Available VPCs
Attach the internet gateway to this VPC.

Q vpc-028337e92d8d037de X

► AWS Command Line Interface command

Cancel Attach internet gateway

4. Create a subnet-enable auto assign public IP

a.

You have successfully created 1 subnet: subnet-066206add88e3e6b2

Subnets (1) Info

Filter subnets

Create subnet

Subnet ID: subnet-066206add88e3e6b2 X Clear filters

	Name	Subnet ID	State	VPC	IPv4 CIDR	IPv6 CIDR
<input type="checkbox"/>	demo-subnet	subnet-066206add88e3e6b2	Available	vpc-028337e92d8d037de de...	10.0.0.0/26	-

Select a subnet

b.

VPC > Subnets > subnet-066206add88e3e6b2 > Modify auto-assign IP settings

Modify auto-assign IP settings [Info](#)

Enable the auto-assign IP address setting to automatically request a public IPv4 or IPv6 address for a new network interface in this subnet.

Settings

Subnet ID
subnet-066206add88e3e6b2

Auto-assign IPv4 [Info](#)
☒ Enable auto-assign public IPv4 address

Auto-assign customer-owned IPv4 address [Info](#)
☐ Enable auto-assign customer-owned IPv4 address
Option disabled because no customer owned pools found.

Cancel Save

5. Create a route table-make it the main route table-add a route entry to IGW

a.

Route table rtb-030832dc4e71fe5fa | demo-route was created successfully.

VPC > Route tables > rtb-030832dc4e71fe5fa

rtb-030832dc4e71fe5fa / demo-route [Actions](#)

[You can now check network connectivity with Reachability Analyzer](#) [Run Reachability Analyzer](#)

Details [Info](#)

Route table ID rtb-030832dc4e71fe5fa	Main No	Explicit subnet associations -	Edge associations -
VPC vpc-028337e92d8d037de demo-vpc	Owner ID 458014018061		

[Routes](#) | [Subnet associations](#) | [Edge associations](#) | [Route propagation](#) | [Tags](#)

b.

Updated routes for rtb-030832dc4e71fe5fa / demo-route successfully

Details

- You have successfully created 1 route: 0.0.0.0/0.

Details [Info](#)

Route table ID rtb-030832dc4e71fe5fa	Main No	Explicit subnet associations -	Edge associations -
VPC vpc-028337e92d8d037de demo-vpc	Owner ID 458014018061		

[Routes](#) | [Subnet associations](#) | [Edge associations](#) | [Route propagation](#) | [Tags](#)

Routes (2) [Edit routes](#)

[Both](#) [<](#) [1](#) [>](#) [⚙️](#)

Destination	Target	Status	Propagated
10.0.0.0/26	local	Active	No
0.0.0.0/0	igw-097c0d1f787af7b13	Active	No

c.

You successfully set the route table rtb-030832dc4e71fe5fa / demo-route as main.

VPC > Route tables > rtb-030832dc4e71fe5fa

rtb-030832dc4e71fe5fa / demo-route

Actions

You can now check network connectivity with Reachability Analyzer [Run Reachability Analyzer](#)

Details Info

Route table ID rtb-030832dc4e71fe5fa	Main Yes	Explicit subnet associations subnet-066206add88e3e6b2 / demo-subnet1	Edge associations -
VPC vpc-028337e92d8d037de demo-vpc	Owner ID 458014018061		

Routes Subnet associations Edge associations Route propagation Tags

Routes (2) [Edit routes](#)

Filter routes Both

6. Launch an instance in custom VPC

Assignment 5

1. Deploying a sample application on elastic beanstalk

Create an application

a.

Elastic Beanstalk > Environments > Myfirstawsapp-env

Creating Myfirstawsapp-env
This will take a few minutes. ...

```

4:48pm Created security group named:
awseb-e-micceeggeh-stack-AWSEBSecurityGroup-RCNOFRHA09XB
4:48pm Environment health has transitioned to Pending. Initialization in progress (running for 9 seconds). There are no instances.
4:48pm Created security group named:
sg-03a4467b8a98a32c1
4:48pm Created target group named:
arn:aws:elasticloadbalancing:us-east-1:458014018061:targetgroup/awseb-1WF3TXS035MP4/ee07068f276ab56
4:47pm Using elasticbeanstalk-us-east-1-458014018061 as Amazon S3 storage bucket for environment data.
4:47pm createEnvironment is starting.
  
```

b.

Elastic Beanstalk > Environments

All environments

Filter results matching the display values

Environment name	Health	Application name	Date created	Last modified	URL	Running versions	Platform	Platform state	Tier name
Myfirstawsapp-env	Pending	my-first-aws-app	2021-09-14 16:47:54 UTC+0530	2021-09-14 16:50:42 UTC+0530	Myfirstawsapp-env.eba-jnp9qnp8.us-east-1.elasticbeanstalk.com	my-first-aws-app-source	PHP 8.0 running on 64bit Amazon Linux 2	Supported	WebServer

c.

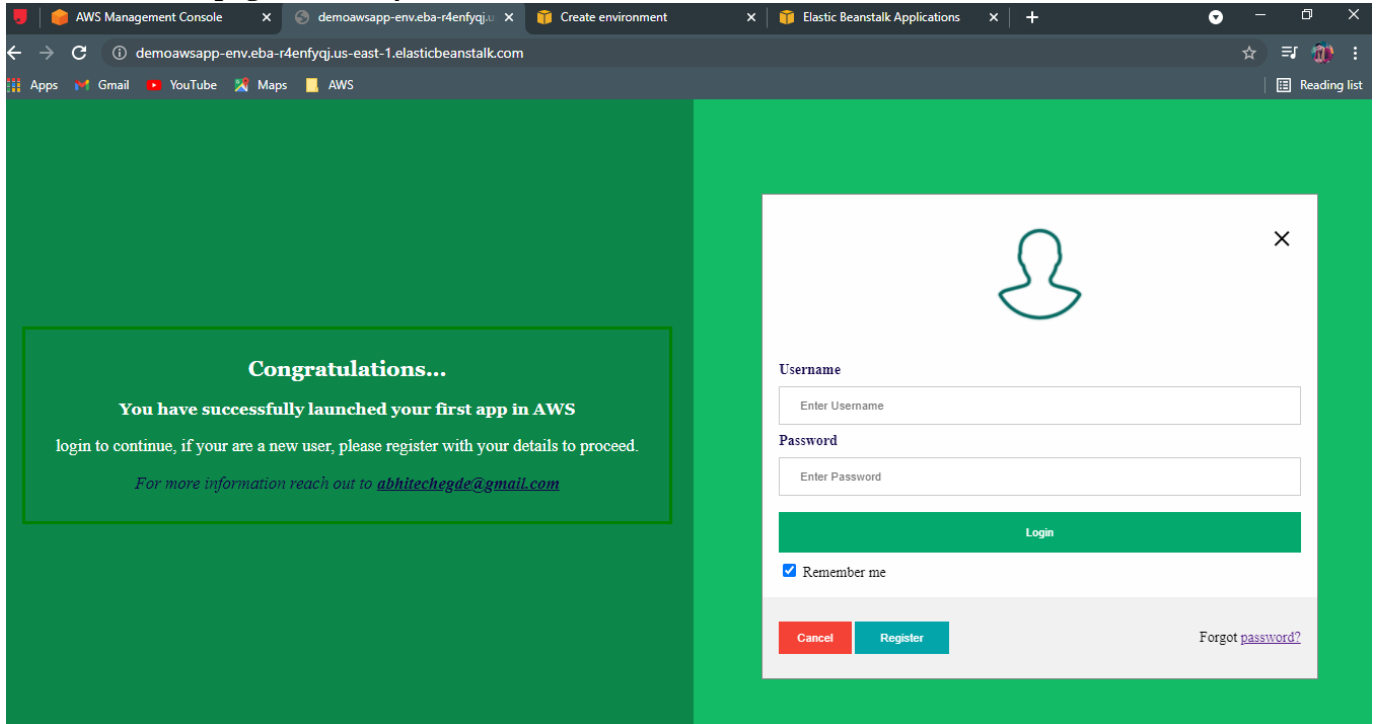
Elastic Beanstalk > Applications

All applications

Filter results matching the display values

Application name	Environments	Date created	Last modified	ARN
my-first-aws-app	Myfirstawsapp-env	2021-09-14 16:47:12 UTC+0530	2021-09-14 16:47:12 UTC+0530	arn:aws:elasticbeanstalk:us-east-1:458014018061:application/my-first-aws-app

2. Launch the web page and verify



Note: In the previous app for bad gateway error. Created new app and deployed, its working good.

Also, I have done all the based on the understanding of the concepts and the question asked, if anything is wrong please don't mind.

Feedback: the 2 day course was really good, I learnt a lot, and got my interests here in AWS, may be the certificate will motivate me more to learn and upgrade.