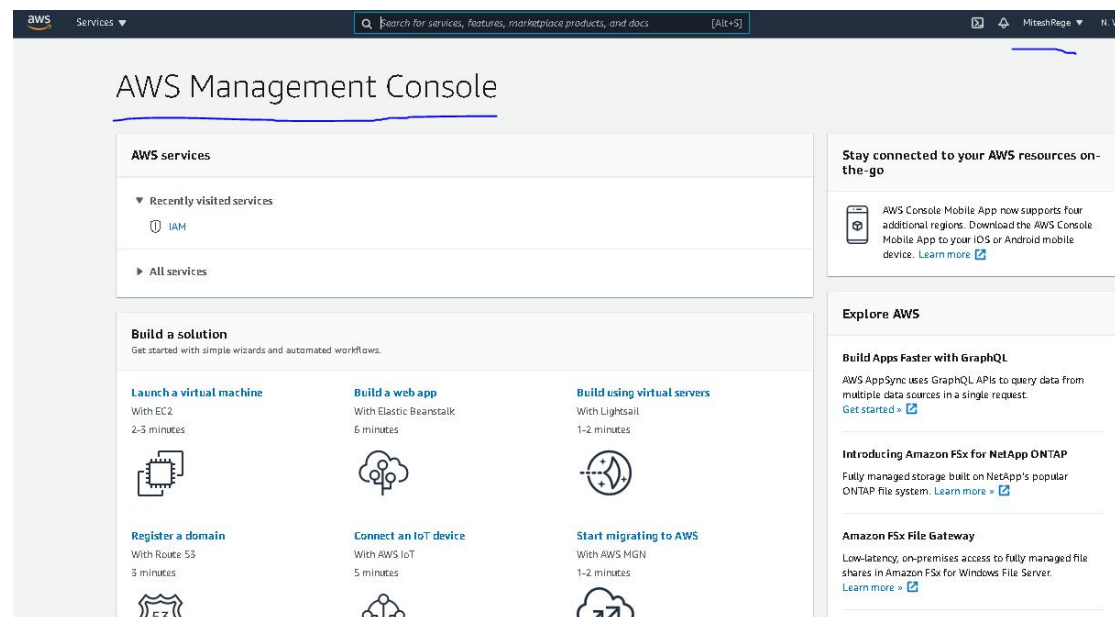


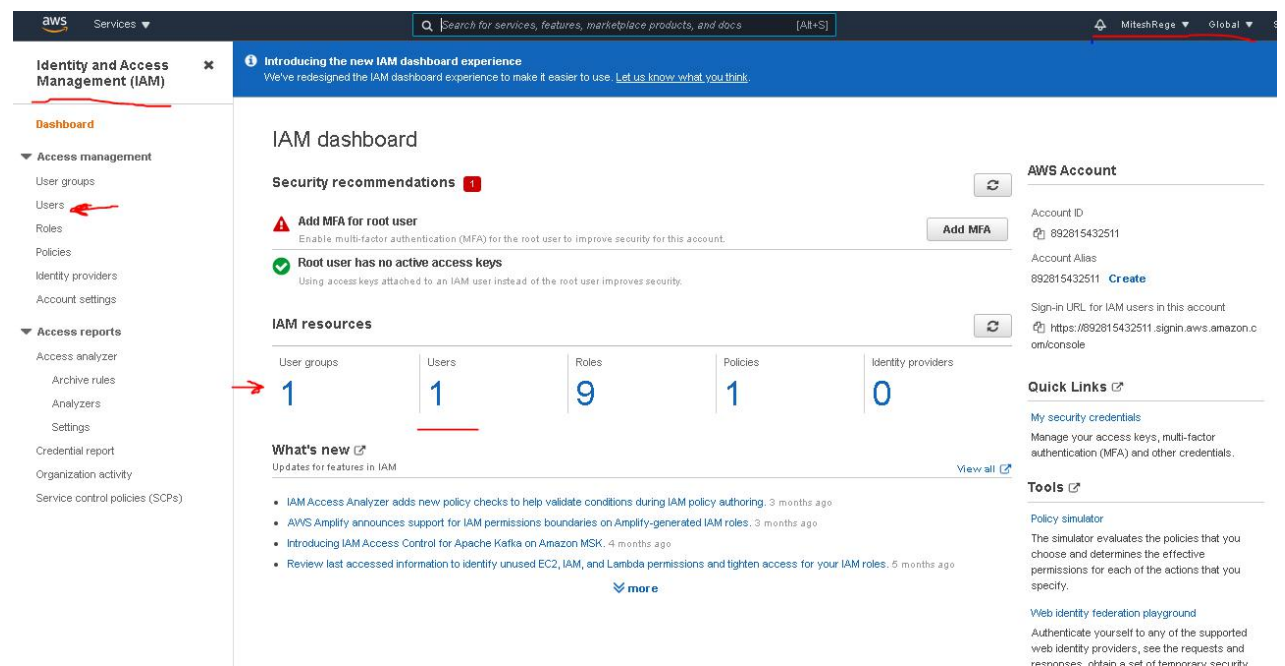
Name : Mitesh Rege AWS Zero to Hero
Assignment For AWS course
Date:16/09/2020

Assignment AWS essentials sept 21

Assignment 1



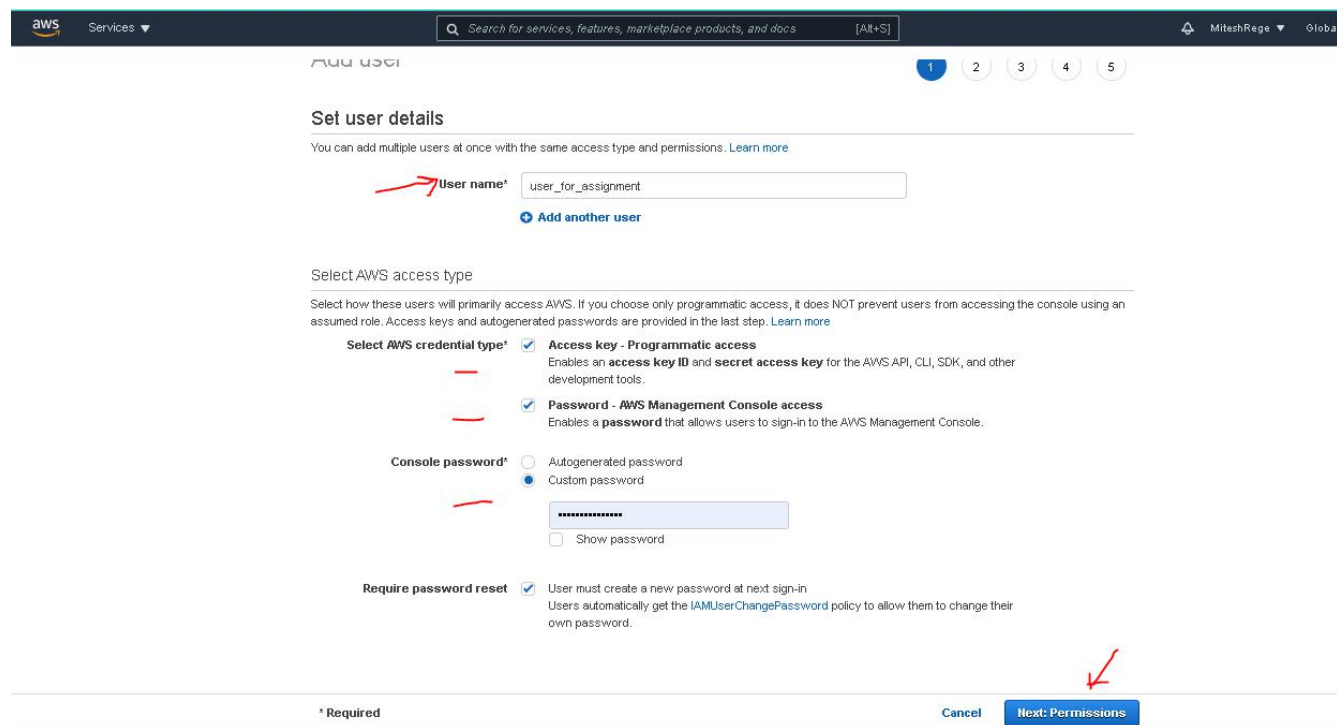
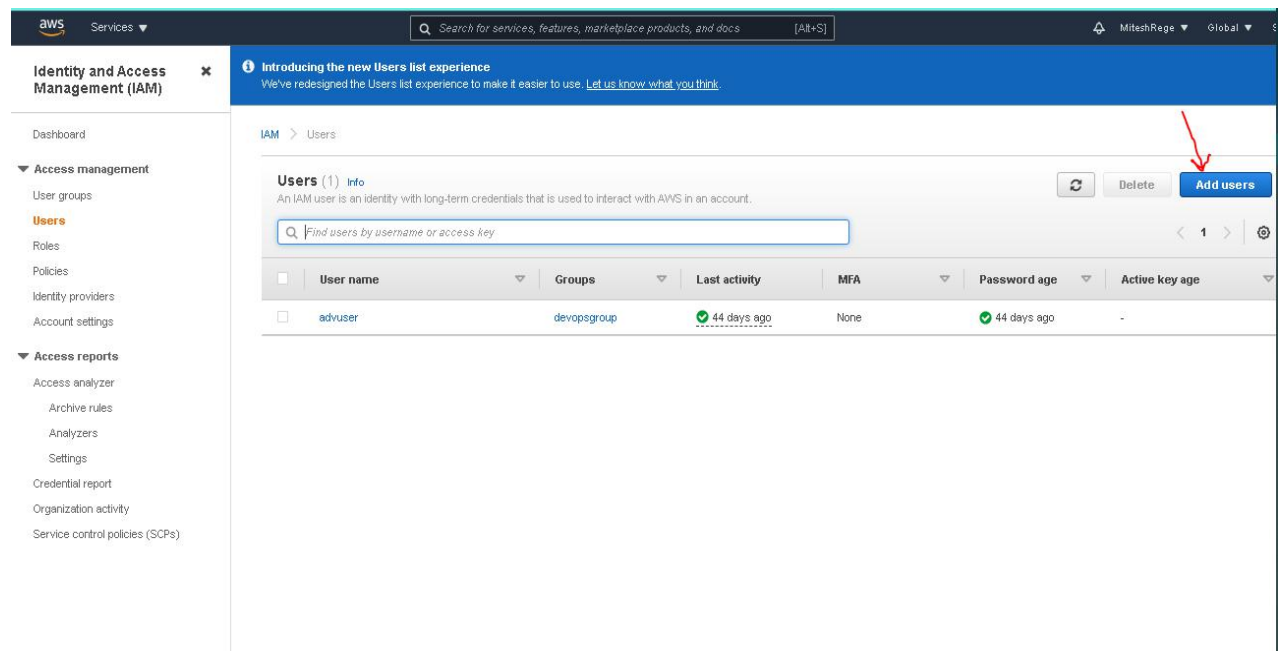
Working with IAM



Name : Mitesh Rege
Assignment For
Date:16/09/2020

AWS Zero to Hero AWS course

1. Create an IAM user



Name : Mitesh Rege
Assignment For
Date:16/09/2020

AWS Zero to Hero
AWS course

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

Add user 1 2 3 4 5

Set permissions

Filter policies Showing 1 result

	Policy name	Type	Used as
<input checked="" type="checkbox"/>	AmazonS3FullAccess	AWS managed	Permissions policy (1)

Set permissions boundary

Add user 1 2 3 4 5

Review

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

User details

User name	user_for_assignment
AWS access type	Programmatic access and AWS Management Console access
Console password type	Custom
Require password reset	Yes
Permissions boundary	Permissions boundary is not set

Permissions summary

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

Type	Name
Managed policy	AmazonS3FullAccess
Managed policy	IAMUserChangePassword

Tags

No tags were added.

Name : Mitesh Rege
Assignment For
Date:16/09/2020

AWS Zero to Hero AWS course

The screenshot shows the 'Add user' wizard in the AWS IAM console. A green success message box indicates that the user 'user_for_assignment' has been created successfully. Below the message is a 'Download .csv' button and a table listing the created user.

User	Access key ID	Secret access key	Email login instructions
user_for_assignment	AKIA47X7SLM7GCUSA1WBG	***** Show	Send email

The screenshot shows the 'Users' list page in the AWS IAM console. A green banner at the top confirms the creation of the user 'user_for_assignment'. Below the banner, the 'Users (2)' section displays a table of users. The user 'user_for_assignment' is listed with a 'None' group, 'Never' last activity, and 'Now' password and key age.

User name	Groups	Last activity	MFA	Password age	Active key age
advuser	devopsgroup	44 days ago	None	44 days ago	-
user_for_assignment	None	Never	None	Now	Now

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

Name : Mitesh Rege
Assignment For
Date:16/09/2020

AWS Zero to Hero
AWS course



Sign in as IAM user

Account ID (12 digits) or account alias

IAM user name

Password

Sign in

[Sign in using root user email](#)

[Forgot password?](#)

IN
A
f
La
fu
in

The screenshot shows the AWS Management Console interface. At the top, there is a navigation bar with the AWS logo, a search bar, and a user profile dropdown showing 'user_for_assignment @ 8928-1543-2511' in the N. Virginia region. The main content area is titled 'AWS Management Console'. On the left, there is a sidebar with 'AWS services' and 'Build a solution' sections. The 'AWS services' section shows 'Recently visited services' with 'IAM' listed. The 'Build a solution' section has a link to 'Get started with simple wizards and automated workflows'. On the right, there are several promotional banners: 'Stay connected to your AWS resources on-the-go' for the AWS Console Mobile App, 'Explore AWS' with a link to 'Introducing Amazon FSx for NetApp ONTAP', and a banner for 'Fully managed storage built on NetApp's popular'.

Name : Mitesh Rege
Assignment For
Date:16/09/2020

AWS Zero to Hero AWS course

The image displays two screenshots of the AWS Management Console interface, illustrating API errors encountered during navigation.

Top Screenshot: IAM Dashboard

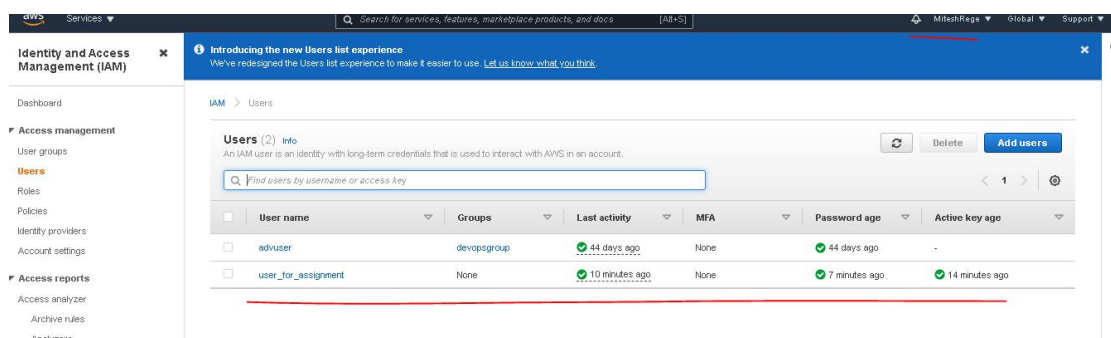
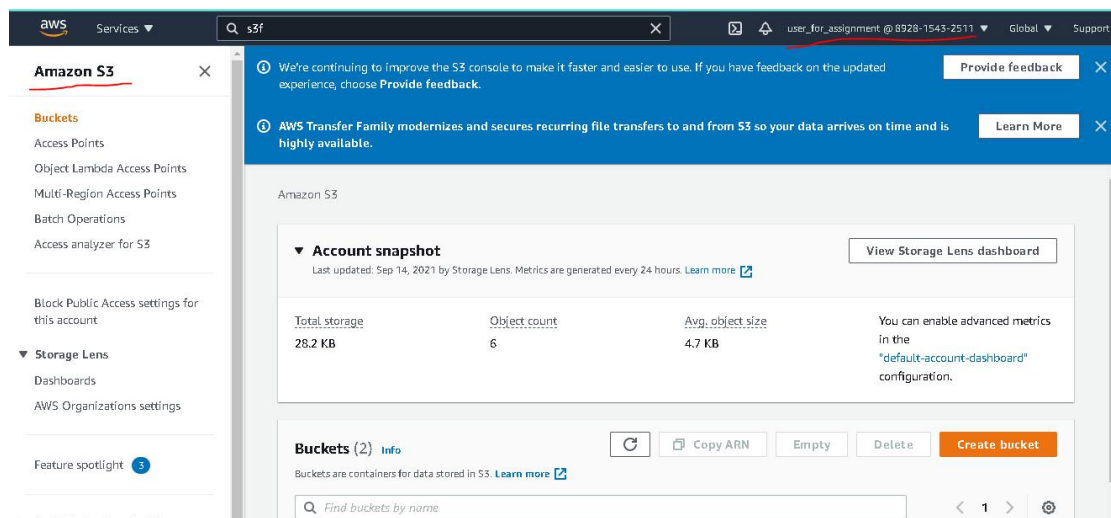
- Navigation:** Identity and Access Management (IAM) is selected in the left sidebar.
- Section Headers:** "Introducing the new IAM dashboard experience" and "IAM dashboard".
- Security recommendations:** A red arrow points to this section, which contains three error messages: "You do not have the permission required to perform this operation. Ask your administrator to add permissions." for actions like iam:GetAccountSummary, iam:ListMFADevices, and iam:ListAccessKeys.
- IAM resources:** A red arrow points to this section, which contains one error message: "You do not have the permission required to perform this operation. Ask your administrator to add permissions." for the action iam:GetAccountSummary.
- What's new:** Updates for features in IAM.
- Right Sidebar:** AWS Account, Quick Links (My security credentials), and Tools (Policy simulator, Web identity federation playground).

Bottom Screenshot: EC2 Dashboard

- Navigation:** "New EC2 Experience" is highlighted in the left sidebar.
- Section Headers:** "Resources" and "EC2 Global view".
- Resources:** A red arrow points to this section, which lists various EC2 resources (Instances (running), Instances, Placement groups, Volumes, Dedicated Hosts, Key pairs, Security groups, Elastic IPs, Load balancers, Snapshots) and their status. All resources show an "API Error" icon.
- Launch instance:** A section with a "Launch instance" button and a "Migrate a server" link.
- Service health:** A section showing the status of the service (US East (N. Virginia)) as "This service is operating normally".
- Right Sidebar:** Account attributes (Supported platforms, Default VPC, Settings, EBS encryption, Zones, EC2 Serial Console, Default credit specification, Console experiments) and Explore AWS (Save Up to 45% on ML Inference, Get Up to 40% Better Price Performance).

Name : Mitesh Rege
Assignment For
Date:16/09/2020

AWS Zero to Hero
AWS course



Assignment 2

Working with EC2 instances

Create a ec2 instance

Name : Mitesh Rege
Assignment For
Date:16/09/2020

AWS Zero to Hero AWS course

The screenshot shows the AWS Management Console interface. The left sidebar contains navigation links for EC2 Dashboard, Events, Tags, Limits, Instances, Images, Elastic Block Store, and Network & Security. The main content area is titled 'Resources' and shows a summary of EC2 resources in the US East (N. Virginia) region. It includes a table with columns for resource type and count. Below the table, there is a 'Launch instance' button and a 'Service health' section. The right sidebar displays 'Account attributes' and 'Explore AWS' with various optimization tips.

Step 1: Choose an Amazon Machine Image (AMI)

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.

The screenshot shows the 'Choose an AMI' step in the AWS Management Console. The search bar is set to 'Search for an AMI by entering a search term e.g. "Windows"'. The results show two AMIs: 'Amazon Linux 2 AMI (HVM), SSD Volume Type' and 'macOS Big Sur 11.5.2'. The 'Amazon Linux 2 AMI' is highlighted with a red box.

The screenshot shows the 'Choose an Instance Type' step in the AWS Management Console. The search bar is set to 'Search for services, features, marketplace products, and docs'. The results show a table of instance types. The 't2.micro' instance type is highlighted with a red box.

Family	Type	vCPUs	Memory (GiB)	Instance Storage (GiB)	EBS-Optimized Available	Network Performance	IPv6 Support
t2	t2.nano	1	0.5	EBS only	-	Low to Moderate	Yes
t2	t2.micro	1	1	EBS only	-	Low to Moderate	Yes
t2	t2.small	1	2	EBS only	-	Low to Moderate	Yes
t2	t2.medium	2	4	EBS only	-	Low to Moderate	Yes
t2	t2.large	2	8	EBS only	-	Low to Moderate	Yes
t2	t2.xlarge	4	16	FRRS only	-	Moderate	Yes

Name : Mitesh Rege
Assignment For
Date:16/09/2020

AWS Zero to Hero AWS course

aws

Services

Search for services, features, marketplace products, and docs

[Alt+S]

MiteshRege

N. Virginia

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

Description:

Type	Protocol	Port Range	Source	Description
All traffic	All	0 - 65535	Anywhere 0.0.0.0:::0	e.g. SSH for Admin Desktop

Add Rule

aws

Services

Search for services, features, marketplace products, and docs

[Alt+S]

MiteshRege

N. Virginia

Support

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

Step 7: Review Instance Launch

AMI Details

Edit AMI

Free tier eligible

Amazon Linux 2 AMI (HVM, SSD Volume Type) - ami-087c17d1fe0178315

Amazon Linux 2 comes with five years support. It provides Linux kernel 4.14 tuned for optimal performance on Amazon EC2, systemd 210, GCC 7.3, glibc 2.28, Binutils 2.29.1, and the latest software packages through dnf. This AMI is the successor of the Amazon Linux AMI that is a...

Root Device Type: ebsVirtualization type: hvm

Instance Type

Edit instance type

Instance Type	ECUs	vCPUs	Memory (GiB)	Instance Storage (GiB)	EBS-Optimized Available	Network Performance
t2.micro	-	1	1	EBS only	-	Low to Moderate

Security Groups

Edit security groups

Security group name: launch-wizard-5

Description: launch-wizard-5 created 2021-09-17T19:40:07.514+05:30

Type	Protocol	Port Range	Source	Description
All traffic	All	All	0.0.0.0	
All traffic	All	All	:::0	

Instance Details

Edit instance details

Storage

Edit storage

Tags

Edit tags

Cancel

Previous

Launch

Name : Mitesh Rege
Assignment For
Date:16/09/2020

AWS Zero to Hero
AWS course

Select an existing key pair or create a new key pair

A key pair consists of a **public key** that AWS stores, and a **private key file** that you store. Together, they allow you to connect to your instance securely. For Windows AMIs, the private key file is required to obtain the password used to log into your instance. For Linux AMIs, the private key file allows you to securely SSH into your instance. Amazon EC2 supports ED25519 and RSA key pair types.

Note: The selected key pair will be added to the set of keys authorized for this instance. Learn more about [removing existing key pairs from a public AMI](#).

Create a new key pair

Key pair type
☒ RSA ☐ ED25519

Key pair name
new-Key-Assignment


Download Key Pair

You have to download the **private key file** (*.pem file) before you can continue. **Store it in a secure and accessible location.** You will not be able to download the file again after it's created.

Cancel


Launch Instances

Launch Status



Your instances are now launching

The following instance launches have been initiated: [i-09ee32182c1cd9106](#) [View launch log](#)



Get notified of estimated charges

Create billing alerts to get an email notification when estimated charges on your AWS bill exceed an amount you define (for example, if you exceed the free usage tier).

How to connect to your instances

Your instances are launching, and it may take a few minutes until they are in the **running** state, when they will be ready for you to use. Usage hours on your new instances will start immediately and continue to accrue until you stop or terminate your instances.

Click **View Instances** to monitor your instances' status. Once your instances are in the **running** state, you can **connect** to them from the Instances screen. [Find out](#) how to connect to your instances.

Here are some helpful resources to get you started

- How to connect to your Linux instance
- Learn about AWS Free Usage Tier
- Amazon EC2: User Guide
- Amazon EC2: Discussion Forum

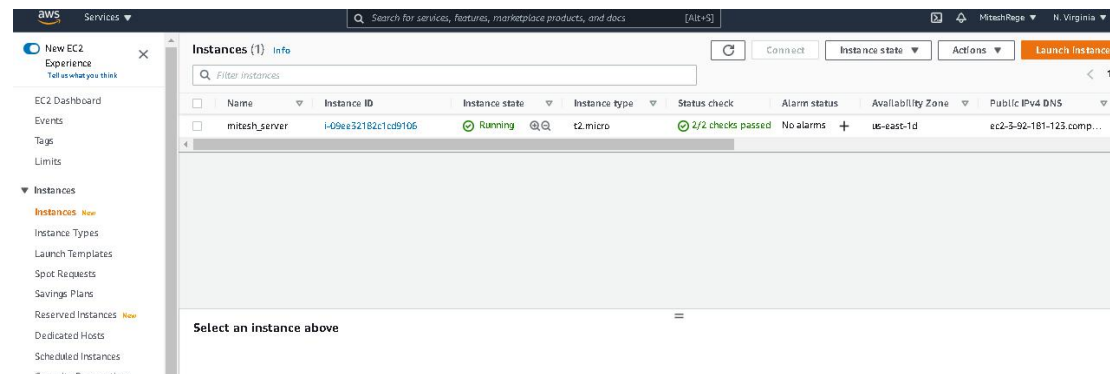
While your instances are launching you can also

- Create status check alarms to be notified when these instances fail status checks. (Additional charges may apply)
- Create and attach additional EBS volumes (Additional charges may apply)
- Manage security groups

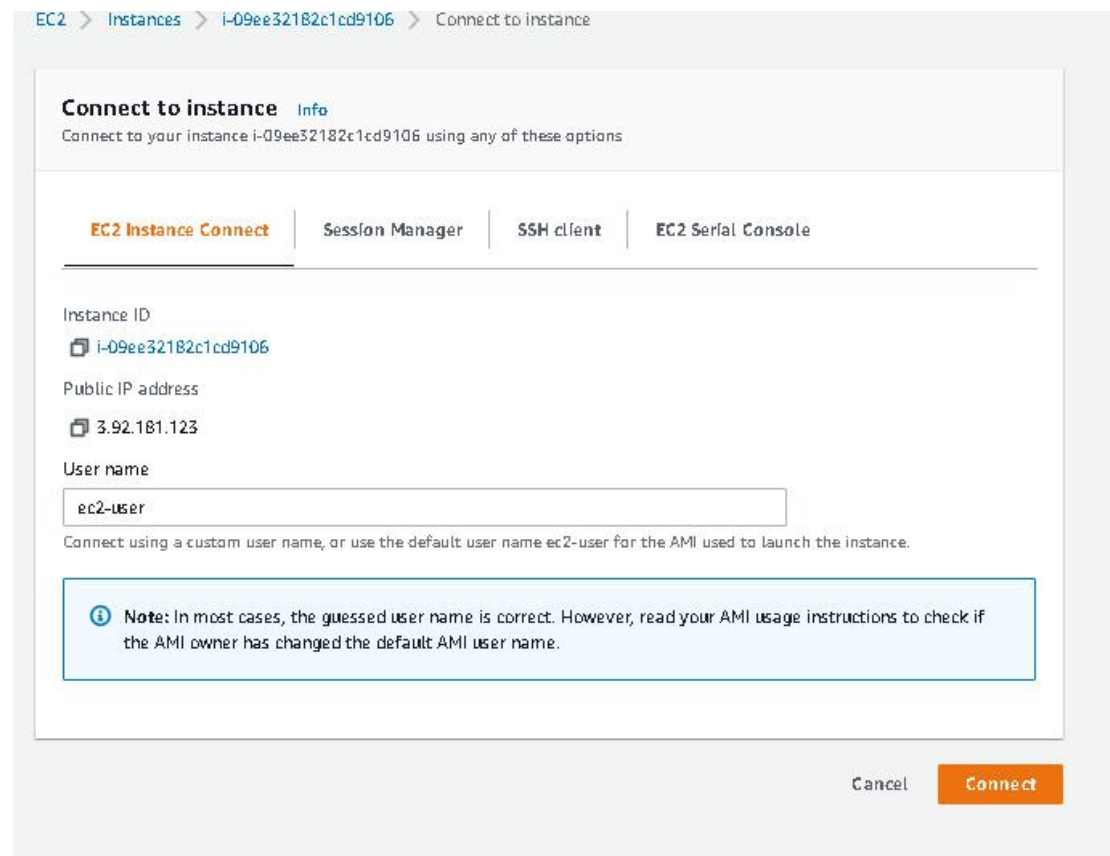
View

Name : Mitesh Rege
Assignment For
Date:16/09/2020

AWS Zero to Hero AWS course

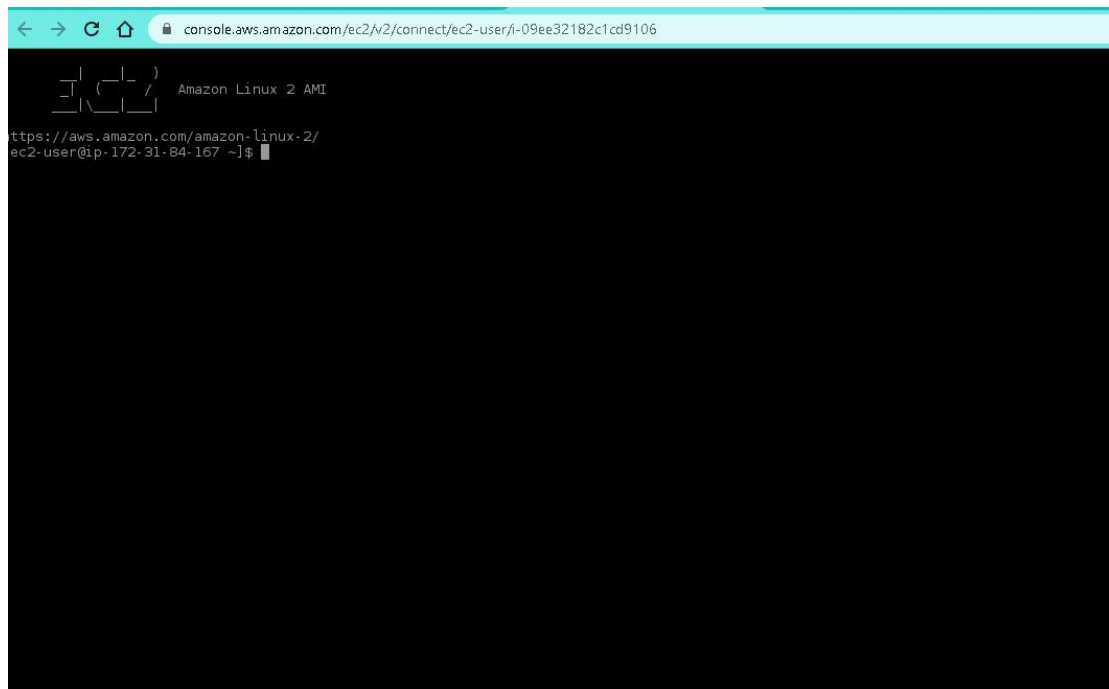


connect to the instance.



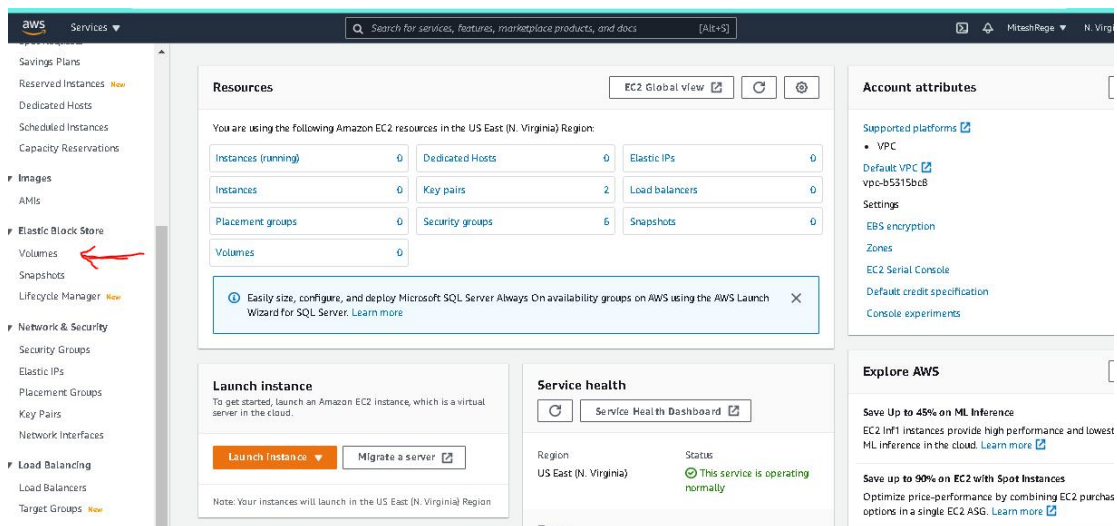
Name : Mitesh Rege
Assignment For
Date:16/09/2020

AWS Zero to Hero
AWS course



i-09ee32182c1cd9106

Public IPs: 3.92.161.123 Private IPs: 172.31.84.167



Assignment 3

Working with ebs volumes

Name : Mitesh Rege
Assignment For
Date:16/09/2020

AWS Zero to Hero AWS course

The screenshot shows the AWS Management Console interface. On the left, there's a navigation menu with options like 'New EC2 Experience', 'EC2 Dashboard', 'Instances', 'Volumes', 'EBS', 'Snapshots', 'Storage Gateway', 'Amazon S3', 'Amazon EBS', 'Amazon ElastiCache', 'Amazon EMR', 'Amazon Redshift', 'Amazon RDS', 'Amazon Aurora', 'Amazon DynamoDB', 'Amazon ElastiDB', 'Amazon Kinesis', 'Amazon EMRFS', 'Amazon SageMaker', 'Amazon Rekognition', 'Amazon Comprehend', 'Amazon Lex', 'Amazon Polly', 'Amazon Transcribe', 'Amazon Textract', 'Amazon Rekognition', 'Amazon Comprehend', 'Amazon Lex', 'Amazon Polly', 'Amazon Transcribe', 'Amazon Textract'. The main area shows the 'Create Volume' button and a table of existing volumes.

Name	Volume ID	Size	Volume Type	IOPS	Throughput	Snapshot	Created	Availability Zone	State	Alarm Status
mitesh_server	vol-0a5b591...	8 GiB	gp2	100	-	snap-0699a04...	September 17, 202...	us-east-1d	In-use	None

The screenshot shows the 'Create Volume' form in the AWS Management Console. The form includes fields for 'Volume Type' (General Purpose SSD (gp2)), 'Size (GiB)' (100), 'IOPS' (300 / 3000), 'Throughput (MB/s)' (Not applicable), 'Availability Zone' (us-east-1d), 'Snapshot ID' (Select a snapshot), and 'Encryption' (Encrypt this volume). There is also a section for 'Tags' with a table for 'Key' and 'Value'. The 'Add Tag' button is visible, along with a note that 50 tags remain.

Volume Type General Purpose SSD (gp2) **Size (GiB)** 100 (Min: 1 GiB, Max: 16384 GiB) **IOPS** 300 / 3000 (Baseline of 3 IOPS per GiB with a minimum of 100 IOPS, burstable to 3000 IOPS) **Throughput (MB/s)** Not applicable **Availability Zone** us-east-1d **Snapshot ID** Select a snapshot **Encryption** ☐ Encrypt this volume

Tags

Key	Value
(128 characters maximum)	(256 characters maximum)

This resource currently has no tags. Choose the Add tag button or click to add a Name tag.

Add Tag 50 remaining (Up to 50 tags maximum)

Required **Create Volume**

The screenshot shows the 'Create Volume' form in the AWS Management Console. A green success message is displayed: 'Volume created successfully'. Below the message, the 'Volume ID' is shown as 'vol-01eab8af38b44ac1a'. A 'Close' button is visible at the bottom right.

Volume created successfully

Volume ID vol-01eab8af38b44ac1a

Close

Create an ebs volume and attach to an ec2 instance

Name : Mitesh Rege
Assignment For
Date:16/09/2020

AWS Zero to Hero AWS course

Attach Volume

Volume ⓘ vol-01eab8af38b44ac1a in us-east-1d

Instance ⓘ in us-east-1d

Device ⓘ
Linux Devices: /dev/sdf through /dev/sdp

Note: Newer Linux kernels may rename your devices to /dev/xvdf through /dev/xvdp internally, even when the device name entered here (and shown in the details) is /dev/sdf through /dev/sdp.

Cancel

New EC2 Experience

EC2 Dashboard

Events

Tags

Limits

Instances

Instances

Instance Types

Launch Templates

Spot Requests

Savings Plans

Reserved Instances

Dedicated Hosts

Scheduled Instances

Capacity Reservations

Images

AMIs

Elastic Block Store

Volumes

Snapshots

Lifecycle Manager

Network & Security

Create Volume

Actions

Filter by tags and attributes or search by keyword

Name	Volume ID	Size	Volume Type	IOPS	Throughput	Snapshot	Created	Availability Zone	State	Alarm Status	Attachment Information
	vol-01eab8af...	100 GiB	gp2	300	-		September 17, 2021	us-east-1d	In-use	None	i-09ee32182c1cd9106
	mitesh_server	8 GiB	gp2	100	-	snap-0699a04...	September 17, 2021	us-east-1d	In-use	None	i-09ee32182c1cd9106

Volumes: vol-01eab8af38b44ac1a

Description

Status Checks

Monitoring

Tags

Volume ID

Alarm status

Snapshot

Availability Zone

Encryption

KMS Key ID

KMS Key ARN

Throughput (MB/s)

Outputs ARN

Size

Created

State

Attachment Information

Volume type

Product codes

IOPS

Multi-Attach Enabled

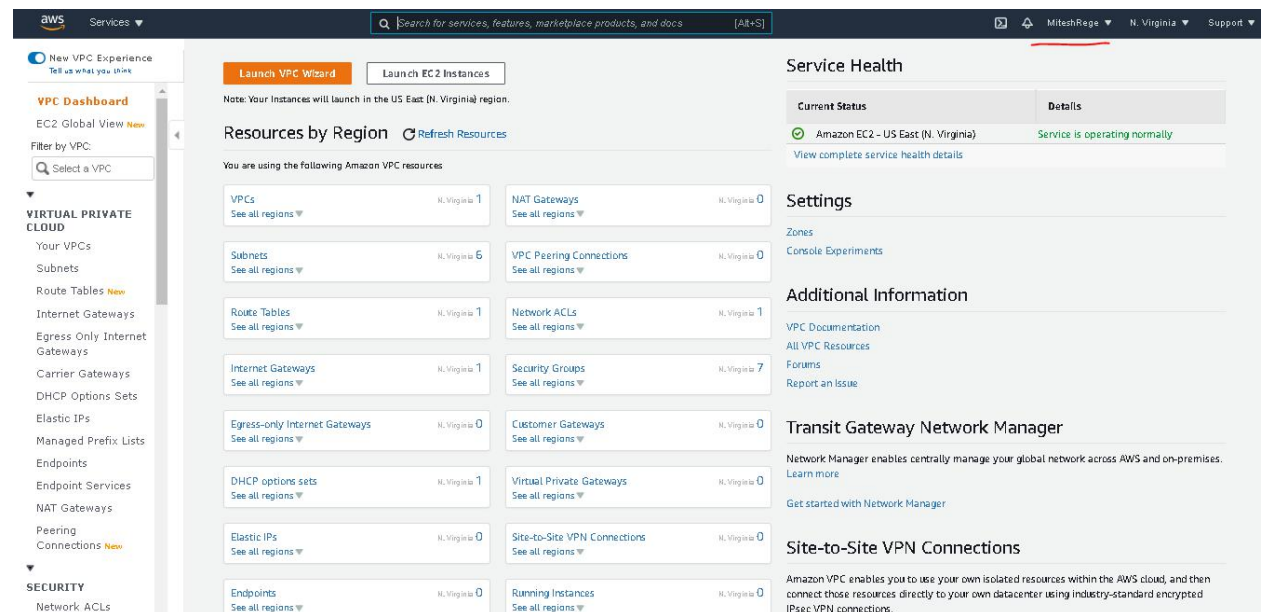
Assignment 4

Working with VPC

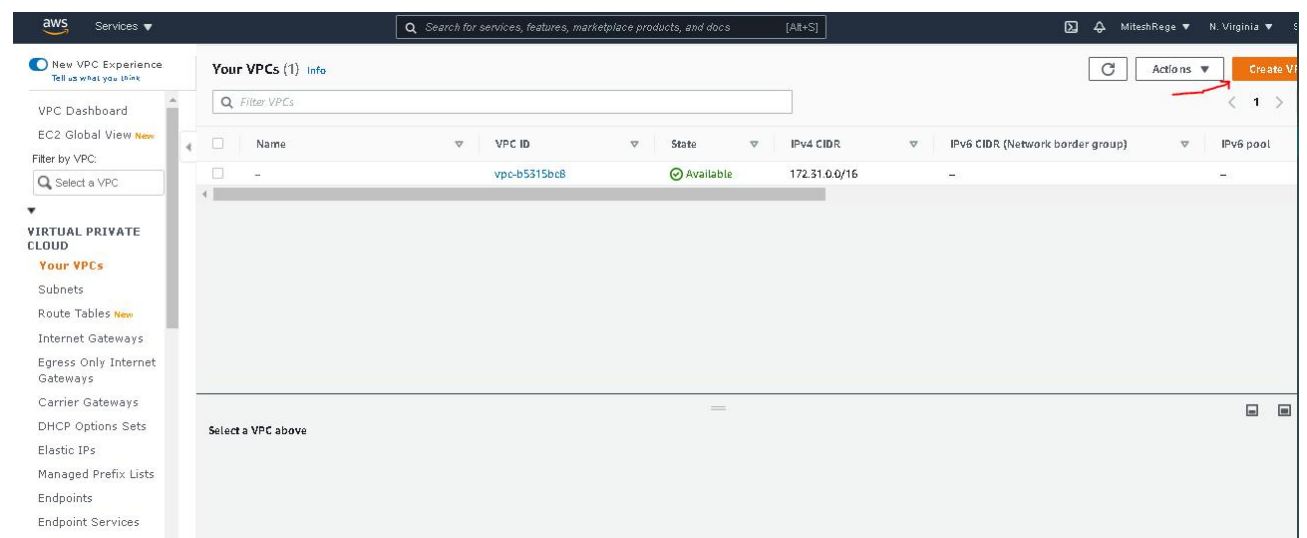
Create your vpc

Name : Mitesh Rege
Assignment For
Date:16/09/2020

AWS Zero to Hero AWS course



The screenshot shows the AWS Management Console VPC Dashboard. The left sidebar contains navigation links for VPC Dashboard, EC2 Global View, and various VPC resources. The main content area displays 'Resources by Region' for the N. Virginia region, showing counts for VPCs, Subnets, Route Tables, Internet Gateways, Egress-only Internet Gateways, DHCP options sets, Elastic IPs, Endpoints, NAT Gateways, VPC Peering Connections, Network ACLs, Security Groups, Customer Gateways, Virtual Private Gateways, Site-to-Site VPN Connections, and Running Instances. The right sidebar includes 'Service Health' (Amazon EC2 - US East (N. Virginia) is operating normally), 'Settings' (Zones, Console Experiments), 'Additional Information' (VPC Documentation, All VPC Resources, Forums, Report an Issue), 'Transit Gateway Network Manager' (Learn more, Get started with Network Manager), and 'Site-to-Site VPN Connections' (Amazon VPC enables you to use your own isolated resources within the AWS cloud).



The screenshot shows the AWS Management Console VPC Details page for the VPC 'vpc-b5315bc8'. The page displays the VPC's Name, VPC ID, State (Available), IPv4 CIDR (172.31.0.0/16), IPv6 CIDR (Network border group), and IPv6 pool. The 'Actions' menu is open, showing options like 'Create VPC', 'Attach Subnet', 'Detach Subnet', 'Delete VPC', 'Create Subnet', 'Delete Subnet', 'Create Route Table', 'Delete Route Table', 'Create Internet Gateway', 'Delete Internet Gateway', 'Create Egress Only Internet Gateway', 'Delete Egress Only Internet Gateway', 'Create DHCP Options Set', 'Delete DHCP Options Set', 'Create Elastic IP', 'Delete Elastic IP', 'Create Endpoint', 'Delete Endpoint', 'Create NAT Gateway', 'Delete NAT Gateway', 'Create VPC Peering Connection', 'Delete VPC Peering Connection', 'Create Network ACL', 'Delete Network ACL', 'Create Security Group', 'Delete Security Group', 'Create Customer Gateway', 'Delete Customer Gateway', 'Create Virtual Private Gateway', 'Delete Virtual Private Gateway', 'Create Site-to-Site VPN Connection', 'Delete Site-to-Site VPN Connection', and 'Create Running Instance'.

Name : Mitesh Rege
Assignment For
Date:16/09/2020

AWS Zero to Hero
AWS course

VPC settings

Name tag - optional
Creates a tag with a key of 'Name' and a value that you specify.

IPv4 CIDR block [Info](#)

IPv6 CIDR block [Info](#)

☒ No IPv6 CIDR block

☐ Amazon-provided IPv6 CIDR block

☐ IPv6 CIDR owned by me

Tenancy [Info](#)

Tags

A tag is a label that you assign to an AWS resource. Each tag consists of a key and an optional value. You can use tags to search and filter your resources or track your AWS costs.

Key	Value - optional	
<input type="text" value="Name"/>	<input type="text" value="mitesh_vpc"/>	<input type="button" value="Remove"/>

You can add 49 more tags.

Name : Mitesh Rege
Assignment For
Date:16/09/2020

AWS Zero to Hero
AWS course

The screenshot displays the AWS Management Console interface for a VPC. The top navigation bar includes the AWS logo, a search bar, and the user's name (Mitesh Rege). A green notification banner at the top states: "You successfully created vpc-085b61c514aa409bc / mitesh_vpc".

The left sidebar shows the navigation menu with categories like VPC Dashboard, EC2 Global View, and VIRTUAL PRIVATE CLOUD. Under VIRTUAL PRIVATE CLOUD, the "Your VPCs" section is selected, showing a list of VPCs. The main content area displays the details for the VPC "vpc-085b61c514aa409bc / mitesh_vpc".

The VPC details are organized into a table with the following information:

Property	Value
VPC ID	vpc-085b61c514aa409bc
State	Available
DNS hostnames	Disabled
DNS resolution	Enabled
Tenancy	Default
DHCP options set	dopt-447f683e
Main route table	rtb-0ebbf62c051138178
Main network ACL	acl-0c8b0e6d51b750ed
IPv4 CIDR	30.0.0.0/16
IPv6 pool	-
Owner ID	B92815432511

Below the details table, there are tabs for "CIDRs", "Flow Logs", and "Tags". The "CIDRs" tab is selected, showing a table of IPv4 CIDRs.

CIDR	Status
30.0.0.0/16	Active

create a internet gateway

Name : Mitesh Rege
Assignment For
Date:16/09/2020

AWS Zero to Hero AWS course

The screenshot shows the 'Create internet gateway' page in the AWS Management Console. The breadcrumb navigation is 'VPC > Internet gateways > Create internet gateway'. The page title is 'Create internet gateway' with an 'Info' link. A description states: 'An internet gateway is a virtual router that connects a VPC to the internet. To create a new internet gateway specify the name for the gateway below.' The 'Internet gateway settings' section contains a 'Name tag' field with the value 'Mitesh-internet-gateway'. The 'Tags - optional' section explains that a tag is a label for an AWS resource and shows a table with one tag: Key 'Name' and Value 'Mitesh-internet-gateway'. At the bottom, there are 'Cancel' and 'Create internet gateway' buttons.

VPC > Internet gateways > Create internet gateway

Create internet gateway [Info](#)

An internet gateway is a virtual router that connects a VPC to the internet. To create a new internet gateway specify the name for the gateway below.

Internet gateway settings

Name tag
Creates a tag with a key of 'Name' and a value that you specify.

Mitesh-internet-gateway

Tags - *optional*

A tag is a label that you assign to an AWS resource. Each tag consists of a key and an optional value. You can use tags to search and filter your resources or track your AWS costs.

Key	Value - <i>optional</i>	
Name	Mitesh-internet-gateway	Remove

[Add new tag](#)

You can add 49 more tags.

[Cancel](#) [Create internet gateway](#)

The screenshot shows the 'Details' page for the internet gateway 'igw-0772d9eff2cc1f3a8 / Mitesh-internet-gateway'. A green banner at the top states: 'The following internet gateway was created: igw-0772d9eff2cc1f3a8. You can now attach to a VPC to enable the VPC to communicate with the internet.' The 'Details' section shows the gateway ID, state (Detached), VPC ID, and owner. The 'Tags' section shows a table with one tag: Key 'Name' and Value 'Mitesh-internet-gateway'.

[Attach to a VPC](#)

VPC > Internet gateways > igw-0772d9eff2cc1f3a8

igw-0772d9eff2cc1f3a8 / Mitesh-internet-gateway [Actions](#)

Details [Info](#)

Internet gateway ID	State	VPC ID	Owner
igw-0772d9eff2cc1f3a8	Detached	-	892815432511

Tags

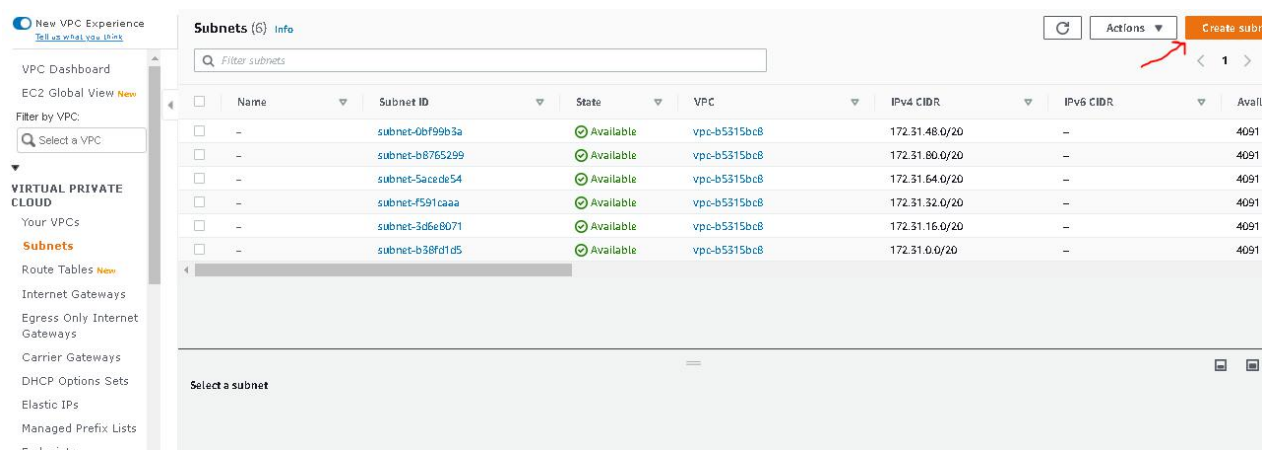
[Manage tags](#)

Key	Value
Name	Mitesh-internet-gateway

Create a subnet-Enable auto assign public ip

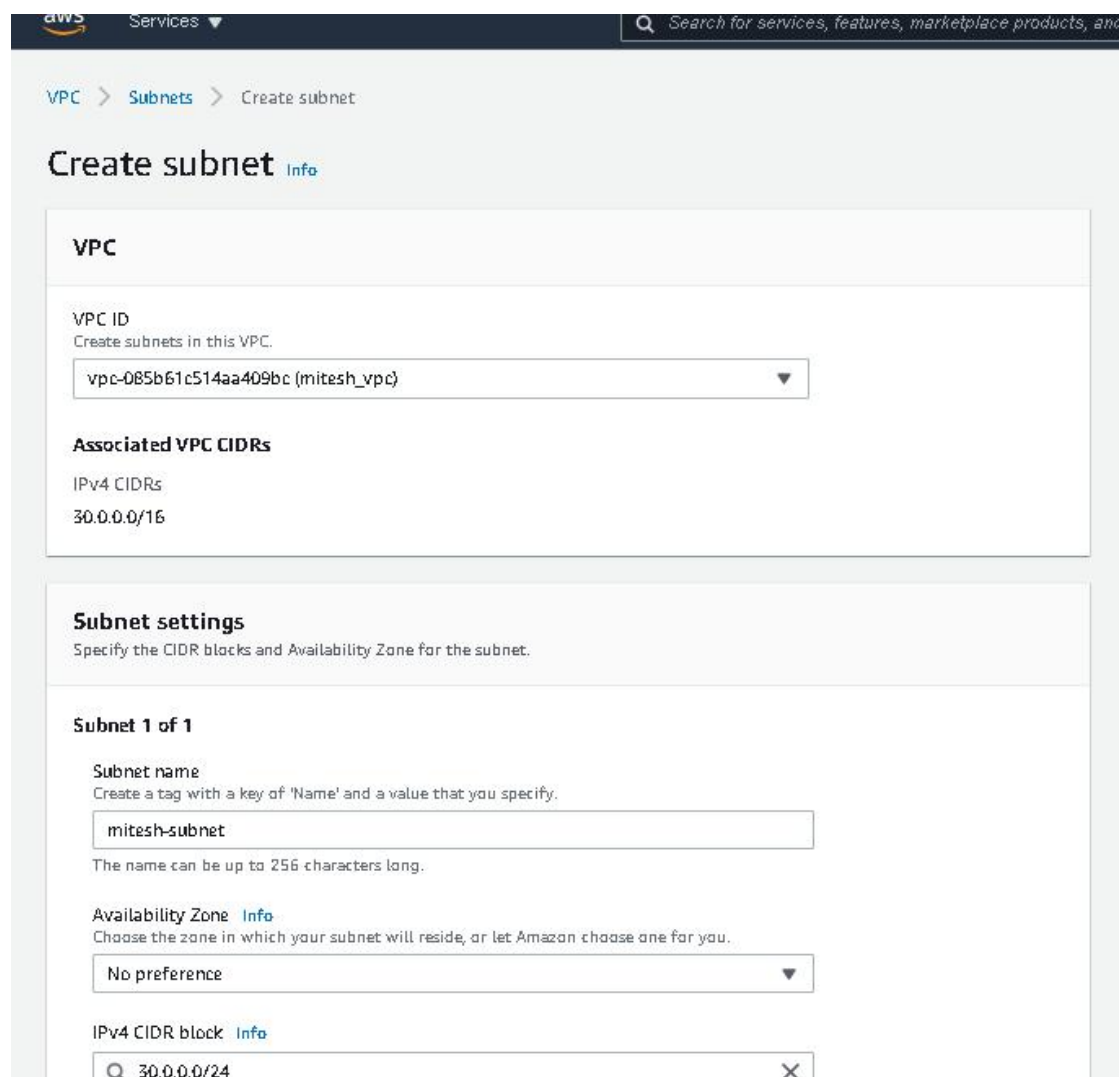
Name : Mitesh Rege
Assignment For
Date:16/09/2020

AWS Zero to Hero
AWS course



The screenshot shows the AWS VPC Subnets console. On the left is a navigation menu with options like VPC Dashboard, EC2 Global View, and Subnets. The main area displays a table of subnets. A red arrow points to the 'Create subnet' button in the top right corner.

Name	Subnet ID	State	VPC	IPv4 CIDR	IPv6 CIDR	Availability Zone
-	subnet-0bf99b3a	Available	vpc-b5315bc8	172.31.48.0/20	-	ap-south-1-4091
-	subnet-b8765299	Available	vpc-b5315bc8	172.31.80.0/20	-	ap-south-1-4091
-	subnet-5acde54	Available	vpc-b5315bc8	172.31.64.0/20	-	ap-south-1-4091
-	subnet-f591caa	Available	vpc-b5315bc8	172.31.32.0/20	-	ap-south-1-4091
-	subnet-3d6e8071	Available	vpc-b5315bc8	172.31.16.0/20	-	ap-south-1-4091
-	subnet-b38fd1d5	Available	vpc-b5315bc8	172.31.0.0/20	-	ap-south-1-4091



The screenshot shows the 'Create subnet' wizard in the AWS console. It is divided into two main sections: 'VPC' and 'Subnet settings'.

VPC Section:

- VPC ID:** A dropdown menu showing 'vpc-085b61c514aa409bc (mitesh_vpc)'.
- Associated VPC CIDRs:** A list of IPv4 CIDRs, currently showing '30.0.0.0/16'.

Subnet settings Section:

Specify the CIDR blocks and Availability Zone for the subnet.

Subnet 1 of 1

- Subnet name:** A text input field containing 'mitesh-subnet'. Below it, a note states: 'The name can be up to 256 characters long.'
- Availability Zone:** A dropdown menu with 'No preference' selected.
- IPv4 CIDR block:** A text input field containing '30.0.0.0/24'.

Name : Mitesh Rege
Assignment For
Date:16/09/2020

AWS Zero to Hero AWS course

Search for services, features, marketplace products, and docs [Alt+S]

You have successfully created 1 subnet: subnet-043ce2faa2bc6103d

Subnets (1) Info

Filter subnets

Subnet ID: subnet-043ce2faa2bc6103d Clear filters

<input type="checkbox"/>	Name	Subnet ID	State	VPC	IPv4 CIDR	IPv6 CIDR	Available IP
<input type="checkbox"/>	mitesh-subnet	subnet-043ce2faa2bc6103d	Available	vpc-085b61c514aa409bc mite...	30.0.0.0/24	-	251

You have successfully created 1 subnet: subnet-043ce2faa2bc6103d

Subnets (1/1) Info

Filter subnets

Subnet ID: subnet-043ce2faa2bc6103d Clear filters

<input checked="" type="checkbox"/>	Name	Subnet ID	State	VPC	IPv4 CIDR	IPv6 CIDR	Available IP
<input checked="" type="checkbox"/>	mitesh-subnet	subnet-043ce2faa2bc6103d	Available	vpc-085b61c514aa409bc mite...	30.0.0.0/24	-	251

- View details
- Create flow log
- Modify auto-assign IP settings
- Edit IPv6 CIDRs
- Edit network ACL association
- Edit route table association
- Edit CIDR reservations
- Share subnet
- Manage tags
- Delete subnet

subnet-043ce2faa2bc6103d / mitesh-subnet

Route table Flow logs Route table Network ACL CIDR reservations Sharing Tags

VPC > Subnets > subnet-043ce2faa2bc6103d > 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-043ce2faa2bc6103d

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

Name : Mitesh Rege
Assignment For
Date:16/09/2020

AWS Zero to Hero
AWS course

Create a route table-Make it the main route table-Add a route table entry to IGW

Route tables (2) [Info](#)

[Actions](#) [Create route table](#)

<input type="checkbox"/>	Name	Route table ID	Explicit subnet associat...	Edge associations	Main	VPC	Owner ID
<input type="checkbox"/>	-	rtb-0ebbf2c051138178	-	-	Yes	vpc-085b61c514aa409bc mite...	892815432511
<input type="checkbox"/>	-	rtb-05cd3c74	-	-	Yes	vpc-b5315bc8	892815432511

[VPC](#) > [Route tables](#) > Create route table

Create route table [Info](#)

A route table specifies how packets are forwarded between the subnets within your VPC, the internet, and your VPN connection.

Route table settings

Name - optional
Create a tag with a key of 'Name' and a value that you specify.

VPC
The VPC to use for this route table.

Tags

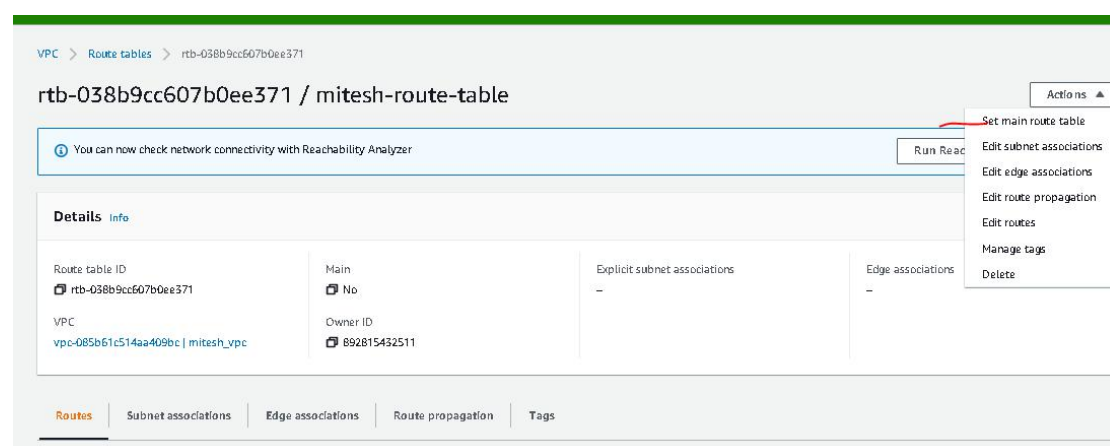
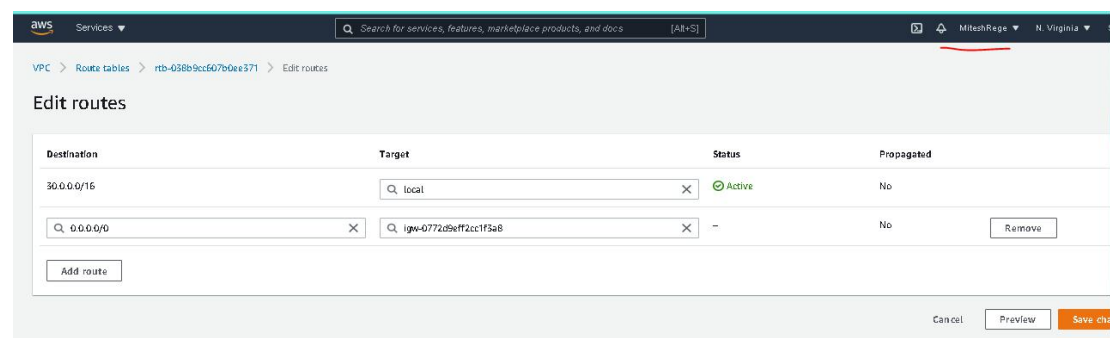
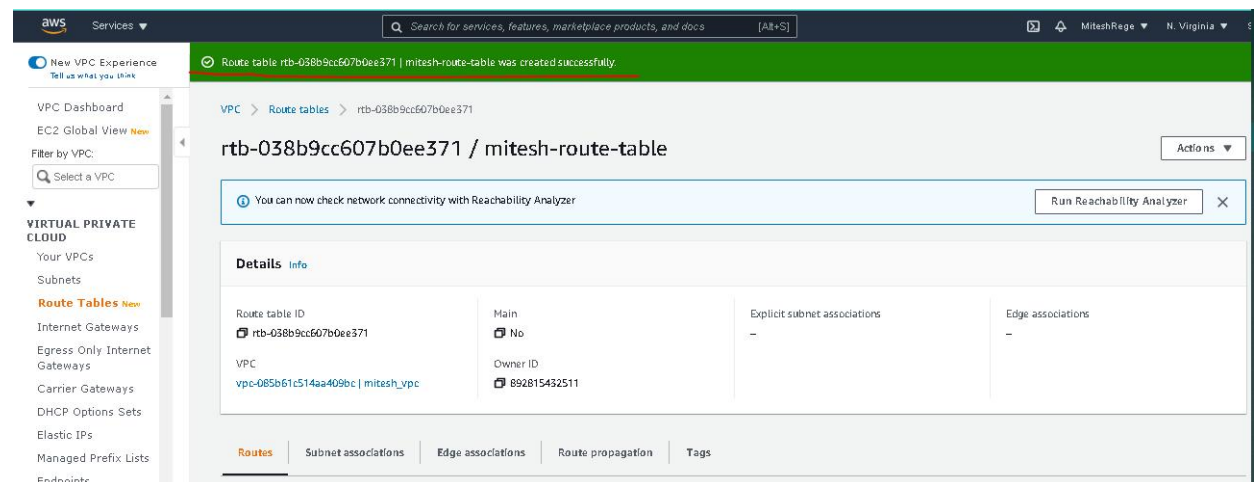
A tag is a label that you assign to an AWS resource. Each tag consists of a key and an optional value. You can use tags to search and filter your resources or track your AWS costs.

Key

Value - optional

You can add 49 more tags.

Name : Mitesh Rege AWS Zero to Hero
Assignment For AWS course
Date:16/09/2020



Name : Mitesh Rege
Assignment For
Date:16/09/2020

AWS Zero to Hero
AWS course

Set main route table ✕

Main route table controls the routing for all subnets that are not explicitly associated with any other route table. Are you sure you want to set this route table as the main route table?

- rtb-038b9cc607b0ee371 / mitesh-route-table

To confirm setting, type **set** in the field.

Cancel OK

✔ You successfully set the route table `rtb-038b9cc607b0ee371 / mitesh-route-table` as main.

VPC > Route tables > `rtb-038b9cc607b0ee371`

rtb-038b9cc607b0ee371 / mitesh-route-table Actions ▾

📘 You can now check network connectivity with Reachability Analyzer Run Reachability Analyzer ✕

Details [Info](#)

Route table ID 🔗 <code>rtb-038b9cc607b0ee371</code>	Main 🔗 Yes	Explicit subnet associations —	Edge associations —
VPC 🔗 <code>vpc-085b61c514aa409bc</code> mitesh_vpc	Owner ID 🔗 <code>892815432511</code>		

Launch a instance in custom vpc

Name : Mitesh Rege
Assignment For
Date:16/09/2020

AWS Zero to Hero AWS course

Step 1: Choose an Amazon Machine Image (AMI)

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 AMIs.

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

Quick Start

- My AMIs
- AWS Marketplace
- Community AMIs
- ☐ Free tier only

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: ebs Virtualization type: hvm ENA Enabled: Yes

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 AMI.

Root device type: ebs Virtualization type: hvm ENA Enabled: Yes

macOS Catalina 10.15.7 - ami-063d6009e26b3b6b2

The macOS Catalina 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 AMI.

Step 3: Configure Instance Details

Configure the instance to suit your requirements. You can launch multiple instances from the same AMI, request Spot instances to take advantage of the lower pricing, assign an access management role to the instance, and more.

Number of instances 1 Launch into Auto Scaling Group

Purchasing option ☐ Request Spot instances

Network vpc-085d61c514aa408bc1 mitesh_vpc Create new VPC

Subnet subnet-043ce2faa2bc6103d mitesh-subnet us-east-2 Create new subnet
251 IP Addresses available

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
Additional charges apply.

Tenancy Shared - Run a shared hardware instance
Additional charges will apply for dedicated tenancy.

Elastic Inference ☐ Add an Elastic Inference accelerator

Cancel Previous **Review and Launch** Next: A

Name : Mitesh Rege
Assignment For
Date:16/09/2020

AWS Zero to Hero AWS course

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 a rule that allows 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:

Description:

Type	Protocol	Port Range	Source	Description
All traffic	All	0 - 65535	Anywhere	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](#)

Select an existing key pair or create a new key pair

A key pair consists of a **public key** that AWS stores, and a **private key file** that you store. Together, they allow you to connect to your instance securely. For Windows AMIs, the private key file is required to obtain the password used to log into your instance. For Linux AMIs, the private key file allows you to securely SSH into your instance. Amazon EC2 supports ED25519 and RSA key pair types.

Note: The selected key pair will be added to the set of keys authorized for this instance. [Learn more about removing existing key pairs from a public AMI.](#)

Choose an existing key pair

Select a key pair

☒ I acknowledge that I have access to the corresponding private key file, and that without this file, I won't be able to log into my instance.

[Cancel](#) [Launch Instances](#)

Name : Mitesh Rege
Assignment For
Date:16/09/2020

AWS Zero to Hero AWS course

Launch Status

✓ Your instances are now launching
The following instance launches have been initiated: [i-033a7df388621d311](#) [View launch log](#)

! Get notified of estimated charges
Create billing alerts to get an email notification when estimated charges on your AWS bill exceed an amount you define (for example, if you exceed the free usage tier).

How to connect to your instances

Your instances are launching, and it may take a few minutes until they are in the **running** state, when they will be ready for you to use. Usage hours on your new instances will start immediately and continue to accrue until you stop or terminate your instances. Click **View Instances** to monitor your instances' status. Once your instances are in the **running** state, you can **connect** to them from the instances screen. [Find out how to connect to your instances.](#)

▼ Here are some helpful resources to get you started

- [How to connect to your Linux instance](#)
- [Amazon EC2: User Guide](#)
- [Learn about AWS Free Usage Tier](#)
- [Amazon EC2: Discussion Forum](#)

While your instances are launching you can also

- [Create status check alarms](#) to be notified when these instances fail status checks. (Additional charges may apply)
- [Create and attach additional EBS volumes](#) (Additional charges may apply)
- [Manage security groups](#)

View

The screenshot displays the AWS Management Console interface for EC2 instances. On the left, the navigation pane shows 'Instances' as the selected category. The main content area shows a table of instances. The first instance, 'mitesh_server', is in a 'Terminated' state. The second instance, 'i-033a7df388621d311', is in a 'Running' state, indicated by a green checkmark and a red arrow. Below the table, the 'Details' tab for the running instance is expanded, showing its configuration: Instance ID 'i-033a7df388621d311', Public IPv4 address '54.234.143.218', Private IPv4 addresses '10.0.0.125', and Instance state 'Running'.

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IPv4 DNS
mitesh_server	i-09ee321821cd9106	Terminated	t2.micro	-	No alarms	us-east-1d	-
-	i-033a7df388621d311	Running	t2.micro	-	No alarms	us-east-1a	-

Instance: i-033a7df388621d311

Details | Security | Networking | Storage | Status checks | Monitoring | Tags

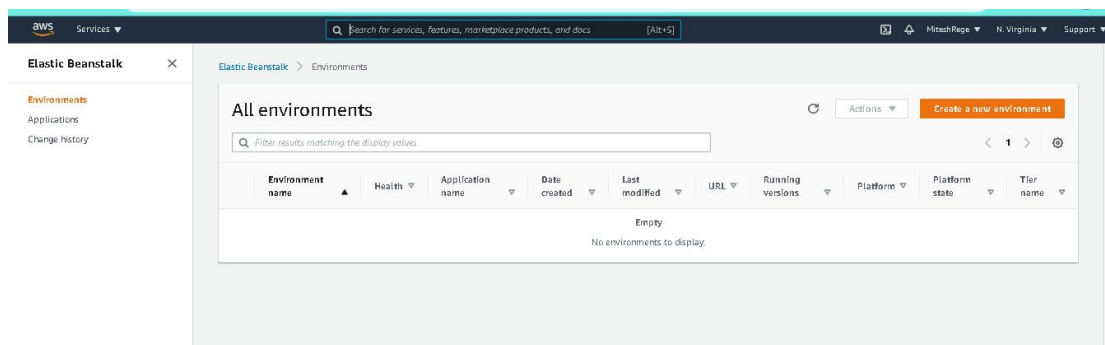
▼ Instance summary Info

Instance ID	Public IPv4 address	Private IPv4 addresses
i-033a7df388621d311	54.234.143.218 open address	10.0.0.125
IPv6 address	Instance state	Public IPv4 DNS

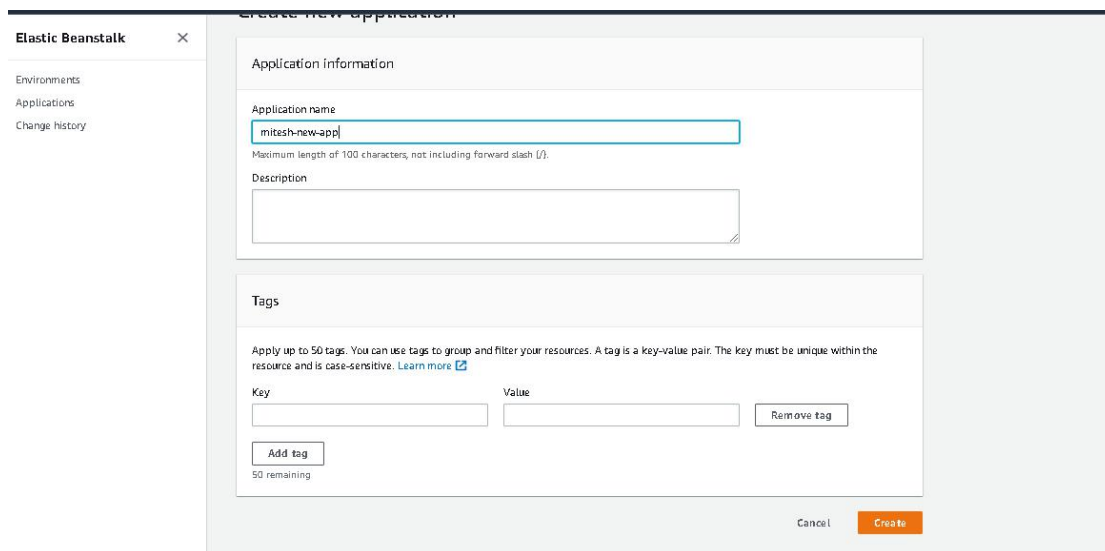
Name : Mitesh Rege AWS Zero to Hero
Assignment For AWS course
Date:16/09/2020

Assignment 5

Deploying a sample application on elastic beanstalk



Create an application



Name : Mitesh Rege
Assignment For
Date:16/09/2020

AWS Zero to Hero
AWS course

Search for services, features, marketplace products, and docs [Alt+S]

MiteshRege N. Virginia

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

☐ Custom platform
Platforms created and owned by you.

Platform
Python

Platform branch
Python 3.8 running on 64bit Amazon Linux 2

Platform version
3.3.5 (Recommended)

Application code

☒ Sample application
Get started right away with sample code.

☐ Existing version
Application versions that you have uploaded for mitesh-new-app.
— Choose a version —

☐ Upload your code
Upload a source bundle from your computer or copy one from Amazon S3.

Cancel Configure more options **Create environment**

launch the web page and verify

aws Services Search for services, features, marketplace products, and docs [Alt+S] MiteshRege N. Virginia

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
Miteshnewapp-env	OK	mitesh-new-app	2021-09-17 23:18:08 UTC+0530	2021-09-17 23:23:04 UTC+0530	Miteshnewapp-env/eba-arcbszy.us-east-1.elasticbeanstalk.com	Sample Application	Python 3.8 running on 64bit Amazon Linux 2	Supported	WebServer

Name : Mitesh Rege
Assignment For
Date:16/09/2020

AWS Zero to Hero
AWS course

Congratulations

Your first AWS Elastic Beanstalk Python Application is now running on your own dedicated environment in the AWS Cloud

This environment is launched with Elastic Beanstalk Python Platform

What's Next?

- [AWS Elastic Beanstalk overview](#)
- [AWS Elastic Beanstalk concepts](#)
- [Deploy a Django Application to AWS Elastic Beanstalk](#)
- [Deploy a Flask Application to AWS Elastic Beanstalk](#)
- [Customizing and Configuring a Python Container](#)
- [Working with Logs](#)