

# Advance AWS | Assignment Day 5 and 6

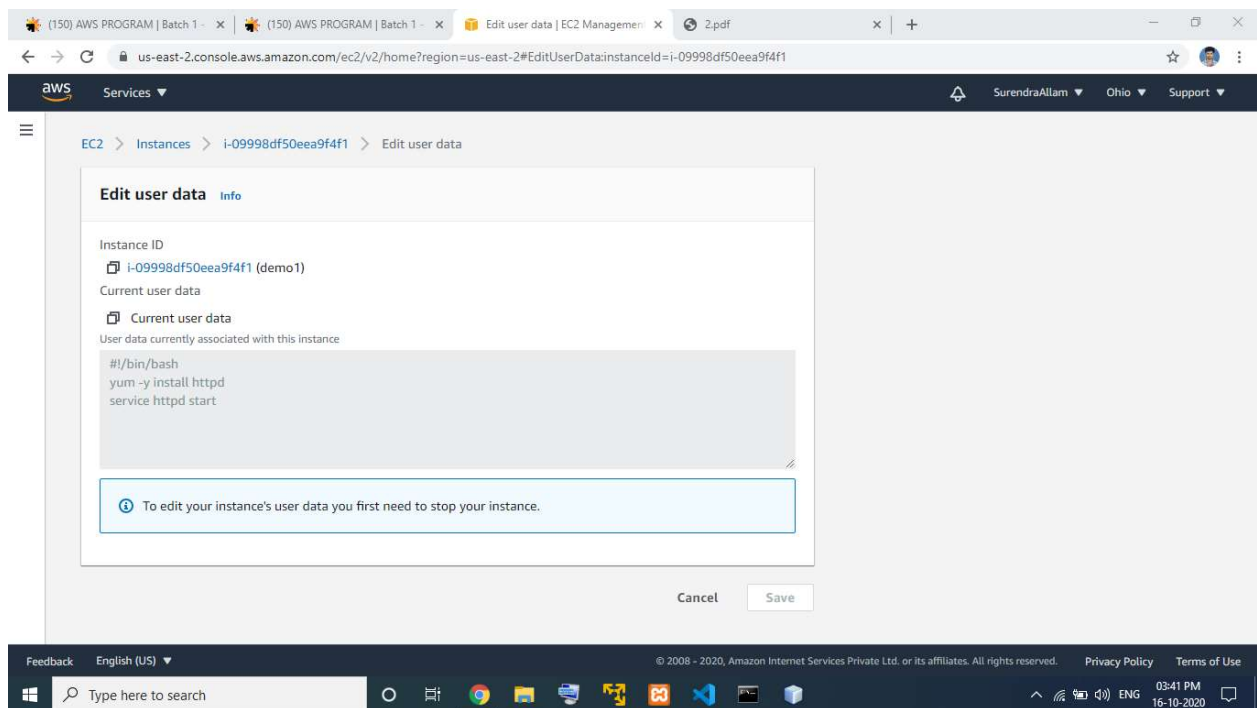
## PROJECT 1:-

### Working with IAM Roles with S3 and bootstrapping with EC2

Task1:

Creating a bootstrapped instance

SS1: edit user data



Ss2: list of ec2 instances with description

The screenshot shows the AWS Management Console interface. On the left is a navigation sidebar with options like 'New EC2 Experience', 'EC2 Dashboard', 'Events', 'Tags', 'Limits', 'Instances', 'Instance Types', 'Launch Templates', 'Spot Requests', 'Savings Plans', 'Reserved Instances', 'Dedicated Hosts', 'Capacity Reservations', 'Images', 'AMIs', and 'Elastic Block Store'. The main area displays a list of three EC2 instances: 'demo1', 'demo2', and 'demo3'. The 'demo1' instance is selected, and its details are shown in a tabbed view. The 'Details' tab is active, showing the instance's ID, state (Running), type (t2.micro), and various IP addresses (Public IPv4, Private IPv4, Public IPv4 DNS, Private IPv4 DNS).

Name	Instance ID	Instance state	Instance type	Status check	Alarm Status	Availability zone
demo1	i-09998df50eea9f4f1	Running	t2.micro	2/2 checks ...	No alarms	us-east-2c
demo2	i-08a0cb044aa1e7f0a	Running	t2.micro	2/2 checks ...	No alarms	us-east-2a
demo3	i-0ff53101bc154f99e	Running	t2.micro	2/2 checks ...	No alarms	us-east-2c

**Instance: i-09998df50eea9f4f1 (demo1)**

**Details** | Security | Networking | Storage | Status Checks | Monitoring | Tags

**Instance summary** | Info

Instance ID i-09998df50eea9f4f1 (demo1)	Public IPv4 address 3.16.214.195   <a href="#">open address</a>	Private IPv4 addresses 172.31.40.181
Instance state Running	Public IPv4 DNS ec2-3-16-214-195.us-east-2.compute.amazonaws.com   <a href="#">open address</a>	Private IPv4 DNS ip-172-31-40-181.us-east-2.compute.internal

## Ss3: test page

The screenshot shows a web browser window displaying a 'Test Page' for the Apache HTTP server. The page has a red header with the text 'Test Page'. Below the header, there is a paragraph explaining the purpose of the page: 'This page is used to test the proper operation of the Apache HTTP server after it has been installed. If you can read this page, it means that the Apache HTTP server installed at this site is working properly.' The page is divided into two columns. The left column is titled 'If you are a member of the general public:' and contains text about the fact that the user is seeing this page, indicating that the website is either experiencing problems or is undergoing routine maintenance. The right column is titled 'If you are the website administrator:' and contains text about adding content to the directory, preventing the page from being used, and following instructions in a file. At the bottom of the page, there is a logo that says 'Powered by 2.4 APACHE'.

**Test Page**

This page is used to test the proper operation of the Apache HTTP server after it has been installed. If you can read this page, it means that the Apache HTTP server installed at this site is working properly.

**If you are a member of the general public:**

The fact that you are seeing this page indicates that the website you just visited is either experiencing problems, or is undergoing routine maintenance.

If you would like to let the administrators of this website know that you've seen this page instead of the page you expected, you should send them e-mail. In general, mail sent to the name "webmaster" and directed to the website's domain should reach the appropriate person.

For example, if you experienced problems while visiting [www.example.com](#), you should send e-mail to "webmaster@example.com".

**If you are the website administrator:**

You may now add content to the directory `/var/www/html/`. Note that until you do so, people visiting your website will see this page, and not your content. To prevent this page from ever being used, follow the instructions in the file `/etc/httpd/conf.d/welcome.conf`.

You are free to use the image below on web sites powered by the Apache HTTP Server.

Powered by **2.4** **APACHE**

## Task 2:

Checking bucket list and creating a new bucket from EC2 using IAM Roles

## Ss1: user data

The screenshot shows the AWS Management Console interface for editing the user data of an EC2 instance. The breadcrumb navigation indicates the path: EC2 > Instances > i-08a0cb044aa1e7f0a > Edit user data. The main content area is titled 'Edit user data' with an 'Info' tab. It displays the Instance ID as i-08a0cb044aa1e7f0a (demo2). Under 'Current user data', there is a text area containing the following script:

```
#!/bin/bash
yum -y install httpd
service httpd start
```

Below the text area, a blue information box states: 'To edit your instance's user data you first need to stop your instance.' At the bottom of the panel are 'Cancel' and 'Save' buttons. The footer of the console shows the user 'SurendraAllam' in 'Ohio' with a 'Support' link. The Windows taskbar at the bottom shows the time as 03:40 PM on 16-10-2020.

## Ss2: list of ec2 instances with description

The screenshot displays the AWS Management Console 'Instances' page. The left-hand navigation menu includes options like 'EC2 Dashboard', 'Events', 'Tags', 'Limits', 'Instances', 'Instance Types', 'Launch Templates', 'Spot Requests', 'Savings Plans', 'Reserved Instances', 'Dedicated Hosts', 'Capacity Reservations', 'Images', and 'Elastic Block Store'. The main content area is titled 'Instances (1/3)' and includes a search bar and a table of instances.

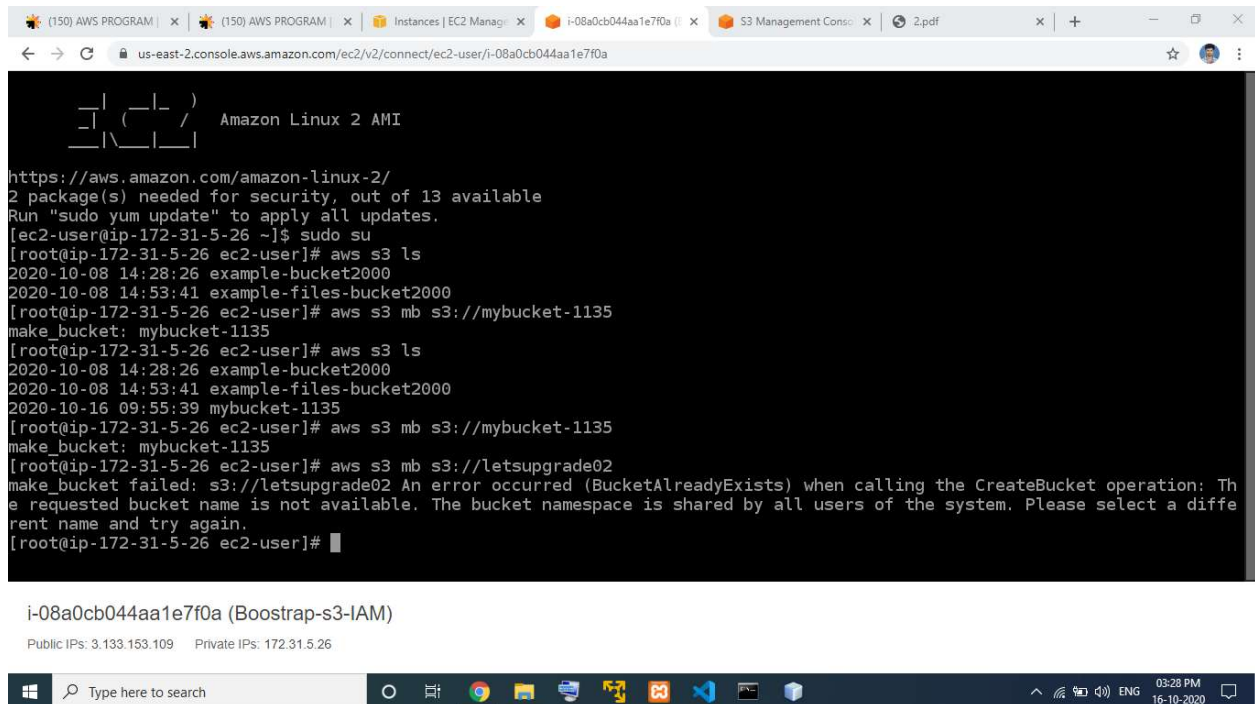
	Name	Instance ID	Instance state	Instance type	Status check	Alarm Status	Availability zone
<input type="checkbox"/>	demo1	i-09998df50eea9f4f1	Running	t2.micro	2/2 checks ...	No alarms +	us-east-2c
<input checked="" type="checkbox"/>	demo2	i-08a0cb044aa1e7f0a	Running	t2.micro	2/2 checks ...	No alarms +	us-east-2a
<input type="checkbox"/>	demo3	i-0ff53101bc154f99e	Running	t2.micro	2/2 checks ...	No alarms +	us-east-2c

Below the table, the details for 'Instance: i-08a0cb044aa1e7f0a (demo2)' are shown. The 'Details' tab is active, displaying an 'Instance summary' with the following information:

Instance summary		
Instance ID	Public IPv4 address	Private IPv4 addresses
i-08a0cb044aa1e7f0a (demo2)	3.133.153.109   <a href="#">open address</a>	172.31.5.26
Instance state	Public IPv4 DNS	Private IPv4 DNS
Running	ec2-3-133-153-109.us-east-2.compute.amazonaws.com   <a href="#">open address</a>	ip-172-31-5-26.us-east-2.compute.internal

The footer of the console shows the user 'SurendraAllam' in 'Ohio' with a 'Support' link. The Windows taskbar at the bottom shows the time as 03:40 PM on 16-10-2020.

## Ss3: 3 commands to be executed and outputs displayed



The screenshot shows the AWS Management Console interface for an Amazon Linux 2 AMI instance. The terminal output displays the following commands and their results:

```
https://aws.amazon.com/amazon-linux-2/
2 package(s) needed for security, out of 13 available
Run "sudo yum update" to apply all updates.
[ec2-user@ip-172-31-5-26 ~]$ sudo su
[root@ip-172-31-5-26 ec2-user]# aws s3 ls
2020-10-08 14:28:26 example-bucket2000
2020-10-08 14:53:41 example-files-bucket2000
[root@ip-172-31-5-26 ec2-user]# aws s3 mb s3://mybucket-1135
make_bucket: mybucket-1135
[root@ip-172-31-5-26 ec2-user]# aws s3 ls
2020-10-08 14:28:26 example-bucket2000
2020-10-08 14:53:41 example-files-bucket2000
2020-10-16 09:55:39 mybucket-1135
[root@ip-172-31-5-26 ec2-user]# aws s3 mb s3://mybucket-1135
make_bucket: mybucket-1135
[root@ip-172-31-5-26 ec2-user]# aws s3 mb s3://letsupgrade02
make_bucket failed: s3://letsupgrade02 An error occurred (BucketAlreadyExists) when calling the CreateBucket operation: The requested bucket name is not available. The bucket namespace is shared by all users of the system. Please select a different name and try again.
[root@ip-172-31-5-26 ec2-user]#
```

Below the terminal output, the instance details are shown:

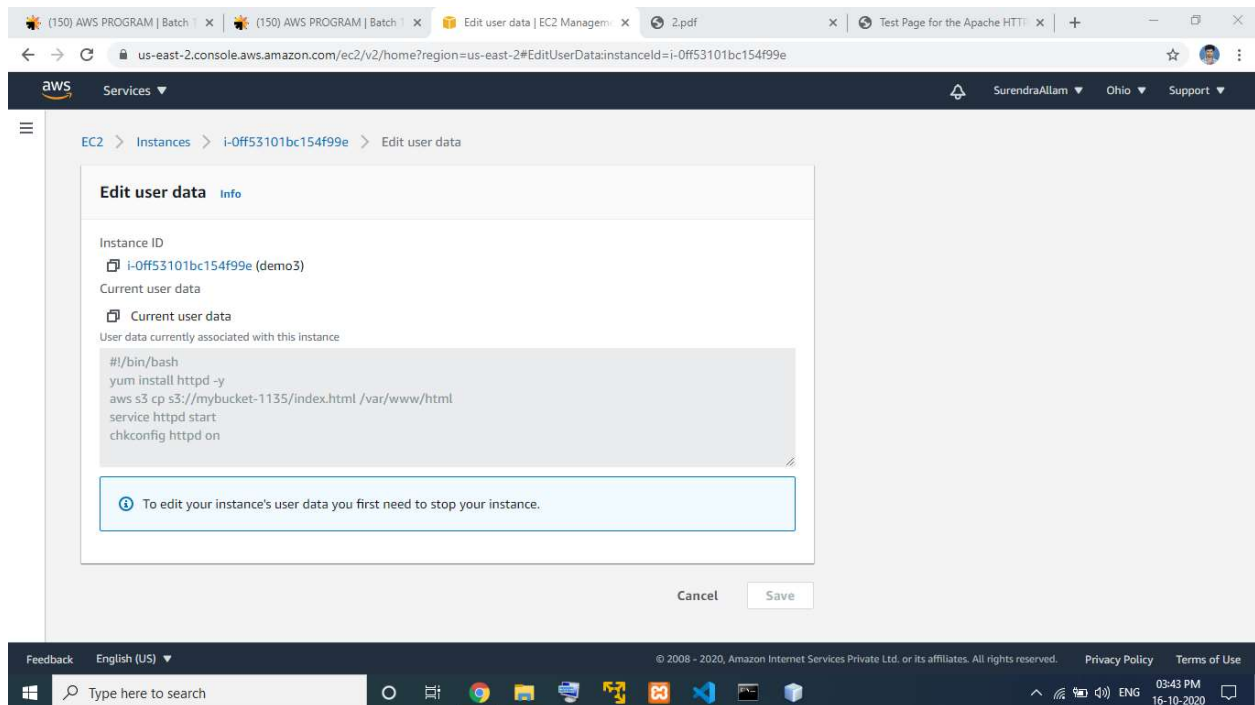
i-08a0cb044aa1e7f0a (Bootstrap-s3-IAM)

Public IPs: 3.133.153.109 Private IPs: 172.31.5.26

## Task 3:

Hosting a webpage using the bootstrap script on ec2.

## Ss1: user data



The screenshot shows the AWS Management Console interface for an EC2 instance. The 'Edit user data' page is displayed, showing the current user data script:

```
#!/bin/bash
yum install httpd -y
aws s3 cp s3://mybucket-1135/index.html /var/www/html
service httpd start
chkconfig httpd on
```

A message at the bottom states: "To edit your instance's user data you first need to stop your instance." Below this message are 'Cancel' and 'Save' buttons.

## Ss2:s3 bucket,index.html

Amazon S3 > mybucket-1135

mybucket-1135

Overview Properties Permissions Management Access points

Q Type a prefix and press Enter to search. Press ESC to clear.

Upload Create folder Download Actions

US East (N. Virginia)

Viewing 1 to 1

Name	Last modified	Size	Storage class
index.html	Oct 16, 2020 3:28:54 PM GMT+0530	251.0 B	Standard

Viewing 1 to 1

Operations 0 In progress 1 Success 0 Error

Feedback English (US)

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Type here to search

## Ss3: testing using public IP

Instances (1/3) Info

Filter instances

Name	Instance ID	Instance state	Instance type	Status check	Alarm Status	Availability zone
demo1	i-09998df50eea9f4f1	Running	t2.micro	2/2 checks ...	No alarms	us-east-2c
demo2	i-08a0cb044aa1e7f0a	Running	t2.micro	2/2 checks ...	No alarms	us-east-2a
demo3	i-0ff53101bc154f99e	Running	t2.micro	2/2 checks ...	No alarms	us-east-2c

Instance: i-0ff53101bc154f99e (demo3)

Details Security Networking Storage Status Checks Monitoring Tags

Instance summary Info

Instance ID: i-0ff53101bc154f99e (demo3)

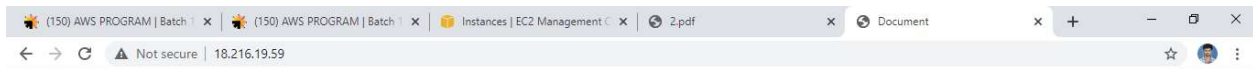
Instance state: Running

Public IPv4 address: 18.216.19.59 | open address

Public IPv4 DNS: ec2-18-216-19-59.us-east-2.compute.amazonaws.com | open address

Private IPv4 addresses: 172.31.46.234

Private IPv4 DNS: ip-172-31-46-234.us-east-2.compute.internal



**This is My First Web Page**



## **PROJECT 1:-**

### **Creating an EC2 instance in custom VPC**

Task1: Create a VPC

Ss1: vpc created



us-east-2.console.aws.amazon.com/vpc/home?region=us-east-2#vpcs:

Services

New VPC Experience  
Tell us what you think

VPC Dashboard **New**

Filter by VPC:  
Select a VPC

**VIRTUAL PRIVATE CLOUD**

**Your VPCs** **New**

Subnets

Route Tables

Internet Gateways **New**

Egress Only Internet Gateways **New**

DHCP Options Sets **New**

Elastic IPs **New**

Managed Prefix Lists **New**

Endpoints

Endpoint Services

NAT Gateways **New**

**Your VPCs (1/2)** **Info**

Filter VPCs

<input type="checkbox"/>	-	vpc-e740e38c	Available	172.31.0.0/16
<input checked="" type="checkbox"/>	demovpc	vpc-0e482dfdba0dc4815	Available	172.19.0.0/16

**Details**

VPC ID	State	DNS hostnames	DNS resolution
vpc-0e482dfdba0dc4815	Available	Disabled	Enabled
Tenancy	DHCP options set	Route table	Network ACL
Default	dopt-859511ee	rtb-0fa8ef968d9bfb4f / demoroute	acl-0761b377d3c94f9ff
Default VPC	IPv4 CIDR	IPv6 pool	IPv6 CIDR
No	172.19.0.0/16	-	-
Owner ID			

Feedback English (US)

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Type here to search

04:00 PM 16-10-2020

## Task 2: Create an Internet gateway

### Ss2: igw with vpc associated

us-east-2.console.aws.amazon.com/vpc/home?region=us-east-2#igws:

Services

New VPC Experience  
Tell us what you think

VPC Dashboard **New**

Filter by VPC:  
Select a VPC

**VIRTUAL PRIVATE CLOUD**

**Your VPCs** **New**

Subnets

Route Tables

**Internet Gateways** **New**

Egress Only Internet Gateways **New**

DHCP Options Sets **New**

Elastic IPs **New**

Managed Prefix Lists **New**

Endpoints

Endpoint Services

**Internet gateways (1/2)** **Info**

Filter internet gateways

	Name	Internet gateway ID	State	VPC ID
<input checked="" type="checkbox"/>	demolGW	igw-06d76eb1e5f2bb50f	Attached	vpc-0e482dfdba0dc4815   demovpc
<input type="checkbox"/>	-	igw-c0f7baa8	Attached	vpc-e740e38c

**Details**

Internet gateway ID	State	VPC ID	Owner
igw-06d76eb1e5f2bb50f	Attached	vpc-0e482dfdba0dc4815   demovpc	573310877256

Feedback English (US)

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Type here to search

04:00 PM 16-10-2020

## Task3: Create a route table

### Ss3: route table with routes

The screenshot shows the AWS Management Console interface for the 'Route Tables' section. The left sidebar contains navigation links for VPC Dashboard, Subnets, Route Tables, Internet Gateways, Egress Only Internet Gateways, DHCP Options Sets, Elastic IPs, Managed Prefix Lists, Endpoints, Endpoint Services, and NAT Gateways. The main content area displays a list of route tables. The selected route table, 'rtb-0fa8ef968d9bfb4f', is shown in detail with the 'Routes' tab active. The routes table has columns for Destination, Target, Status, and Propagated. Two routes are listed: one for destination 172.19.0.0/16 with target 'local', and another for 0.0.0.0/0 with target 'igw-06d76eb1e5f2bb50f'. Both routes are in an 'active' state.

Destination	Target	Status	Propagated
172.19.0.0/16	local	active	No
0.0.0.0/0	igw-06d76eb1e5f2bb50f	active	No

## Task4: Create a subnet

### Ss4: subnet screen

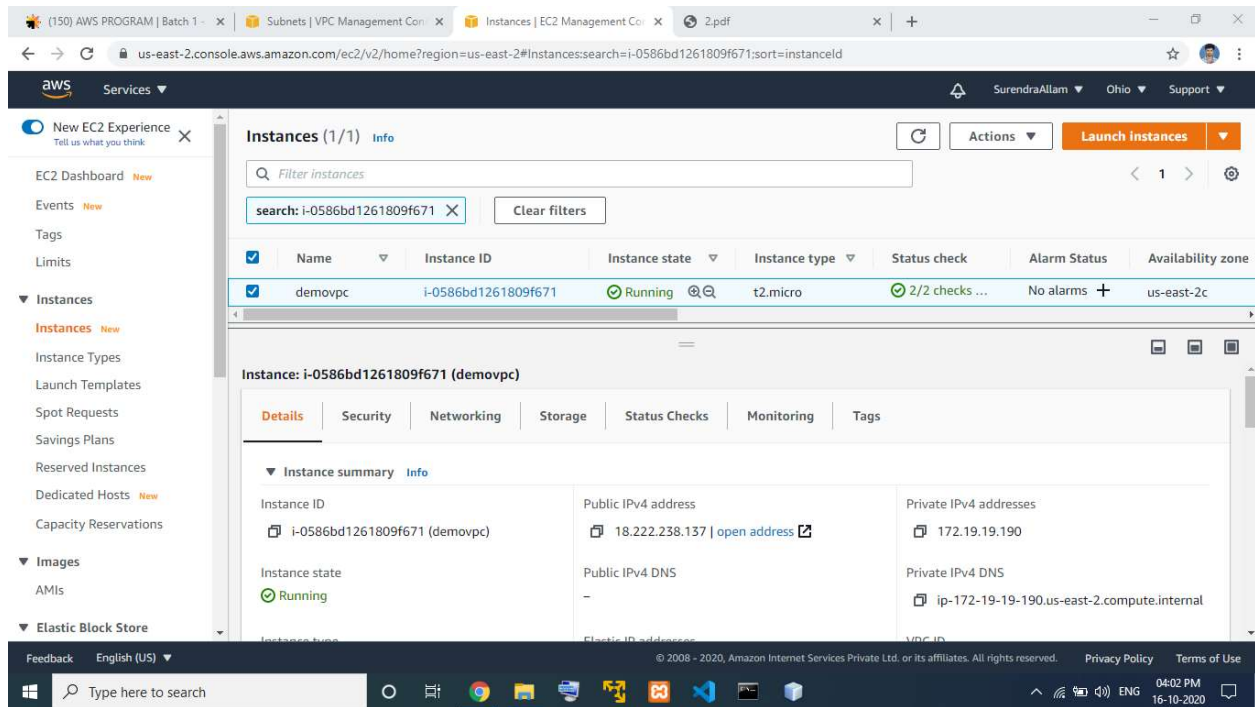
The screenshot shows the AWS Management Console interface for the 'Subnets' section. The left sidebar contains navigation links for VPC Dashboard, Subnets, Route Tables, Internet Gateways, Egress Only Internet Gateways, DHCP Options Sets, Elastic IPs, Managed Prefix Lists, Endpoints, Endpoint Services, and NAT Gateways. The main content area displays a list of subnets. The selected subnet, 'subnet-0e6b78537a1a6116f', is shown in detail with the 'Description' tab active. The details table shows various attributes: Subnet ID, VPC, State (available), IPv4 CIDR, Available IPv4 addresses, Availability Zone, Network ACL, Auto-assign public IPv4 address, Customer-owned IPv4 pool, Outpost ID, Default subnet, Auto-assign customer-owned IPv4 address, Auto-assign IPv6 address, and Owner.

Subnet ID	VPC	State	IPv4 CIDR	Available IPv4	IPv6 CIDR	Availability Zone	Network ACL	Auto-assign public IPv4 address	Customer-owned IPv4 pool	Outpost ID	Default subnet	Auto-assign customer-owned IPv4 address	Auto-assign IPv6 address	Owner
subnet-0e6b78537a1a6116f	vpc-0e482dfdba0dc4815   demovpc	available	172.19.19.0/24	250	-	us-east-2c (use2-az3)	acl-0761b377d3c949ff	No	-	-	No	No	No	573310877256



## Task5: Create an EC2 in custom vpc

### Ss5: ec2 dashboard



## Task 6: Check ipconfig in VM command prompt.

### Ss6: cmd prompt: ipconfig

