

# Day 2 Assignments

## Assignment 2

Creating EC2 instance with termination protection

Create an EC2 instance:

1) Instance details:

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

### 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-f770294 (default) Create new VPC

Subnet No preference (default subnet in any Availability Zone) Create new subnet

Auto-assign Public IP 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

Cancel Previous **Review and Launch** Next: Add Storage

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

### Step 3: Configure Instance Details

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 Terminate

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 Additional charges apply.

Cancel Previous **Review and Launch** Next: Add Storage

2) Every step (instance type, storage, tags, network etc. )  
Choose AMI:

## Choose instant type:

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1. Choose AMI

2. Choose Instance Type

3. Configure Instance

4. Add Storage

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7. Review

### 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 families

Current generation

Show/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

Cancel

Previous

Review and Launch

Next: Configure Instance Details

## Add storage:

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1. Choose AMI

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### 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-0350fa19a1ac7579d	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.

Cancel

Previous

Review and Launch

Next: Add Tags

## Add tags:

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1. Choose AMI
2. Choose Instance Type
3. Configure Instance
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5. Add Tags
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7. Review

### Step 5: Add Tags

A tag consists of a case-sensitive key-value pair. For example, you could define a tag with key = Name and value = Webserver.  
A copy of a tag can be applied to volumes, instances or both.  
Tags will be applied to all instances and volumes. [Learn more](#) about tagging your Amazon EC2 resources.

Key (128 characters maximum)	Value (256 characters maximum)	Instances	Volumes	Network Interfaces
Name	Server ABC	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

(Upto 50 tags maximum)

## Configure security group:

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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:

Description:

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

**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.

## Enable termination protection:

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### Step 3: Configure Instance Details

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

Terminate

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

Additional charges apply.

Cancel

Previous

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### 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-f770294 (default)

Create new VPC

Subnet

No preference (default subnet in any Availability Zone)

Create new subnet

Auto-assign Public IP

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

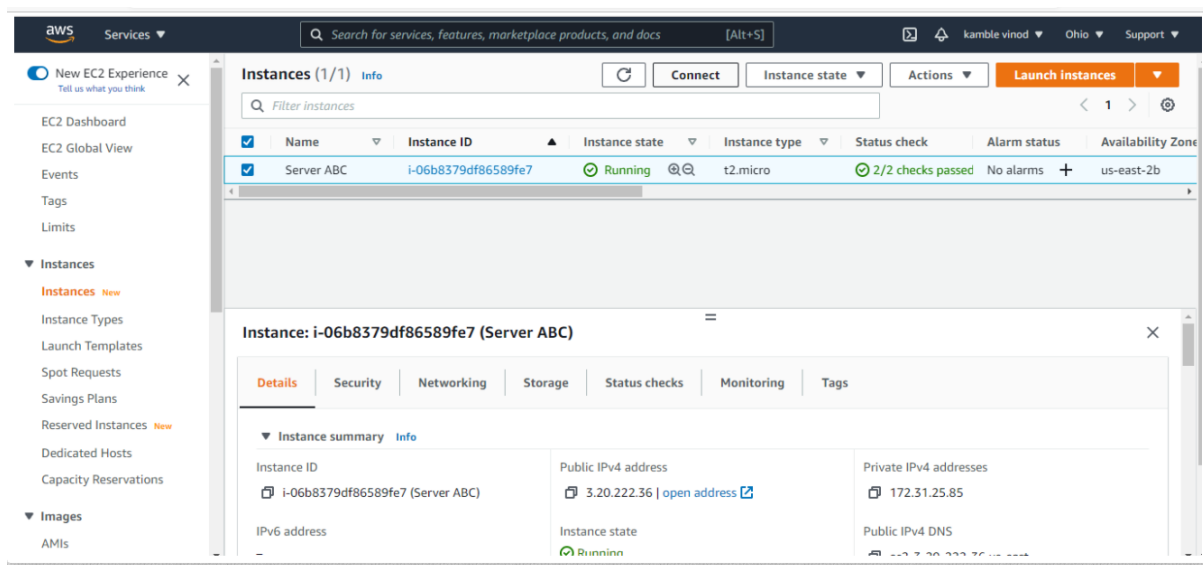
Cancel

Previous

Review and Launch

Next: Add Storage

Connect to your instance and run the system update:



instant console:

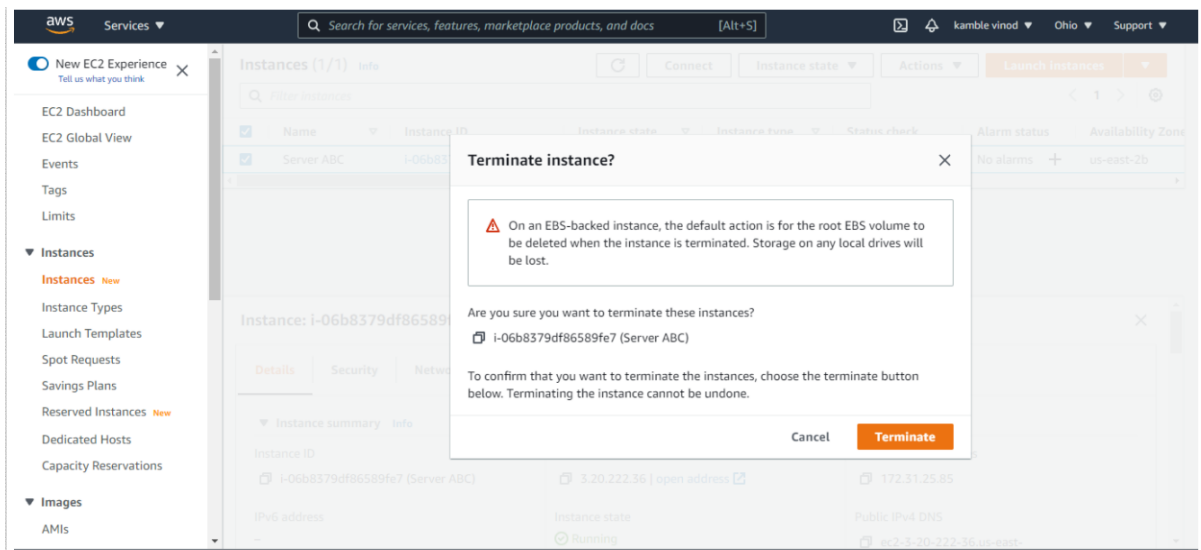
```
grub2.x86_64 1:2.06-2.amzn2.0.6
grub2-tools.x86_64 1:2.06-2.amzn2.0.6
grub2-tools-extra.x86_64 1:2.06-2.amzn2.0.6
kernel.x86_64 0:4.14.246-187.474.amzn2

Updated:
curl.x86_64 0:7.76.1-7.amzn2.0.2
device-mapper-event.x86_64 7:1.02.170-6.amzn2.5
device-mapper-libs.x86_64 7:1.02.170-6.amzn2.5
glibc-all-langpacks.x86_64 0:2.26-54.amzn2
glibc-locale-source.x86_64 0:2.26-54.amzn2
grub2-common.noarch 1:2.06-2.amzn2.0.6
grub2-pc-modules.noarch 1:2.06-2.amzn2.0.6
libblkid.x86_64 0:2.30.2-2.amzn2.0.5
libcurl.x86_64 0:7.76.1-7.amzn2.0.2
libmount.x86_64 0:2.30.2-2.amzn2.0.5
libuuid.x86_64 0:2.30.2-2.amzn2.0.5
lvm2-libs.x86_64 7:2.02.187-6.amzn2.5
systemd.x86_64 0:219-78.amzn2.0.15
systemd-sysv.x86_64 0:219-78.amzn2.0.15

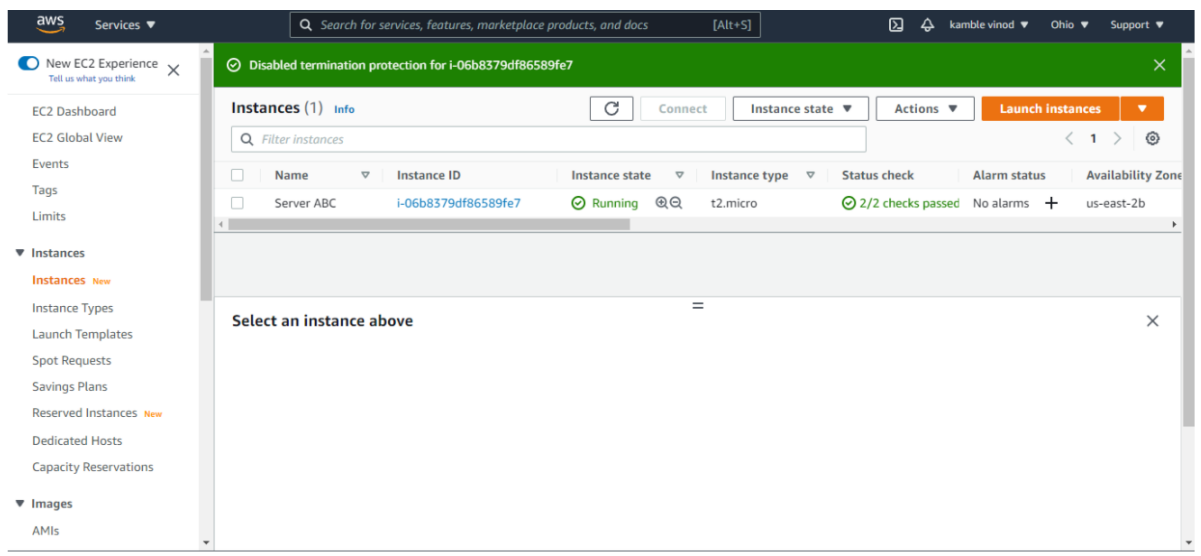
Replaced:
grub2.x86_64 1:2.06-2.amzn2.0.3

Complete!
[ec2-user@ip-172-31-25-85 ~]$
```

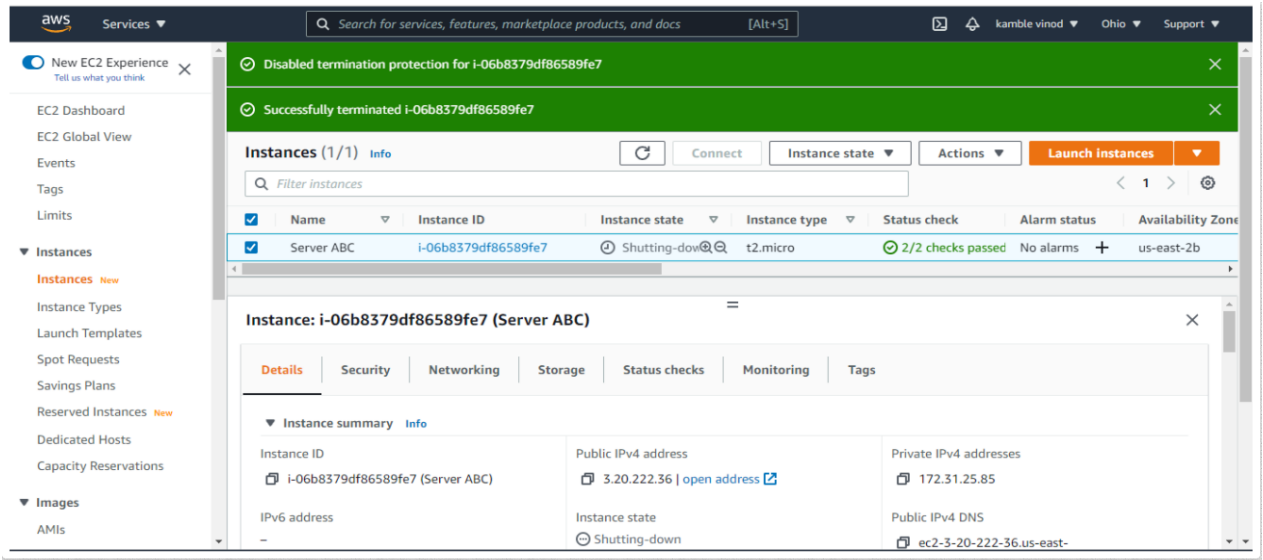
Disable termination protection: terminate instance:



disable termination protection:



Terminate your EC2 instance:





## Assignment 3:

Working with EBS volumes Create a volume:

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Volumes > Create Volume

### Create Volume

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-2b ⓘ

Snapshot ID: Select a snapshot ⓘ

Encryption: ☐ Encrypt this volume

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

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New EC2 Experience Tell us what you think

- EC2 Dashboard
- EC2 Global View
- Events
- Tags
- Limits
- Instances
  - Instances **New**
  - Instance Types
  - Launch Templates
  - Spot Requests
  - Savings Plans
  - Reserved Instances **New**
  - Dedicated Hosts
  - Capacity Reservations
- Images
  - AMIs

Create Volume Actions

Filter by tags and attributes or search by keyword

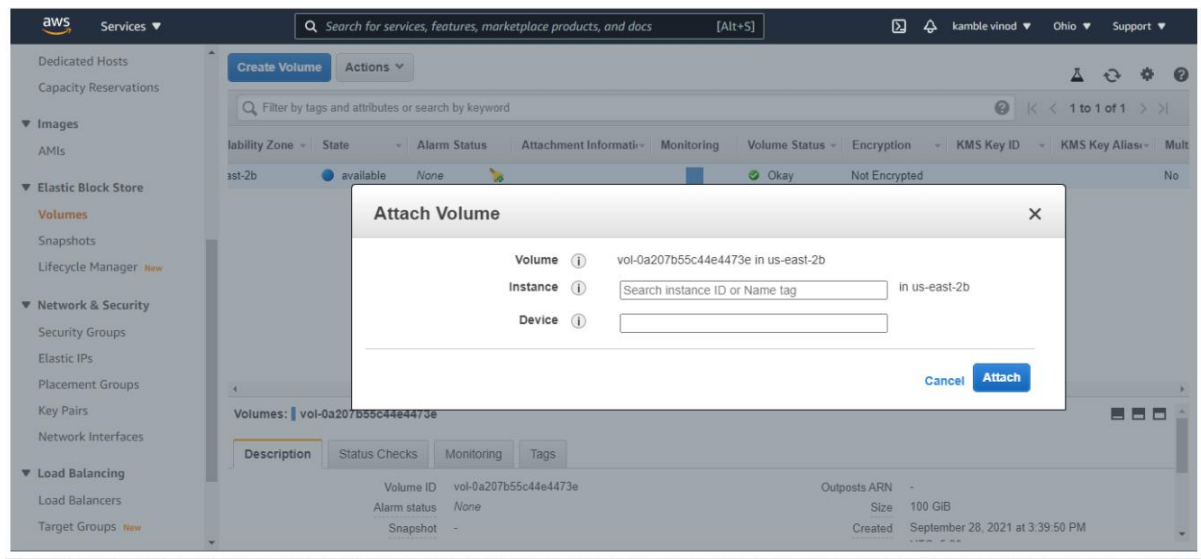
Name	Volume ID	Size	Volume Type	IOPS	Throughput	Snapshot	Created	Availability Zone	Sta
	vol-0a207b5...	100 GiB	gp2	300	-		September 28, 202...	us-east-2b	

Volumes: **vol-0a207b55c44e4473e**

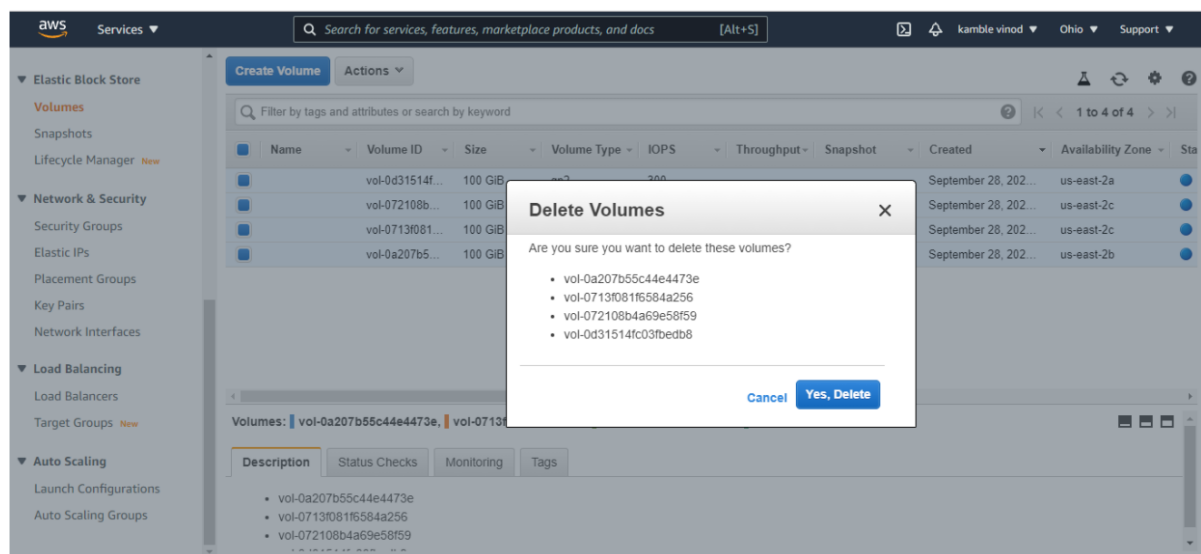
Description Status Checks Monitoring Tags

Volume ID	vol-0a207b55c44e4473e	Outposts ARN	-
Alarm status	None	Size	100 GiB
Snapshot	-	Created	September 28, 2021 at 3:39:50 PM

Attach volume to the instance:

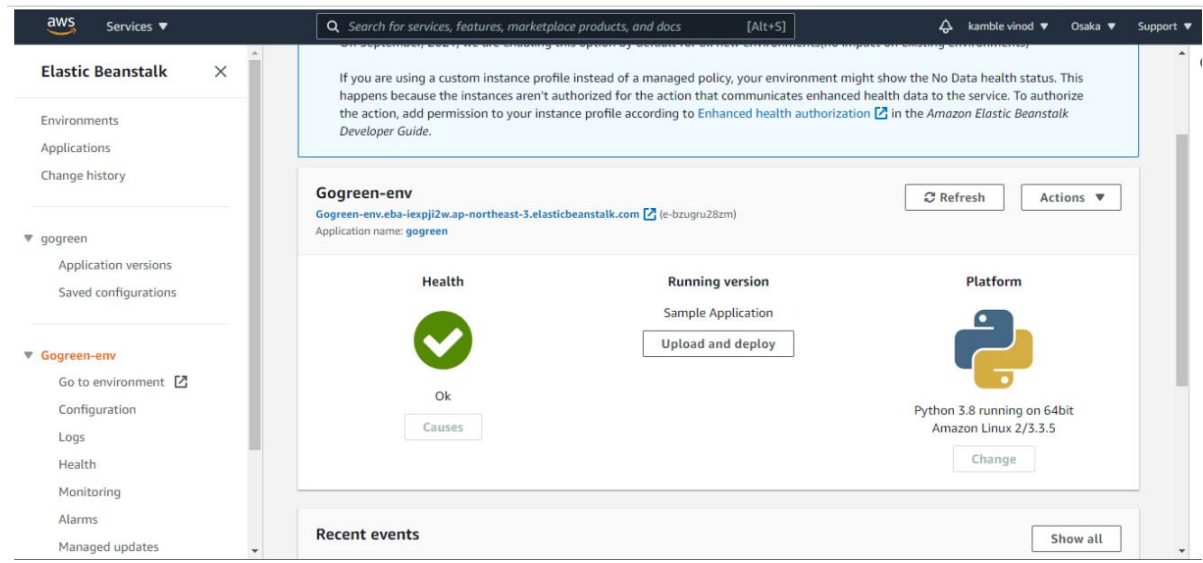


Delete volume:

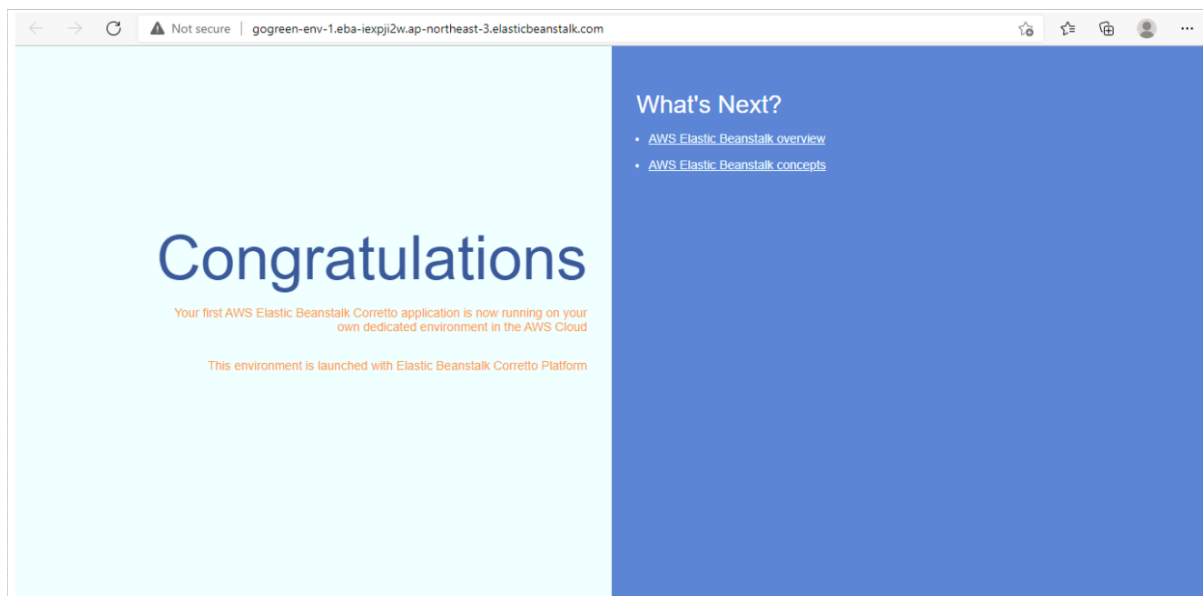


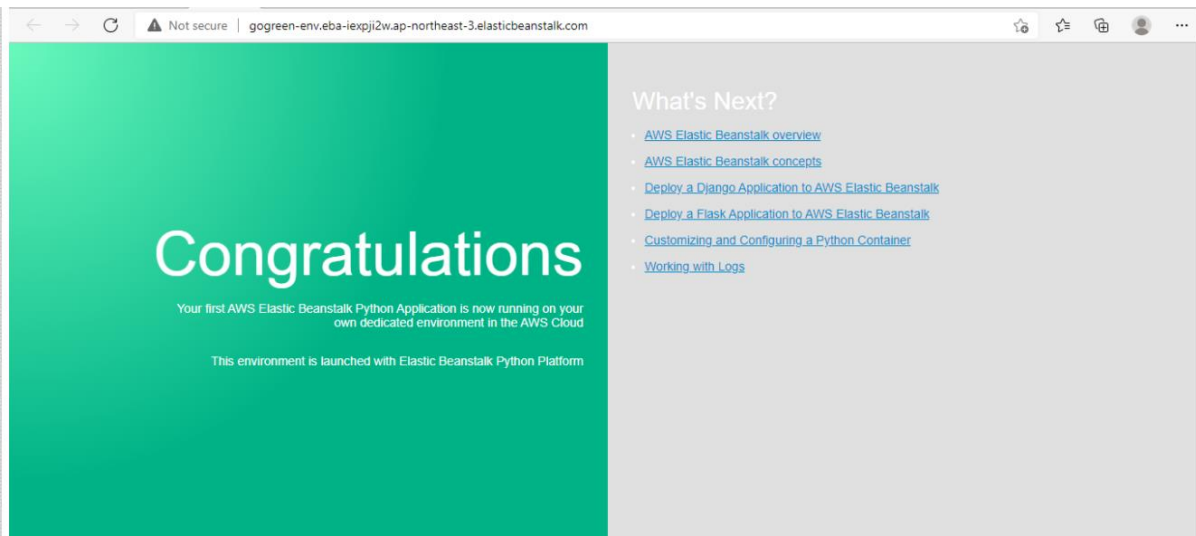
## Assignment 4:

Working on elastic beanstalk Deploy sample application on elastic beanstalk:



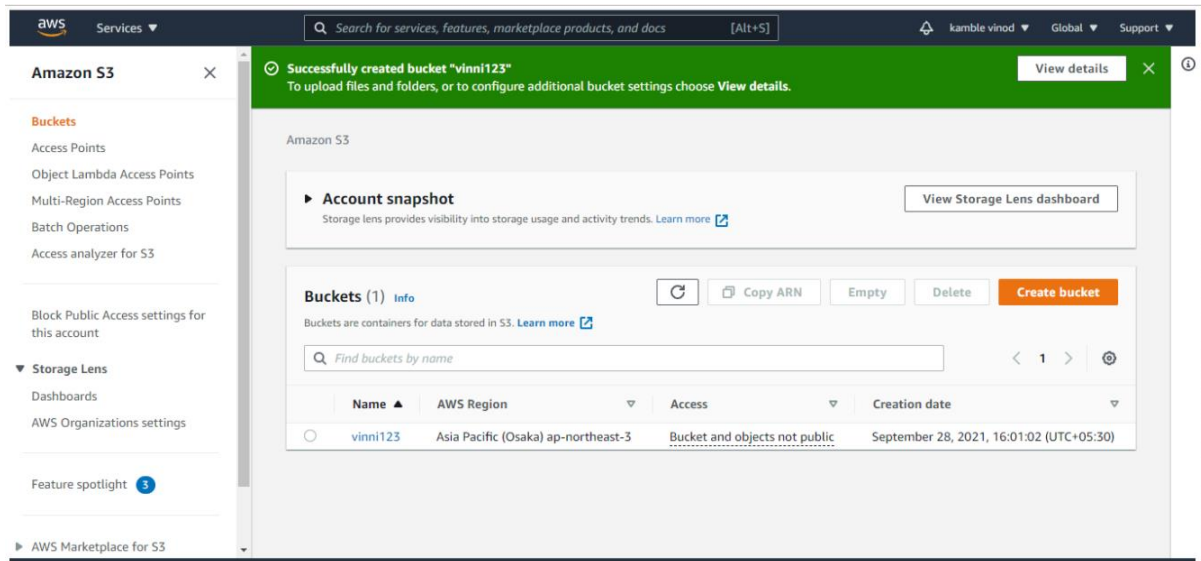
Create multiple environments within the sample application and Deploy different versions of applications in different environments:



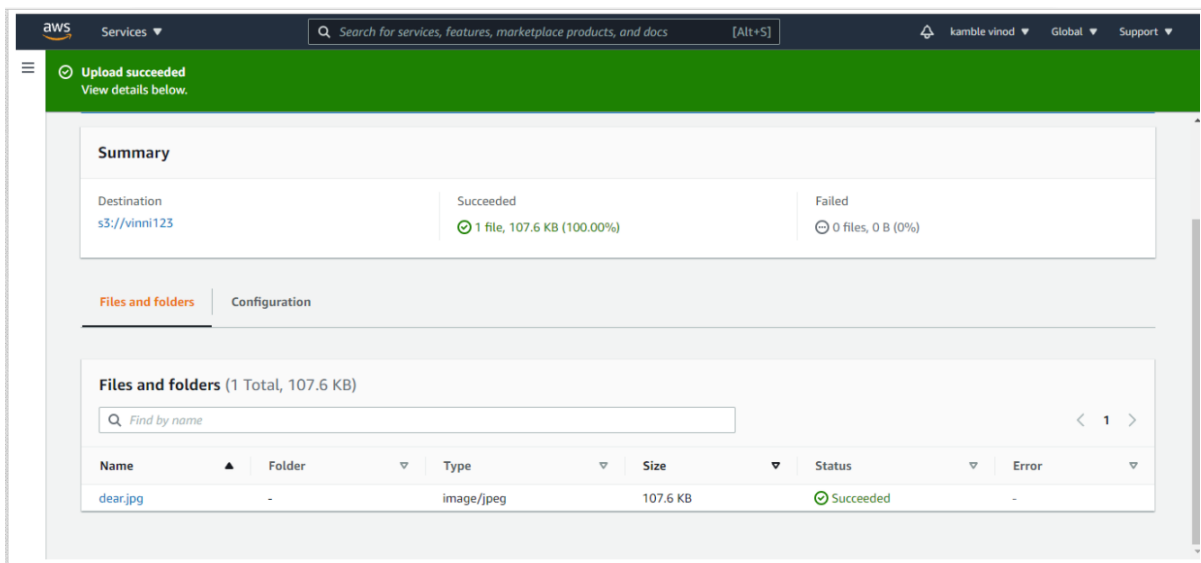


## Assignment 5

Create an s3 bucket:



Upload object into the s3 bucket:



Make bucket and object public:

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**Amazon S3**

Buckets

Access Points

Object Lambda Access Points

Multi-Region Access Points

Batch Operations

Access analyzer for S3

Block Public Access settings for this account

Storage Lens

Dashboards

AWS Organizations settings

Feature spotlight 3

AWS Marketplace for S3

Successfully edited Block Public Access settings for this bucket.

Amazon S3 > vinni123

**vinni123** Info

Objects Properties Permissions Metrics Management Access Points

**Permissions overview**

Access

Objects can be public

**Block public access (bucket settings)**

Public access is granted to buckets and objects through access control lists (ACLs), bucket policies, access point policies, or all. In order to ensure that public access to all your S3 buckets and objects is blocked, turn on Block all public access. These settings apply only to this bucket and its access points. AWS recommends that you turn on Block all public access, but before applying any of these settings, ensure that your applications will work correctly without public access. If you require some level of public access to your buckets or objects within, you can customize the individual settings below to suit your specific storage use cases. [Learn more](#)

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Successfully edited public access

View details below.

**Make public: status** Close

The information below will no longer be available after you navigate away from this page.

**Summary**

Source	Successfully edited public access	Failed to edit public access
s3://vinni123	1 object, 107.6 KB	0 objects

Failed to edit public access Configuration

**Failed to edit public access (0)**

Find objects by name

< 1 >

Access the object using object URL:

The screenshot displays the Amazon S3 console interface. On the left, a sidebar shows the 'Amazon S3' service selected, with a list of features including Buckets, Access Points, Object Lambda Access Points, Multi-Region Access Points, Batch Operations, Access analyzer for S3, Storage Lens, Dashboards, AWS Organizations settings, Feature spotlight, and AWS Marketplace for S3. The main content area is titled 'dear.jpg' and has tabs for 'Properties', 'Permissions', and 'Versions'. The 'Properties' tab is active, showing an 'Object overview' section. This section is divided into two columns. The left column lists: Owner, AWS Region (Asia Pacific (Osaka) ap-northeast-3), Last modified (September 28, 2021, 16:06:08 (UTC+05:30)), Size (107.6 KB), Type (jpg), and Key (dear.jpg). The right column lists: S3 URI (s3://vinni123/dear.jpg), Amazon Resource Name (ARN) (arn:aws:s3:::vinni123/dear.jpg), Entity tag (Etag) (b34daed36dac7dc9686005be0f799e70), and Object URL (https://vinni123.s3.ap-northeast-3.amazonaws.com/dear.jpg).

Object overview	
Owner	S3 URI
AWS Region	s3://vinni123/dear.jpg
Asia Pacific (Osaka) ap-northeast-3	Amazon Resource Name (ARN)
Last modified	arn:aws:s3:::vinni123/dear.jpg
September 28, 2021, 16:06:08 (UTC+05:30)	Entity tag (Etag)
Size	b34daed36dac7dc9686005be0f799e70
107.6 KB	Object URL
Type	https://vinni123.s3.ap-northeast-3.amazonaws.com/dear.jpg
jpg	
Key	
dear.jpg	