

# BhavyaSree Gangulakunta's

## SPRING-BOOT Web App

As requested by management, this is my final product stage, demonstrating the automated, integrated, and deployed spring-boot web application.

This is an environment where the application is hosted and accessed by users. The following were used in its development:

- Eclipse
- GitHub
- Jenkins
- AWS EC2/ Virtual machine

Feel free to contact BhavyaSree Gangulakunta with any new requests or upgrades to this product!

The screenshot displays the 'AWS Certification - Dedicated Account' lab interface within the Simplilearn 'Practice Labs' environment. The browser address bar shows the URL: <https://lms.simplilearn.com/courses/4033/PG-FSD-Testing-in-a-DevOps-Lifecycle/practice-labs>. The page header includes the course title 'PG FSD Testing in a DevOps Lifecycle' and progress indicators: '1 Class completed | 93% Self-Learning Videos Watched | 0/2 Projects Done'. The lab title is 'AWS Certification - Dedicated Account', and a notice states 'This Lab will get reset on 19th September 2021, 4:55 PM'. The interface is divided into several sections: 'Access Information' (with tabs for Lab Details, Components, Log Details, and Usage Details), 'Applications' (showing 'AWS Web Console' and 'AWS API Access' with Amazon Web Services logos), 'AWS Web Console' (displaying an 'Auth Url' as <https://signin.aws.amazon.com/feder> and a 'Session Expires in: 7h 59m 11s' timer with a 'Refresh Link' button), and a detailed 'AWS Certification - Dedicated Account' summary on the right. This summary includes the category 'Cloud Computing', start/end dates '2021-09-19 19:25' and '2021-09-27 08:59', and a code 'SLAWS'. A 'TERMINATE LAB ACCESS' button is located at the bottom right. The footer mentions 'Powered by CORESTACK' and a link to 'Terms & Conditions'.

# AWS Management Console

## AWS services

### ▼ Recently visited services

Your recently visited AWS services appear here.

### ► All services

## Build a solution

Get started with simple wizards and automated workflows.

### Launch a virtual machine

With EC2  
2-3 minutes



### Register a domain

With Route 53  
3 minutes



► See more

### Build a web app

With Elastic Beanstalk  
6 minutes



### Connect an IoT device

With AWS IoT  
5 minutes



### Build using virtual servers

With Lightsail  
1-2 minutes



### Start migrating to AWS

With AWS MGN  
1-2 minutes



## Getting Started with AWS

Learn the fundamentals and start building on AWS now. [Get Started](#)

## Stay connected to your AWS resources on-the-go



AWS Console Mobile App now supports four additional regions. Download the AWS Console Mobile App to your iOS or Android mobile device. [Learn more](#)

## Explore AWS

### AWS Certification

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### AWS Certification

Get a complete overview of all things AWS Certification in this free e-book. [Learn more](#)

## Have feedback?

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

## 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.

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: ebs Virtualization type: hvm ENA Enabled: Yes

Select

☒ 64-bit (x86)  
☐ 64-bit (Arm)



**macOS Big Sur 11.6** - ami-0355f1ed5537c0368

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

Select

64-bit (Mac)



**macOS Catalina 10.15.7** - ami-0ae0b6d49088fc747

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.

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

Select

64-bit (Mac)



**macOS Mojave 10.14.6** - ami-07279d867534aacb6

The macOS Mojave AMI is an EBS-backed, AWS-supported image. This AMI includes the AWS Command Line Interface, Command Line Tools for

Select

64-bit (Mac)

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1. Choose AMI2. Choose Instance Type3. Configure Instance4. Add Storage5. Add Tags6. Configure Security Group7. 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 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
<input type="checkbox"/>	t2	t2.xlarge	4	16	EBS only	-	Moderate	Yes
<input type="checkbox"/>	t2	t2.2xlarge	8	32	EBS only	-	Moderate	Yes
<input type="checkbox"/>	t3	t3.nano	2	0.5	EBS only	Yes	Up to 5 Gigabit	Yes
<input type="checkbox"/>	t3	t3.micro	2	1	EBS only	Yes	Up to 5 Gigabit	Yes
<input type="checkbox"/>	t3	t3.small	2	2	EBS only	Yes	Up to 5 Gigabit	Yes

CancelPreviousReview and LaunchNext: Configure Instance Details

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1. Choose AMI2. Choose Instance Type3. Configure Instance4. Add Storage5. Add Tags6. Configure Security Group7. 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 Instances1Launch into Auto Scaling Group

Purchasing option☐ Request Spot instances

Networkvpc-0df264bc3671f6ec2 (default)Create new VPC

SubnetNo preference (default subnet in any Availability Zone)Create new subnet

Auto-assign Public IPUse subnet setting (Enable)

Placement group☐ Add instance to placement group

Capacity ReservationOpen

Domain join directoryNo directoryCreate new directory

IAM roleNoneCreate new IAM role

Shutdown behaviorStop

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.

TenancyShared - Run a shared hardware instance

CancelPreviousReview and LaunchNext: Add Storage

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1. Choose AMI2. Choose Instance Type3. Configure Instance4. Add Storage5. Add Tags6. Configure Security Group7. 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	<input type="text" value="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.

CancelPreviousReview and LaunchNext: Add Tags

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1. Choose AMI2. Choose Instance Type3. Configure Instance4. Add Storage5. Add Tags6. Configure Security Group7. 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 ⓘ
<div>This resource currently has no tags</div> <div>Choose the Add tag button or <a href="#">click to add a Name tag</a>. Make sure your <a href="#">IAM policy</a> includes permissions to create tags.</div>				

Add Tag

(Up to 50 tags maximum)

CancelPreviousReview and LaunchNext: Configure Security Group

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### 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
SSH	TCP	22	Custom 0.0.0.0/0	e.g. SSH for Admin Desktop
HTTP	TCP	80	Custom 0.0.0.0/0	e.g. SSH for Admin Desktop
HTTP	TCP	80	Custom ::/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**

### Step 7: Review Instance Launch

Host Device type: ebs Virtualization type: hvm

#### Instance Type

Edit instance type

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

#### Security Groups

Edit security groups

Security group name: launch-wizard-1  
Description: launch-wizard-1 created 2021-09-26T14:37:03.423-05:00

Type	Protocol	Port Range	Source	Description
SSH	TCP	22	0.0.0.0/0	
HTTP	TCP	80	0.0.0.0/0	
HTTP	TCP	80	::/0	

#### Instance Details

Edit instance details

#### Storage

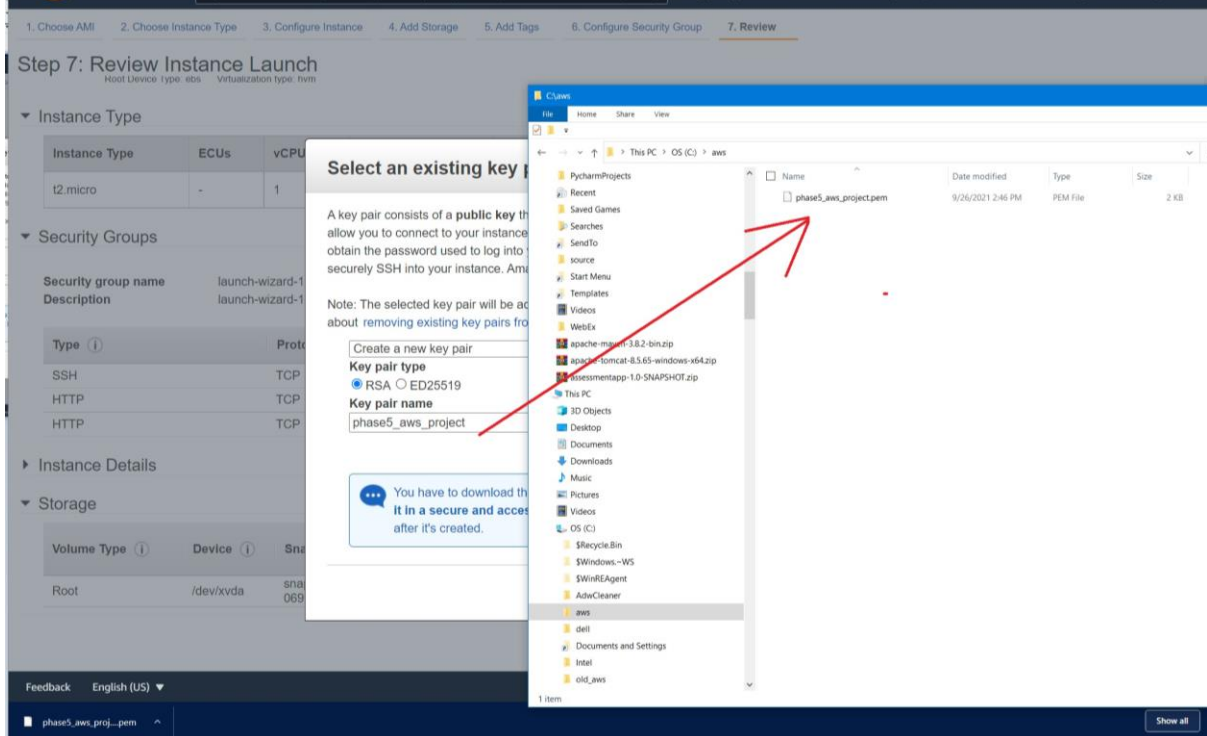
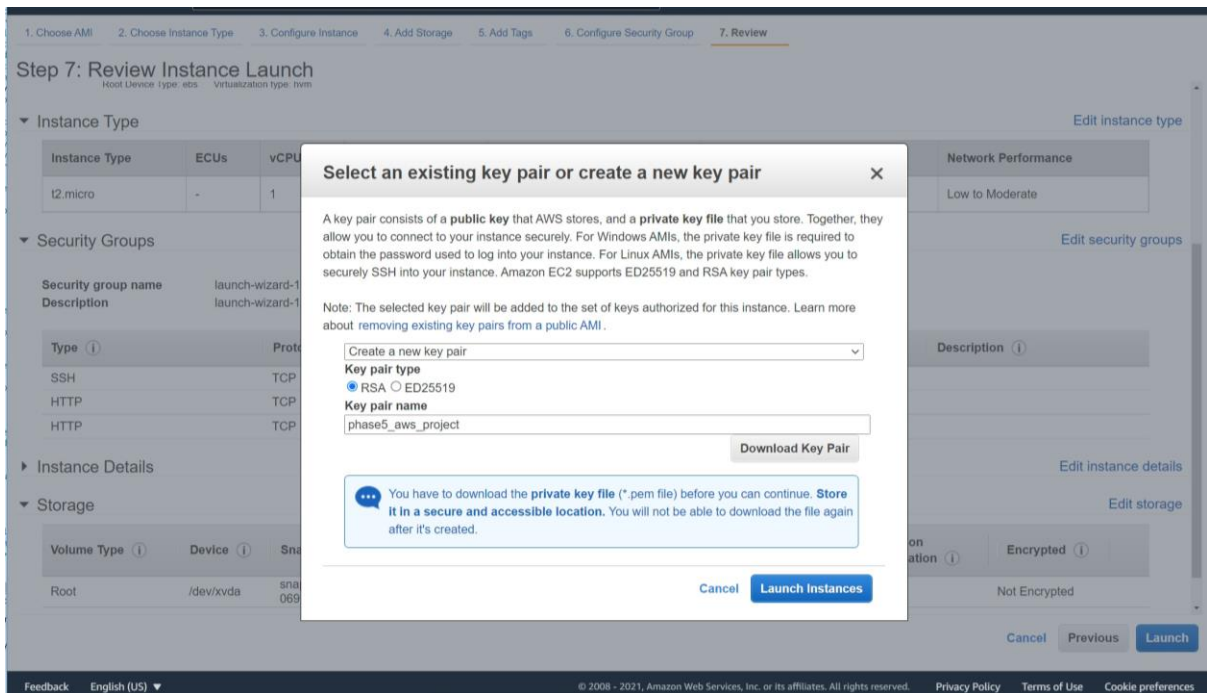
Edit storage

Volume Type	Device	Snapshot	Size (GiB)	Volume Type	IOPS	Throughput (MB/s)	Delete on Termination	Encrypted
Root	/dev/xvda	snap-0699a041095ac5492	8	gp2	100 / 3000	N/A	Yes	Not Encrypted

#### Tags

Edit tags

Cancel Previous **Launch**



Launch Status



Initiating Instance Launches

Please do not close your browser while this is loading

Creating security groups... Successful

Authorizing inbound rules... Successful

Initiating launches...

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Launch Status



Your instances are now launching

The following instance launches have been initiated: i-03151d5c74c30423b [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 Instances](#)

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New EC2 Experience

EC2 Dashboard  
EC2 Global View  
Events  
Tags  
Limits

▼ Instances

Instances **New**  
Instance Types  
Launch Templates  
Spot Requests  
Savings Plans  
Reserved Instances **New**  
Dedicated Hosts  
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Capacity Reservations

▼ Images

AMIs

▼ Elastic Block Store

Volumes  
Snapshots  
Lifecycle Manager **New**

Instances (1) Info

Filter instances

	Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IPv4 DNS	Public IPv4 ...
<input type="checkbox"/>	-	i-03151d5c74c30423b	Running	t2.micro	Initializing	No alarms +	us-east-1d	ec2-54-235-5-192.com...	54.235.5.192

Select an instance above

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phases\_aws\_proj.pem

New EC2 Experience

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▼ Instances

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Capacity Reservations

▼ Images

AMIs

▼ Elastic Block Store

Volumes  
Snapshots  
Lifecycle Manager **New**

EC2 > Instances > i-03151d5c74c30423b

Instance summary for i-03151d5c74c30423b Info

Updated less than a minute ago

Instance ID  
i-03151d5c74c30423b

Public IPv4 address  
54.235.5.192 | open address

Private IPv4 addresses  
172.31.94.6

Public IPv4 DNS  
ec2-54-235-5-192.compute-1.amazonaws.com | open address

IPV6 address  
-

Private IPv4 DNS  
ip-172-31-94-6.ec2.internal

Elastic IP addresses  
-

VPC ID  
vpc-0df264bc3671f6ec2

IAM Role  
-

Instance state  
Running

Instance type  
t2.micro

AWS Compute Optimizer finding  
User: awssts:779921731516:assumed-role/Corestack\_Role/mailakev\_gmail is not authorized to perform: compute-optimizer:GetEnrollmentStatus on resource: \* with an explicit deny  
Retry

Subnet ID  
subnet-09c3d19313c035a75

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

You can now check network connectivity with Reachability Analyzer. Run Reachability Analyzer

▼ Networking details Info

Public IPv4 address Private IPv4 addresses VPC ID

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EC2 > Instances > i-03151d5c74c30423b > Connect to instance

Connect to instance Info

Connect to your instance i-03151d5c74c30423b using any of these options

EC2 Instance Connect Session Manager **SSH client** EC2 Serial Console

Instance ID  
i-03151d5c74c30423b

1. Open an SSH client.

2. Locate your private key file. The key used to launch this instance is phases\_aws\_project.pem

3. Run this command, if necessary, to ensure your key is not publicly viewable.

chmod 400 phases\_aws\_project.pem

4. Connect to your instance using its Public DNS:

ec2-54-235-5-192.compute-1.amazonaws.com

Example:

```
ssh -i "phases_aws_project.pem" ec2-user@ec2-54-235-5-192.compute-1.amazonaws.com
```

Note: In most cases, the guessed user name is correct. However, read your AMI usage instructions to check if the AMI owner has changed the default AMI user name.

Cancel

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phases\_aws\_proj.pem



EC2 > Instances > i-03151d5c74c30423b > Connect to instance

### Connect to instance Info

Connect to your instance i-03151d5c74c30423b using any of these options

EC2 Instance Connect   Session Manager   **SSH client**

Instance ID  
i-03151d5c74c30423b

1. Open an SSH client.
2. Locate your private key file. The key used to launch this instance is `phase5_aws_project.pem`.
3. Run this command, if necessary, to ensure your key is not public:  
`chmod 400 phase5_aws_project.pem`
4. Connect to your instance using its Public DNS:  
`ec2-54-235-5-192.compute-1.amazonaws.com`

Example:

```
ssh -i "phase5_aws_project.pem" ec2-user@ec2-54-235-5-192.compute-1.amazonaws.com
```

**Note:** In most cases, the guessed user name is correct. However, read your AMI usage instructions to check if the AMI owner has changed the default AMI user name.

Cancel

PutTY Configuration

Category: Session, Logging, Terminal, Keyboard, Bell, Features, Window, Appearance, Behaviour, Translation, Selection, Colours, Connection, Data, Proxy, SSH, Serial, Telnet, Rlogin, SUDOUP

Basic options for your PuTTY session

Specify the destination you want to connect to

Host Name (or IP address): `ec2-54-235-5-192.compute-1.amazonaws.com` Port: `22`

Connection type: ☒ SSH ☐ Serial ☐ Other: Telnet

Load, save or delete a stored session

Saved Sessions: [ ]

Default Settings: [ ]

Load [ ] Save [ ] Delete [ ]

Close window on exit: ☐ Always ☐ Never ☒ Only on clean exit

About Help Open Cancel

Paste

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phase5\_aws\_proj...pem Show all

EC2 > Instances > i-03151d5c74c30423b > Connect to instance

### Connect to instance Info

Connect to your instance i-03151d5c74c30423b using any of these options

EC2 Instance Connect   Session Manager   **SSH client**

Instance ID  
i-03151d5c74c30423b

1. Open an SSH client.
2. Locate your private key file. The key used to launch this instance is `phase5_aws_project.pem`.
3. Run this command, if necessary, to ensure your key is not public:  
`chmod 400 phase5_aws_project.pem`
4. Connect to your instance using its Public DNS:  
`ec2-54-235-5-192.compute-1.amazonaws.com`

Example:

```
ssh -i "phase5_aws_project.pem" ec2-user@ec2-54-235-5-192.compute-1.amazonaws.com
```

**Note:** In most cases, the guessed user name is correct. However, read your AMI usage instructions to check if the AMI owner has changed the default AMI user name.

Cancel

PutTY Configuration

Category: Session, Logging, Terminal, Keyboard, Bell, Features, Window, Appearance, Behaviour, Translation, Selection, Colours, Connection, Data, Proxy, SSH, Serial, Telnet, Rlogin, SUDOUP

Data to send to the server

Login details

Auto-login username: `ec2-user`

When username is not specified: ☒ Prompt ☐ Use system username (kavin)

Terminal details

Terminal-type string: `xterm`

Terminal speeds: `38400,38400`

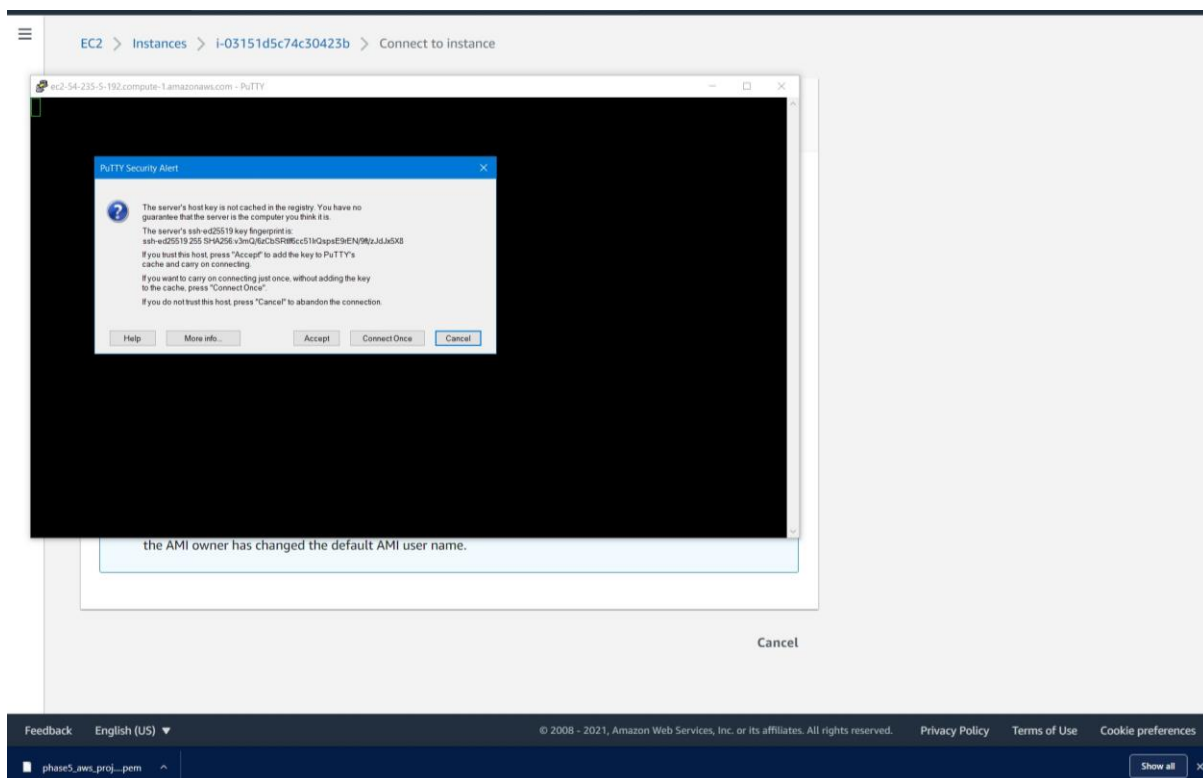
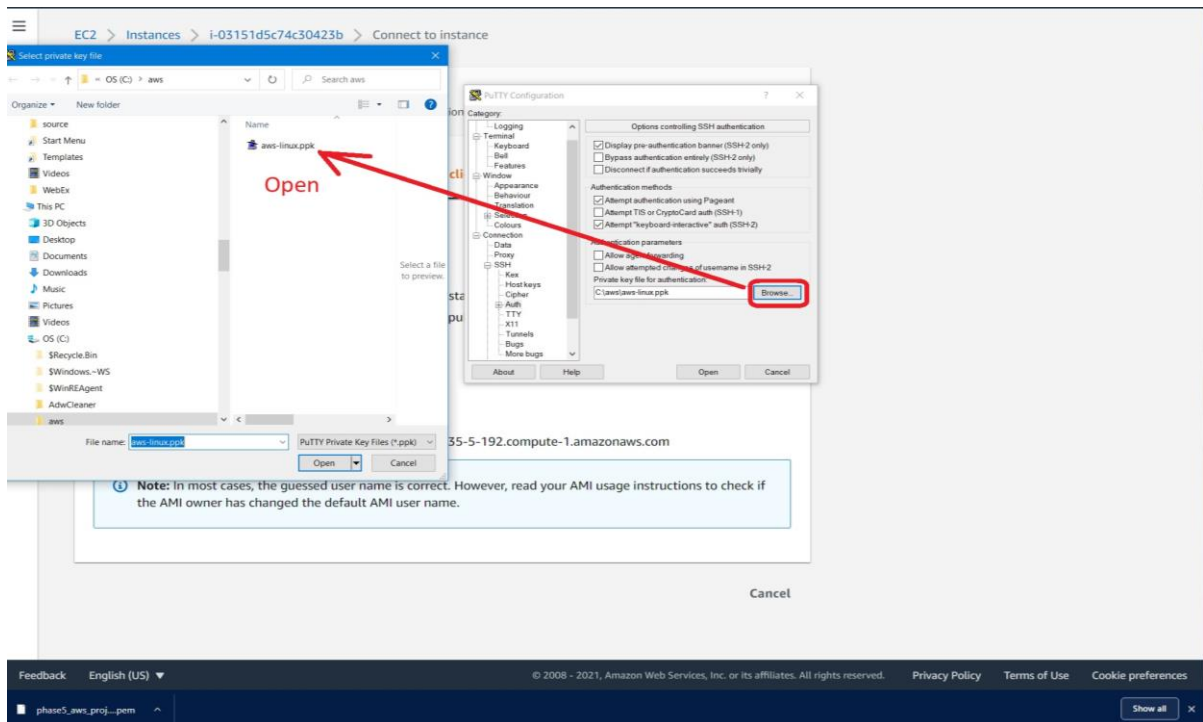
Environment variables

Variable: [ ] Add [ ]

Value: [ ] Remove [ ]

About Help Open Cancel

Type





**New EC2 Experience**  
Tell us what you think

EC2 Dashboard  
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**Instances**  
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**Images**  
AMIs

**Elastic Block Store**  
Volumes  
Snapshots  
Lifecycle Manager **New**

EC2 > Instances > i-03151d5c74c30423b

### Instance summary for i-03151d5c74c30423b

Updated less than a minute ago

Instance ID: i-03151d5c74c30423b

Public IPv4 address: 54.235.5.192 | [open address](#)

Private IPv4 addresses: 172.31.94.6

Public IPv4 DNS: ec2-54-235-5-192.compute-1.amazonaws.com | [open address](#)

Elastic IP addresses: —

IAM Role: —

IPv6 address: —

Private IPv4 DNS: ip-172-31-94-6.ec2.internal

VPC ID: vpc-0df264bc3671f6ec2

Subnet ID: subnet-09c3d19313c035a75

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

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

Public IPv4 address: Private IPv4 addresses: VPC ID: —

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**New EC2 Experience**  
Tell us what you think

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EC2 > Instances > i-03151d5c74c30423b

### Instance summary for i-03151d5c74c30423b

Updated less than a minute ago

Instance ID: i-03151d5c74c30423b

Public IPv4 address: 54.235.5.192

Private IPv4 addresses: —

Public IPv4 DNS: —

Elastic IP addresses: —

IAM Role: —

IPv6 address: —

Private IPv4 DNS: —

VPC ID: vpc-0df264bc3671f6ec2

Subnet ID: subnet-09c3d19313c035a75

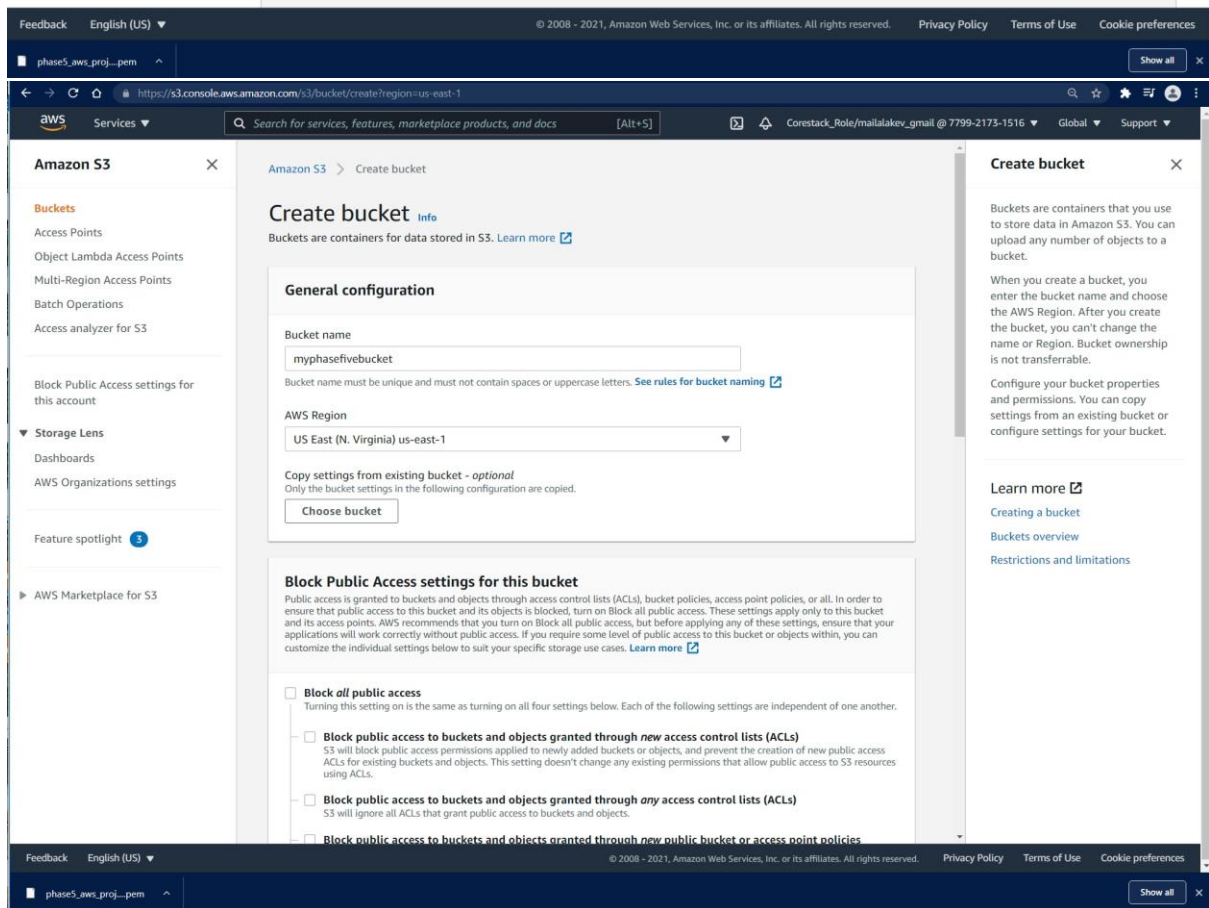
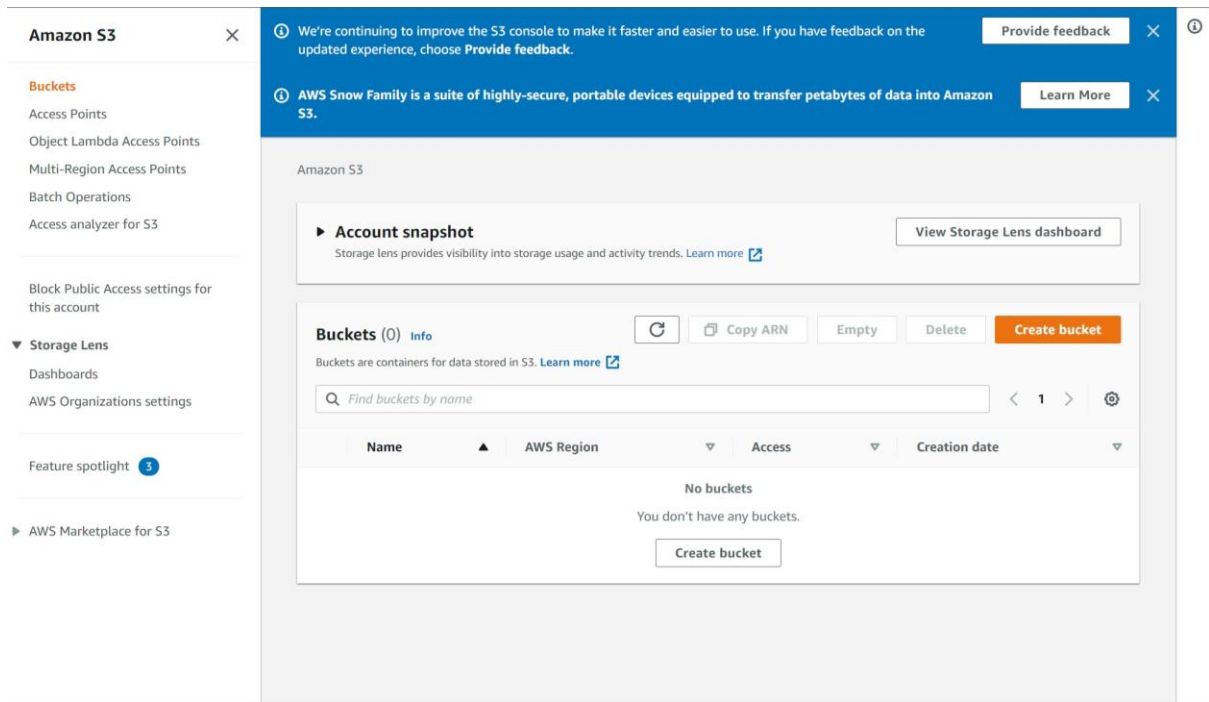
Details | Security | **Networking** | Storage | Status checks | Monitoring | Tags

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

Public IPv4 address: Private IPv4 addresses: VPC ID: —

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phases\_am\_project.pem



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

AWS Marketplace for S3

Successfully created bucket "myphasefivebucket"

To upload files and folders, or to configure additional bucket settings choose [View details](#).

Amazon S3

Account snapshot

Storage lens provides visibility into storage usage and activity trends. [Learn more](#)

[View Storage Lens dashboard](#)

Buckets (1) Info

Buckets are containers for data stored in S3. [Learn more](#)

Copy ARN

Empty

Delete

Create bucket

< 1 >

Name	AWS Region	Access	Creation date
myphasefivebucket	US East (N. Virginia) us-east-1	Objects can be public	September 26, 2021, 15:28:05 (UTC-05:00)

Buckets

Buckets are containers for objects stored in Amazon S3. You can store any number of objects in a bucket and can have up to 100 buckets in your account. To request an increase, visit the [Service Quotas Console](#). You can create, configure, empty, and delete buckets. However, you can only delete an empty bucket.

Manage access

Buckets are private and can only be accessed if you explicitly grant permissions. Use bucket policies, IAM policies, access control lists (ACLs), and S3 Access Points to manage access.

Configure your bucket

You can configure your bucket to support your use case. For example, host a static website, use S3 Versioning and replication for disaster recovery, S3 Lifecycle to manage storage costs, and logging to track requests.

Understand storage usage and activity

The S3 Storage Lens account snapshot displays your total storage, object count, and average object size for all buckets in the account. View your S3 Storage Lens dashboard to analyze your usage and activity trends by AWS Region, storage class, bucket, or prefix.

Feedback English (US)

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phase5\_aws\_proj...pem

Show all

Amazon S3 > myphasefivebucket

myphasefivebucket Info

Objects

Properties

Permissions

Metrics

Management

Access Points

Objects (0)

Objects are the fundamental entities stored in Amazon S3. You can use [Amazon S3 inventory](#) to get a list of all objects in your bucket. For others to access your objects, you'll need to explicitly grant them permissions. [Learn more](#)

Copy S3 URI

Copy URL

Download

Open

Delete

Actions

Create folder

Upload

< 1 >

Name	Type	Last modified	Size	Storage class
No objects				
You don't have any objects in this bucket.				
<div>Upload</div>				

Objects

You can view all the objects in a bucket or folder, including their name, type, last modified, size, storage class, and tags.

Objects are the fundamental entities stored in Amazon S3. You must explicitly grant others permissions to access your objects. Each object has *data*, a *key*, and *metadata*. The object key (or key name) uniquely identifies the object in a bucket.

Amazon S3 maintains a set of system and user metadata for each object and processes the system metadata as needed for storage management.

Amazon S3 has a flat structure instead of a hierarchy like you might see in a file system. However, the console supports the folder concept as a means of grouping objects, using a shared name prefix for objects in the same folder.

Use this page to see all the objects in a bucket or folder. You can open, download, delete, and copy the URL for selected objects. Choose **Actions** to perform object actions like calculate size, copy, restore, edit, and query with S3 Select. Choose **Create folder** to create a folder, and choose **Upload** to upload an object.

Feedback English (US)

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phase5\_aws\_proj...pem

Show all



Amazon S3 > myphasefivebucket > Upload

Upload

Info

Add the files and folders you want to upload to S3. To upload a file larger than 160GB, use the AWS CLI, AWS SDK or Amazon S3 REST API. [Learn more](#)

Drag and drop files and folders you want to upload here, or choose **Add files**, or **Add folders**.

Files and folders (1 Total, 16.8 MB)

Remove

Add files

Add folder

All files and folders in this table will be uploaded.

Find by name

< 1 >

<input type="checkbox"/>	Name	Folder	Type	Size
<input type="checkbox"/>	my-spring-boot-web-aws-exe.jar	-	-	16.8 MB

Destination

Destination

s3://myphasefivebucket

Destination details

Bucket settings that impact new objects stored in the specified destination.

Permissions

Grant public access and access to other AWS accounts.

Properties

Specify storage class, encryption settings, tags, and more.

Cancel

Upload

Upload

Upload one or more objects (files and folders) to the destination bucket. Drag and drop files and folders into the box, or choose **Add files** or **Add folders**.

To upload objects larger than 160 GB, use the AWS CLI, SDK, or REST API.

Additional upload options

Configure additional properties for the uploaded objects, including storage class, server-side encryption settings, access control list (ACL) settings, tags, and metadata.

Learn more

[Uploading objects](#)

[Working with objects](#)

[Objects overview](#)

Feedback

English (US)

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phase5\_aws\_proj...pem

Show all

Upload succeeded

View details below.

Upload: status

Close

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

Summary

Destination

s3://myphasefivebucket

Succeeded

1 file, 16.8 MB (100.00%)

Failed

0 files, 0 B (0%)

Files and folders

Configuration

Files and folders (1 Total, 16.8 MB)

Find by name

< 1 >

Name	Folder	Type	Size	Status	Error
my-spring-boot-web-aws-exe.jar	-	-	16.8 MB	Succeeded	-

Feedback

English (US)

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[Privacy Policy](#)

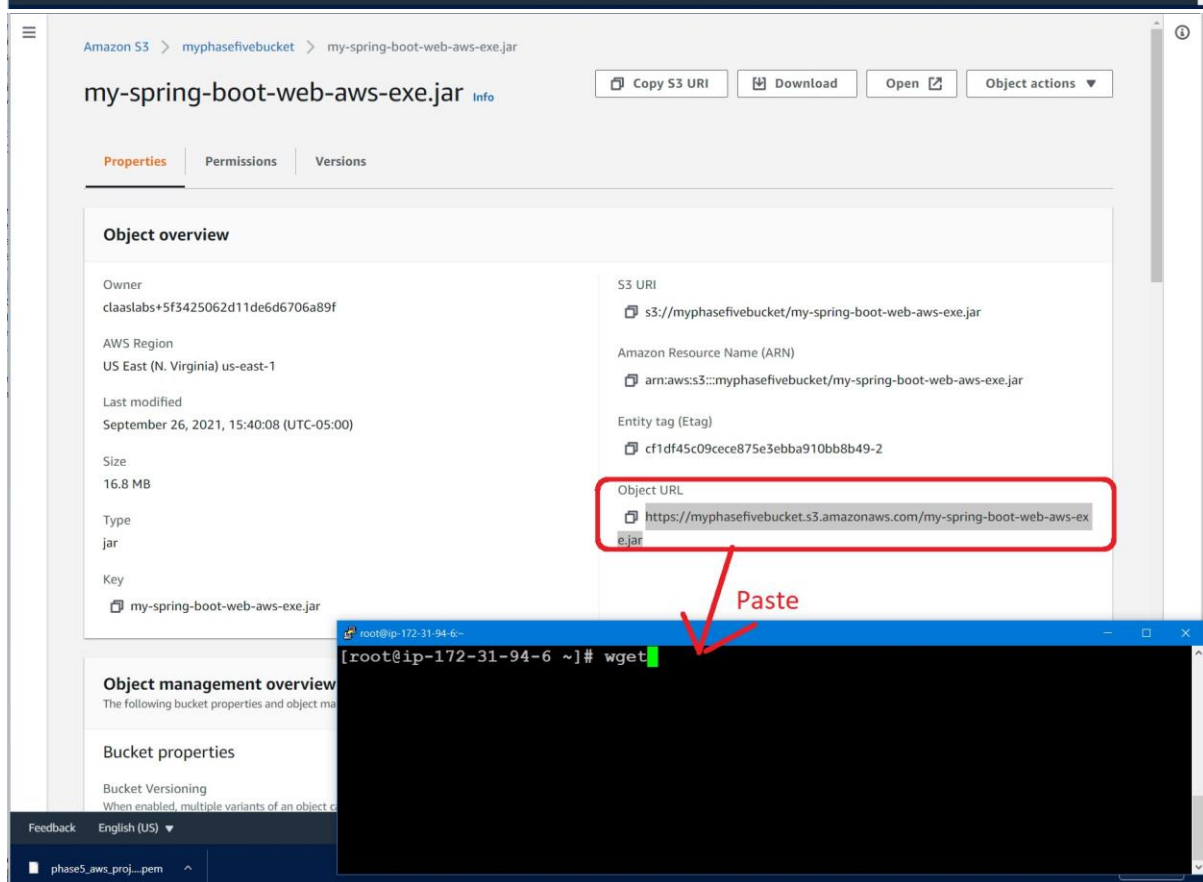
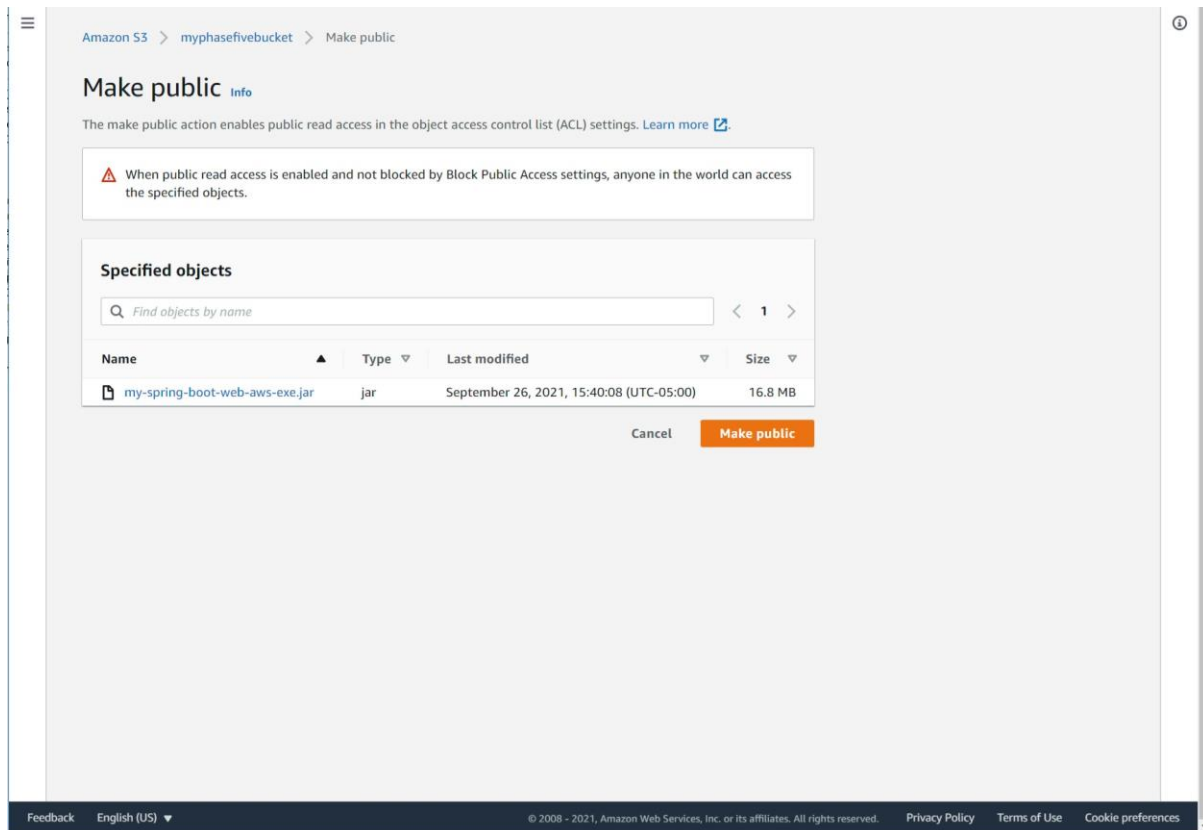
[Terms of Use](#)

[Cookie preferences](#)

phase5\_aws\_proj...pem

Show all





Amazon S3 > myphasefivebucket > my-spring-boot-web-aws-exe.jar

## my-spring-boot-web-aws-exe.jar [Info](#)

[Copy S3 URI](#) [Download](#) [Open](#) [Object actions](#)

**Properties** Permissions Versions

### Object overview

Owner	claaslabs+5f3425062d11de6d6706a89f
AWS Region	US East (N. Virginia) us-east-1
Last modified	September 26, 2021, 15:40:08 (UTC-05:00)
Size	16.8 MB
Type	jar
Key	my-spring-boot-web-aws-exe.jar

**Object management overview**  
The following bucket properties and object details are shown.

**Bucket properties**

Bucket Versioning  
When enabled, multiple variants of an object can be stored in a bucket.

**Object details**

S3 URI  
s3://myphasefivebucket/my-spring-boot-web-aws-exe.jar

Amazon Resource Name (ARN)  
arn:aws:s3::myphasefivebucket/my-spring-boot-web-aws-exe.jar

Entity tag (Etag)  
cf1df45c09cece875e3ebba910bb8b49-2

Object URL  
https://myphasefivebucket.s3.amazonaws.com/my-spring-boot-web-aws-exe.jar

```
root@ip-172-31-94-6:~# curl -o my-spring-boot-web-aws-exe.jar https://myphasefivebucket.s3.amazonaws.com/my-spring-boot-web-aws-exe.jar
Resolving myphasefivebucket.s3.amazonaws.com (myphasefivebucket.s3.amazonaws.com)... 52.217.93.196
Connecting to myphasefivebucket.s3.amazonaws.com (myphasefivebucket.s3.amazonaws.com)|52.217.93.196|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 17646207 (17M) [application/x-www-form-urlencoded]
Saving to: 'my-spring-boot-web-aws-exe.jar'

100%[=====>] 17,646,207 41.7MB/s in 0.4s

2021-09-26 20:45:54 (41.7 MB/s) - 'my-spring-boot-web-aws-exe.jar' saved [17646207/17646207]

[root@ip-172-31-94-6 ~]#
```

**JAR FILE UPLOADED to EC2 INSTANCE!**

Amazon S3 > myphasefivebucket > my-spring-boot-web-aws-exe.jar

## my-spring-boot-web-aws-exe.jar [Info](#)

[Copy S3 URI](#) [Download](#) [Open](#) [Object actions](#)

**Properties** Permissions Versions

### Object overview

Owner	claaslabs+5f3425062d11de6d6706a89f
AWS Region	US East (N. Virginia) us-east-1
Last modified	September 26, 2021, 15:40:08 (UTC-05:00)
Size	16.8 MB
Type	jar
Key	my-spring-boot-web-aws-exe.jar

**Object management overview**  
The following bucket properties and object details are shown.

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Bucket Versioning  
When enabled, multiple variants of an object can be stored in a bucket.

**Object details**

S3 URI  
s3://myphasefivebucket/my-spring-boot-web-aws-exe.jar

Amazon Resource Name (ARN)  
arn:aws:s3::myphasefivebucket/my-spring-boot-web-aws-exe.jar

Entity tag (Etag)  
cf1df45c09cece875e3ebba910bb8b49-2

Object URL  
https://myphasefivebucket.s3.amazonaws.com/my-spring-boot-web-aws-exe.jar

```
root@ip-172-31-94-6:~# curl -o my-spring-boot-web-aws-exe.jar https://myphasefivebucket.s3.amazonaws.com/my-spring-boot-web-aws-exe.jar
Resolving myphasefivebucket.s3.amazonaws.com (myphasefivebucket.s3.amazonaws.com)... 52.217.93.196
Connecting to myphasefivebucket.s3.amazonaws.com (myphasefivebucket.s3.amazonaws.com)|52.217.93.196|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 17646207 (17M) [application/x-www-form-urlencoded]
Saving to: 'my-spring-boot-web-aws-exe.jar'

100%[=====>] 17,646,207 41.7MB/s in 0.4s

2021-09-26 20:45:54 (41.7 MB/s) - 'my-spring-boot-web-aws-exe.jar' saved [17646207/17646207]

[root@ip-172-31-94-6 ~]# ls
my-spring-boot-web-aws-exe.jar
[root@ip-172-31-94-6 ~]#
```

**JAR FILE on EC2!**

Eclipse IDE interface showing the Maven project structure and the console output of the build process.

**Project Explorer:** The left sidebar shows the project structure. The `target` directory is expanded, showing the generated `my-spring-boot-web-aws-exe.jar` file. A green arrow points from the text "Creates Executable JAR FILE" to this file.

**Console Output:** The bottom pane shows the Maven build log. Key messages include:

- Spring Boot version 2.5.5.
- Build progress: `--- maven-jar-plugin:3.2.0:jar (default-jar) @ my-spring-boot-web ---`
- Build success: `--- spring-boot-maven-plugin:2.5.5:repackage (repackage) @ my-spring-boot-web ---`
- Final output: `my-spring-boot-web-aws-exe.jar`

The console output is partially obscured by a large, stylized watermark.

```

1 <?xml version="1.0" encoding="UTF-8"?>
2 <project xmlns="http://maven.apache.org/POM/4.0.0" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
3     xsi:schemaLocation="http://maven.apache.org/POM/4.0.0 https://maven.apache.org/xsd/maven-4.0.0.xsd">
4     <modelVersion>4.0.0</modelVersion>
5     <parent>
6         <groupId>org.springframework.boot</groupId>
7         <artifactId>spring-boot-starter-parent</artifactId>
8         <version>2.5.5</version>
9         <relativePath/> <!-- local repository (.m2) / remote repository (www.mvnrepository.com) -->
10    </parent>
11    <groupId>com.simplilearn.workshop</groupId>
12    <artifactId>my-spring-boot-web</artifactId>
13    <version>1.0</version>
14    <name>my-spring-boot-web</name>
15    <description>Kevin Casey's SimpliLearnPhase-5 Assessment</description>
16    <properties>
17        <java.version>11</java.version>
18    </properties>
19    <dependencies>
20        <dependency>
21            <groupId>org.springframework.boot</groupId>
22            <artifactId>spring-boot-starter-web</artifactId>
23            <exclusions>
24                <exclusion>
25                    <groupId>org.springframework.boot</groupId>
26                    <artifactId>spring-boot-starter-tomcat</artifactId>
27                </exclusion>
28            </exclusions>
29        </dependency>
30
31        <dependency>
32            <groupId>org.springframework.boot</groupId>
33            <artifactId>spring-boot-starter-jetty</artifactId>
34        </dependency>
35
36        <dependency>
37            <groupId>org.springframework.boot</groupId>
38            <artifactId>spring-boot-starter-test</artifactId>
39            <scope>test</scope>
40        </dependency>
41    </dependencies>
42
43    <build>
44        <plugins>
45            <plugin>
46                <groupId>org.springframework.boot</groupId>
47                <artifactId>spring-boot-maven-plugin</artifactId>
48            </plugin>
49        </plugins>
50    </build>
51
52 </project>
53

```



```
[Markers] [Properties] [Servers] [Data Source Explorer] [SQL Explorer] [Console] [Call Hierarchy] [Terminal] [History]
my-spring-boot-web [Main Build] C:\Program Files\AdoptOpenJDK\jdk-11.0.9-hotspot\bin\java.exe (Sep 26, 2021, 1:45:19 PM)
[INFO] -----< .com.simplilearn.workshop:my-spring-boot-web >-----
[INFO] Building my-spring-boot-web 1.0
[INFO] -----[ jar ]-----
[INFO]
>>> spring-boot-maven-plugin:2.5.5:run (default-cli) > test-compile @ my-spring-boot-web >>>
[INFO]
[INFO] --- maven-resources-plugin:3.2.0:resources (default-resources) @ my-spring-boot-web ---
[INFO] Using 'UTF-8' encoding to copy filtered resources.
[INFO] Using 'UTF-8' encoding to copy filtered properties files.
[INFO] Copying 1 resource
[INFO] Copying 4 resources
[INFO]
[INFO] --- maven-compiler-plugin:3.8.1:compile (default-compile) @ my-spring-boot-web ---
[INFO] Nothing to compile - all classes are up to date
[INFO]
[INFO] --- maven-resources-plugin:3.2.0:testResources (default-testResources) @ my-spring-boot-web ---
[INFO] Using 'UTF-8' encoding to copy filtered resources.
[INFO] Using 'UTF-8' encoding to copy filtered properties files.
[INFO] skip non existing resourceDirectory C:\Users\kevin\Desktop\CALTECH__COURSE\PHASE_5\CLASS_ASSESSMENT\SOFTWARE\my-spring-boot-web\src\test\resources
[INFO]
[INFO] --- maven-compiler-plugin:3.8.1:testCompile (default-testCompile) @ my-spring-boot-web ---
[INFO] Nothing to compile - all classes are up to date
[INFO]
[INFO] <<< spring-boot-maven-plugin:2.5.5:run (default-cli) > test-compile @ my-spring-boot-web <<<
[INFO]
[INFO] --- spring-boot-maven-plugin:2.5.5:run (default-cli) @ my-spring-boot-web ---
[INFO] Attaching agents: []
```

  
:: Spring Boot ::  
(v2.5.5)

```
2021-09-26 13:45:21.999 INFO 12132 --- [main] com.simplilearn.workshop.MyApplication : Starting MyApplication using Java 11.0.10 on DESKTOP-6RFP1TP with PID 12132 (C:\Users\kevin\Desktop\CALTECH__COURSE\PHASE_5\CLASS_ASSESSMENT\SOFTWARE\my-spring-boot-web\src\main\java)
2021-09-26 13:45:22.001 INFO 12132 --- [main] com.simplilearn.workshop.MyApplication : No active profile set, falling back to default profiles: default
2021-09-26 13:45:22.330 INFO 12132 --- [main] org.eclipse.jetty.util.log : Logging initialized@775ms to org.eclipse.jetty.util.log.Slf4jLog
2021-09-26 13:45:22.446 INFO 12132 --- [main] o.s.b.w.e.j.JettyServletWebServerFactory : Server initialized with port: 8080
2021-09-26 13:45:22.447 INFO 12132 --- [main] org.eclipse.jetty.server.Server : jetty-9.4.43.v20210629; built: 2021-06-30T11:07:22.254Z; git: 52600ecfa3af7f1a2ef3a288e2bef7ea9dd7e8;
2021-09-26 13:45:22.460 INFO 12132 --- [main] o.e.j.s.h.ContextHandler$Application : Initializing Spring embedded WebApplicationContext
2021-09-26 13:45:22.466 INFO 12132 --- [main] w.s.c.ServletWebServerApplicationContext : Root WebApplicationContext: initialization completed in 438 ms
2021-09-26 13:45:22.495 INFO 12132 --- [main] org.eclipse.jetty.server.session : DefaultSessionIdManager workerName=node0
2021-09-26 13:45:22.495 INFO 12132 --- [main] org.eclipse.jetty.server.session : No SessionScavenger set, using defaults
2021-09-26 13:45:22.496 INFO 12132 --- [main] org.eclipse.jetty.server.session : node0 Scavenging every 66000ms
2021-09-26 13:45:22.500 INFO 12132 --- [main] o.e.jetty.server.handler.ContextHandler : Started o.s.b.w.e.j.JettyEmbeddedWebAppContext[] at28b346(application/,file:///C:/Users/kevin/AppData/Local/Temp/jetty-embedd
2021-09-26 13:45:22.590 INFO 12132 --- [main] org.eclipse.jetty.server.Server : Started @920ms
2021-09-26 13:45:22.590 INFO 12132 --- [main] o.s.b.a.w.s.WelcomePageHandlerMapping : Adding welcome page: class path resource [public/index.html]
2021-09-26 13:45:22.623 INFO 12132 --- [main] o.e.j.s.h.ContextHandler$Application : Initializing Spring DispatcherServlet 'dispatcherServlet'
2021-09-26 13:45:22.623 INFO 12132 --- [main] o.s.web.servlet.DispatcherServlet : Initializing Servlet 'dispatcherServlet'
2021-09-26 13:45:22.624 INFO 12132 --- [main] o.s.web.servlet.DispatcherServlet : Completed initialization in 1 ms
2021-09-26 13:45:22.639 INFO 12132 --- [main] o.e.jetty.server.AbstractConnector : Started ServerConnector@70e02081(HTTP/1.1,{http/1.1})(0.0.0.0:8080)
2021-09-26 13:45:22.639 INFO 12132 --- [main] o.s.b.w.e.embedded.jetty.JettyWebServer : Jetty started on port(s) 8080 (http/1.1) with context path '/'
2021-09-26 13:45:22.645 INFO 12132 --- [main] com.simplilearn.workshop.MyApplication : Started MyApplication in 0.849 seconds (HTTP running for 1.064)
```

The screenshot shows a terminal window on an AWS EC2 instance. The top bar indicates the user is 'ec2-user' on 'ip-172-31-94-6-'. The terminal shows the user logging in as 'ec2-user', authenticating with a public key, and displaying the last login time. Below this, the Amazon Linux 2 AMI logo is shown. The user then runs a command to start a Spring Boot application. The output shows the application starting successfully, with logs indicating the initialization of the Spring Boot application, the starting of the Tomcat web server, and the initialization of the application context.

```

ec2-user@ip-172-31-94-6:~$
login as: ec2-user
* Authenticating with public key "imported-openssh-key"
Last login: Sun Sep 26 22:14:09 2021 from 104-14-74-96.lightspeed.jcsrms.sboglob
al.net

  _ _ _ _ _
 /_/_/_/_/_/  Amazon Linux 2 AMI

https://aws.amazon.com/amazon-linux-2/
[ec2-user@ip-172-31-94-6 ~]$ java -jar my-spring-boot-web-aws-exe.jar

:: Spring Boot ::      (v2.3.0.RELEASE)

2020-06-06 14:14:41.359 INFO 23604 --- [           main] c.j.a.a.SpringBootAwsExampleApplication : Starting SpringBootAwsExampleApplication v0.
on ip-172-31-43-97 with PID 23604 (/home/ec2-user/spring-boot-aws-exe.jar started by ec2-user in /home/ec2-user)
2020-06-06 14:14:41.363 INFO 23604 --- [           main] c.j.a.a.SpringBootAwsExampleApplication : No active profile set, falling back to default
2020-06-06 14:14:44.109 INFO 23604 --- [           main] o.s.b.w.embedded.tomcat.TomcatWebServer : Tomcat initialized with port(s): 8080 (http)
2020-06-06 14:14:44.144 INFO 23604 --- [           main] o.apache.catalina.core.StandardService : Starting service [Tomcat]
2020-06-06 14:14:44.145 INFO 23604 --- [           main] org.apache.catalina.core.StandardEngine : Starting Servlet engine: [Apache Tomcat/9.0.
2020-06-06 14:14:44.306 INFO 23604 --- [           main] o.a.c.c.C.[Tomcat].[localhost].[/] : Initializing Spring embedded WebApplicationC
2020-06-06 14:14:44.311 INFO 23604 --- [           main] o.a.web.context.ContextLoader : Root WebApplicationContext: initialization c
2777 ms
2020-06-06 14:14:45.199 INFO 23604 --- [           main] o.s.s.concurrent.ThreadPoolTaskExecutor : Initializing ExecutorService 'applicationTas
2020-06-06 14:14:45.637 INFO 23604 --- [           main] o.s.b.w.embedded.tomcat.TomcatWebServer : Tomcat started on port(s): 8080 (http) with
2020-06-06 14:14:45.665 INFO 23604 --- [           main] c.j.a.a.SpringBootAwsExampleApplication : Started SpringBootAwsExampleApplication in

```

# BhavyaSree Gangulakunta's

## SPRING-BOOT Web App

As requested by management, this is my final product stage, demonstrating the automated, integrated, and deployed spring-boot web application.

This is an environment where the application is hosted and accessed by users. The following were used in its development:

- Eclipse
- GitHub
- Jenkins
- AWS EC2/ Virtual machine

Feel free to contact BhavyaSree Gangulakunta with any new requests or upgrades to this product!