

# SIMPLILERAN

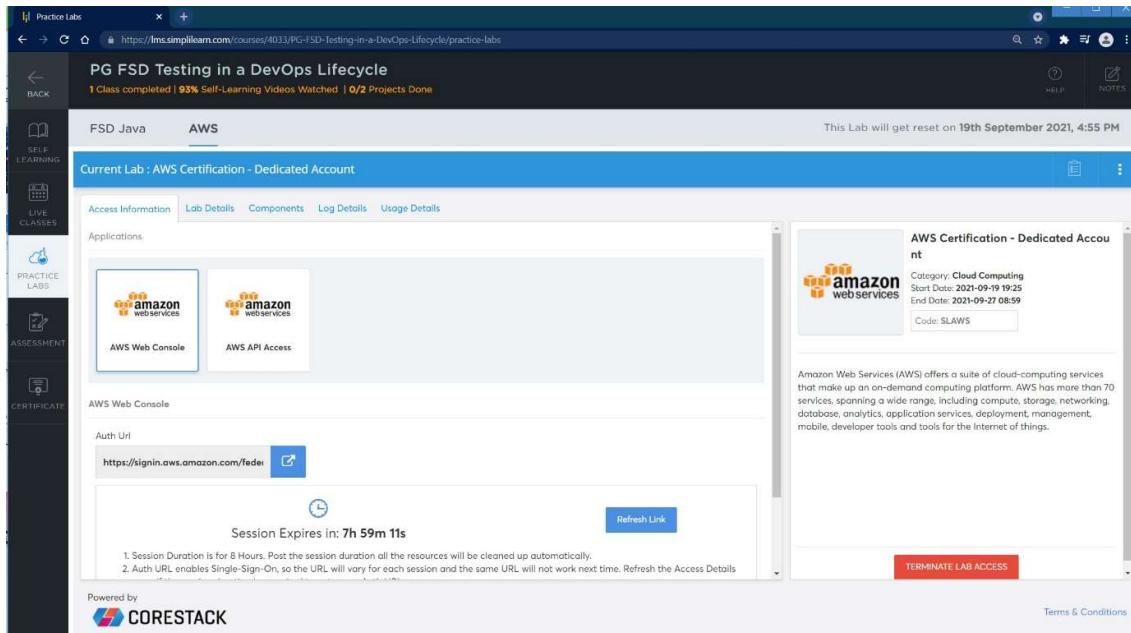
Full Stack Java Developer (FSD Learner's Academy Project)

Developer: Aman kumar

Email: [amankverma5@gmail.com](mailto:amankverma5@gmail.com)

## CI/CD DEPLOYMENT FOR SPRINGBOOT APPLICATION

### Screenshot



AWS Management Console

AWS services

Build a solution

Getting Started with AWS

Stay connected to your AWS resources on-the-go

Explore AWS

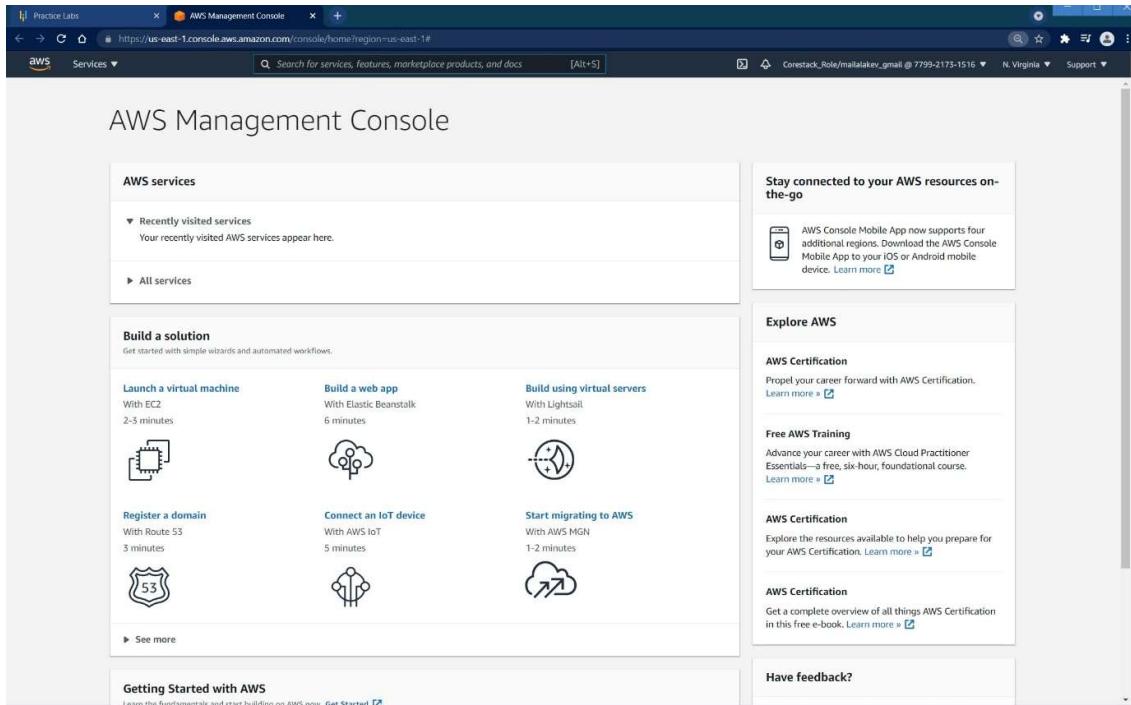
AWS Certification

Free AWS Training

AWS Certification

AWS Certification

Have feedback?



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

my-spring-boot-web-aws-exe.jar

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

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

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

Entity tag (etag): cf1df45c09ce875e3ebba910bb8b49-2

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

Object management overview

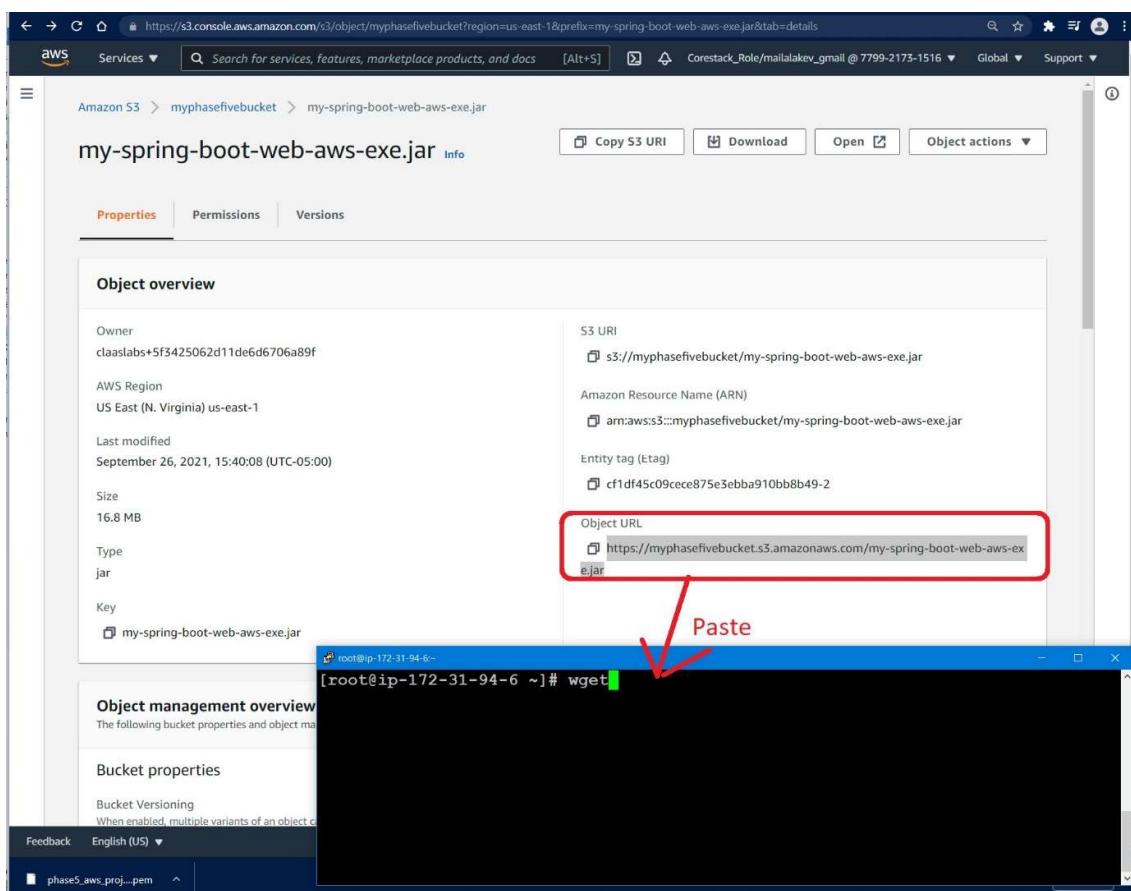
Bucket properties

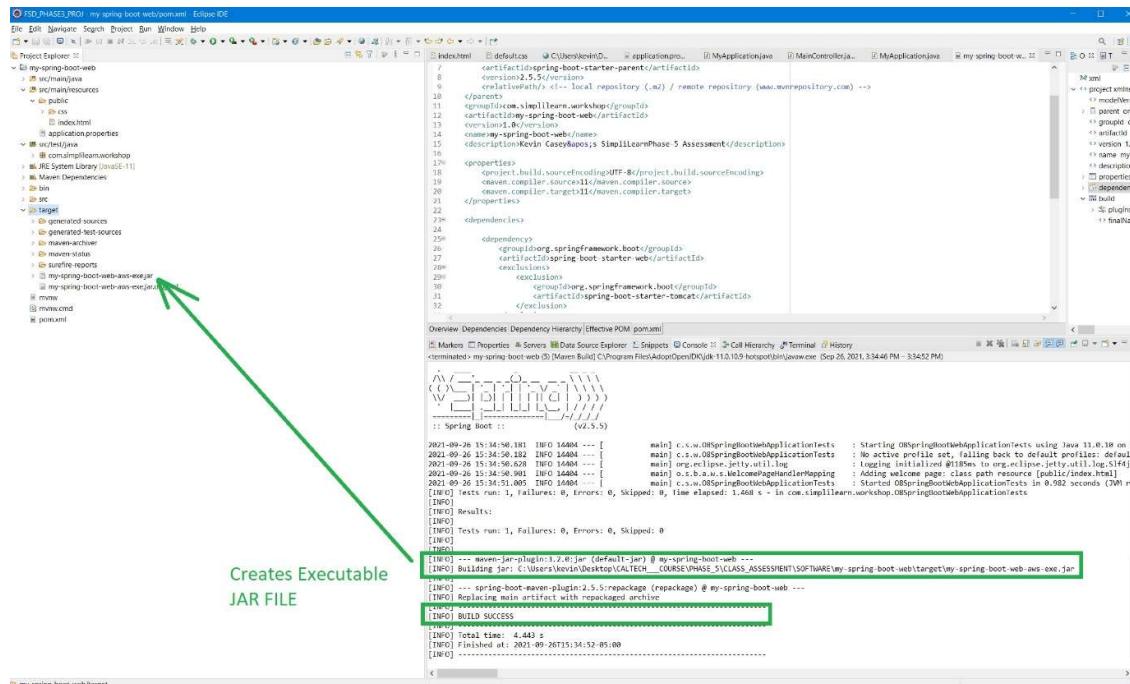
Bucket Versioning

Feedback English (US)

phase5\_aws\_proj.pem

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





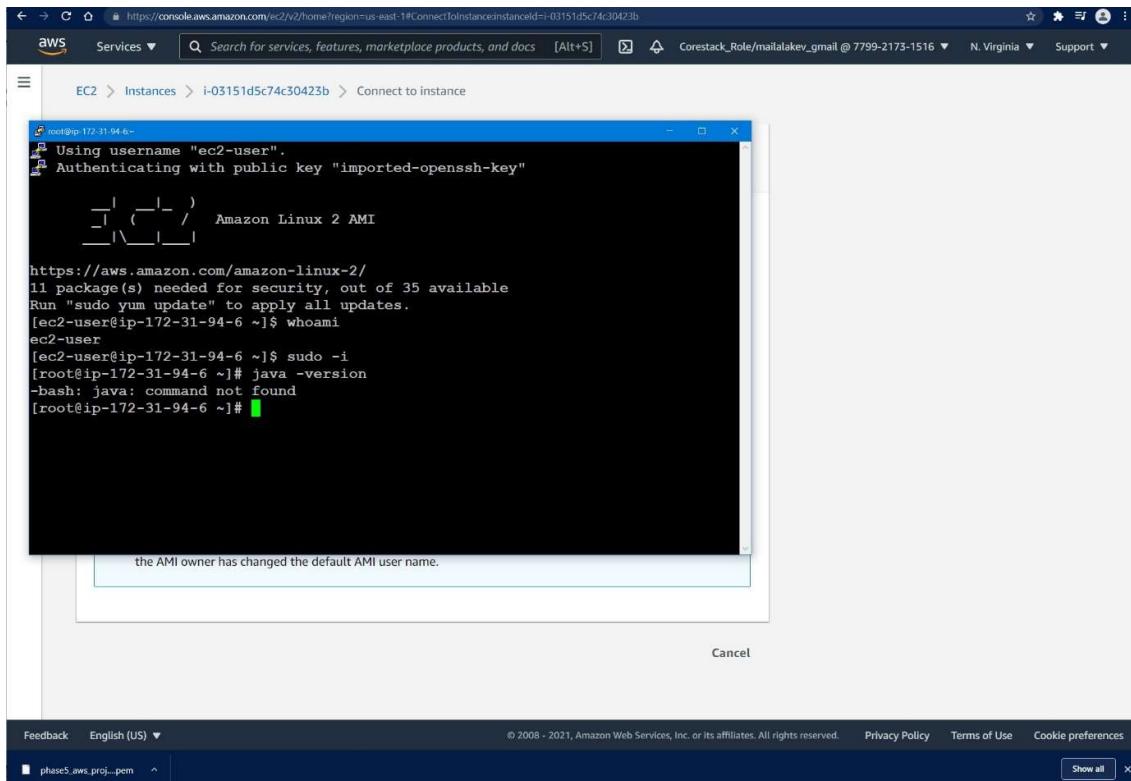
## Creates Executable JAR FILE

## Now running my Spring-Boot App on EC2 instance

```
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
```

Screenshot of the AWS EC2 Instances page showing the instance summary for i-03151d5c74c30423b. The Networking tab is selected. A modal window titled "PUTTY Key Generator" is open, showing the imported key named "aws-linus.ppk". The "Save public key" button is highlighted.

Screenshot of the AWS EC2 Instances page showing the instance summary for i-03151d5c74c30423b. The Networking tab is selected. A modal window titled "PUTTY Key Generator" is open, showing the imported key named "aws-linus.ppk". A red arrow points from the "Save public key" button in the modal to the "Save public key" button in the file explorer window, which also has "aws-linus.ppk" selected.



This screenshot shows a terminal window titled 'ec2-user@ip-172-31-94-6~'. The terminal session is as follows:

```
login as: ec2-user
Authenticating with public key "imported-openssh-key"
Last login: Sun Sep 26 21:04:55 2021 from 104-14-74-96.lightspeed.jcsnms.sbcglobal.net

[ec2-user@ip-172-31-94-6 ~]$ sudo yum update
Loaded plugins: extras_suggestions, langpacks, priorities, update-motd
amzn2-core                                         | 3.7 kB     00:00
Resolving Dependencies
--> Running transaction check
--> Package curl.x86_64 0:7.76.1-4.amzn2.0.1 will be updated
--> Package curl.x86_64 0:7.76.1-7.amzn2.0.2 will be an update
--> Package device-mapper.x86_64 7:1.02.146-4.amzn2.0.2 will be updated
--> Package device-mapper.x86_64 7:1.02.170-6.amzn2.5 will be an update
--> Package device-mapper-event.x86_64 7:1.02.146-4.amzn2.0.2 will be updated
--> Package device-mapper-event.x86_64 7:1.02.170-6.amzn2.5 will be an update
```

```
[root@ip-172-31-94-6 ~]# yum install httpd -y
Loaded plugins: extras_suggestions, langpacks, priorities, update-motd
You need to be root to perform this command.
[ec2-user@ip-172-31-94-6 ~]# su
-bash: suo: command not found
[ec2-user@ip-172-31-94-6 ~]# sudo su
[root@ip-172-31-94-6 ec2-user]# service httpd start
Redirecting to /bin/systemctl start httpd.service
Failed to start httpd.service: Unit not found.
[root@ip-172-31-94-6 ec2-user]# yum install httpd -y
bash: yun: command not found
[root@ip-172-31-94-6 ec2-user]# yum install httpd -y
Loaded plugins: extras_suggestions, langpacks, priorities, update-motd
Resolving Dependencies
--> Running transaction check
--> Package httpd.x86_64 0:2.4.48-2.amzn2 will be installed
--> Processing Dependency: httpd-tools = 2.4.48-2.amzn2 for package: httpd-2.4.4
8-2.amzn2.x86_64
--> Processing Dependency: httpd-filesystem = 2.4.48-2.amzn2 for package: httpd-2.4.4
8-2.amzn2.x86_64
--> Processing Dependency: system-logos-httpd for package: httpd-2.4.48-2.amzn2.
x86_64
--> Processing Dependency: mod_http2 for package: httpd-2.4.48-2.amzn2.x86_64
--> Processing Dependency: httpd-filesystem for package: httpd-2.4.48-2.amzn2.x86_64
```

## INSTALL (JENKINS) into our EC2 Instance

```
ec2-user@ip-172-31-94-6:~$ 
Authenticating with public key "imported-openssh-key"
Last login: Sun Sep 26 22:14:09 2021 from 104-14-74-96.lightspeed.jcsnms.sbcglobal.net
[ec2-user@ip-172-31-94-6 ~]$ 
[ec2-user@ip-172-31-94-6 ~]$ ls
Amazon Linux 2 AMI
[ec2-user@ip-172-31-94-6 ~]$ curl https://aws.amazon.com/amazon-linux-2/
[ec2-user@ip-172-31-94-6 ~]$ curl https://aws.amazon.com/amazon-linux-2/
[ec2-user@ip-172-31-94-6 ~]$ sudo yum update -y
Loaded plugins: extras_suggestions, langpacks, priorities, update-motd
amzn2-core
No Match for argument: -y
No packages marked for update
[ec2-user@ip-172-31-94-6 ~]$ curl https://pkg.jenkins.io/redhat-stable/jenkins.repo \
> https://pkg.jenkins.io/redhat-stable/jenkins.repo
--2021-09-26 22:31:30-- https://pkg.jenkins.io/redhat-stable/jenkins.repo
Resolving pkg.jenkins.io (pkg.jenkins.io)... 151.101.250.133, 2a04:4e42:60::645
Connecting to pkg.jenkins.io (pkg.jenkins.io)|151.101.250.133|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 85
Saving to: '/etc/yum.repos.d/jenkins.repo'

100%[=====] 2021-09-26 22:31:30 (6.08 MB/s) - '/etc/yum.repos.d/jenkins.repo' saved [85/85]

[ec2-user@ip-172-31-94-6 ~]$ sudo rpm --import https://pkg.jenkins.io/redhat-stable/jenkins.io.key
[ec2-user@ip-172-31-94-6 ~]$ sudo yum upgrade
Loaded plugins: extras_suggestions, langpacks, priorities, update-motd
jenkins
jenkins/primary_db
No packages marked for update
[ec2-user@ip-172-31-94-6 ~]$
```

Jenkins now installed on EC2 Instance

```
ec2-user@ip-172-31-94-6:~$ 
amzn2-core
No Match for argument: -y
No packages marked for update
[ec2-user@ip-172-31-94-6 ~]$ curl https://pkg.jenkins.io/redhat-stable/jenkins.repo \
> https://pkg.jenkins.io/redhat-stable/jenkins.repo
--2021-09-26 22:31:30-- https://pkg.jenkins.io/redhat-stable/jenkins.repo
Resolving pkg.jenkins.io (pkg.jenkins.io)... 151.101.250.133, 2a04:4e42:60::645
Connecting to pkg.jenkins.io (pkg.jenkins.io)|151.101.250.133|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 85
Saving to: '/etc/yum.repos.d/jenkins.repo'

100%[=====] 2021-09-26 22:31:30 (6.08 MB/s) - '/etc/yum.repos.d/jenkins.repo' saved [85/85]

[ec2-user@ip-172-31-94-6 ~]$ sudo rpm --import https://pkg.jenkins.io/redhat-stable/jenkins.io.key
[ec2-user@ip-172-31-94-6 ~]$ sudo yum upgrade
Loaded plugins: extras_suggestions, langpacks, priorities, update-motd
jenkins
jenkins/primary_db
No packages marked for update
[ec2-user@ip-172-31-94-6 ~]$ sudo yum install jenkins java-1.8.0-openjdk-devel -y
Loaded plugins: extras_suggestions, langpacks, priorities, update-motd
Package 1:java-1.8.0-openjdk-devel-1.8.0.302.b08-0.amzn2.0.1.x86_64 already installed and latest version
Resolving Dependencies
--> Running transaction check
--> Package jenkins.noarch 0:2.303.1-1.1 will be installed
--> Processing Dependency: daemonize for package: jenkins-2.303.1-1.1.noarch
--> Finished Dependency Resolution
Error: Package: jenkins-2.303.1-1.1.noarch (jenkins)
    Requires: daemonize
You could try using --skip-broken to work around the problem
You could try running: rpm -Va --nofiles --nodigest
[ec2-user@ip-172-31-94-6 ~]$
```

installed Java 1.8 on Jenkins, EC2 session

```

ec2-user@ip-172-31-94-6:~$ 
Downloading packages:
(1/2): daemonize-1.7.7-1.el7.x86_64.rpm | 21 kB 00:00:00
(2/2): jenkins-2.303.1-1.1.noarch.rpm | 69 MB 00:00:20
Total                                         3.4 MB/s | 69 MB 00:00:20
Running transaction check
Running transaction test
Transaction test succeeded
Running transaction
  Installing : daemonize-1.7.7-1.el7.x86_64          1/2
  Installing : jenkins-2.303.1-1.1.noarch            2/2
  Verifying   : daemonize-1.7.7-1.el7.x86_64          1/2
  Verifying   : jenkins-2.303.1-1.1.noarch            2/2

Installed:
  jenkins.noarch 0:2.303.1-1.1

Dependency Installed:
  daemonize.x86_64 0:1.7.7-1.el7

Complete!
[ec2-user@ip-172-31-94-6 ~]$ sudo systemctl start jenkins
[ec2-user@ip-172-31-94-6 ~]$ sudo systemctl status jenkins
● jenkins.service - LSB: Jenkins Automation Server
  Loaded: loaded (/etc/rc.d/init.d/jenkins; bad; vendor preset: disabled)
  Active: active (running) since Sun 2021-09-26 22:39:58 UTC; 9s ago
    Docs: man:systemd-sysv-generator(8)
 Process: 5746 ExecStart=/etc/rc.d/init.d/jenkins start (code=exited, status=0/SUCCESS)
 CGroup: /system.slice/jenkins.service
         └─ 5750 /usr/lib/jvm/java-1.8.0/bin/java -Djava.awt.headless=true -DJENKINS_HOME=/var/lib/jenkins -jar ...

Sep 26 22:39:58 ip-172-31-94-6.ec2.internal systemd[1]: Starting LSB: Jenkins Automation Server...
Sep 26 22:39:58 ip-172-31-94-6.ec2.internal jenkins[5746]: Starting Jenkins [ OK ]
Sep 26 22:39:58 ip-172-31-94-6.ec2.internal systemd[1]: Started LSB: Jenkins Automation Server.
[ec2-user@ip-172-31-94-6 ~]$ 

```

Jenkins Now Running on EC2 - as a service

The screenshot shows the AWS S3 console interface. On the left, there's a sidebar with navigation links like 'Amazon S3', 'Buckets', 'Access Points', etc. The main area displays an 'Account snapshot' with a message about improving the console. Below it, a section for 'Buckets' shows a table with one row: 'No buckets'. A prominent orange 'Create bucket' button is at the bottom of this section. The top of the page includes the AWS logo, a search bar, and user information.

Amazon S3 > Create bucket

## Create bucket Info

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

### General configuration

**Bucket name**  
myawsbucket  
Bucket name must be unique and must not contain spaces or uppercase letters. See rules for bucket naming [\[?\]](#)

**AWS Region**  
US East (N. Virginia) us-east-1

**Copy settings from existing bucket - optional**  
Only the bucket settings in the following configuration are copied.  
[Choose bucket](#)

### Block Public Access settings for this bucket

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 this bucket and its 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 this bucket or objects within, you can customize the individual settings below to suit your specific storage use cases. [Learn more \[?\]](#)

**Block all public access**  
Turning this setting on is the same as turning on all four settings below. Each of the following settings are independent of one another.

**Block public access to buckets and objects granted through new access control lists (ACLs)**  
For newly added buckets or objects, S3 will block public access permissions applied to them. This setting doesn't change any existing permissions that allow public access to S3 resources using ACLs.

**Create bucket**

Buckets are containers that you use to store data in Amazon S3. You can upload any number of objects to a bucket.

When you create a bucket, you enter the bucket name and choose the AWS Region. After you create the bucket, you can't change the name or Region. Bucket ownership is not transferable.

Configure your bucket properties and permissions. You can copy settings from an existing bucket or configure settings for your bucket.

[Learn more \[?\]](#)

[Creating a bucket](#)  
[Buckets overview](#)  
[Restrictions and limitations](#)

Feedback English (US) ▾

© 2008 - 2021, Amazon Web Services, Inc. or its affiliates. All rights reserved. Privacy Policy Terms of Use Cookie preferences

Show all [X](#)

Amazon S3 > Create bucket

## Create bucket Info

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

### General configuration

**Bucket name**  
myphasefivebucket  
Bucket name must be unique and must not contain spaces or uppercase letters. See rules for bucket naming [\[?\]](#)

**AWS Region**  
US East (N. Virginia) us-east-1

**Copy settings from existing bucket - optional**  
Only the bucket settings in the following configuration are copied.  
[Choose bucket](#)

### Block Public Access settings for this bucket

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 this bucket and its 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 this bucket or objects within, you can customize the individual settings below to suit your specific storage use cases. [Learn more \[?\]](#)

**Block all public access**  
Turning this setting on is the same as turning on all four settings below. Each of the following settings are independent of one another.

**Block public access to buckets and objects granted through new access control lists (ACLs)**  
S3 will block public access permissions applied to newly added buckets or objects, and prevent the creation of new public access ACLs for existing buckets and objects. This setting doesn't change any existing permissions that allow public access to S3 resources using ACLs.

**Block public access to buckets and objects granted through any access control lists (ACLs)**  
S3 will ignore all ACLs that grant public access to buckets and objects.

**Block public access to buckets and objects granted through new public bucket or access point policies**

**Create bucket**

Buckets are containers that you use to store data in Amazon S3. You can upload any number of objects to a bucket.

When you create a bucket, you enter the bucket name and choose the AWS Region. After you create the bucket, you can't change the name or Region. Bucket ownership is not transferable.

Configure your bucket properties and permissions. You can copy settings from an existing bucket or configure settings for your bucket.

[Learn more \[?\]](#)

[Creating a bucket](#)  
[Buckets overview](#)  
[Restrictions and limitations](#)

Feedback English (US) ▾

© 2008 - 2021, Amazon Web Services, Inc. or its affiliates. All rights reserved. Privacy Policy Terms of Use Cookie preferences

Show all [X](#)

https://s3.console.aws.amazon.com/s3/home?region=us-east-1

aws Services ▾ Search for services, features, marketplace products, and docs [Alt+S] Corestack\_Role/mailalakev\_gmail @ 7799-2173-1516 ▾ Global ▾ Support ▾

**Amazon S3** × **Buckets** ×

Successfully created bucket "myphasefivebucket"  
To upload files and folders, or to configure additional bucket settings choose View details. 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

Find buckets by name

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)

Block Public Access settings for this account

▼ Storage Lens Dashboards AWS Organizations settings

Feature spotlight

▶ AWS Marketplace for S3

Feedback English (US) ▾ © 2008 - 2021, Amazon Web Services, Inc. or its affiliates. All rights reserved. Privacy Policy Terms of Use Cookie preferences Show all

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.

The screenshot shows the AWS S3 console interface for the 'myphaselinebucket'. The main area displays a message stating 'No objects' and 'You don't have any objects in this bucket.' Below this, there is a large 'Upload' button. A red arrow points to this 'Upload' button. To the right of the main content area, there is a sidebar titled 'Objects' with descriptive text about object storage.

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.

https://s3.console.aws.amazon.com/s3/upload/myphaselinebucket?region=us-east-1

aws Services ▾ Search for services, features, marketplace products, and docs [Alt+S] Corestack\_Role/mailalakey\_gmail @ 7799-2173-1516 Global ▾ Support ▾

Amazon S3 > myphaselinebucket > 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)**  
All files and folders in this table will be uploaded.

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

**Destination**

Destination  
s3://myphaselinebucket

▶ **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**

Feedback English (US) ▾ © 2008 - 2021, Amazon Web Services, Inc. or its affiliates. All rights reserved. Privacy Policy Terms of Use Cookie preferences Show all x

phase5.aws\_proj...pem

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

Upload succeeded

View details below.

## Upload: status

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

### Summary

Destination	Succeeded	Failed
s3://myphaselinebucket	1 file, 16.8 MB (100.00%)	0 files, 0 B (0%)

[Files and folders](#) [Configuration](#)

#### Files and folders (1 Total, 16.8 MB)

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

Feedback English (US) ▾ © 2008 - 2021, Amazon Web Services, Inc. or its affiliates. All rights reserved. Privacy Policy Terms of Use Cookie preferences Show all X

https://s3.console.aws.amazon.com/s3/buckets/myphaselinebucket/object/edit\_public\_read\_access?region=us-east-1&showversions=false

aws Services ▾ Search for services, features, marketplace products, and docs [Alt+S] Corestack\_Role/mailalakev\_gmail @ 7799-2173-1516 ▾ Global ▾ Support ▾

Amazon S3 > myphaselinebucket > Make public

**Make public** Info

The make public action enables public read access in the object access control list (ACL) settings. [Learn more](#)

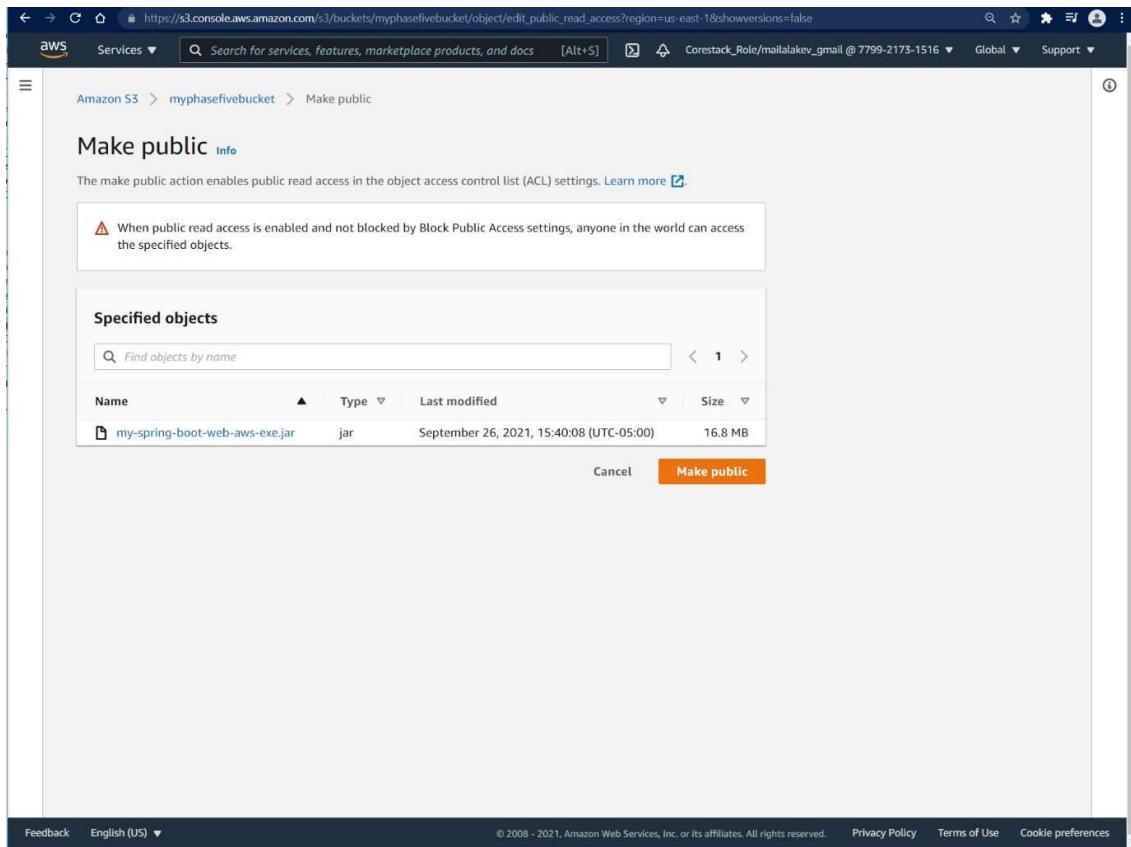
**Specified objects**

Find objects by name

Name	Type	Last modified	Size
my-spring-boot-web-aws-exe.jar	jar	September 26, 2021, 15:40:08 (UTC-05:00)	16.8 MB

Cancel **Make public**

Feedback English (US) ▾ © 2008 - 2021, Amazon Web Services, Inc. or its affiliates. All rights reserved. Privacy Policy Terms of Use Cookie preferences



Screenshot of the AWS S3 console showing the properties of the file `my-spring-boot-web-aws-exe.jar`.

**Object overview**

Owner	S3 URI
cclaaslabs+5f3425062d11de6d6706a89f	<a href="https://s3.console.aws.amazon.com/s3/object/myphaselinebucket?region=us-east-1&amp;prefix=my-spring-boot-web-aws-exe.jar&amp;tab=details">s3://myphaselinebucket/my-spring-boot-web-aws-exe.jar</a>
AWS Region	Amazon Resource Name (ARN)
US East (N. Virginia) us-east-1	<a href="#">arn:aws:s3:::myphaselinebucket/my-spring-boot-web-aws-exe.jar</a>
Last modified	Entity tag (Etag)
September 26, 2021, 15:40:08 (UTC-05:00)	<a href="#">cf1df45c09cece875e3ebba910bb8b49-2</a>
Size	Object URL
16.8 MB	<a href="https://myphaselinebucket.s3.amazonaws.com/my-spring-boot-web-aws-exe.jar">https://myphaselinebucket.s3.amazonaws.com/my-spring-boot-web-aws-exe.jar</a>
Type	jar
Key	<code>my-spring-boot-web-aws-exe.jar</code>

**Object management overview**  
The following bucket properties and settings are applied to this object.

**Bucket properties**

- Bucket Versioning
- When enabled, multiple variants of an object can be stored in the same key.

**Feedback** English (US) ▾

**phase5.aws.proj...pem** ^

**JAR FILE uploaded to EC2 instance!**

Terminal session output:

```
[root@ip-172-31-94-6 ~]# root@ip-172-31-94-6:~# ls -l
total 17646207
[root@ip-172-31-94-6 ~]# ls -l my-spring-boot-web-aws-exe.jar
ls: my-spring-boot-web-aws-exe.jar: No such file or directory
[root@ip-172-31-94-6 ~]# curl -O https://myphaselinebucket.s3.amazonaws.com/my-spring-boot-web-aws-exe.jar
  % Total    % Received ==========> 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]
07/17646207
[root@ip-172-31-94-6 ~]#
```

Green arrows point from the terminal output to the timestamp and file size in the S3 object details table.

Object overview

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): cf1df45c09ce875e3ebba910bb8b49-2

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

Object management overview

Bucket properties

Bucket Versioning

Feedback: English (US)

Phase5\_aws\_proj...pem

JAR FILE on EC2!

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"

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-029c64b3c3c205e6cce (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

64-bit (x86)  64-bit (Arm)

**macOS Big Sur 11.6 - ami-0355f1fed5537c0368**

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

64-bit (Mac)

**macOS Catalina 10.15.7 - ami-0ae0b6d4908fc747**

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

64-bit (Mac)

**macOS Mojave 10.14.6 - ami-07279d867534acab6**

The macOS Mojave 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

64-bit (Mac)

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
■	t2	t2.nano	1	0.5	EBS only	-	Low to Moderate	Yes
■	t2	t2.micro <small>Free tier eligible</small>	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	EBS only	-	Moderate	Yes
■	t2	t2.2xlarge	8	32	EBS only	-	Moderate	Yes
■	t3	t3.nano	2	0.5	EBS only	Yes	Up to 5 Gigabit	Yes
■	t3	t3.micro	2	1	EBS only	Yes	Up to 5 Gigabit	Yes
■	t3	t3.small	2	2	EBS only	Yes	Up to 5 Gigabit	Yes

[Cancel](#) [Previous](#) [Review and Launch](#) [Next: Configure Instance Details](#)

**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	<input type="text" value="1"/>	Launch into Auto Scaling Group
Purchasing option	<input type="checkbox"/> Request Spot instances	
Network	vpc-0df264bc3671f6ec2 (default)	<input type="button" value="Create new VPC"/>
Subnet	No preference (default subnet in any Availability Zone)	<input type="button" value="Create new subnet"/>
Auto-assign Public IP	<input type="checkbox"/> Use subnet setting (Enable)	
Placement group	<input type="checkbox"/> Add instance to placement group	
Capacity Reservation	Open	
Domain join directory	<input type="checkbox"/> No directory	
IAM role	None	
Shutdown behavior	Stop	
Stop - Hibernate behavior	<input type="checkbox"/> Enable hibernation as an additional stop behavior	
Enable termination protection	<input type="checkbox"/> Protect against accidental termination	
Monitoring	<input type="checkbox"/> Enable CloudWatch detailed monitoring Additional charges apply.	
Tenancy	Shared - Run a shared hardware instance	

---

<https://console.aws.amazon.com/ec2/v2/home?region=us-east-1#LaunchInstanceWizard>

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

Corestack\_Role/mailalakev\_gmail @ 7799-2173-1516 ▾ N. Virginia ▾ Support ▾

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

### Step 4: Add Storage

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

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

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

Feedback English (US) ▾ © 2008 - 2021, Amazon Web Services, Inc. or its affiliates. All rights reserved. Privacy Policy Terms of Use Cookie preferences

<https://console.aws.amazon.com/ec2/v2/home?region=us-east-1#LaunchInstanceWizard>

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

Corestack\_Role/mailalakev\_gmail @ 7799-2173-1516 ▾ N. Virginia ▾ Support ▾

1. Choose AMI 2. Choose Instance Type 3. Configure Instance 4. Add Storage 5. Add Tags 6. Configure Security Group 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
This resource currently has no tags						

Choose the Add tag button or click to add a Name tag. Make sure your IAM policy includes permissions to create tags.

Add Tag (Up to 50 tags maximum)

Cancel Previous Review and Launch Next: Configure Security Group

Feedback English (US) ▾ © 2008 - 2021, Amazon Web Services, Inc. or its affiliates. All rights reserved. Privacy Policy Terms of Use Cookie preferences

<https://console.aws.amazon.com/ec2/v2/home?region=us-east-1#LaunchInstanceWizard>

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

### Step 6: Configure Security Group

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

Assign a security group:  Create a new security group  Select an existing security group

Security group name: launch-wizard-1

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

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

<https://console.aws.amazon.com/ec2/v2/home?region=us-east-1#LaunchInstanceWizard>

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

### Step 7: Review Instance Launch

Host Device Type: ebs Virtualization type: hvm

Instance Type: t2.micro

Security Groups: launch-wizard-1

Tags:

Storage:

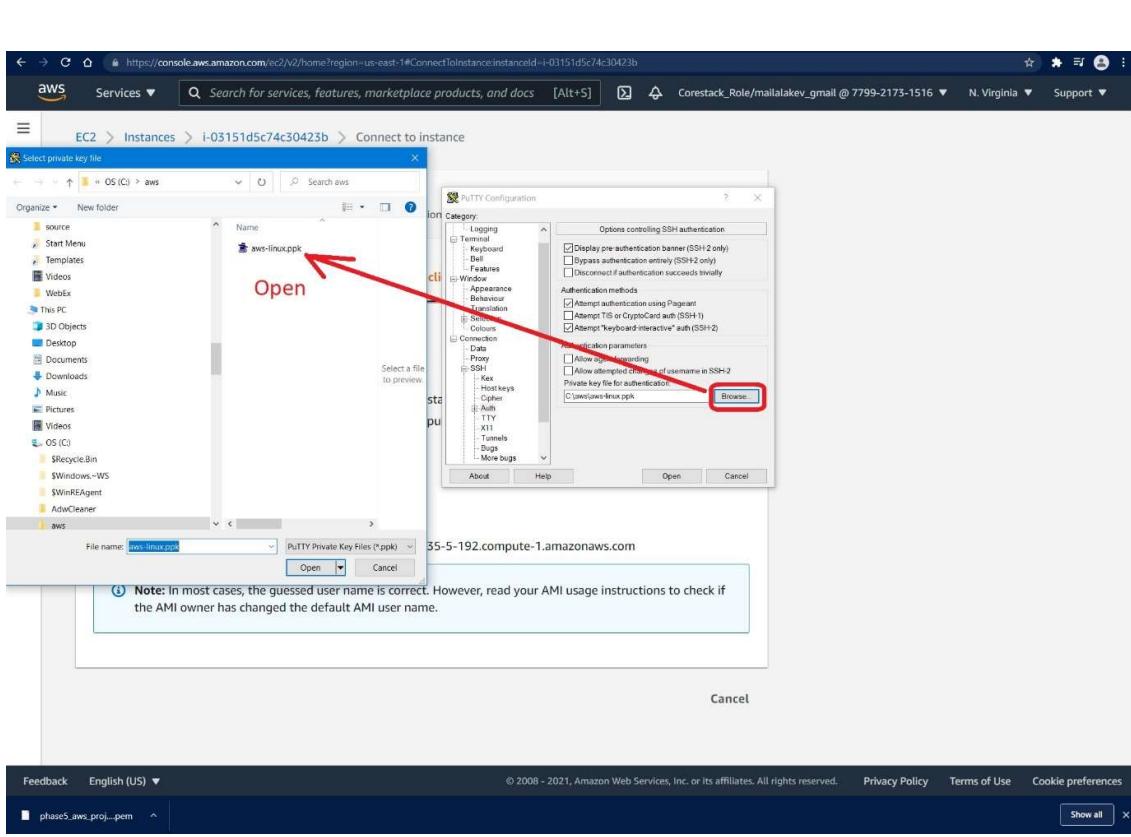
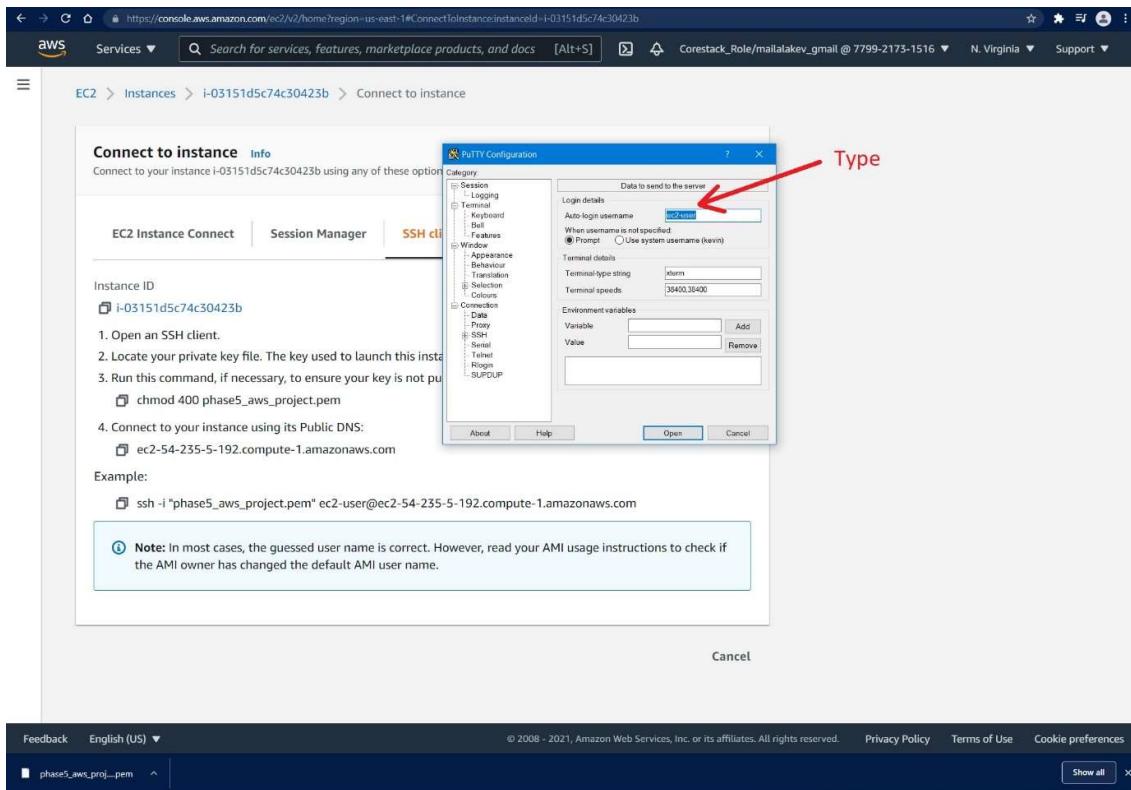
Volume Type: gp2 Device: /dev/xvda Snapshot: snap-0699a041095ac5492 Size: 8 GB Throughput (MB/s): 100 / 3000 Delete on Termination: Yes Encrypted: Not Encrypted

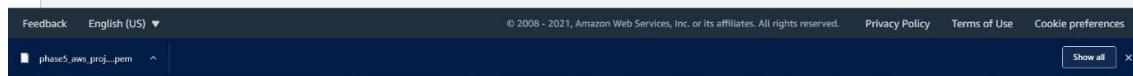
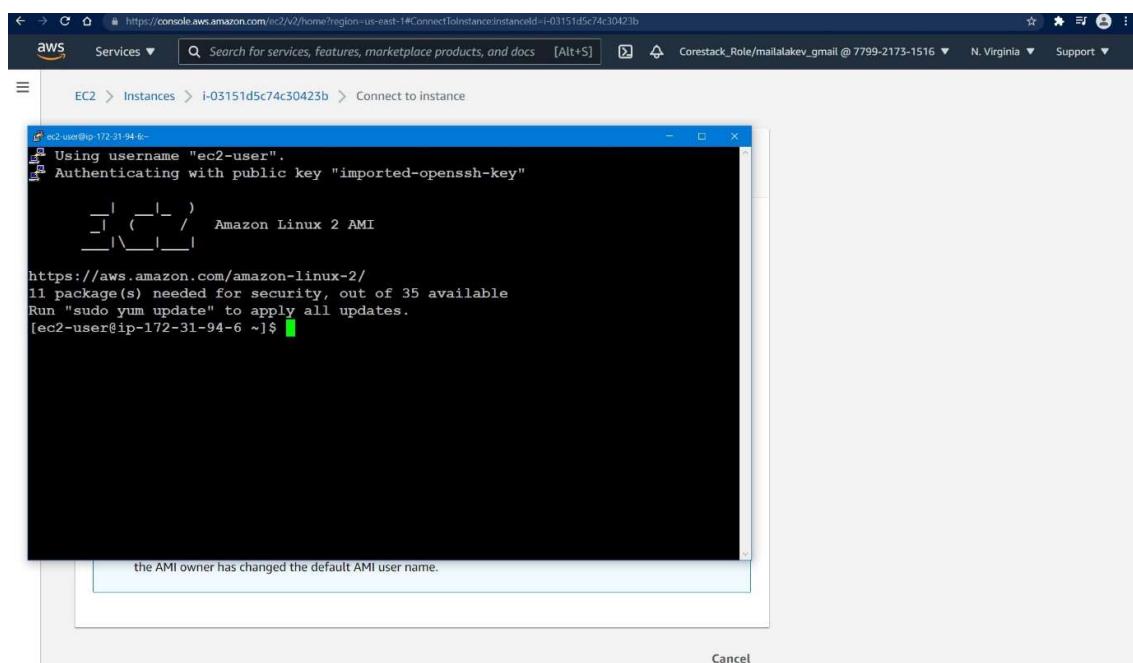
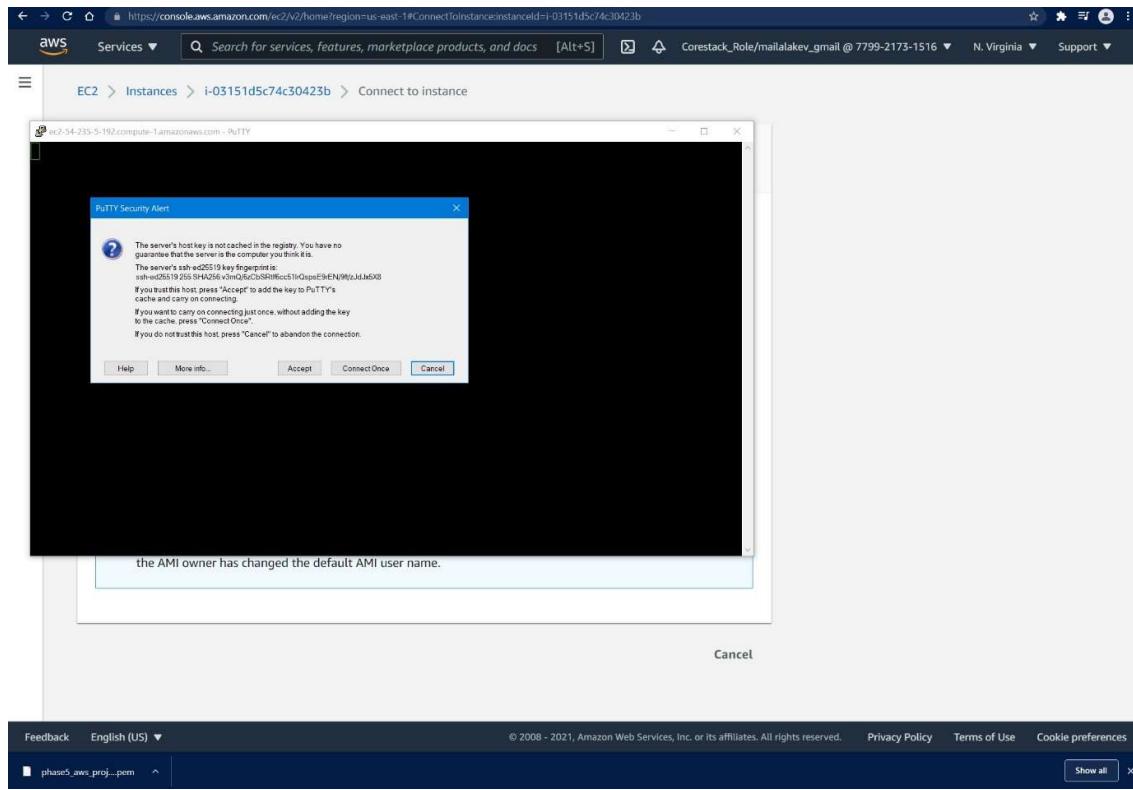
Tags:

Cancel Previous Launch

Screenshot of the AWS EC2 Connect to Instance page. The URL is https://console.aws.amazon.com/ec2/v2/home?region=us-east-1#ConnectToInstance:instanceId=i-03151d5c74c30423b. The page shows options for EC2 Instance Connect, Session Manager, and SSH client. The SSH client tab is selected. It displays an instance ID (i-03151d5c74c30423b) and a list of connection steps. A note at the bottom says: "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." A red arrow points from the "Paste" button in the Putty configuration window to this note.

Screenshot of the AWS EC2 Connect to Instance page. The URL is https://console.aws.amazon.com/ec2/v2/home?region=us-east-1#ConnectToInstance:instanceId=i-03151d5c74c30423b. The page shows options for EC2 Instance Connect, Session Manager, and SSH client. The SSH client tab is selected. A Putty Configuration window is overlaid on the page. The window shows a session configuration with the host name set to "ec2-54-235-5-192.compute-1.amazonaws.com" and port set to "22". The "Connection type" dropdown is set to "SSH". A red arrow points from the "Paste" button in the Putty configuration window to the host name field in the Putty window.





Launch Status



Services ▾  [Alt+S] Corestack\_Role/mailalakev\_gmail @ 7799-2173-1516 ▾ N. Virginia ▾ Support ▾

**Initiating Instance Launches**  
Please do not close your browser while this is loading

Creating security groups... Successful  
Authorizing inbound rules... Successful  
Initiating launches...

Feedback English (US) ▾ © 2008 - 2021, Amazon Web Services, Inc. or its affiliates. All rights reserved. Privacy Policy Terms of Use Cookie preferences

Launch Status



Services ▾  [Alt+S] Corestack\_Role/mailalakev\_gmail @ 7799-2173-1516 ▾ N. Virginia ▾ Support ▾

**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](#)

Feedback English (US) ▾ © 2008 - 2021, Amazon Web Services, Inc. or its affiliates. All rights reserved. Privacy Policy Terms of Use Cookie preferences

Screenshot of the AWS EC2 Instances page showing a single instance (i-03151d5c74c30423b) in the 'Running' state. The instance type is t2.micro and it is initializing. It is located in the us-east-1 region with a Public IPv4 DNS of ec2-54-235-5-192.com... and a Public IPv4 IP of 54.235.5.192.

The left sidebar shows navigation options for EC2 Dashboard, EC2 Global View, Events, Tags, Limits, Instances (with sub-options like Instances, Instance Types, Launch Templates, Spot Requests, Savings Plans, Reserved Instances, Dedicated Hosts, Scheduled Instances, Capacity Reservations), Images (AMIs), and Elastic Block Store (Volumes, Snapshots, Lifecycle Manager).

Screenshot of the AWS EC2 Instance Details page for the instance i-03151d5c74c30423b. The instance summary table includes:

Instance ID	Public IPv4 address	Private IPv4 addresses
i-03151d5c74c30423b	54.235.5.192   open address	172.31.94.6
IPv6 address	Running	Public IPv4 DNS
Private IPv4 DNS	t2.micro	ec2-54-235-5-192.compute-1.amazonaws.com   open address
VPC ID	AWS Compute Optimizer finding	Elastic IP addresses
Subnet ID	User: anawssts:779921731516 assumed-role/Corestack_Role/mallalakev_gmail is not authorized to perform: compute-optimizer:GetEnrollmentStatus on resource: * with an explicit deny	IAM Role

The instance details tab shows the following information:

Platform	AMI ID	Monitoring
Amazon Linux (Inferred)	ami-087c17d1fe0178315	disabled

The left sidebar is identical to the previous screenshot, showing the same navigation options for EC2 services.

EC2 Instances > i-03151d5c74c30423b

Instance summary for i-03151d5c74c30423b

Public IPv4 address: 54.235.5.192 | open address

Instance state: Running

Instance type: t2.micro

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

Public 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: -

Details Networking Storage Status checks Monitoring Tags

You can now check network connectivity with Reachability Analyzer.

EC2 Instances > i-03151d5c74c30423b

Instance summary for 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: -

PUTTY Key Generator

File Key Connections Help

No key.

Actions

- Generate a public/private key pair
- Save the generated private key
- Save the generated public key

File tab

Key tab

Connections tab

Help tab

Generate

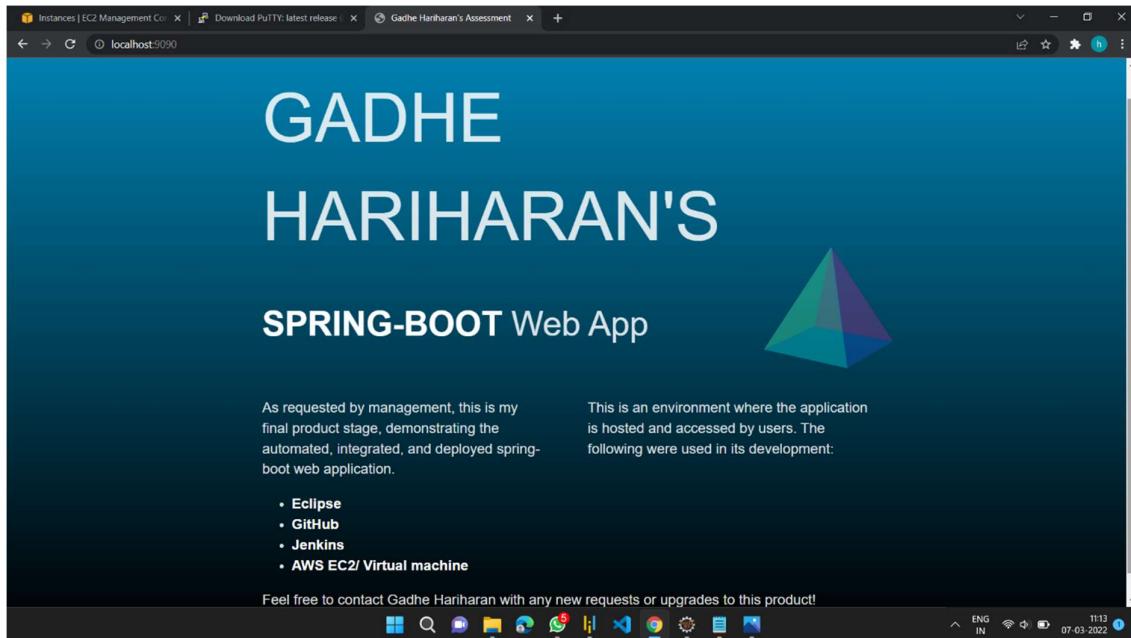
Save public key

Save private key

Actions tab

Number of bits in a generated key:

- 2048
- 4096
- 8192
- 16384
- 32768
- 65536
- 131072
- 262144
- 524288
- 1048576
- 2097152
- 4194304
- 8388608
- 16777216
- 33554432
- 67108864
- 134217728
- 268435456
- 536870912
- 1073741824
- 2147483648
- 4294967296
- 8589934592
- 17179869184
- 34359738368
- 68719476736
- 137438953472
- 274877906944
- 549755813888
- 1099511627776
- 2199023255552
- 4398046511104
- 8796093022208
- 17592186044416
- 35184372088832
- 70368744177664
- 140737488355328
- 281474976710656
- 562949953421312
- 112589990684264
- 225179981368528
- 450359962737056
- 900719925474112
- 180143985094824
- 360287970189648
- 720575940379296
- 1441151880758592
- 2882303761517184
- 5764607523034368
- 11529215046068736
- 23058430092137472
- 46116860184274944
- 92233720368549888
- 18446744073709976
- 36893488147419952
- 73786976294839904
- 147573952589679808
- 295147905179359616
- 590295810358719232
- 1180591620717438464
- 2361183241434876928
- 4722366482869753856
- 9444732965739507712
- 18889465931479015424
- 37778931862958030848
- 75557863725916061696
- 15111572745833132332
- 30223145491666264664
- 60446290983332529328
- 120892581966665058656
- 241785163933330117312
- 483570327866660234624
- 967140655733320469248
- 1934281311466640938496
- 3868562622933281876992
- 7737125245866563753984
- 15474250491733127507968
- 30948500983466255015936
- 61897001966932510031872
- 123794003933865020063744
- 247588007867730040127488
- 495176015735460080254976
- 990352031470920160509952
- 1980704062941840321019840
- 3961408125883680642039680
- 7922816251767361284079360
- 15845632503534722568158720
- 31691265007069445136317440
- 63382530014138890272634880
- 12676506002827778054528160
- 25353012005655556109056320
- 50706024011311112218112640
- 101412048022622224436225280
- 202824096045244448872450560
- 405648192090488897744901120
- 811296384180977795489802240
- 1622592768361955590979604480
- 3245185536723911181959208960
- 6490371073447822363918417920
- 12980742146895644727836835840
- 25961484293791289455673671680
- 51922968587582578911347343360
- 10384593717516515782268686720
- 20769187435033031564537373440
- 41538374870066063129074746880
- 83076749740132126258149493760
- 166153499480264252566298987520
- 332306998960528505132597975040
- 664613997921057010265195950080
- 1329227995842114020530391900160
- 2658455991684228041060783800320
- 5316911983368456082121567600640
- 10633823966736911642423353201280
- 21267647933473823284846706402560
- 42535295866947646569693412805120
- 85070591733895293139386825610240
- 170141183467790586278773651220480
- 340282366935581172557547302440960
- 680564733871162345115094604881920
- 136112946774232469023018920963840
- 272225893548464938046037841927680
- 544451787096929876092075683855360
- 108890357419385955218415136710720
- 217780714838771910436830273421440
- 435561429677543820873660546842880
- 871122859355087641747321093685760
- 174224571870017528349464218737520
- 348449143740035056698928437475040
- 696898287480070113397856874950080
- 139379657496014022679571374980160
- 278759314992028045359142749960320
- 557518629984056090718285499920640
- 1115037259968112181436578998801280
- 2230074519936224362873157997602560
- 4460149039872448725746315995205120
- 8920298079744897451492631990402240
- 1784059615948974902898526398080480
- 3568119231897949805797052796160960
- 7136238463795899611594105592321920
- 14272476927591799223182051184643840
- 28544953855183598446364102369287680
- 5708986771036719689272820473857520
- 1141797354207343937854560947775040
- 2283594708414687875709121895550080
- 4567189416829375751418243791100160
- 9134378833658751502836487582200320
- 18268757667177503045672955164400640
- 36537515334355006085345910328801280
- 73075030668710012170687820657602560
- 146150061337420024341376401315205120
- 292300122674840048682752802630410240
- 584600245349680097365505605260820480
- 116920049069376019473101120531640960
- 233840098138752038946202241063281920
- 467680196277504077892404482126563840
- 935360392555008015784808964253127680
- 1870720785110016031569617928506255360
- 3741441570220032063139235857012510720
- 7482883140440064126278471714025021440
- 14965766280880128252556854228050042880
- 29931532561760256505113708456100085760
- 59863065123520513010227416912200171520
- 119726130247041026020554333824400343040
- 239452260494082052041108667648800686080
- 478904520988164024082217335297601372160
- 957809041976328048164434670595202744320
- 1915618083952656096328669341188054988640
- 3831236167905312192657338682377109772880
- 7662472335810624385314677364754219445760
- 15324944671621248770629354729508438915200
- 30649889343242497541258709459016877820000
- 61299778686484995082517418918033755640000
- 122599557372969990165034837836067511280000
- 245199114745939980330069675672135022560000
- 490398229491879960660139351344270045120000
- 980796458983759921320278702688540090240000
- 196159291796751984264055740537700180480000
- 392318583593503968528111481075400360960000
- 784637167187007937056222962150800721920000
- 1569274334374015874112449324301601443840000
- 3138548668748031748224898648603202887680000
- 6277097337496063496449797297206405775360000
- 12554194674980126992895954594412811550720000
- 25108389349960253985791909188825623101440000
- 50216778699920507971583818377651246202880000
- 10043355739984101594316763675530492405760000
- 20086711479968203188633527351060984815360000
- 40173422959936406377267054702121969631200000
- 80346845919872801254534109404243939262400000
- 16069369183974560258906821880848787852800000
- 32138738367949120517813643761697575715600000
- 64277476735898241035627287523395151431200000
- 128554953471796482071254575446787302862400000
- 257109906943592964142509150893574605724800000
- 514219813887185928285018301787149211449600000
- 102843962777437185657003660357429422299200000
- 205687925554874371314007330714858844598400000
- 411375851109748742628014661429717689196800000
- 822751702219497485256029322859435378393600000
- 1645503404438959370512058645718770756772800000
- 3291006808877918741024117291437541513545600000
- 6582013617755837482048234582875083027091200000
- 13164027235511674964096469165750166054182400000
- 2632805447102334992819293833150233210364800000
- 5265610894204669985638587666300466420729600000
- 10531221788409339971277175332600832841558400000
- 21062443576818679942554350665201665683116800000
- 42124887153637359885108701330403331366233600000
- 84249774307274719770217402660806662732467200000
- 168499548614549439540434805321613325464934400000
- 336998097229098879080869610643226650929868800000
- 673996194458197758161739221286453301859737600000
- 1347992388916395516323478442572906603719475200000
- 2695984777832791032646956885145813207438950400000
- 539196955566558206529391377029162641487780800000
- 1078393911133116413058782754058325282955561600000
- 2156787822266232826117565508116655565851123200000
- 4313575644532465652235131016233311131702246400000
- 8627151289064931304470262032466622263404492800000
- 1725430257812966260894052406493324452680995600000
- 3450860515625932521788104812986648905361991200000
- 6901721031251865043576209625973297810723982400000
- 1380344206253432008715241925948659562145964800000
- 2760688412506864017430483851897319124291929600000
- 5521376825013728034860967703794638248583859200000
- 1104275365027445606972193540758927649716779200000
- 2208550730054891213944387081517855294833588400000
- 4417101460109782427888774163035710589667176800000
- 8834202920219564855777548326071421179334353600000
- 1766840584043912911155508665214284235866867200000
- 3533681168087825822311017330428578471733734400000
- 7067362336175651644622034660857156943474468800000
- 1413472467235130328924406932171431388855937600000
- 2826944934470260657848813864342862777711875200000
- 5653889868940521315697627728685725555423750400000
- 1130777973788104263139325545737145111085500800000
- 2261555947576208526278651091474285222170001600000
- 4523111895152417052557302182948570444340003200000
- 9046223790304834105114604365897140888680006400000
- 1809244758060966821022920873179428177360012800000
- 3618489516121933642045841746358856354720025600000
- 7236979032243867284091683492717712709440051200000
- 14473958064487734568183366985435445418880102400000
- 28947916128975469136366733970870890837760204800000
- 57895832257950938272733467941741781675520409600000
- 11579166451590187655546693588348356335040819200000
- 23158332903180375311093387176696712670081638400000
- 46316665806360750622186754353393425340163276800000
- 92633331612721501244373508706786850680326553600000
- 18526666322544300248874701741357370136065307200000
- 37053332645088600497749403482714740272130144000000
- 74106665290177200995498806965429480544260288000000
- 148213330580354401990997613930858961088520576000000
- 296426661160708803981995227861717922176041152000000
- 592853322321417607963990455723435844352082304000000
- 118570664464283321592798091144687768864164608000000
- 237141328928566643185596182289375537728329216000000
- 474282657857133286371192364578751075456658432000000
- 948565315714266572742384729157522150913168864000000
- 1897130631428533145485769458315044301826337728000000
- 3794261262857066290971538916630088603652675456000000
- 7588522525714132581943077833260177207305353912000000
- 15177045051428265163886155665320354040410707824000000
- 30354090102856530327772311330640708080821415648000000
- 60708180205713060655544622661281416161642831296000000
- 12141636041142032131108924532256283232328562592000000
- 24283272082284064262217849064512566464657131184000000
- 48566544164568128524435698129025132929314263568000000
- 97133088329136257048871396258050265858628527136000000
- 19426617665827251409774279256025053177355714272000000
- 38853235331654502819548558512050106354711428544000000
- 77706470663309005639097117024100212704228570888000000
- 15541294132661801127819423404820042548455714176000000
- 31082588265323602255638846809640085096911428352000000
- 62165176530647204511277693619280170193822856704000000
- 12433035306134409022255387323856034038765573408000000
- 24866070612268818044510774647712068077531146816000000
- 497321412245376360890215492



Screenshot of the AWS EC2 Instance Launch Wizard Step 7: Review Instance Launch.

The instance type is set to t2.micro. Security groups include launch-wizard-1. The key pair selected is phase5\_aws\_project (RSA, ED25519). The instance has 1 vCPU and 1 ECU. Storage is configured with a root volume of 8 GiB. Network performance is set to Low to Moderate. The instance is not encrypted.

A modal window titled "Select an existing key pair or create a new key pair" is displayed. It shows the key pair phase5\_aws\_project has been selected. A note states: "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." There is a "Download Key Pair" button.

**Step 7: Review Instance Launch**

Instance Type: t2.micro | ECU: 1 | vCPU: 1

Security Groups: launch-wizard-1

Key pair: phase5\_aws\_project (RSA, ED25519)

Storage: Root (8 GiB)

Network Performance: Low to Moderate

Encryption: Not Encrypted

Launch Instances

Screenshot of the AWS EC2 Instance Launch Wizard Step 7: Review Instance Launch.

The instance type is set to t2.micro. Security groups include launch-wizard-1. The key pair selected is phase5\_aws\_project (RSA, ED25519). The instance has 1 vCPU and 1 ECU. Storage is configured with a root volume of 8 GiB. Network performance is set to Low to Moderate. The instance is not encrypted.

A modal window titled "Select an existing key pair or create a new key pair" is displayed. It shows the key pair phase5\_aws\_project has been selected. A note states: "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." There is a "Download Key Pair" button.

A red arrow points from the "Download Key Pair" button to a file named "phase5\_aws\_project.pem" in a Windows File Explorer window. The file is located in the "aws" folder on the C drive.

**Step 7: Review Instance Launch**

Instance Type: t2.micro | ECU: 1 | vCPU: 1

Security Groups: launch-wizard-1

Key pair: phase5\_aws\_project (RSA, ED25519)

Storage: Root (8 GiB)

Network Performance: Low to Moderate

Encryption: Not Encrypted

Download Key Pair

File Explorer showing the file "phase5\_aws\_project.pem" in the "aws" folder.