

Declaration	
Questions in this exercise are intentionally complex and could be convoluted or confusing. This is by design and to simulate real life situations where customers seldom give crystal clear requirements and ask unambiguous questions.	

I have read the above statement and agree to these conditions	
I AGREE	Pratibha Dixit
	<Enter your name above this line to indicate that you are in agreement>

Step 3 : Creation of database and application servers

Step number	a
Step name	Creation of application server
Instructions	<p>1) Navigate to EC2 using the Services button at the top of the screen</p> <p>2) Select Instances at the left side of the screen</p> <p>3) Click on Launch Instance</p> <ul style="list-style-type: none"> - Select the AMI Amazon 2 Linux - Select the instance type t2.micro - Select Network as "Project 1 VPC" and subnet as "Public Subnet" - For the security group, open the ports 80,443, 22 and 8065 for source set to "Anywhere" <p>4) Launch the instance after creating a new pem file and downloading it</p>
Expected screenshots	<ol style="list-style-type: none"> 1) AMI used 2) Instance configuration screen 3) Security group rules 4) Instance after creation

<Insert screenshot a(1) here>

Launch AWS Academy Learn | Launch an instance | EC2 | us-east-1

us-east-1.console.aws.amazon.com/ec2/home?region=us-east-1#LaunchInstances:

Name: Project 1 Application Server | Add additional tags

Application and OS Images (Amazon Machine Image)

An AMI is a template that contains the software configuration (operating system, application server, and applications) required to launch your instance. Search or Browse for AMIs if you don't see what you are looking for below.

Search our full catalog including 1000s of application and OS images

Recent | Quick Start

Amazon Linux | macOS | Ubuntu | Windows | Red Hat | SUSE | Browse more AMIs

Including AMIs from AWS, Marketplace and the Community

Amazon Machine Image (AMI)

Amazon Linux 2023 AMI

ami-063d43db0594b521b (64-bit (x86), uefi-preferred) / ami-0085e579c65d43668 (64-bit (Arm), uefi)
Virtualization: hvm ENA enabled: true Root device type: ebs

Free tier eligible

Description

Amazon Linux 2023 is a modern, general purpose Linux-based OS that comes with 5 years of long term support. It is optimized for AWS and designed to provide a secure, stable and high-performance execution environment to develop and run your cloud applications.

CloudShell Feedback

Summary

Number of instances: 1

Software Image (AMI): Amazon Linux 2023 AMI 2023.6.2... | Read more

Virtual server type (instance type): t2.micro

Firewall (security group): New security group

Storage (volumes): 1 volume(s) - 8 GiB

Free tier: In your first year includes 750 hours of t2.micro (or t3.micro in the Regions in which t2.micro is unavailable) instance usage on free tier AMIs per month, 750 hours of public IPv4 address usage per month, 30 GiB of EBS storage, 2

Cancel | Launch instance | Preview code

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Launch AWS Academy Learn | Launch an instance | EC2 | us-east-1

us-east-1.console.aws.amazon.com/ec2/home?region=us-east-1#LaunchInstances:

Name: below

Search our full catalog including 1000s of application and OS images

Recent | Quick Start

Amazon Linux | macOS | Ubuntu | Windows | Red Hat | SUSE | Browse more AMIs

Including AMIs from AWS, Marketplace and the Community

Amazon Machine Image (AMI)

Amazon Linux 2023 AMI

ami-063d43db0594b521b (64-bit (x86), uefi-preferred) / ami-0085e579c65d43668 (64-bit (Arm), uefi)
Virtualization: hvm ENA enabled: true Root device type: ebs

Free tier eligible

Description

Amazon Linux 2023 is a modern, general purpose Linux-based OS that comes with 5 years of long term support. It is optimized for AWS and designed to provide a secure, stable and high-performance execution environment to develop and run your cloud applications.

Amazon Linux 2023 AMI 2023.6.20241031.0 x86_64 HVM kernel-6.1

Architecture	Boot mode	AMI ID	Username	Verified provider
64-bit (x86)	uefi-preferred	ami-063d43db0594b521b	ec2-user	

Summary

Number of instances: 1

Software Image (AMI): Amazon Linux 2023 AMI 2023.6.2... | Read more

Virtual server type (instance type): t2.micro

Firewall (security group): New security group

Storage (volumes): 1 volume(s) - 8 GiB

Free tier: In your first year includes 750 hours of t2.micro (or t3.micro in the Regions in which t2.micro is unavailable) instance usage on free tier AMIs per month, 750 hours of public IPv4 address usage per month, 30 GiB of EBS storage, 2

Cancel | Launch instance | Preview code

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<Insert screenshot a(2) here>

The screenshot shows the AWS EC2 instance creation process at Step 2: Configure Instance Details. The configuration includes:

- AMI:** Amazon Linux 2023 AMI 2023.6.20241031.0 x86_64 HVM kernel-6.1
- Architecture:** 64-bit (x86)
- Boot mode:** uefi-preferred
- AMI ID:** ami-063d43db0594b521b
- Username:** ec2-user (Verified provider)

Instance type: t2.micro (Free tier eligible). The tooltip for the Free tier states: "Free tier: In your first year includes 750 hours of t2.micro (or t3.micro in the Regions in which t2.micro is unavailable) instance usage on free tier AMIs per month, 750 hours of public IPv4 address usage per month, 30 GiB of EBS storage, 2

Key pair (login): [Select]

Additional costs apply for AMIs with pre-installed software.

Summary: Number of instances: 1. Software Image (AMI): Amazon Linux 2023 AMI 2023.6.2... Virtual server type (instance type): t2.micro. Firewall (security group): New security group. Storage (volumes): 1 volume(s) - 8 GiB.

Launch instance button is present.

<Insert screenshot a(3) here>

Launch AWS Academy Learn | Launch an instance | EC2 | us | +

us-east-1.console.aws.amazon.com/ec2/home?region=us-east-1#LaunchInstances:

Services Search [Option+S] N. Virginia vocabs/user3607549=pratibhadixit549@gmail.com @ 7812-8496-4726

Key pair (login) Info

You can use a key pair to securely connect to your instance. Ensure that you have access to the selected key pair before you launch the instance.

Key pair name - required

Project 1 Key-Pair Create new key pair

Network settings Info

VPC - required Info

vpc-04ffeee2303d2f4f1 (Project 1 VPC) 10.0.0.0/16

Subnet Info

subnet-07b9de429469afceb Public Subnet
VPC: vpc-04ffeee2303d2f4f1 Owner: 781284964726 Availability Zone: us-east-1e Zone type: Availability Zone IP addresses available: 250 CIDR: 10.0.1.0/24

Create new subnet

Auto-assign public IP Info

Enable Additional charges apply when outside of free tier allowance

Firewall (security groups) Info

A security group is a set of firewall rules that control the traffic for your instance. Add rules to allow specific traffic to reach your instance.

Create security group Select existing security group

Security group name - required

Project 1 Application Server

This security group will be added to all network interfaces. The name can't be edited after the security group is created. Max length is 255 characters. Valid characters: a-z, A-Z, 0-9, spaces, and _-/.@#=;&|!\$*

Description - required Info

Project 1 Application Server created 2024-11-10T18:36:59.941Z

Inbound Security Group Rules

Security group rule 1 (TCP, 22, 0.0.0.0/0)

Type	Protocol	Port range
ssh	TCP	22

Source type Anywhere Description - optional e.g. SSH for admin desktop

Security group rule 2 (TCP, 80, 0.0.0.0/0)

Type	Protocol	Port range
Custom TCP	TCP	80

Source type Anywhere Description - optional e.g. SSH for admin desktop

Security group rule 3 (TCP, 443, 0.0.0.0/0)

Type	Protocol	Port range

Summary

Number of instances Info 1

Software Image (AMI) Amazon Linux 2023 AMI 2023.6.2...read more ami-063d43db0594b521b

Virtual server type (instance type) t2.micro

Firewall (security group) New security group

Storage (volumes) 1 volume(s) - 8 GiB

Free tier: In your first year includes 750 hours of t2.micro (or t3.micro in the Regions in which t2.micro is unavailable) instance usage on free tier AMIs per month, 750 hours of public IPv4 address usage per month, 30 GiB of EBS storage, 2

Cancel Launch instance Preview code

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Launch AWS Academy Learn | Launch an instance | EC2 | us | +

us-east-1.console.aws.amazon.com/ec2/home?region=us-east-1#LaunchInstances:

Services Search [Option+S] N. Virginia vocabs/user3607549=pratibhadixit549@gmail.com @ 7812-8496-4726

Security group name - required

Project 1 Application Server

This security group will be added to all network interfaces. The name can't be edited after the security group is created. Max length is 255 characters. Valid characters: a-z, A-Z, 0-9, spaces, and _-/.@#=;&|!\$*

Description - required Info

Project 1 Application Server created 2024-11-10T18:36:59.941Z

Inbound Security Group Rules

Security group rule 1 (TCP, 22, 0.0.0.0/0)

Type	Protocol	Port range
ssh	TCP	22

Source type Anywhere Description - optional e.g. SSH for admin desktop

Security group rule 2 (TCP, 80, 0.0.0.0/0)

Type	Protocol	Port range
Custom TCP	TCP	80

Source type Anywhere Description - optional e.g. SSH for admin desktop

Security group rule 3 (TCP, 443, 0.0.0.0/0)

Type	Protocol	Port range

Summary

Number of instances Info 1

Software Image (AMI) Amazon Linux 2023 AMI 2023.6.2...read more ami-063d43db0594b521b

Virtual server type (instance type) t2.micro

Firewall (security group) New security group

Storage (volumes) 1 volume(s) - 8 GiB

Free tier: In your first year includes 750 hours of t2.micro (or t3.micro in the Regions in which t2.micro is unavailable) instance usage on free tier AMIs per month, 750 hours of public IPv4 address usage per month, 30 GiB of EBS storage, 2

Cancel Launch instance Preview code

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The screenshot shows the AWS EC2 Launch Instances wizard at Step 3: Configure Security Group. The left panel displays two security group rules:

- Security group rule 3 (TCP, 443, 0.0.0.0/0)**: Type: Custom TCP, Protocol: TCP, Port range: 443. Source type: Anywhere.
- Security group rule 4 (TCP, 8065, 0.0.0.0/0)**: Type: Custom TCP, Protocol: TCP, Port range: 8065. Source type: Anywhere.

A warning message is present: "⚠️ 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." Below the rules are buttons for "Add security group rule" and "Advanced network configuration".

The right panel shows the **Summary** section with the following details:

- Number of instances**: 1
- Software Image (AMI)**: Amazon Linux 2023 AMI 2023.6.2... (with a "read more" link and AMI ID: ami-063d43db0594b521b)
- Virtual server type (instance type)**: t2.micro
- Firewall (security group)**: New security group
- Storage (volumes)**: 1 volume(s) - 8 GiB

A callout box highlights the **Free tier** information: "750 hours of t2.micro (or t3.micro in the Regions in which t2.micro is unavailable) instance usage on free tier AMIs per month, 750 hours of public IPv4 address usage per month, 30 GiB of EBS storage, 2".

At the bottom are "Cancel", "Launch instance" (in orange), and "Preview code" buttons.

<Insert screenshot a(4) here>

Launch AWS Academy Learn | Launch an instance | EC2 | Instances | EC2 | us-east-1

us-east-1.console.aws.amazon.com/ec2/home?region=us-east-1#Instances:instancetypeId=i-046901e799623b240

Instances (1/1) Info

Last updated less than a minute ago

Find Instance by attribute or tag (case-sensitive)

Instance ID = i-046901e799623b240

Clear filters

Launch instances

Dashboard EC2 Global View Events

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

Images AMIs AMI Catalog

Elastic Block Store Volumes Snapshots Lifecycle Manager

Network & Security Security Groups Elastic IPs

CloudShell Feedback

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i-046901e799623b240 (Project 1 Application Server)

Details Status and alarms Monitoring Security Networking Storage Tags

Instance summary

Instance ID	Public IPv4 address	Private IPv4 addresses
i-046901e799623b240	34.239.250.64 open address	10.0.1.233
IPv6 address	Instance state	Public IPv4 DNS
-	Running	ec2-34-239-250-64.compute-1.amazonaws.com open address
Hostname type	Private IP DNS name (IPv4 only)	Elastic IP addresses
IP name: ip-10-0-1-233.ec2.internal	ip-10-0-1-233.ec2.internal	-
Answer private resource DNS name	Instance type	AWS Compute Optimizer finding
-	t2.micro	Opt-in to AWS Compute Optimizer for recommendations.
Auto-assigned IP address	VPC ID	
34.239.250.64 [Public IP]	vpc-04ffeee2303d2f4f1 (Project 1 VPC)	

Launch AWS Academy Learn | Launch an instance | EC2 | Instances | EC2 | us-east-1

us-east-1.console.aws.amazon.com/ec2/home?region=us-east-1#Instances:instancetypeId=i-046901e799623b240

Instances (1/1) Info

Last updated less than a minute ago

Find Instance by attribute or tag (case-sensitive)

Instance ID = i-046901e799623b240

Clear filters

Launch instances

Dashboard EC2 Global View Events

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

Images AMIs AMI Catalog

Elastic Block Store Volumes Snapshots Lifecycle Manager

Network & Security Security Groups Elastic IPs

CloudShell Feedback

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i-046901e799623b240 (Project 1 Application Server)

Inbound rules

Name	Security group rule ID	Port range	Protocol	Source	Security group
-	sgr-01d9dcad6e6d58fc7	22	TCP	0.0.0.0/0	Project 1 Security Group
-	sgr-08fd3401a94dd073e	443	TCP	0.0.0.0/0	Project 1 Security Group
-	sgr-0d03806bf70b50aa5	8065	TCP	0.0.0.0/0	Project 1 Security Group
-	sgr-04bef2c1483109466	80	TCP	0.0.0.0/0	Project 1 Security Group

Outbound rules

Name	Security group rule ID	Port range	Protocol	Destination	Security group
-	sgr-06a8e1705da135e96	All	All	0.0.0.0/0	Project 1 Security Group

S Launch AWS Academy Learn | X Launch an instance | EC2 | us-east-1 | Instance details | EC2 | us-east-1 | +

us-east-1.console.aws.amazon.com/ec2/home?region=us-east-1#InstanceDetails:instanceId=i-046901e799623b240

Services Search [Option+S] N. Virginia v vocabs/user3607549=pratibhadixit549@gmail.com @ 7812-8496-4726 ▾

Dashboard EC2 Instances i-046901e799623b240

EC2 Instances Connect Instance state Actions

Updated less than a minute ago

Instance summary for i-046901e799623b240 (Project 1 Application Server) Info

Instance ID	i-046901e799623b240	Public IPv4 address	Private IPv4 addresses
IPv6 address	-	Instance state	Public IPv4 DNS
Hostname type	IP name: ip-10-0-1-233.ec2.internal	Private IP DNS name (IPv4 only)	ec2-34-239-250-64.compute-1.amazonaws.com open address
Answer private resource DNS name	-	Instance type	Elastic IP addresses
Auto-assigned IP address	34.239.250.64 [Public IP]	VPC ID	AWS Compute Optimizer finding
IAM Role	-	Subnet ID	Learn more
IMDSv2	Required	Instance ARN	Auto Scaling Group name

Details Status and alarms Monitoring Security Networking Storage Tags

Instance details Info

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Step number b

Step name Creation of database server

- Instructions
- 1) Navigate to EC2 using the Services button at the top of the screen
 - 2) Select Instances at the left side of the screen
 - 3) Click on Launch Instance
 - Select the AMI Amazon 2 Linux
 - Select the instance type t2.micro
 - Select Network as "Project 1 VPC" and subnet as "Private Subnet"
 - For the security group, open the ports 80, 443,22 and 3306 for source set to "Anywhere"
 - 4) Launch the instance by selecting the same pem file created in the previous step
- Expected screenshots
- 1) AMI used
 - 2) Instance configuration screen
 - 3) Security group rules
 - 4) Instance after creation

<Insert screenshot b(1) here>

The screenshot shows the AWS EC2 'Launch an instance' wizard. The current step is 'Application and OS Images (Amazon Machine Image)'. A search bar is present. Below it, a grid of icons for various AMIs: Amazon Linux, macOS, Ubuntu, Windows, Red Hat, and SUSE Linux. To the right of the grid is a 'Browse more AMIs' link. The 'Amazon Machine Image (AMI)' section displays the 'Amazon Linux 2023 AMI' with details: ami-063d43db0594b521b (64-bit (x86), uefi-preferred) / ami-0085e579c65d43668 (64-bit (Arm), uefi). It also indicates 'Free tier eligible'. On the right side of this section, there is a callout box with the text: 'Free tier: In your first year includes 750 hours of t2.micro (or t3.micro in the Regions in which t2.micro is unavailable) instance usage on free tier AMIs per month, 750 hours of public IPv4 address usage per month, 30 GiB of EBS storage, 2'. At the bottom of the wizard are 'Cancel', 'Launch instance', and 'Preview code' buttons.

The screenshot shows the AWS EC2 console interface. In the top navigation bar, there are tabs for "Launch AWS Academy Learner", "Launch an instance | EC2 | us-east-1", "Instance details | EC2 | us-east-1", and "Launch an instance | EC2 | us-east-1". The main content area has a search bar and a "Quick Start" tab selected. Below this, there are icons for various AMIs: Amazon Linux, macOS, Ubuntu, Windows, Red Hat, and SUSE. A "Browse more AMIs" link is available. The "Amazon Machine Image (AMI)" section displays the "Amazon Linux 2023 AMI" (ami-063d43db0594b521b) as free tier eligible. It includes details like Virtualization: hvm, ENA enabled: true, and Root device type: ebs. The "Description" section states that Amazon Linux 2023 is a modern, general purpose Linux-based OS optimized for AWS. The "Instance type" section shows the "t2.micro" instance type selected. The "Summary" panel on the right shows 1 instance selected, with options for Software Image (AMI), Virtual server type (instance type) set to t2.micro, Firewall (security group) set to New security group, and Storage (volumes) set to 1 volume(s) - 8 GiB. A tooltip for the "Free tier" indicates it covers 750 hours of t2.micro usage per month. The bottom right contains "Launch instance" and "Preview code" buttons.

<Insert screenshot b(2) here>

This screenshot shows the continuation of the AWS EC2 instance launch process. The top navigation bar and search bar are identical to the previous screenshot. The "Instance type" section is expanded, showing the "t2.micro" option selected. It provides detailed information about the instance, including its family (t2), price (0.0162 USD per hour), and supported operating systems. The "Additional costs apply for AMIs with pre-installed software" note is visible. The "Key pair (login)" section is also expanded, stating that a key pair is required for secure connection. The "Summary" panel on the right remains the same, showing 1 instance selected with the same configuration as the previous screenshot. The "Launch instance" and "Preview code" buttons are present at the bottom right.

<Insert screenshot b(3) here>

The screenshot shows the AWS CloudFormation Launch Wizard interface. The top navigation bar includes tabs for Launch AWS Academy Learn, Launch an Instance | EC2 | us-east-1, Instance details | EC2 | us-east-1, and Launch an instance | EC2 | us-east-1. The URL is us-east-1.console.aws.amazon.com/ec2/home?region=us-east-1#LaunchInstances. The top right shows the user's name and email: vocabs/user3607549=pratibhadixit549@gmail.com @ 7812-8496-4726.

The main content area is titled "Launch an instance". It has two tabs: "Key pair (login)" and "Summary".

Key pair (login) (selected):

- Text: You can use a key pair to securely connect to your instance. Ensure that you have access to the selected key pair before you launch the instance.
- Key pair name - required: Project 1 Key-Pair (dropdown menu)
- Create new key pair button

Summary:

- Number of instances: 1
- Software Image (AMI): Amazon Linux 2023.6.2...read more
ami-063d43db0594b521b
- Virtual server type (instance type): t2.micro
- Firewall (security group): New security group
- Storage (volumes): 1 volume(s) ~ 8 GiB

A callout box highlights the "Free tier" information:

- In your first year includes:
 - 750 hours of t2.micro (or t3.micro in the Regions in which t2.micro is unavailable)
 - instance usage on free tier AMIs per month, 750 hours of public IPv4 address usage per month, 30 GiB of EBS storage, 2

Buttons at the bottom include Cancel, Launch instance (highlighted in orange), and Preview code.

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Launch AWS Academy Learn | Launch an instance | EC2 | us-east-1 | Instance details | EC2 | us-east-1 | Launch an instance | EC2 | us-east-1

us-east-1.console.aws.amazon.com/ec2/home?region=us-east-1#LaunchInstances:

aws Services Search [Option+S] N. Virginia vocabs/user3607549=pratibhadixit549@gmail.com @ 7812-8496-4726

Security group name - required
Project 1 Database Server

This security group will be added to all network interfaces. The name can't be edited after the security group is created. Max length is 255 characters. Valid characters: a-z, A-Z, 0-9, spaces, and _-~!@#\$%^&_!\$^*

Description - required Info
Project 1 Database Server created 2024-11-10T18:49:31.929Z

Inbound Security Group Rules

Security group rule 1 (TCP, 22, 0.0.0.0/0) Remove

Type	Protocol	Port range
ssh	TCP	22
Source type	Source	Description - optional
Anywhere	Add CIDR, prefix list or security	e.g. SSH for admin desktop
0.0.0.0/0		

Security group rule 2 (TCP, 80, 0.0.0.0/0) Remove

Type	Protocol	Port range
Custom TCP	TCP	80
Source type	Source	Description - optional
Anywhere	Add CIDR, prefix list or security	e.g. SSH for admin desktop
0.0.0.0/0		

Security group rule 3 (TCP, 443, 0.0.0.0/0) Remove

Type	Protocol	Port range
Custom TCP	TCP	443
Source type	Source	Description - optional
Anywhere	Add CIDR, prefix list or security	e.g. SSH for admin desktop
0.0.0.0/0		

Summary

Number of instances Info
1

Software image (AMI)
Amazon Linux 2023 AMI 2023.6.2...read more
ami-063d43db0594b521b

Virtual server type (instance type)
t2.micro

Firewall (security group)
New security group

Storage (volumes)
1 volume(s) - 8 GiB

Free tier: In your first year includes 750 hours of t2.micro (or t3.micro in the Regions in which t2.micro is unavailable) instance usage on free tier AMIs per month, 750 hours of public IPv4 address usage per month, 30 GiB of EBS storage, 2

Launch instance

Cancel Preview code

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Launch AWS Academy Learn | Launch an instance | EC2 | us-east-1 | Instance details | EC2 | us-east-1 | Launch an instance | EC2 | us-east-1

us-east-1.console.aws.amazon.com/ec2/home?region=us-east-1#LaunchInstances:

aws Services Search [Option+S] N. Virginia vocabs/user3607549=pratibhadixit549@gmail.com @ 7812-8496-4726

Security group rule 3 (TCP, 443, 0.0.0.0/0) Remove

Type	Protocol	Port range
Custom TCP	TCP	443
Source type	Source	Description - optional
Anywhere	Add CIDR, prefix list or security	e.g. SSH for admin desktop
0.0.0.0/0		

Security group rule 4 (TCP, 3306, 0.0.0.0/0) Remove

Type	Protocol	Port range
Custom TCP	TCP	3306
Source type	Source	Description - optional
Anywhere	Add CIDR, prefix list or security	e.g. SSH for admin desktop
0.0.0.0/0		

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.

Add security group rule

Advanced network configuration

Configure storage Info Advanced

Summary

Number of instances Info
1

Software image (AMI)
Amazon Linux 2023 AMI 2023.6.2...read more
ami-063d43db0594b521b

Virtual server type (instance type)
t2.micro

Firewall (security group)
New security group

Storage (volumes)
1 volume(s) - 8 GiB

Free tier: In your first year includes 750 hours of t2.micro (or t3.micro in the Regions in which t2.micro is unavailable) instance usage on free tier AMIs per month, 750 hours of public IPv4 address usage per month, 30 GiB of EBS storage, 2

Launch instance

Cancel Preview code

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<Insert screenshot b(4) here>

The screenshot shows the AWS EC2 Instances page. On the left, a sidebar navigation includes: Dashboard, EC2 Global View, Events, Instances (selected), Instance Types, Launch Templates, Spot Requests, Savings Plans, Reserved Instances, Dedicated Hosts, Capacity Reservations (New), Images (AMIs, AMI Catalog), Elastic Block Store (Volumes, Snapshots, Lifecycle Manager), and Network & Security (Security Groups, Elastic IPs). The main content area displays the 'Instances (1/1)' section. A search bar at the top right allows filtering by 'Instance ID' (set to 'i-09bd1f19664ff1a6e') and 'Name' (empty). Below the search is a table with columns: Name, Instance ID, Instance state, Instance type, Status check, Alarm status, and Availability Zone. One row is shown for 'Project 1 Data...' with the details: i-09bd1f19664ff1a6e, Running, t2.micro, 2/2 checks passed, View alarms +, and us-east-1. Below the table, a detailed view for the instance 'i-09bd1f19664ff1a6e (Project 1 Database Server)' is expanded. It shows the following details:

Instance summary		Networking		Storage		Tags	
Instance ID	i-09bd1f19664ff1a6e	Public IPv4 address	-	Private IPv4 addresses	10.0.2.241	Public IPv4 DNS	-
IPv6 address	-	Instance state	Running	Private IP DNS name (IPv4 only)	ip-10-0-2-241.ec2.internal	Elastic IP addresses	-
Hostname type	ip-10-0-2-241.ec2.internal	Instance type	t2.micro	VPC ID	vpc-04ffeee2303d2f4f1 (Project 1 VPC)	AWS Compute Optimizer finding	Opt-in to AWS Compute Optimizer for recommendations.
IP name	-	Answer private resource DNS name	-				Learn more
Auto-assigned IP address	-						

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Launch AWS Academy Learn | Launch an instance | EC2 | us-east-1 | Instance details | EC2 | us-east-1 | Launch an instance | EC2 | us-east-1 | Instances | EC2 | us-east-1

us-east-1.console.aws.amazon.com/ec2/home?region=us-east-1#Instances:instanceId=i-09bd1f19664ff1a6e

aws Services Search [Option+S] N. Virginia vocabs/user3607549=pratibhadixit549@gmail.com @ 7812-8496-4726

Instances (1/1) Info Last updated less than a minute ago Connect Instance state Actions Launch instances

Find Instance by attribute or tag (case-sensitive) All states

Instance ID = i-09bd1f19664ff1a6e Clear filters

Name Instance ID Instance state Instance type Status check Alarm status Availability Zone

Project 1 Data... i-09bd1f19664ff1a6e Running t2.micro 2/2 checks passed View alarms us-east-1

i-09bd1f19664ff1a6e (Project 1 Database Server)

Filter rules

Name	Security group rule ID	Port range	Protocol	Source	Security group
-	sgr-09bdd0bb8b3596702	80	TCP	0.0.0.0/0	Project 1
-	sgr-0b10f4a01d69bef36	443	TCP	0.0.0.0/0	Project 1
-	sgr-05a68baa24ab048f5	22	TCP	0.0.0.0/0	Project 1
-	sgr-06eb06effb1e68bd	3306	TCP	0.0.0.0/0	Project 1

Outbound rules

Filter rules

Name	Security group rule ID	Port range	Protocol	Destination	Security group
-	sgr-0138104e9bc22b097	All	All	0.0.0.0/0	Project 1

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Launch AWS Academy Learn | Launch an instance | EC2 | us-east-1 | Instance details | EC2 | us-east-1 | Launch an instance | EC2 | us-east-1 | Instances | EC2 | us-east-1

us-east-1.console.aws.amazon.com/ec2/home?region=us-east-1#InstanceDetails:instanceId=i-09bd1f19664ff1a6e

aws Services Search [Option+S] N. Virginia vocabs/user3607549=pratibhadixit549@gmail.com @ 7812-8496-4726

EC2 > Instances > i-09bd1f19664ff1a6e

Instance summary for i-09bd1f19664ff1a6e (Project 1 Database Server) Info

Updated less than a minute ago

Instance ID i-09bd1f19664ff1a6e	Public IPv4 address -	Private IPv4 addresses 10.0.2.241
IPv6 address -	Instance state Running	Public IPv4 DNS -
Hostname type IP name: ip-10-0-2-241.ec2.internal	Private IP DNS name (IPv4 only) ip-10-0-2-241.ec2.internal	Elastic IP addresses -
Answer private resource DNS name -	Instance type t2.micro	AWS Compute Optimizer finding Opt-in to AWS Compute Optimizer for recommendations.
Auto-assigned IP address -	VPC ID vpc-04ffeee2303d2f4f1 (Project 1 VPC)	Learn more
IAM Role -	Subnet ID subnet-0f7bdb118bf34002f (Private Subnet)	Auto Scaling Group name -
IMDSv2 Required	Instance ARN arn:aws:ec2:us-east-1:781284964726:instance/i-09bd1f19664ff1a6e	

Details Status and alarms Monitoring Security Networking Storage Tags

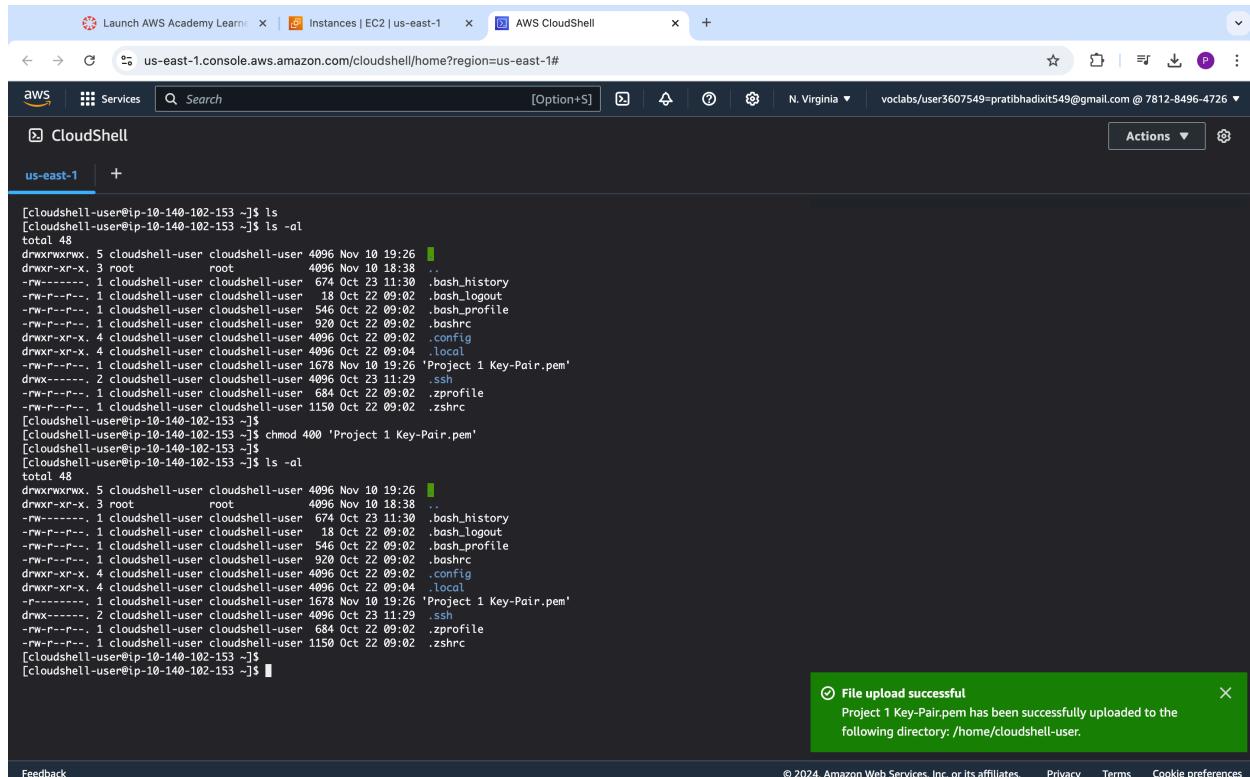
Instance details Info

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Step 4: Application and Database Installation and Testing

Step number	a		
Step name	Installation and configuration of MySQL		
Instructions	<p>1) Copy the database pem file into the application server using the below command <code>scp -i <application server pem file> <database server pem file> ec2-user@<application server public IP>:/home/ec2-user</code></p> <p>2) Log into the application server using SSH/Putty</p> <p>3) From the application server, log into the database server using the pem file copied in step 1 and the private IP address of the database server with the following command <code>ssh -i <database server pem file> ec2-user@<private IP of database server></code></p> <p>4) Enter the following commands to install and configure MySQL on the database server</p> <pre><code>sudo yum update wget http://dev.mysql.com/get/mysql57-community-release-el7-9.noarch.rpm sudo yum localinstall mysql57-community-release-el7-9.noarch.rpm -y sudo yum install mysql-community-server -y --nogpgcheck sudo systemctl start mysqld.service</code></pre> <p>Run the below command to retrieve a temporary password for MySQL</p> <pre><code>sudo grep 'temporary password' /var/log/mysqld.log rev cut -d '"' -f1 rev tr -d " "</code></pre> <p>Log in to MySQL with the below command and enter the above password when prompted</p> <pre><code>mysql -u root -p</code></pre> <p>Enter the below command after you login to MySQL</p> <pre><code>ALTER USER 'root'@'localhost' IDENTIFIED BY 'Password42!';</code></pre> <p>Type 'exit' into the MySQL prompt and press Enter to exit out of the MySQL environment.</p> <p>Enter the below commands to complete the setup. Ignore any warning messages you receive.</p> <pre><code>wget https://d6opu47qoi4ee.cloudfront.net/install_mysql_linux.sh chmod 777 install_mysql_linux.sh sudo ./install_mysql_linux.sh</code></pre> <p>5) Type exit to exit the database server and go back to the application server</p> <tr><td>Expected screenshots</td><td><ul style="list-style-type: none">1) Installation of MySQL2) Retrieving the temporary password3) Executing the provided script</td></tr>	Expected screenshots	<ul style="list-style-type: none">1) Installation of MySQL2) Retrieving the temporary password3) Executing the provided script
Expected screenshots	<ul style="list-style-type: none">1) Installation of MySQL2) Retrieving the temporary password3) Executing the provided script		

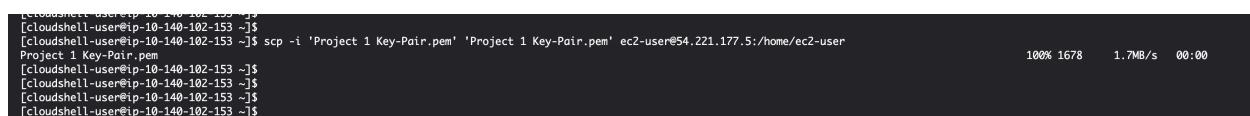
<Insert screenshot a(1) here>



Screenshot of the AWS CloudShell interface. The terminal window shows a user's session on an EC2 instance. The user runs several 'ls -al' commands to list files in their home directory. A green notification bar at the bottom right indicates a successful file upload:

```
[cloudshell-user@ip-10-140-102-153 ~]$ ls -al
total 48
drwxrwxrwx. 5 cloudshell-user cloudshell-user 4096 Nov 10 19:26 .
drwxr-xr-x. 3 root root 4096 Nov 10 18:38 ..
-rw-r----- 1 cloudshell-user cloudshell-user 674 Oct 23 11:30 .bash_history
-rw-r--r-- 1 cloudshell-user cloudshell-user 18 Oct 22 09:02 .bash_logout
-rw-r--r-- 1 cloudshell-user cloudshell-user 546 Oct 22 09:02 .bash_profile
-rw-r--r-- 1 cloudshell-user cloudshell-user 920 Oct 22 09:02 .bashrc
drwxr-xr-x 4 cloudshell-user cloudshell-user 4096 Oct 22 09:04 .config
drwxr-xr-x 4 cloudshell-user cloudshell-user 4096 Oct 22 09:04 .local
-rw-r--r-- 1 cloudshell-user cloudshell-user 1678 Nov 10 19:26 'Project 1 Key-Pair.pem'
drwxr----- 2 cloudshell-user cloudshell-user 4096 Oct 23 11:29 .ssh
-rw-r--r-- 1 cloudshell-user cloudshell-user 684 Oct 22 09:02 .zprofile
-rw-r--r-- 1 cloudshell-user cloudshell-user 1150 Oct 22 09:02 .zshrc
[cloudshell-user@ip-10-140-102-153 ~]$ chmod 400 'Project 1 Key-Pair.pem'
[cloudshell-user@ip-10-140-102-153 ~]$ [cloudshell-user@ip-10-140-102-153 ~]$ ls -al
total 48
drwxrwxrwx. 5 cloudshell-user cloudshell-user 4096 Nov 10 19:26 .
drwxr-xr-x. 3 root root 4096 Nov 10 18:38 ..
-rw-r----- 1 cloudshell-user cloudshell-user 674 Oct 23 11:30 .bash_history
-rw-r--r-- 1 cloudshell-user cloudshell-user 18 Oct 22 09:02 .bash_logout
-rw-r--r-- 1 cloudshell-user cloudshell-user 546 Oct 22 09:02 .bash_profile
-rw-r--r-- 1 cloudshell-user cloudshell-user 920 Oct 22 09:02 .bashrc
drwxr-xr-x 4 cloudshell-user cloudshell-user 4096 Oct 22 09:04 .config
drwxr-xr-x 4 cloudshell-user cloudshell-user 4096 Oct 22 09:04 .local
-rw-r--r-- 1 cloudshell-user cloudshell-user 1678 Nov 10 19:26 'Project 1 Key-Pair.pem'
drwxr----- 2 cloudshell-user cloudshell-user 4096 Oct 23 11:29 .ssh
-rw-r--r-- 1 cloudshell-user cloudshell-user 684 Oct 22 09:02 .zprofile
-rw-r--r-- 1 cloudshell-user cloudshell-user 1150 Oct 22 09:02 .zshrc
[cloudshell-user@ip-10-140-102-153 ~]$ [cloudshell-user@ip-10-140-102-153 ~]$
```

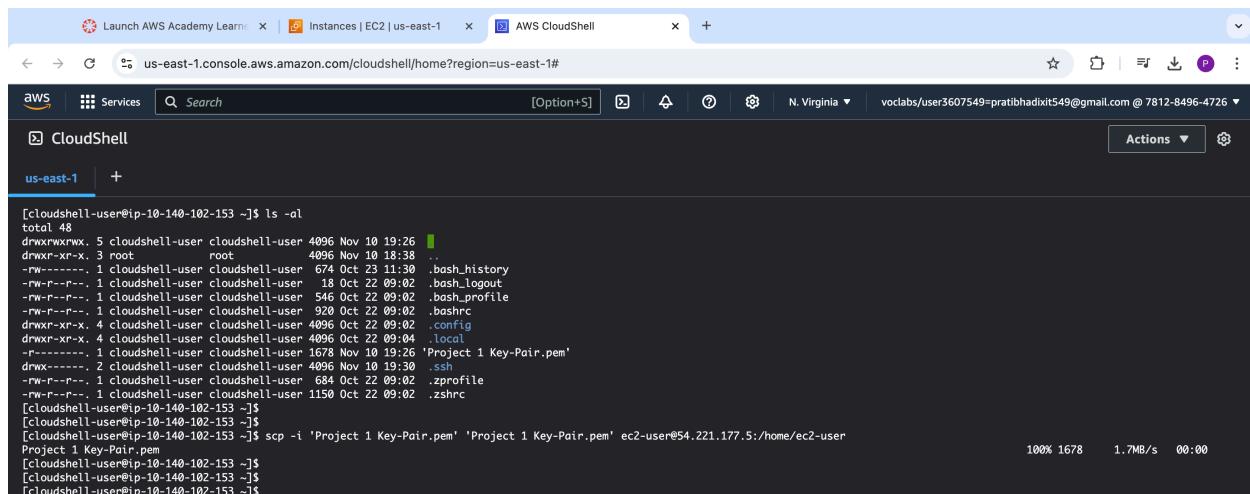
File upload successful
Project 1 Key-Pair.pem has been successfully uploaded to the following directory: /home/cloudshell-user.



Screenshot of the AWS CloudShell interface. The terminal window shows a user's session on an EC2 instance. The user runs several 'ls -al' commands to list files in their home directory. A progress bar at the bottom right indicates a file is being transferred:

```
[cloudshell-user@ip-10-140-102-153 ~]$ [cloudshell-user@ip-10-140-102-153 ~]$ scp -i 'Project 1 Key-Pair.pem' 'Project 1 Key-Pair.pem' ec2-user@54.221.177.5:/home/ec2-user
Project 1 Key-Pair.pem
[cloudshell-user@ip-10-140-102-153 ~]$ [cloudshell-user@ip-10-140-102-153 ~]$ [cloudshell-user@ip-10-140-102-153 ~]$ [cloudshell-user@ip-10-140-102-153 ~]$
```

100% 1678 1.7MB/s 00:00



Screenshot of the AWS CloudShell interface. The terminal window shows a user's session on an EC2 instance. The user runs several 'ls -al' commands to list files in their home directory. A progress bar at the bottom right indicates a file is being transferred:

```
[cloudshell-user@ip-10-140-102-153 ~]$ ls -al
total 48
drwxrwxrwx. 5 cloudshell-user cloudshell-user 4096 Nov 10 19:26 .
drwxr-xr-x. 3 root root 4096 Nov 10 18:38 ..
-rw-r----- 1 cloudshell-user cloudshell-user 674 Oct 23 11:30 .bash_history
-rw-r--r-- 1 cloudshell-user cloudshell-user 18 Oct 22 09:02 .bash_logout
-rw-r--r-- 1 cloudshell-user cloudshell-user 546 Oct 22 09:02 .bash_profile
-rw-r--r-- 1 cloudshell-user cloudshell-user 920 Oct 22 09:02 .bashrc
drwxr-xr-x 4 cloudshell-user cloudshell-user 4096 Oct 22 09:04 .config
drwxr-xr-x 4 cloudshell-user cloudshell-user 4096 Oct 22 09:04 .local
-rw-r--r-- 1 cloudshell-user cloudshell-user 1678 Nov 10 19:26 'Project 1 Key-Pair.pem'
drwxr----- 2 cloudshell-user cloudshell-user 4096 Nov 10 19:30 .ssh
-rw-r--r-- 1 cloudshell-user cloudshell-user 684 Oct 22 09:02 .zprofile
-rw-r--r-- 1 cloudshell-user cloudshell-user 1150 Oct 22 09:02 .zshrc
[cloudshell-user@ip-10-140-102-153 ~]$ [cloudshell-user@ip-10-140-102-153 ~]$ [cloudshell-user@ip-10-140-102-153 ~]$ [cloudshell-user@ip-10-140-102-153 ~]$ scp -i 'Project 1 Key-Pair.pem' 'Project 1 Key-Pair.pem' ec2-user@54.221.177.5:/home/ec2-user
Project 1 Key-Pair.pem
[cloudshell-user@ip-10-140-102-153 ~]$ [cloudshell-user@ip-10-140-102-153 ~]$ [cloudshell-user@ip-10-140-102-153 ~]$ [cloudshell-user@ip-10-140-102-153 ~]$
```

100% 1678 1.7MB/s 00:00

Launch AWS Academy Learn Instances | EC2 | us-east-1 AWS CloudShell

us-east-1.console.aws.amazon.com/cloudshell/home?region=us-east-1#

CloudShell Actions

us-east-1 +

```

HTTP request sent, awaiting response... 200 OK
Length: 9224 (9.0K) [application/x-redhat-package-manager]
Saving to: 'mysql57-community-release-el7-9.noarch.rpm'

mysql57-community-release-el7-9.noarch.rpm      100%[=====]  9.01K --.-KB/s   in 0s

2024-11-10 19:38:46 (189 MB/s) - 'mysql57-community-release-el7-9.noarch.rpm' saved [9224/9224]

[ec2-user@ip-10-0-2-241 ~]$ [ec2-user@ip-10-0-2-241 ~]$ sudo yum localinstall mysql57-community-release-el7-9.noarch.rpm -y
Last metadata expiration check: 0:44:03 ago on Sun Nov 10 18:55:43 2024.
Dependencies resolved.

Transaction Summary
Install 1 Package

Total size: 9.0 k
Installed size: 8.6 k
Downloading Packages:
Running transaction check
Transaction check succeeded.
Running transaction test
Transaction test succeeded.
Running transaction
Preparing : 1/1
Installing  : mysql57-community-release-el7-9.noarch 1/1
Verifying   : mysql57-community-release-el7-9.noarch 1/1

Installed:
  mysql57-community-release-el7-9.noarch

Complete!
[ec2-user@ip-10-0-2-241 ~]$ [ec2-user@ip-10-0-2-241 ~]$ 
```

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Launch AWS Academy Learn Instances | EC2 | us-east-1 AWS CloudShell

us-east-1.console.aws.amazon.com/cloudshell/home?region=us-east-1#

CloudShell Actions

us-east-1 +

```

Downloaded Packages:
(1/6): libcrypt-compat-4.4.33-7.amzn2023.x86_64.rpm 1.2 MB/s | 92 kB 00:00
(2/6): ncurses-compat-libs-6.2-4.20200222.amzn2023.0.6.x86_64.rpm 3.5 MB/s | 323 kB 00:00
(3/6): mysql-community-common-5.7.44-1.el7.x86_64.rpm 4.7 MB/s | 313 kB 00:00
(4/6): mysql-community-libs-5.7.44-1.el7.x86_64.rpm 25 MB/s | 3.0 MB 00:00
(5/6): mysql-community-client-5.7.44-1.el7.x86_64.rpm 25 MB/s | 31 kB 00:01
(6/6): mysql-community-server-5.7.44-1.el7.x86_64.rpm 58 MB/s | 184 kB 00:03

Total 65 MB/s | 219 MB 00:03

Running transaction check
Transaction check succeeded.
Running transaction test
Transaction test succeeded.
Running transaction
Preparing : 1/1
Installing  : mysql-community-common-5.7.44-1.el7.x86_64 1/6
Installing  : mysql-community-libs-5.7.44-1.el7.x86_64 2/6
Running scriptlet: mysql-community-libs-5.7.44-1.el7.x86_64 2/6
Installing  : ncurses-compat-libs-6.2-4.20200222.amzn2023.0.6.x86_64 3/6
Installing  : mysql-community-client-5.7.44-1.el7.x86_64 4/6
Installing  : libcrypt-compat-4.4.33-7.amzn2023.x86_64 5/6
Running scriptlet: mysql-community-server-5.7.44-1.el7.x86_64 6/6
Installing  : mysql-community-server-5.7.44-1.el7.x86_64 6/6
Running scriptlet: mysql-community-server-5.7.44-1.el7.x86_64 6/6
/usr/lib/tmpfiles.d/mysql.conf:23: Line references path below legacy directory /var/run/, updating /var/run/mysqld -> /run/mysqld; please update the tmpfiles.d/ drop-in file accordingly.

Verifying  : libcrypt-compat-4.4.33-7.amzn2023.x86_64 1/6
Verifying  : ncurses-compat-libs-6.2-4.20200222.amzn2023.0.6.x86_64 2/6
Verifying  : mysql-community-client-5.7.44-1.el7.x86_64 3/6
Verifying  : mysql-community-common-5.7.44-1.el7.x86_64 4/6
Verifying  : mysql-community-libs-5.7.44-1.el7.x86_64 5/6
Verifying  : mysql-community-server-5.7.44-1.el7.x86_64 6/6

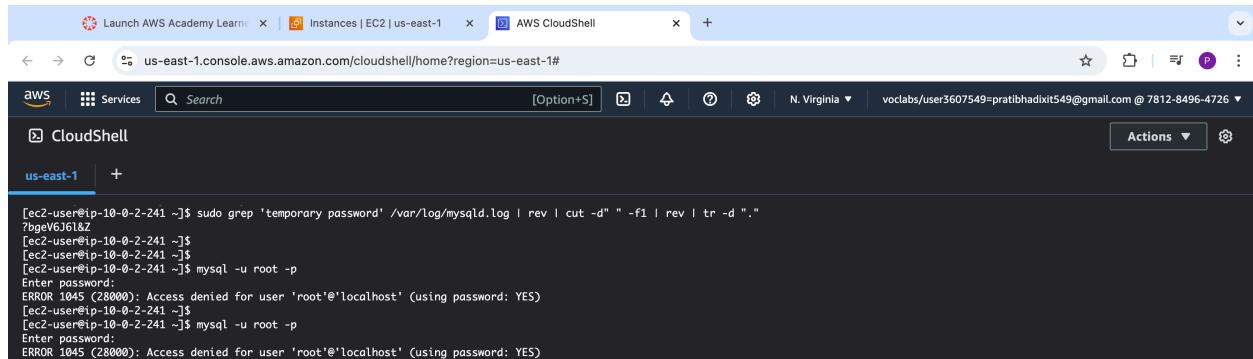
Installed:
  libcrypt-compat-4.4.33-7.amzn2023.x86_64  mysql-community-client-5.7.44-1.el7.x86_64  mysql-community-common-5.7.44-1.el7.x86_64  mysql-community-libs-5.7.44-1.el7.x86_64
  mysql-community-server-5.7.44-1.el7.x86_64  ncurses-compat-libs-6.2-4.20200222.amzn2023.0.6.x86_64

Complete!
[ec2-user@ip-10-0-2-241 ~]$ [ec2-user@ip-10-0-2-241 ~]$ 
```

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<Insert screenshot a(2) here>

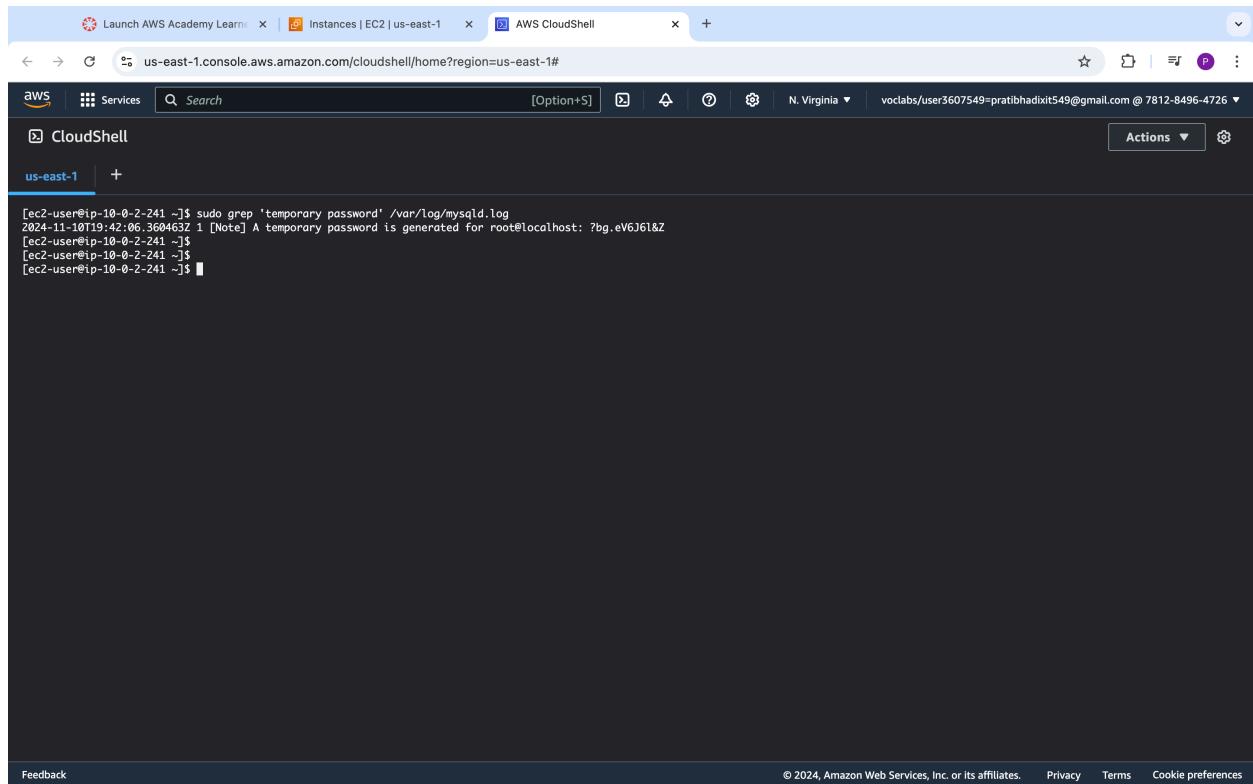
Command Executed :: `sudo grep 'temporary password' /var/log/mysqld.log | rev | cut -d" " -f1 | rev | tr -d "."` → receiving Error in password as dot was getting removed from temporary password hence used below command to get desired results



A screenshot of the AWS CloudShell interface. The title bar shows 'Launch AWS Academy Learn', 'Instances | EC2 | us-east-1', and 'AWS CloudShell'. The main area is a terminal window titled 'CloudShell' with the identifier 'us-east-1'. The terminal output shows a user attempting to log in to MySQL as root:

```
[ec2-user@ip-10-0-2-241 ~]$ sudo grep 'temporary password' /var/log/mysqld.log | rev | cut -d" " -f1 | rev | tr -d "."
?bg.eV6J6l&Z
[ec2-user@ip-10-0-2-241 ~]$
[ec2-user@ip-10-0-2-241 ~]$
[ec2-user@ip-10-0-2-241 ~]$ mysql -u root -p
Enter password:
ERROR 1045 (28000): Access denied for user 'root'@'localhost' (Using password: YES)
[ec2-user@ip-10-0-2-241 ~]$
[ec2-user@ip-10-0-2-241 ~]$ mysql -u root -p
Enter password:
ERROR 1045 (28000): Access denied for user 'root'@'localhost' (Using password: YES)
```

Command Executed :: `sudo grep 'temporary password' /var/log/mysqld.log` → for successful required result



A screenshot of the AWS CloudShell interface. The title bar shows 'Launch AWS Academy Learn', 'Instances | EC2 | us-east-1', and 'AWS CloudShell'. The main area is a terminal window titled 'CloudShell' with the identifier 'us-east-1'. The terminal output shows a user successfully logging in to MySQL as root:

```
[ec2-user@ip-10-0-2-241 ~]$ sudo grep 'temporary password' /var/log/mysqld.log
2024-11-10T19:42:06.369463Z 1 [Note] A temporary password is generated for root@localhost: ?bg.eV6J6l&Z
[ec2-user@ip-10-0-2-241 ~]$
[ec2-user@ip-10-0-2-241 ~]$
[ec2-user@ip-10-0-2-241 ~]$
```

The screenshot shows a terminal session in AWS CloudShell. The user has run a command to find the temporary MySQL root password from the log file. They then log in as root and run a query to show there is one row in the dual table. Finally, they exit the MySQL prompt.

```
[ec2-user@ip-10-0-2-241 ~]$ sudo grep 'temporary password' /var/log/mysqld.log
2024-11-10T19:42:06.360463Z 1 [Note] A temporary password is generated for root@localhost: ?bg.eV6J6l&Z
[ec2-user@ip-10-0-2-241 ~]$ [ec2-user@ip-10-0-2-241 ~]$ [ec2-user@ip-10-0-2-241 ~]$ mysql -u root -p
Enter password:
Welcome to the MySQL monitor. Commands end with ; or \g.
Your MySQL connection id is 7
Server version: 5.7.44

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affiliates. Other names may be trademarks of their respective
owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql>
mysql> ALTER USER 'root'@'localhost' IDENTIFIED BY 'Password42!';
Query OK, 0 rows affected (0.00 sec)

mysql> select count(*) from dual;
+-----+
| count(*) |
+-----+
|      1   |
+-----+
1 row in set (0.00 sec)

mysql> exit
Bye
[ec2-user@ip-10-0-2-241 ~]$ [ec2-user@ip-10-0-2-241 ~]$
```

<Insert screenshot a(3) here>

The screenshot shows a terminal session in AWS CloudShell where the user has used the wget command to download the MySQL installation script from a CloudFront URL. The download is shown in progress with a progress bar.

```
[ec2-user@ip-10-0-2-241 ~]$ wget https://d6opu47qoi4ee.cloudfront.net/install_mysql_linux.sh
--2024-11-10 20:08:26-- https://d6opu47qoi4ee.cloudfront.net/install_mysql_linux.sh
Resolving d6opu47qoi4ee.cloudfront.net (d6opu47qoi4ee.cloudfront.net)... 3.162.115.128, 3.162.115.161, 3.162.115.180, ...
Connecting to d6opu47qoi4ee.cloudfront.net (d6opu47qoi4ee.cloudfront.net)|3.162.115.128|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 189 [text/x-sh]
Saving to: 'install_mysql_linux.sh'

install_mysql_linux.sh          100%[=====]     189  --.-KB/s   in 0s

2024-11-10 20:08:27 (109 MB/s) - 'install_mysql_linux.sh' saved [189/189]
[ec2-user@ip-10-0-2-241 ~]$
```

The screenshot shows the AWS CloudShell interface. At the top, there are tabs for 'Launch AWS Academy Learn', 'Instances | EC2 | us-east-1', and 'AWS CloudShell'. The main area is titled 'CloudShell' and shows a terminal window for an EC2 instance named 'us-east-1'. The terminal output is as follows:

```
[ec2-user@ip-10-0-2-241 ~]$ chmod 777 install_mysql_linux.sh
[ec2-user@ip-10-0-2-241 ~]$ [ec2-user@ip-10-0-2-241 ~]$ sudo ./install_mysql_linux.sh
mysql: [Warning] Using a password on the command line interface can be insecure.
[ec2-user@ip-10-0-2-241 ~]$ [ec2-user@ip-10-0-2-241 ~]$ ls
install_mysql_linux.sh mysql57-community-release-el7-9.noarch.rpm mysql57-community-release-el7-9.noarch.rpm.1
[ec2-user@ip-10-0-2-241 ~]$ [ec2-user@ip-10-0-2-241 ~]$
```

At the bottom of the CloudShell window, there are links for 'Feedback', '© 2024, Amazon Web Services, Inc. or its affiliates.', 'Privacy', 'Terms', and 'Cookie preferences'.

Step number	b
Step name	Installation and configuration of Mattermost
Instructions	<p>1) Enter the following commands after logging into the application server via SSH to install and configure Mattermost</p> <pre>wget https://d6opu47qoi4ee.cloudfront.net/install_mattermost_linux.sh</pre>

```
sudo yum install dos2unix -y
sudo dos2unix install_mattermost_linux.sh

chmod 700 install_mattermost_linux.sh
sudo ./install_mattermost_linux.sh <private IP of MySQL server>
Example : sudo ./install_mattermost_linux 173.65.34.7
sudo chown -R mattermost:mattermost /opt/mattermost
sudo chmod -R g+w /opt/mattermost
cd /opt/mattermost
sudo -u mattermost ./bin/mattermost
```

2) Check whether the server has been successfully deployed by navigating to the following URL in your web browser. The web page might take a couple of minutes to load.
<public IP of the application server>:8065

Expected screenshots	<ol style="list-style-type: none">1) Executing the script2) Starting the Mattermost server3) Accessing the application via web browser
----------------------	--

<Insert screenshot b(1) here>

Launch AWS Academy Learn Instances | EC2 | us-east-1 AWS CloudShell

us-east-1.console.aws.amazon.com/cloudshell/home?region=us-east-1#

CloudShell Actions

us-east-1 +

```
[ec2-user@ip-10-0-1-233 ~]$ wget https://d6opu47qo14ee.cloudfront.net/install_mattermost_linux.sh
--2024-11-10 20:12:43-- https://d6opu47qo14ee.cloudfront.net/install_mattermost_linux.sh
Resolving d6opu47qo14ee.cloudfront.net (d6opu47qo14ee.cloudfront.net)... 3.162.115.180, 3.162.115.193, 3.162.115.128, ...
Connecting to d6opu47qo14ee.cloudfront.net (d6opu47qo14ee.cloudfront.net)|3.162.115.180|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 592 [text/x-sh]
Saving to: 'install_mattermost_linux.sh'

install_mattermost_linux.sh          100%[=====]      592 --.-KB/s   in 0s

2024-11-10 20:12:44 (16.8 MB/s) - 'install_mattermost_linux.sh' saved [592/592]

[ec2-user@ip-10-0-1-233 ~]$
```

Launch AWS Academy Learn Instances | EC2 | us-east-1 AWS CloudShell

us-east-1.console.aws.amazon.com/cloudshell/home?region=us-east-1#

CloudShell Actions

us-east-1 +

```
install_mattermost_linux.sh          100%[=====]      592 --.-KB/s   in 0s

2024-11-10 20:12:44 (16.8 MB/s) - 'install_mattermost_linux.sh' saved [592/592]

[ec2-user@ip-10-0-1-233 ~]$ sudo yum install dos2unix -y
Last metadata expiration check: 1:26:51 ago on Sun Nov 10 18:46:29 2024.
Dependencies resolved.

Transaction Summary
=====
Install 1 Package

Total download size: 236 k
Installed size: 692 k
Downloading Packages:
dos2unix-7.4.2-2.amzn2023.0.2.x86_64.rpm                                         3.0 MB/s | 236 kB   00:00
Total
Running transaction check
Transaction check succeeded.
Running transaction test
Transaction test succeeded.
Running transaction
  Preparing :                                                 1/1
  Installing : dos2unix-7.4.2-2.amzn2023.0.2.x86_64                               1/1
  Running scriptlet: dos2unix-7.4.2-2.amzn2023.0.2.x86_64                         1/1
  Verifying  : dos2unix-7.4.2-2.amzn2023.0.2.x86_64                               1/1

Installed:
  dos2unix-7.4.2-2.amzn2023.0.2.x86_64

Complete!
[ec2-user@ip-10-0-1-233 ~]$
```

The screenshot shows the AWS CloudShell interface. The terminal window is titled 'us-east-1' and contains the following command history:

```
[ec2-user@ip-10-0-1-233 ~]$ sudo dos2unix install_mattermost_linux.sh
dos2unix: converting file install_mattermost_linux.sh to Unix format...
[ec2-user@ip-10-0-1-233 ~]$
[ec2-user@ip-10-0-1-233 ~]$ ls -al
total 20
drwx----- 3 ec2-user ec2-user 139 Nov 10 20:13 .
drwxr-xn-x 3 root root 22 Nov 10 18:46 ..
-rw-r--r-- 1 ec2-user ec2-user 18 Jan 28 2023 .bash_logout
-rw-r--r-- 1 ec2-user ec2-user 141 Jan 28 2023 .bash_profile
-rw-r--r-- 1 ec2-user ec2-user 492 Jan 28 2023 .bashrc
drwx----- 2 ec2-user ec2-user 71 Nov 10 20:11 .ssh
-rw-r--r-- 1 ec2-user ec2-user 1678 Nov 10 19:31 Project 1 Key-Pair.pem'
-rw-r--r-- 1 ec2-user ec2-user 592 Nov 10 20:13 install_mattermost_linux.sh
[ec2-user@ip-10-0-1-233 ~]$ chmod 700 install_mattermost_linux.sh
[ec2-user@ip-10-0-1-233 ~]$
[ec2-user@ip-10-0-1-233 ~]$ ls -al
total 20
drwx----- 3 ec2-user ec2-user 139 Nov 10 20:13 .
drwxr-xn-x 3 root root 22 Nov 10 18:46 ..
-rw-r--r-- 1 ec2-user ec2-user 18 Jan 28 2023 .bash_logout
-rw-r--r-- 1 ec2-user ec2-user 141 Jan 28 2023 .bash_profile
-rw-r--r-- 1 ec2-user ec2-user 492 Jan 28 2023 .bashrc
drwx----- 2 ec2-user ec2-user 71 Nov 10 20:11 .ssh
-rw-r--r-- 1 ec2-user ec2-user 1678 Nov 10 19:31 Project 1 Key-Pair.pem'
-rw-r--r-- 1 ec2-user ec2-user 592 Nov 10 20:13 install_mattermost_linux.sh
[ec2-user@ip-10-0-1-233 ~]$
[ec2-user@ip-10-0-1-233 ~]$
```

The screenshot shows the AWS CloudShell interface. The terminal window is titled 'us-east-1' and contains the following command history:

```
mattermost/config/config.json
mattermost/ENTERPRISE-EDITION-LICENSE.txt
mattermost/NOTICE.txt
mattermost/Fonts/
mattermost/Fonts/OFL.txt
mattermost/Fonts/nunito-bold.ttf
mattermost/i18n/
mattermost/i18n/ko.json
mattermost/i18n/zh-CN.json
mattermost/i18n/uk.json
mattermost/i18n/en.json
mattermost/i18n/fr.json
mattermost/i18n/pl.json
mattermost/i18n/ru.json
mattermost/i18n/ja.json
mattermost/i18n/zh-TW.json
mattermost/i18n/it.json
mattermost/i18n/tr.json
mattermost/i18n/nl.json
mattermost/i18n/pt-BR.json
mattermost/i18n/es.json
mattermost/logs/
mattermost/prepackaged_plugins/
mattermost/prepackaged_plugins/mattermost-plugin-antivirus-v0.1.1.tar.gz
mattermost/prepackaged_plugins/mattermost-plugin-nps-v1.0.3.tar.gz
mattermost/prepackaged_plugins/mattermost-plugin-autolink-v1.1.1.tar.gz
mattermost/prepackaged_plugins/mattermost-plugin-aws-SNS-v1.0.2.tar.gz
mattermost/prepackaged_plugins/mattermost-plugin-github-v0.11.0.tar.gz
mattermost/prepackaged_plugins/mattermost-plugin-welcomebot-v1.1.1.tar.gz
mattermost/prepackaged_plugins/mattermost-plugin-jenkins-v1.0.0.tar.gz
mattermost/prepackaged_plugins/mattermost-plugin-jira-v2.2.2.tar.gz
mattermost/prepackaged_plugins/mattermost-plugin-gitlab-v1.0.1.tar.gz
mattermost/prepackaged_plugins/mattermost-plugin-custom-attributes-v1.0.2.tar.gz
mattermost/prepackaged_plugins/mattermost-plugin-zoom-v1.1.2.tar.gz
Extracted Mattermost
Created user
[ec2-user@ip-10-0-1-233 ~]$
```

<Insert screenshot b(2) here>

Launch AWS Academy Learner | Instances | EC2 | us-east-1 | AWS CloudShell

us-east-1.console.aws.amazon.com/cloudshell/home?region=us-east-1#

CloudShell

Actions

```
[ec2-user@ip-10-0-1-233 ~]$ ls -al
total 151696
drwx----- 3 ec2-user ec2-user 188 Nov 10 20:39 .
drwxr-xr-x  3 root   root  22 Nov 18:46 ..
-rw-r--r--  1 ec2-user ec2-user 18 Jan 28 2023 .bash_logout
-rw-r--r--  1 ec2-user ec2-user 141 Jan 28 2023 .bash_profile
-rw-r--r--  1 ec2-user ec2-user 492 Jan 28 2023 .bashrc
drwxr-x 2 ec2-user ec2-user 71 Nov 10 20:11 .ssh
-r----- 1 ec2-user ec2-user 1678 Nov 10 19:31 .project 1 Key-Pair.pem'
-rwxr--r-- 1 ec2-user ec2-user 592 Nov 10 20:24 install_mattermost_linux.sh
-rw-r--r-- 1 root   root  155314485 Jan 16 2020 mattermost-5.19.0-linux-amd64.tar.gz

[ec2-user@ip-10-0-1-233 ~]$ ls
[ec2-user@ip-10-0-1-233 ~]$ [ec2-user@ip-10-0-1-233 ~]$ sudo chown -R mattermost:mattermost /opt/mattermost
[ec2-user@ip-10-0-1-233 ~]$ [ec2-user@ip-10-0-1-233 ~]$ chmod -R g+w /opt/mattermost
[ec2-user@ip-10-0-1-233 ~]$ [ec2-user@ip-10-0-1-233 ~]$ cd /opt/mattermost
[ec2-user@ip-10-0-1-233 mattermost]$ [ec2-user@ip-10-0-1-233 mattermost]$ sudo -u mattermost ./bin/mattermost
{"level": "info", "ts": "1731271277.4650764", "caller": "utils/i18n.go:83", "msg": "Loaded system translations", "for_locale": "en", "from_locale": "/opt/mattermost/i18n/en.json"}
{"level": "info", "ts": "1731271277.46541", "caller": "app/server/app_adapters.go:58", "msg": "Server is initializing..."}
{"level": "info", "ts": "1731271278.4749854", "caller": "sqlstore/supplier.go:212", "msg": "Pinging SQL", "database": "master"}
{"level": "info", "ts": "1731271278.1754048", "caller": "sqlstore/upgrade.go:10", "msg": "The database schema version has been set", "version": "5.19.0"}
{"level": "error", "ts": "1731271280.1300874", "caller": "app/server/app_adapters.go:125", "msg": "SiteURL must be set. Some features will operate incorrectly if the SiteURL is not set. See documentation for details: http://about.mattermost.com/default-site-url"}
{"level": "info", "ts": "1731271280.1328824", "caller": "app/license.go:39", "msg": "License key from https://mattermost.com required to unlock enterprise features."}
{"level": "info", "ts": "1731271280.1339343", "caller": "app/migrations.go:26", "msg": "Migrating roles to database."}
{"level": "info", "ts": "1731271280.1985555", "caller": "sqlstore/post_store.go:1351", "msg": "Post.Message has size restrictions", "max_characters": 16383, "max_bytes": 65535}
{"level": "info", "ts": "1731271280.2039201", "caller": "app/migrations.go:102", "msg": "Migrating emojis config to database."}
{"level": "info", "ts": "1731271280.5405831", "caller": "mlog/log.go:166", "msg": "Starting up plugins"}
{"level": "info", "ts": "1731271280.5409646", "caller": "app/plugin.go:213", "msg": "Syncing plugins from the file store"}
```

Feedback

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Launch AWS Academy Learner | Instances | EC2 | us-east-1 | AWS CloudShell

us-east-1.console.aws.amazon.com/cloudshell/home?region=us-east-1#

CloudShell

Actions

```
[ec2-user@ip-10-0-1-233 ~]$ [ec2-user@ip-10-0-1-233 ~]$ cd /opt/mattermost
[ec2-user@ip-10-0-1-233 mattermost]$ [ec2-user@ip-10-0-1-233 mattermost]$ sudo -u mattermost ./bin/mattermost
{"level": "info", "ts": "1731271277.4650764", "caller": "utils/i18n.go:83", "msg": "Loaded system translations", "for_locale": "en", "from_locale": "/opt/mattermost/i18n/en.json"}
{"level": "info", "ts": "1731271277.46541", "caller": "app/server/app_adapters.go:58", "msg": "Server is initializing..."}
{"level": "info", "ts": "1731271278.1754048", "caller": "sqlstore/supplier.go:212", "msg": "Pinging SQL", "database": "master"}
{"level": "info", "ts": "1731271280.1300874", "caller": "app/server/app_adapters.go:125", "msg": "SiteURL must be set. Some features will operate incorrectly if the SiteURL is not set. See documentation for details: http://about.mattermost.com/default-site-url"}
{"level": "info", "ts": "1731271280.1328824", "caller": "app/license.go:39", "msg": "License key from https://mattermost.com required to unlock enterprise features."}
{"level": "info", "ts": "1731271280.1339343", "caller": "app/migrations.go:26", "msg": "Migrating roles to database."}
{"level": "info", "ts": "1731271280.1985555", "caller": "sqlstore/post_store.go:1351", "msg": "Post.Message has size restrictions", "max_characters": 16383, "max_bytes": 65535}
{"level": "info", "ts": "1731271280.2039201", "caller": "app/migrations.go:102", "msg": "Migrating emojis config to database."}
{"level": "info", "ts": "1731271280.5405831", "caller": "mlog/log.go:166", "msg": "Starting up plugins"}
{"level": "info", "ts": "1731271280.5409646", "caller": "app/plugin.go:213", "msg": "Syncing plugins from the file store"}
{"level": "info", "ts": "1731271283.718778", "caller": "mlog/sugar.go:19", "msg": "Ensuring Surveybot exists", "plugin_id": "com.mattermost.nps"}
{"level": "info", "ts": "1731271283.2007484", "caller": "mlog/sugar.go:19", "msg": "Surveybot created", "plugin_id": "com.mattermost.nps"}
{"level": "info", "ts": "1731271283.2099483", "caller": "mlog/sugar.go:19", "msg": "Updated detected. Checking if a survey should be scheduled.", "plugin_id": "com.mattermost.nps"}
{"level": "info", "ts": "1731271283.4075294", "caller": "mlog/sugar.go:19", "msg": "Scheduling next survey for Dec 1, 2024", "plugin_id": "com.mattermost.nps"}
{"level": "info", "ts": "1731271283.752797", "caller": "app/server.go:217", "msg": "Current version is 5.19.0 (5.19.0 Thu Jan 16 18:30:33 UTC 2020/90cf883f0400d6fdb025308ad14d56e6ed53f05/1268390c0cde16f7500b6f6e2534082586d5959)"}
{"level": "info", "ts": "1731271283.7529764", "caller": "app/server.go:218", "msg": "Enterprise Enabled: true"}
{"level": "info", "ts": "1731271283.7531304", "caller": "app/server.go:221", "msg": "Printing current working", "directory": "/opt/mattermost"}
{"level": "info", "ts": "1731271283.753543", "caller": "app/server.go:222", "msg": "Loaded config", "source": "file:///opt/mattermost/config/config.json"}
{"level": "error", "ts": "1731271283.781247", "caller": "mlog/log.go:174", "msg": "RPC call OnConfigurationChange to plugin failed.", "plugin_id": "com.mattermost.nps", "error": "connection is shut down"}
{"level": "error", "ts": "1731271283.839694", "caller": "mlog/log.go:174", "msg": "RPC call OnConfigurationChange to plugin failed.", "plugin_id": "com.mattermost.nps", "error": "connection is shut down"}
{"level": "info", "ts": "1731271283.8434956", "caller": "mlog/log.go:68", "msg": "Starting workers"}
{"level": "info", "ts": "1731271283.852382", "caller": "app/web_hub.go:75", "msg": "Starting websocket hubs", "number_of_hubs": 2}
{"level": "info", "ts": "1731271283.8654742", "caller": "jobs/schedulers.go:74", "msg": "Starting schedulers."}
{"level": "info", "ts": "1731271283.86512", "caller": "app/server.go:440", "msg": "Starting Server..."}
{"level": "info", "ts": "1731271283.8656824", "caller": "app/server.go:506", "msg": "Server is listening on [::]:8065"}
{"level": "error", "ts": "1731271313.7564573", "caller": "plugin/health_check.go:90", "msg": "Health check failed for plugin", "id": "com.mattermost.nps", "error": "Plugin RPC connection is not responding"}
{"level": "warn", "ts": "1731271313.7565403", "caller": "plugin/hlog_adapter.go:51", "msg": "Error closing client during Kill", "plugin_id": "com.mattermost.nps", "wrapped_extras": "errconnection is shut down"}
{"level": "warn", "ts": "1731271313.7565657", "caller": "plugin/hlog_adapter.go:53", "msg": "Plugin failed to exit gracefully", "plugin_id": "com.mattermost.nps"}
{"level": "info", "ts": "1731271313.7744617", "caller": "mlog/sugar.go:19", "msg": "Ensuring Surveybot exists", "plugin_id": "com.mattermost.nps"}
{"level": "info", "ts": "1731271350.2870781", "caller": "migrations/worker.go:109", "msg": "Worker: Job is complete", "worker": "Migrations", "job_id": "e1Wheg7187na7mqzhh7grx853r"}
```

Feedback

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<Insert screenshot b(3) here>

Launch AWS Academy Learn | Instances | EC2 | us-east-1 | AWS CloudShell | Mattermost

Not Secure 54.221.177.5:8065/signup_email

Back

Mattermost

All team communication in one place, searchable and accessible anywhere

Let's create your account

Already have an account? [Click here to sign in.](#)

What's your email address?

Valid email required for sign-up

Choose your username

You can use lowercase letters, numbers, periods, dashes, and underscores.

Choose your password

Create Account

By proceeding to create your account and use Mattermost, you agree to our [Terms of Service](#) and [Privacy Policy](#). If you do not agree, you cannot use Mattermost.

Launch AWS Academy Learn | Instances | EC2 | us-east-1 | AWS CloudShell | Mattermost

Not Secure 54.221.177.5:8065/signup_email

Back

Mattermost

All team communication in one place, searchable and accessible anywhere

Let's create your account

Already have an account? [Click here to sign in.](#)

What's your email address?

Valid email required for sign-up

Choose your username

You can use lowercase letters, numbers, periods, dashes, and underscores.

Choose your password

Create Account

By proceeding to create your account and use Mattermost, you agree to our [Terms of Service](#) and [Privacy Policy](#). If you do not agree, you cannot use Mattermost.

Launch AWS Academy Learn Instances | EC2 | us-east-1 AWS CloudShell System Console - Mattermost

Not Secure 54.221.177.5:8065/admin_console/about/license

Preview Mode: Email notifications have not been configured

System Console @pratibha_dixit

Find settings

ABOUT

Edition and License

REPORTING

Site Statistics

Team Statistics

Server Logs

USER MANAGEMENT

Users

ENVIRONMENT

Web Server

Database

File Storage

Image Proxy

SMTP

Push Notification Server

Rate Limiting

Logging

Session Lengths

Developer

SITE CONFIGURATION

Edition and License

Edition: Mattermost Enterprise Edition. A license is required to unlock enterprise features. Start a trial subscription at <https://mattermost.com/trial/>

License: This software is offered under a commercial license. See ENTERPRISE-EDITION-LICENSE.txt in your root install directory for details. See NOTICE.txt for information about open source software used in this system.

License Key:

Choose File Upload

No file uploaded

Upload a license key for Mattermost Enterprise Edition to upgrade this server. [Visit us online](#) to learn more about the benefits of Enterprise Edition or to purchase a key.