

**Question 3**

**Time:30 minutes**

**Marks: 25**

**Create an IAM group called 'EC2-Admins' with 'AmazonEC2FullAccess' and 'AutoScalingFullAccess' policies, then add an IAM user called as 'EC2Admin1'.**

The name of the IAM group should be 'EC2-Admins'.

**(8 Marks)**

The name of the IAM user should be 'EC2Admin1'.

**(7 Marks)**

The 'AmazonEC2FullAccess' policy should be attached.

**(5 Marks)**

The 'AutoScalingFullAccess' policy should be attached.

**(5 Marks)**

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aws Services Search [Alt+S]

S3 VPC IAM EC2

Identity and Access Management (IAM)

Search IAM

Dashboard

Access management User groups

Users Roles Policies Identity providers Account settings

Access reports Access analyzer Archive rules Analyzers

CloudShell Feedback Language

Docker-II IT (1).txt ec2usecase2.ppk

User group name Enter a meaningful name to identify this group. EC2-Admins Maximum 128 characters. Use alphanumeric and '+', '=', '@', '-' characters.

Add users to the group - **Optional** (0) An IAM user is an entity that you create in AWS to represent the person or application that uses it to interact with AWS. A user can belong to up to 10 groups.

User name Groups Last activity Creation time

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Identity and Access Management (IAM)

Search IAM

Dashboard

Access management User groups

Users Roles Policies Identity providers Account settings

Access reports Access analyzer Archive rules Analyzers

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No resources to display

Attach permissions policies - **Optional** (Selected 1/843) You can attach up to 10 policies to this user group. All the users in this group will have permissions that are defined in the selected policies.

Filter policies by property or policy name and press enter. 1 match

\*AmazonEC2FullAccess\* Clear filters

Policy name Type Description

AmazonEC2FullAccess AWS managed Provides full access to Al

Create group Cancel

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S3 VPC IAM EC2

No resources to display

### Identity and Access Management (IAM)

Search IAM

Dashboard

Access management User groups

- Users
- Roles
- Policies
- Identity providers
- Account settings

Access reports

- Access analyzer
- Archive rules
- Analyzers

CloudShell Feedback Language

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Attach permissions policies - **Optional** (Selected 2/843) Info You can attach up to 10 policies to this user group. All the users in this group will have permissions that are defined in the selected policies.

Filter policies by property or policy name and press enter. 7 matches < 1 >  AutoScaling X Clear filters

Policy name	Type	Description
AutoScalingNotificationAccessRole	AWS managed	Default policy for the Auto Scaling group.
AmazonElasticMapReduceForAutoScalingRole	AWS managed	Amazon Elastic MapReduce for Auto Scaling role.
<input checked="" type="checkbox"/> AutoScalingFullAccess	AWS managed	Provides full access to Auto Scaling.
AutoScalingReadOnlyAccess	AWS managed	Provides read-only access to Auto Scaling.
AutoScalingConsoleFullAccess	AWS managed	Provides full access to the Auto Scaling console.
AutoScalingConsoleReadOnlyAccess	AWS managed	Provides read-only access to the Auto Scaling console.

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EC2-Admins user group created. View group

IAM > User groups

User groups (Selected 1/1) Info A user group is a collection of IAM users. Use groups to specify permissions for a collection of users.

Filter User groups by property or group name and press enter

Group name	Users	Permissions	Creation time
<input checked="" type="checkbox"/> EC2-Admins	Loading	Defined	Now

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The screenshot shows the AWS IAM (Identity and Access Management) console. A green success banner at the top states "User created successfully" with the message "You can view and download the user's password and email instructions for signing in to the AWS Management Console." Below the banner, the "Users" section is displayed, showing one user named "EC2Admin1". The user details table includes columns for User name, Groups, Last activity, MFA, Password age, and Active key age. The "EC2Admin1" row is highlighted. On the left sidebar, under "Access management", the "Users" option is selected. The bottom of the screen shows a Windows taskbar with icons for CloudShell, Feedback, Language, and various application icons like File Explorer, Edge, and Spotify.

## Question 2

**Marks: 25**

**Create an EC2 Instance in the given AWS account with the following requirements.**

Give the Name tag of both server & keypair as "ec2usecase1"(Name).

**(8 Marks)**

Select the AMI from the Windows OS Platform.

**(7 Marks)**

Ensure that Auto-Assigned Public-IP must be enabled.

**(5 Marks)**

Expose Port No.3389 for taking the remote desktop connection.

**(5 Marks)**

**Name and tags** Info

Name  Add additional tags

**Application and OS Images (Amazon Machine Image)** Info

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

**Summary**

Number of instances Info

Software Image (AMI)  
Amazon Linux 2023 AMI 2023.0.2... read more  
ami-0889a4ab331db0194

Virtual server type (instance type)  
t2.micro

Firewall (security group)  
New security group

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

Cancel **Launch instance** Review commands

**Application and OS Images (Amazon Machine Image)** Info

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.

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Recents Quick Start

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Including AMIs from AWS, Marketplace and the Community

Amazon Machine Image (AMI)

Microsoft Windows Server 2022 Base Free tier eligible  
ami-0bde1eb2c18cb2abe (64-bit (x86))  
Virtualization: hvm ENA enabled: true Root device type: ebs

**Summary**

Number of instances Info

Software Image (AMI)  
Microsoft Windows Server 2022 ... read more  
ami-0bde1eb2c18cb2abe

Virtual server type (instance type)  
t2.micro

Firewall (security group)  
New security group

Storage (volumes)  
1 volume(s) - 30 GiB

Cancel **Launch instance** Review commands

**Auto-assign public IP** [Info](#)

Enable

**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

We'll create a new security group called **'launch-wizard-5'** with the following rules:

- Allow RDP traffic from [Anywhere](#) [0.0.0.0/0](#)
- Allow HTTPS traffic from the internet [To set up an endpoint, for example when creating a web server](#)
- Allow HTTP traffic from the internet [To set up an endpoint, for example when creating a web server](#)

**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.**

**Configure storage** [Info](#) [Advanced](#)

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**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**

ec2usecase1 [Create new key pair](#)

For Windows instances, you use a key pair to decrypt the administrator password. You then use the decrypted password to connect to your instance.

**Network settings** [Info](#) [Edit](#)

Network [Info](#) vpc-040368c581d2508dd

Subnet [Info](#) No preference (Default subnet in any availability zone)

Auto-assign public IP [Info](#) **Enable**

**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.

**Summary**

Number of instances [Info](#) 1

Software Image (AMI) Microsoft Windows Server 2022 ...[read more](#) ami-0bde1eb2c18cd2abe

Virtual server type (instance type) t2.micro

Firewall (security group) New security group

Storage (volumes) 1 volume(s) - 30 GiB

**Launch instance** [Review commands](#)

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**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**

ec2usecase1 [Create new key pair](#)

For Windows instances, you use a key pair to decrypt the administrator password. You then use the decrypted password to connect to your instance.

**Network settings** [Info](#) [Edit](#)

Network [Info](#) vpc-040368c581d2508dd

Subnet [Info](#) No preference (Default subnet in any availability zone)

Auto-assign public IP [Info](#) **Enable**

**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.

**Summary**

Number of instances [Info](#) 1

Software Image (AMI) Microsoft Windows Server 2022 ...[read more](#) ami-0bde1eb2c18cd2abe

Virtual server type (instance type) t2.micro

Firewall (security group) New security group

Storage (volumes) 1 volume(s) - 30 GiB

**Launch instance** [Review commands](#)

---

**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**

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For Windows instances, you use a key pair to decrypt the administrator password. You then use the decrypted password to connect to your instance.

**Network settings** [Info](#) [Edit](#)

Network [Info](#) vpc-040368c581d2508dd

Subnet [Info](#) No preference (Default subnet in any availability zone)

Auto-assign public IP [Info](#) **Enable**

**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.

**Summary**

Number of instances [Info](#) 1

Software Image (AMI) Microsoft Windows Server 2022 ...[read more](#) ami-0bde1eb2c18cd2abe

Virtual server type (instance type) t2.micro

Firewall (security group) New security group

Storage (volumes) 1 volume(s) - 30 GiB

**Launch instance** [Review commands](#)

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S3 VPC IAM EC2

You'll receive an email with your instance's IP address and temporary password to connect to your instance.

**Network settings** [Info](#) [Edit](#)

Network [Info](#)  
vpc-040568c581d2508dd

Subnet [Info](#)  
No preference (Default subnet in any availability zone)

Auto-assign public IP [Info](#)  
Enable

**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

We'll create a new security group called 'launch-wizard-5' with the following rules:

Allow RDP traffic from Anywhere 0.0.0.0/0

Allow HTTPS traffic from the internet

**Summary**

Number of instances [Info](#)  
1

Software Image (AMI)  
Microsoft Windows Server 2022 ...[read more](#)  
ami-0bde1eb2c18cb2abe

Virtual server type (instance type)  
t2.micro

Firewall (security group)  
New security group

Storage (volumes)  
1 volume(s) - 30 GiB

[Cancel](#) [Launch instance](#) [Review commands](#)

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S3 VPC IAM EC2

EC2 Instances Launch an instance

**Success**  
Successfully initiated launch of instance (i-0fd38acf25dc04d9)

[Launch log](#)

**Next Steps**

What would you like to do next with this instance, for example "create alarm" or "create backup"

1 2 3 4 5 6 >

Create billing and free tier usage alerts  
To manage costs and avoid surprise bills, set up email notifications for billing and free tier usage thresholds.

Connect to your instance  
Once your instance is running, log into it from your local computer.  
[Connect to instance](#)

Connect an RDS database  
Configure the connection between an EC2 instance and a database to allow traffic flow between them.  
[Connect an RDS database](#)

Create EBS snapshot policy  
Create a policy that automates the creation, retention, and deletion of EBS snapshots.  
[Create EBS snapshot policy](#)

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The screenshot shows the AWS EC2 Instances page. On the left, there's a sidebar with links like EC2 Dashboard, EC2 Global View, Events, Limits, Instances (with sub-links for Instances, Instance Types, Launch Templates, Spot Requests, Savings Plans, Reserved Instances, Dedicated Hosts, Scheduled Instances, Capacity Reservations), and Images. The main area displays a table of instances:

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IPv4 DNS
devops	i-00984752e42f8ba9	Running	t2.micro	2/2 checks passed	No alarms	us-east-1c	ec2-23-21-17-60
myweb	i-0fe1639ae017eff3f	Running	t2.micro	2/2 checks passed	No alarms	us-east-1c	ec2-3-208-13-89
ec2usecase1	i-0fd38acf25dcb04d9	Running	t2.micro	Initializing	No alarms	us-east-1c	ec2-54-90-110-1

Below the table, a modal window titled "Select an instance" is open. At the top of the modal is a search bar with the placeholder "Find instance by attribute or tag (case-sensitive)". Below the search bar is a table with columns: Name, Instance ID, Instance state, Instance type, Status check, Alarm status, Availability Zone, and Public IPv4 DNS. The modal has a close button at the top right.

1.

### Question 1

#### 2023\_SKCET\_Cloud\_CIA1

**Time:30 minutes**

**Marks: 20**

**Create an EC2 instance with the following requirements.**

Give the Name tag of both server & keypair as "ec2usecase2"(Name).

**(Marks 5)**

Select the AMI from the Amazon Linux OS Platform.

**(Marks 5)**

Increase the root EBS volume size to 10 GB from the default size.

**(Marks 5)**

Expose Port No.22 for taking putty remote connection.

**(Marks 5)**

Activate Windows

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aws Services Search [Alt+S]

N. Virginia Dhivya M

EC2 Instances Launch an instance

### Launch an instance

Amazon EC2 allows you to create virtual machines, or instances, that run on the AWS Cloud. Quickly get started by following the simple steps below.

**Name and tags**

Name: ec2usecase2 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

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aws Services Search [Alt+S]

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EC2 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

Recents Quick Start

Amazon Linux macOS Ubuntu Windows Red Hat S

Browse more AMIs Including AMIs from AWS, Marketplace and the Community

Amazon Machine Image (AMI)

Amazon Linux 2023 AMI Free tier eligible

ami-0889a44b531db0194 (64-bit (x86)) / ami-08fc6fb8ad2e794bb (64-bit (Arm)) Virtualization: hvm ENA enabled: true Root device type: ebs

Description

Amazon Linux 2023 AMI 2023.0.20230503.0 x86\_64 HVM kernel-6.1

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Docker-II IT (1).txt ec2usecase2.ppk

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**Instance type**  
t2.micro  
Family: t2 1 vCPU 1 GiB Memory Current generation: true  
On-Demand Windows pricing: 0.0162 USD per Hour  
On-Demand SUSE pricing: 0.0116 USD per Hour  
On-Demand RHEL pricing: 0.0716 USD per Hour  
On-Demand Linux pricing: 0.0116 USD per Hour

**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  
ec2usecase2 [Create new key pair](#)

**Network settings** [Info](#)  
Edit

Network [Info](#)  
vpc-040368c581d2508dd

**Summary**

Number of instances [Info](#)  
1

Software Image (AMI)  
Amazon Linux 2023 AMI 2023.0.2...[read more](#)  
ami-0889a44b331db0194

Virtual server type (instance type)  
t2.micro

Firewall (security group)  
New security group

Storage (volumes)  
1 volume(s) - 10 GiB

Cancel [Launch instance](#) Review commands

**Subnet** [Info](#)  
No preference (Default subnet in any availability zone)

Auto-assign public IP [Info](#)  
Enable

**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

We'll create a new security group called 'launch-wizard-6' with the following rules:

Allow SSH traffic from Anywhere  
Helps you connect to your instance 0.0.0.0/0

Allow HTTPS traffic from the internet  
To set up an endpoint, for example when creating a web server

Allow HTTP traffic from the internet  
To set up an endpoint, for example when creating a web server

**Summary**

Number of instances [Info](#)  
1

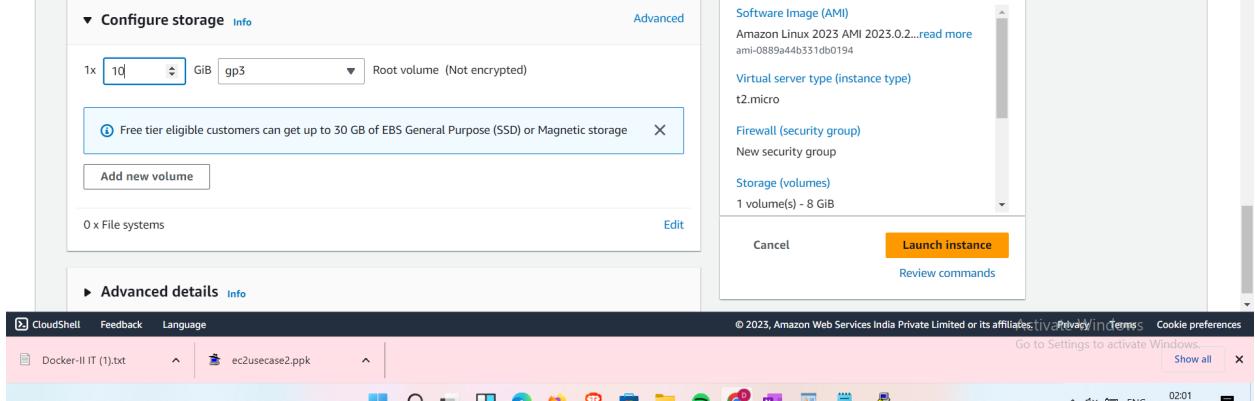
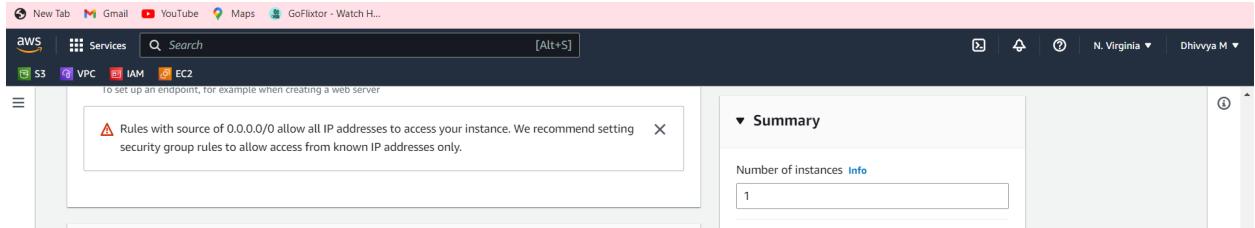
Software Image (AMI)  
Amazon Linux 2023 AMI 2023.0.2...[read more](#)  
ami-0889a44b331db0194

Virtual server type (instance type)  
t2.micro

Firewall (security group)  
New security group

Storage (volumes)  
1 volume(s) - 10 GiB

Cancel [Launch instance](#) Review commands



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The screenshot shows the 'Instances (1/4)' page in the AWS EC2 console. It lists four instances: 'devops', 'myweb', 'ec2usecase1', and 'ec2usecase2'. The 'ec2usecase2' instance is selected and shown in detail below. The instance summary table includes columns for Instance ID, Public IPv4 address (54.92.207.211), Private IPv4 addresses (172.31.91.156), and Public IPv4 DNS (ec2-54-92-207-211.compute-1.amazonaws.com).

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IPv4 DNS
devops	i-00984752e42f8fb9	Running	t2.micro	2/2 checks passed	No alarms	us-east-1c	ec2-23-21-17-60
myweb	i-0fe1639ae017eff3f	Running	t2.micro	2/2 checks passed	No alarms	us-east-1c	ec2-3-208-13-89
ec2usecase1	i-0fd38acf25dc04d9	Running	t2.micro	2/2 checks passed	No alarms	us-east-1c	ec2-54-90-110-1
<b>ec2usecase2</b>	<b>i-0aa20992d90ceb80b</b>	<b>Running</b>	<b>t2.micro</b>	<b>Initializing</b>	<b>No alarms</b>	<b>us-east-1b</b>	<b>ec2-54-92-207-2</b>

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