

MDM Practical Examination (Cloud Computing)

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Batch :- CCF2

Prn No. :- 202301040213

Question no. :- 19 Autoscaling Groups using Console

Launching Template

The screenshot shows the AWS EC2 Launch templates interface. At the top, there's a green success message: "Successfully created MyTemplate(lt-09e7c1692652fb1db)". Below this, under "Next Steps", there are several options: "Launch an instance", "Create an Auto Scaling group from your template", and "Create Spot Fleet". Each option has a brief description and a link to further details. The bottom of the page shows the standard AWS navigation bar with links like CloudShell, Feedback, and Console Mobile App, along with system status icons.

Creating Autoscaling

The screenshot shows the AWS EC2 Auto Scaling group creation wizard at Step 2: Choose instance launch options. The left sidebar lists steps from Step 2 to Step 7. The main panel shows a 'Name' field with 'FinalASG' entered, a note about launch templates (disabled for accounts created after May 31, 2023), and a 'Launch template' dropdown set to 'MyTemplate'. A 'Version' dropdown shows 'Default (1)'. Below these are 'Description' and 'Launch template' sections.

Name
Auto Scaling group name
Enter a name to identify the group.
FinalASG
Must be unique to this account in the current Region and no more than 255 characters.

Launch template Info
Choose a launch template that contains the instance-level settings, such as the Amazon Machine Image (AMI), instance type, key pair, and security groups.
MyTemplate
Create a launch template LAUNCH

Version
Default (1)
Create a launch template version LAUNCH

Description
-

Launch template
MyTemplate LAUNCH
lt-09e7c1692652fb1db

Instance type
-

The screenshot shows the AWS EC2 Auto Scaling group creation wizard at Step 3: Configure group size and scaling. It includes sections for 'Min Size', 'Max Size', 'Desired Capacity', and 'Step Scaling' (disabled). A note says 'Scaling policies are required for step scaling'.

Min Size
1

Max Size
2

Desired Capacity
1

Step Scaling Scaling policies are required for step scaling.

The screenshot shows the AWS EC2 Auto Scaling group creation wizard at Step 4: Add notifications. It has a note about notifications being optional and a 'Create a notification' button.

Notifications Optional
Create a notification NOTIFICATION

The screenshot shows the AWS EC2 Auto Scaling group creation wizard at Step 5: Add tags. It has a note about tags being optional and a 'Create a tag' button.

Tags Optional
Create a tag TAG

The screenshot shows the AWS EC2 Auto Scaling group creation wizard at Step 6: Review. It displays the summary of the configuration and provides 'Skip to review', 'Previous', and 'Next' buttons.

Review
FinalASG
MyTemplate
Default (1)
19C Sunny
10:06 AM 28-11-2025

Next

Screenshot of the AWS EC2 Auto Scaling Groups "Create Auto Scaling group" wizard Step 2: Choose instance launch options.

Step 2: Choose instance launch options

Required instance attributes
Enter your compute requirements in virtual CPUs (vCPUs) and memory.

vCPUs
Enter the minimum and maximum number of vCPUs per instance.
 minimum maximum
 No minimum Maximum vCPUs is required and must be greater than 0.
 No maximum

Memory (GiB)
Enter the minimum and maximum GiBs of memory per instance.
 minimum maximum
 No minimum Maximum memory is required and must be greater than 0.
 No maximum

Additional instance attributes - optional
Add instance attributes to further limit which instance types may be used to fulfill your desired capacity.

Preview matching instance types (10)
This list includes all the instance types that match your compute requirements. Amazon EC2 may provision from any of these instance types. The exact instance types that are used to fulfill your desired capacity depend on the allocation strategy you choose and available capacity.

Instance purchase options Info

Choose instance launch options Info
Choose the VPC network environment that your instances are launched into, and customize the instance types and purchase options.

Instance type requirements Info
You can keep the same instance attributes or instance type from your launch template, or you can choose to override the launch template by specifying different instance attributes or manually adding instance types.

Specify instance attributes
Provide your compute requirements. We fulfill your desired capacity with matching instance types based on your allocation strategy selection.

Manually add instance types
Add one or more instance types. Any of the instance types may be launched to fulfill your desired capacity based on your allocation strategy selection.

Required instance attributes
Enter your compute requirements in virtual CPUs (vCPUs) and memory.

vCPUs
Enter the minimum and maximum number of vCPUs per instance.
 minimum maximum
 No minimum Maximum vCPUs is required and must be greater than 0.
 No maximum

Memory (GiB)
Enter the minimum and maximum GiBs of memory per instance.
 minimum maximum
 No minimum Maximum memory is required and must be greater than 0.
 No maximum

Additional instance attributes - optional

The screenshot shows the 'Create Auto Scaling group' wizard, Step 6: Application Recovery Controller (ARC) Zonal shift. It includes sections for 'Health checks' (with 'EC2 health checks' set to 'Always enabled'), 'Additional health check types - optional' (with 'Turn on Elastic Load Balancing health checks' selected), 'Health check grace period' (set to 30 seconds), and 'Next' and 'Skip to review' buttons.

Here while creating AutoScaling Considering the desired Capacity as '1'

The screenshot shows the 'Create Auto Scaling group' wizard, Step 6: Configure group size and scaling. It includes sections for 'Group size' (specifying 1 instance), 'Scaling' (describing manual or automatic resizing), 'Scaling limits' (setting min desired capacity to 1 and max desired capacity to 3), and 'Automatic scaling - optional' (choosing target tracking policy). The sidebar shows steps 2 through 7.

The screenshot shows the AWS Auto Scaling Groups page. At the top, there is a green banner with the text "FinalASG created successfully". Below the banner, the heading "Auto Scaling groups (0) Info" is displayed. A search bar labeled "Search your Auto Scaling groups" is present. The main table has columns for Name, Launch template/configuration, Instances, Status, Desired capacity, Min, Max, and Availability Zones. The table body is currently empty. At the bottom left, it says "0 Auto Scaling groups selected". The browser's header includes the AWS logo, a search bar, and account information: Account ID: 2312-9927-1720, Preeti Koli, United States (Ohio). The status bar at the bottom right shows the date and time: 28-11-2025, 10:10 AM.

As soon as the autoscaling is launched ,instance is created with the key which we used while creating / launching the template.

The screenshot shows the AWS Instances page. On the left, a sidebar menu for EC2 is open, showing options like Dashboard, EC2 Global View, Events, Instances, Instance Types, Launch Templates, Spot Requests, Savings Plans, Reserved Instances, Dedicated Hosts, Capacity Reservations, Capacity Manager, Images, AMIs, AMI Catalog, and Elastic Block Store. The main content area shows a table titled "Instances (1/6) Info" with one row. The row details an instance named "i-04b260146b22b575b" with the following specifications: Instance ID: i-04b260146b22b575b, Instance state: Running, Instance type: c7a.medium, Status check: 2/2 checks passed, Alarm status: Initializing, Availability Zone: us-east-2c, and Public IPv4: ec2-18-217-108-133.us-east-2.compute.amazonaws.com. Below the table, a detailed view for the instance "i-04b260146b22b575b" is shown with tabs for Details, Status and alarms, Monitoring, Security, Networking, Storage, and Tags. Under the Details tab, the "Instance summary" section shows the Instance ID (i-04b260146b22b575b), Public IPv4 address (18.217.108.133), Private IPv4 address (172.31.39.146), and Public DNS (ec2-18-217-108-133.us-east-2.compute.amazonaws.com). The browser's header and status bar are visible at the top and bottom respectively.

To increase the stress, increasing the desired capacity to '2' also using the stress command.

The screenshot shows the AWS CloudWatch Metrics console for the 'FinalASG' Auto Scaling group. The 'Desired capacity' is currently set to 1. A modal window titled 'Group size' is open, allowing the user to change the desired capacity to 2. The 'Scaling limits' section shows the minimum desired capacity as 1 and the maximum as 3. The 'Details' tab is selected, showing the launch template 'lt-0e7c1692652fb1db' and version 'Default'. The 'Integrations' and 'Auto' tabs are also visible.

```

[ec2-user@ip-172-31-39-146:~] $ ssh -i "autokey.pem" ec2-user@18.217.108.133
ED25519 key fingerprint is SHA256:fDV40/LnPTtx0xLkx14alwJA4XYof72SJvorbsa9d18.
This key is not known by any other names.
[?] Are you sure you want to continue connecting (yes/no/[fingerprint])?

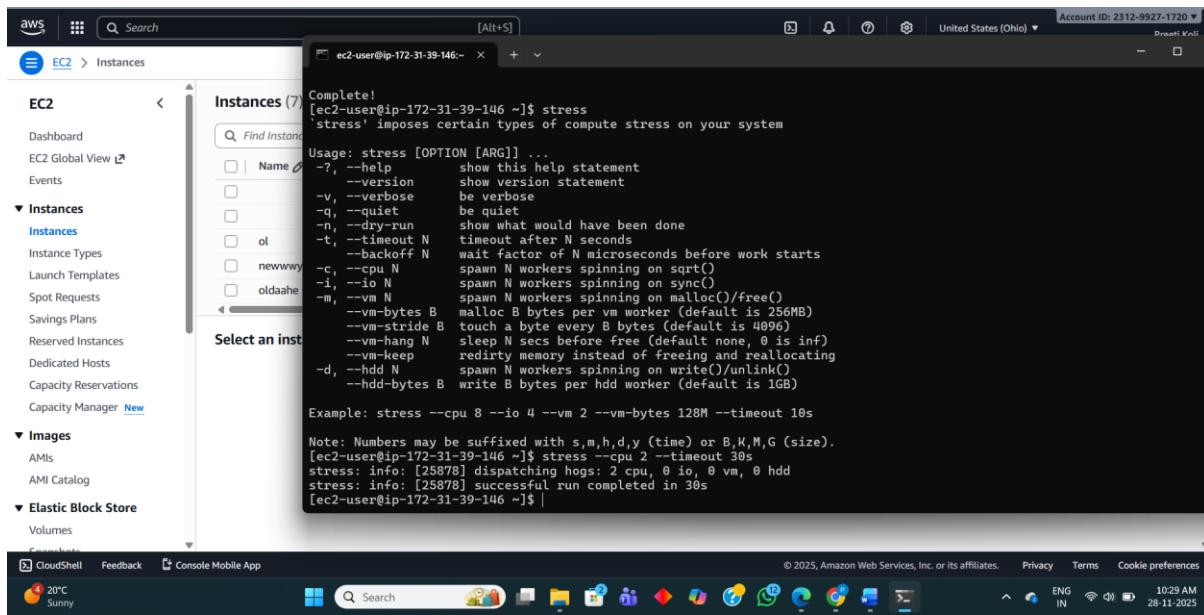
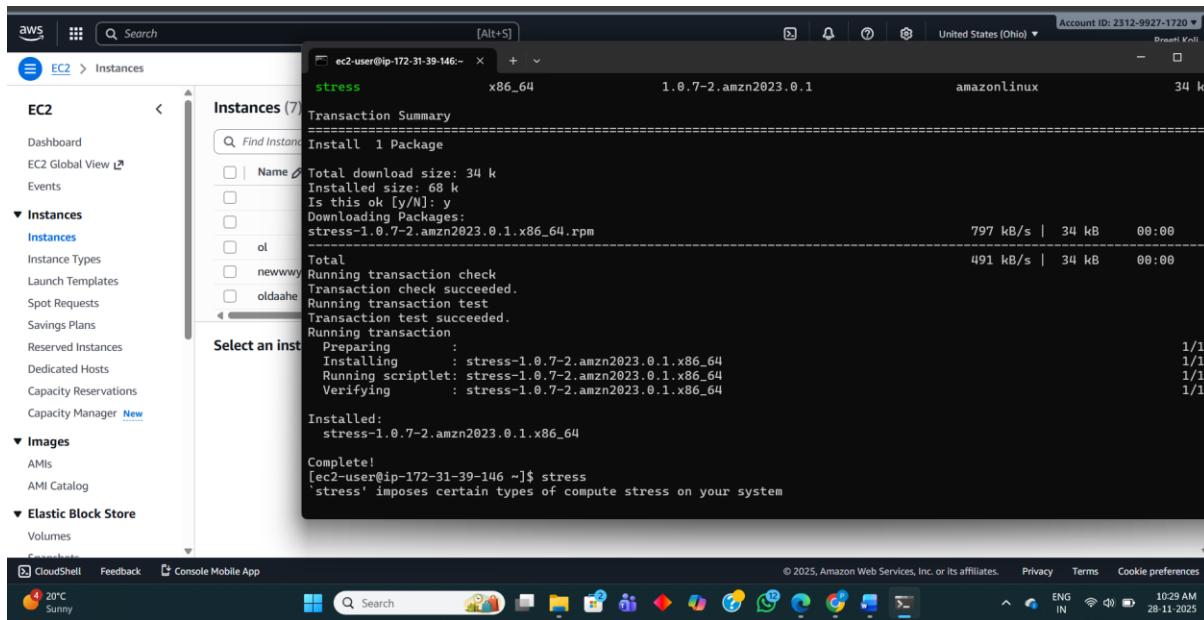
and
C:\Users\HP>cd Downloads

C:\Users\HP\Downloads>ssh -i "autokey.pem" ec2-user@18.217.108.133
The authenticity of host '18.217.108.133' can't be established.
ED25519 key fingerprint is SHA256:fDV40/LnPTtx0xLkx14alwJA4XYof72SJvorbsa9d18.
This key is not known by any other names.
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added '18.217.108.133' (ED25519) to the list of known hosts.

#_
~~ \_ #####_      Amazon Linux 2023
~~ \_ #####\_
~~ \###]
~~ #/ ___> https://aws.amazon.com/linux/amazon-linux-2023
~~ V~ ' >
~~ / /
~~ .-./ /
~~ / / -/
~~ /m/'

[ec2-user@ip-172-31-39-146 ~]$ stress
-bash: stress: command not found
[ec2-user@ip-172-31-39-146 ~]$ sudo dnf install stress
Last metadata expiration check: 0:04:36 ago on Fri Nov 28 04:41:08 2025.
Dependencies resolved.

=====
Package          Architecture      Version       Repository      Size
=====
```



After increasing the desired capacity one more new instance is created

The screenshot shows the AWS EC2 Instances page. The left sidebar is collapsed, and the main content area displays a table of 7 instances. The table has the following columns: Name, Instance ID, Instance state, Instance type, Status check, Alarm status, Availability Zone, and Public IPv4. The instances listed are:

| Name | Instance ID | Instance state | Instance type | Status check | Alarm status | Availability Zone | Public IPv4 |
|---------|---------------------|----------------|---------------|-------------------|-----------------------------|-------------------|-------------|
| | i-05337d88d36bbe086 | Running | t2.micro | 2/2 checks passed | View alarms | us-east-2b | ec2-18-189- |
| | i-09baec4240dcecd3 | Running | c7a.medium | Initializing | View alarms | us-east-2b | ec2-3-15-3- |
| ol | i-05ad008f9f536e53c | Terminated | t2.micro | - | View alarms | us-east-2a | - |
| newwwy | i-0f9136d144c2cc9ef | Terminated | t2.micro | - | View alarms | us-east-2a | - |
| oldaahe | i-076138d96fa1ef026 | Running | t2.micro | 2/2 checks passed | View alarms | us-east-2a | ec2-3-15-2- |

A dropdown menu titled "Select an instance" is open at the bottom of the table, listing the instance names: ol, newwwy, oldaahe.