

MDM Practical Examination (Cloud Computing)

Name :- Preeti .S. Koli

Batch :- CCF2

Prn No. :- 202301040213

Question no. :- 19 Autoscaling Groups using Console

Launching Template

Success
Successfully created MyTemplate(lt-09e7c1692652fb1db).

► Actions log

Next Steps

Launch an instance
With On-Demand Instances, you pay for compute capacity by the second (for Linux, with a minimum of 60 seconds) or by the hour (for all other operating systems) with no long-term commitments or upfront payments. Launch an On-Demand Instance from your launch template.
[Launch instance from this template](#)

Create an Auto Scaling group from your template
Amazon EC2 Auto Scaling helps you maintain application availability and allows you to scale your Amazon EC2 capacity up or down automatically according to conditions you define. You can use Auto Scaling to help ensure that you are running your desired number of Amazon EC2 instances during demand spikes to maintain performance and decrease capacity during lulls to reduce costs.
[Create Auto Scaling group](#)

Create Spot Fleet
A Spot Instance is an unused EC2 instance that is available for less than the On-Demand price. Because Spot Instances enable you to request unused EC2 instances at steep discounts, you can lower your Amazon EC2 costs significantly. The hourly price for a Spot Instance (of each instance type in each Availability Zone) is set by Amazon EC2, and adjusted gradually based on the long-term supply of and demand for Spot Instances. Spot instances are well-suited for data-analysis, batch jobs, background processing, and optional tasks.
[Create Spot Fleet](#)

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Creating Autoscaling

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United States (Ohio)

Account ID: 2312-9927-1720

Preeti Koli

EC2

Auto Scaling groups

Create Auto Scaling group

Step 2: Choose instance launch options

Step 3 - optional: Integrate with other services

Step 4 - optional: Configure group size and scaling

Step 5 - optional: Add notifications

Step 6 - optional: Add tags

Step 7: Review

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

For accounts created after May 31, 2023, the EC2 console only supports creating Auto Scaling groups with launch templates. Creating Auto Scaling groups with launch configurations is not recommended but still available via the CLI and API until December 31, 2023.

Launch template

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

Version

Default (1)

Create a launch template version

Description

Launch template

MyTemplate

lt-09e7c1692652fb1db

Instance type

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United States (Ohio)

Account ID: 2312-9927-1720

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EC2

Auto Scaling groups

Create Auto Scaling group

Network Info

For most applications, you can use multiple Availability Zones and let EC2 Auto Scaling balance your instances across the zones. The default VPC and default subnets are suitable for getting started quickly.

VPC

Choose the VPC that defines the virtual network for your Auto Scaling group.

vpc-00fd5481fc3f84664

172.31.0.0/16 Default

Create a VPC

Availability Zones and subnets

Define which Availability Zones and subnets your Auto Scaling group can use in the chosen VPC.

Select Availability Zones and subnets

Create a subnet

Availability Zone distribution - new

Auto Scaling automatically balances instances across Availability Zones. If launch failures occur in a zone, select a strategy.

☒ **Balanced best effort**

If launches fail in one Availability Zone, Auto Scaling will attempt to launch in another healthy Availability Zone.

☐ **Balanced only**

If launches fail in one Availability Zone, Auto Scaling will continue to attempt to launch in the unhealthy Availability Zone to preserve balanced distribution.

Cancel

Skip to review

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United States (Ohio)

Account ID: 2312-9927-1720

Preeti Koli

EC2

Auto Scaling groups

Create Auto Scaling group

Step 5 - optional

Add notifications

Step 6 - optional

Add tags

Step 7

Review

Instance types based on your allocation strategy selection.

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.

1 minimum 3 maximum

☐ No minimum

☐ No maximum

Memory (GiB)

Enter the minimum and maximum GiBs of memory per instance.

0 minimum 3 maximum

☐ No minimum

☐ No maximum

Additional instance attributes - optional

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

Choose attribute

Add attribute

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

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EC2

Auto Scaling groups

Create Auto Scaling group

Choose launch template

Step 2

Choose instance launch options

Step 3 - optional

Integrate with other services

Step 4 - optional

Configure group size and scaling

Step 5 - optional

Add notifications

Step 6 - optional

Add tags

Step 7

Review

Choose instance launch options

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

Instance type requirements

Reset to launch template

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.

0 minimum 3 maximum

☐ No minimum

☐ No maximum

Memory (GiB)

Enter the minimum and maximum GiBs of memory per instance.

0 minimum 2 maximum

☐ No minimum

☐ No maximum

Additional instance attributes - optional

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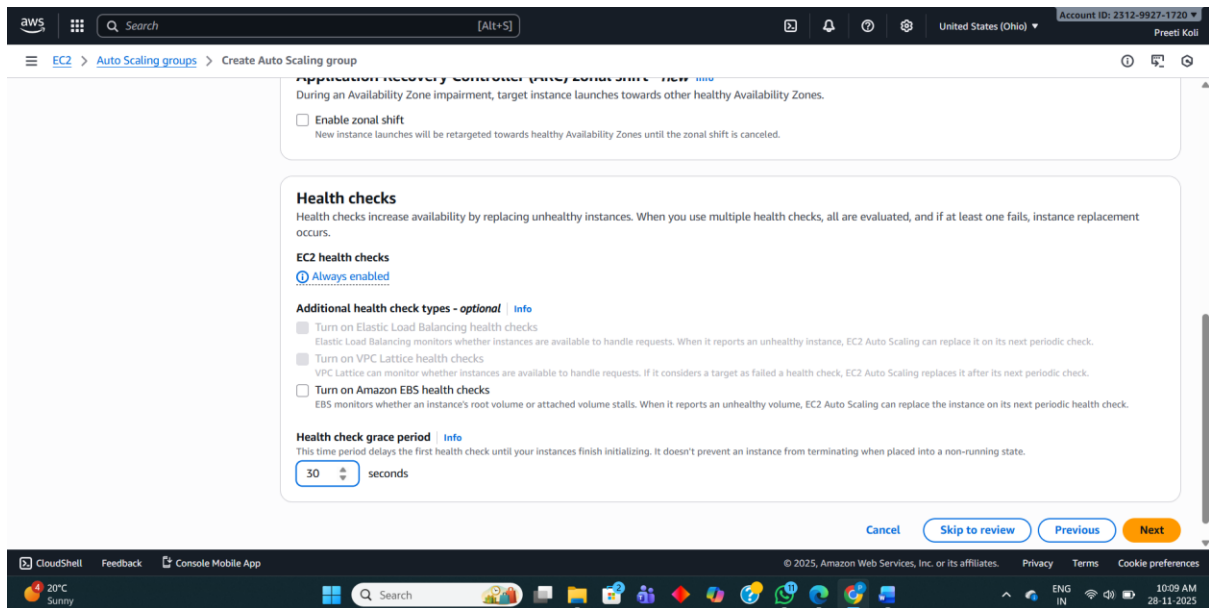
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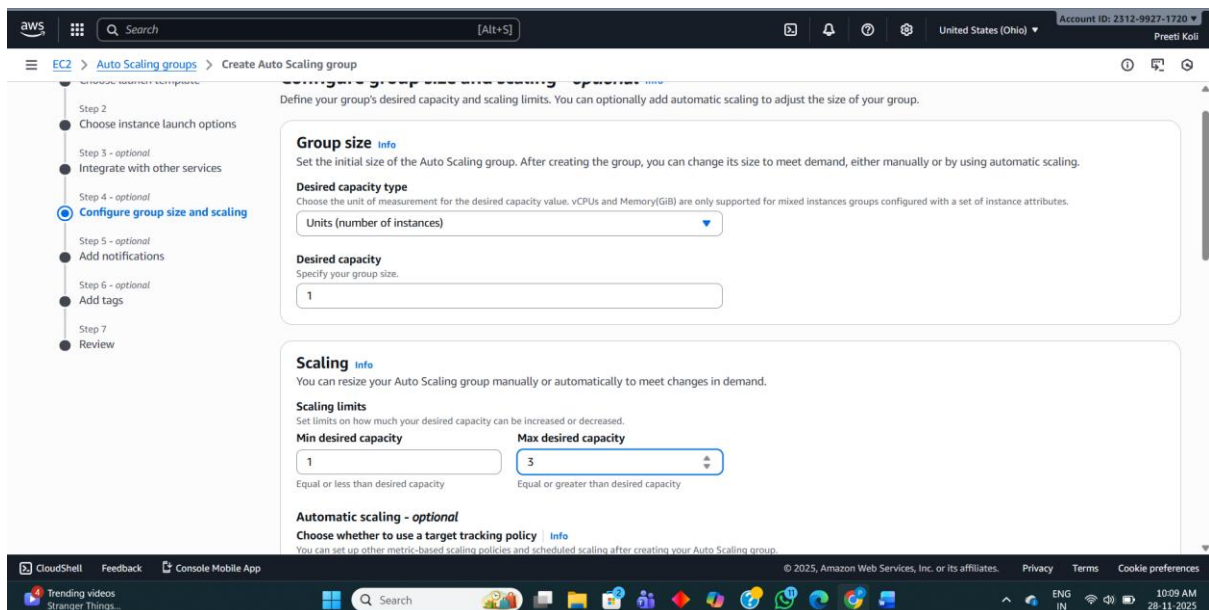
Search

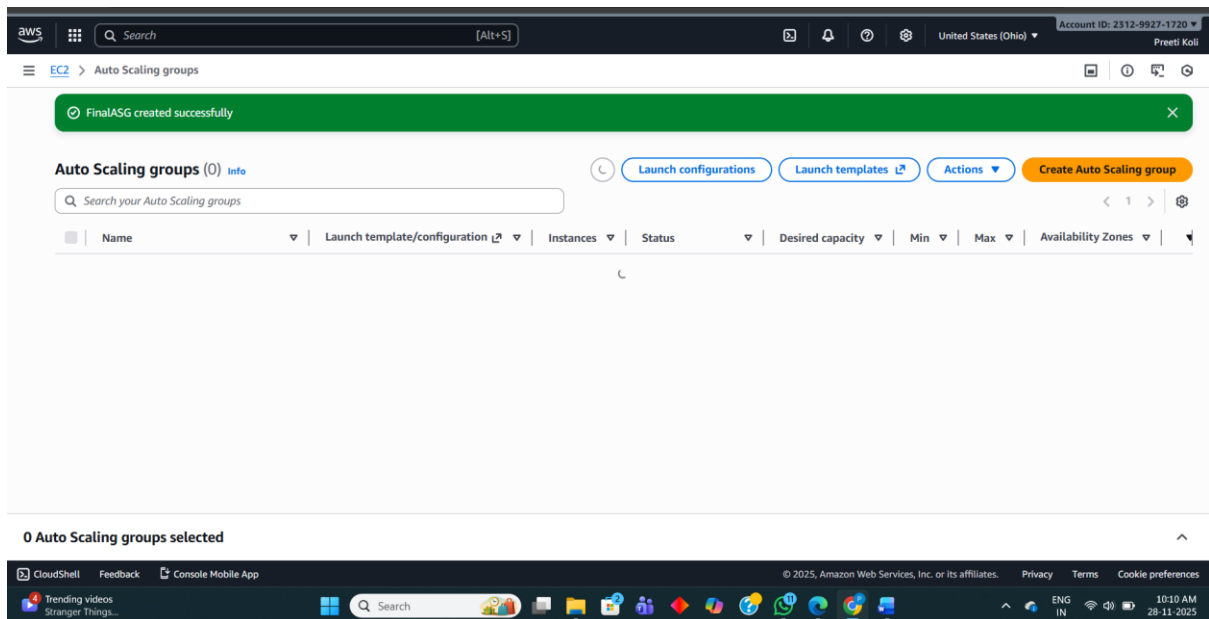
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28-11-2025

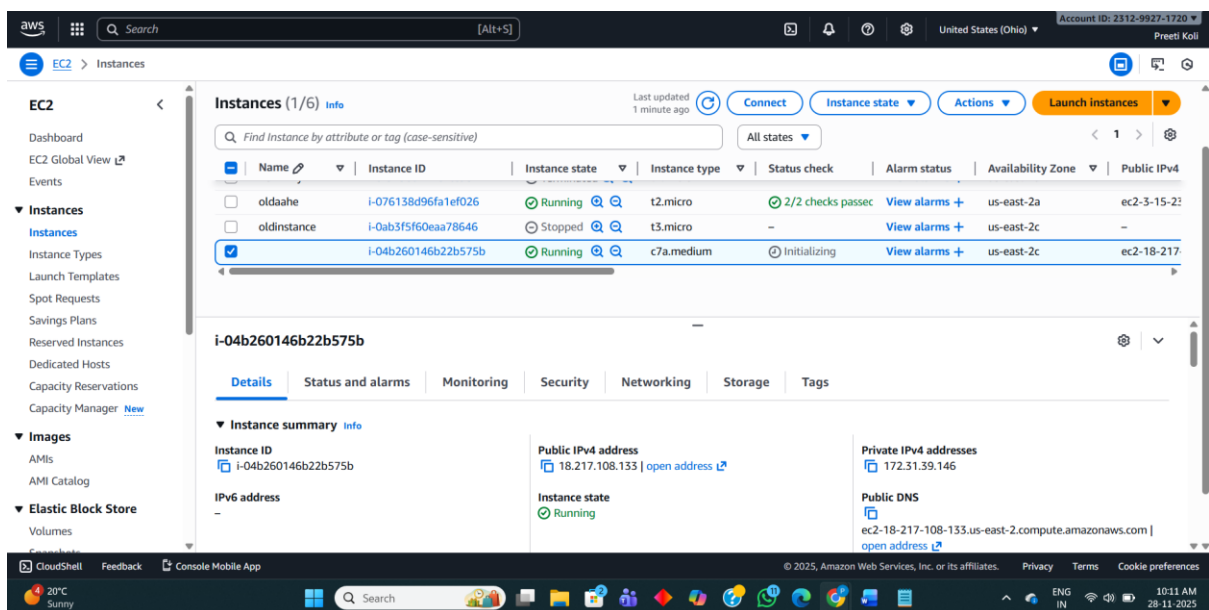


Here while creating AutoScaling Considering the desired Capacity as '1'

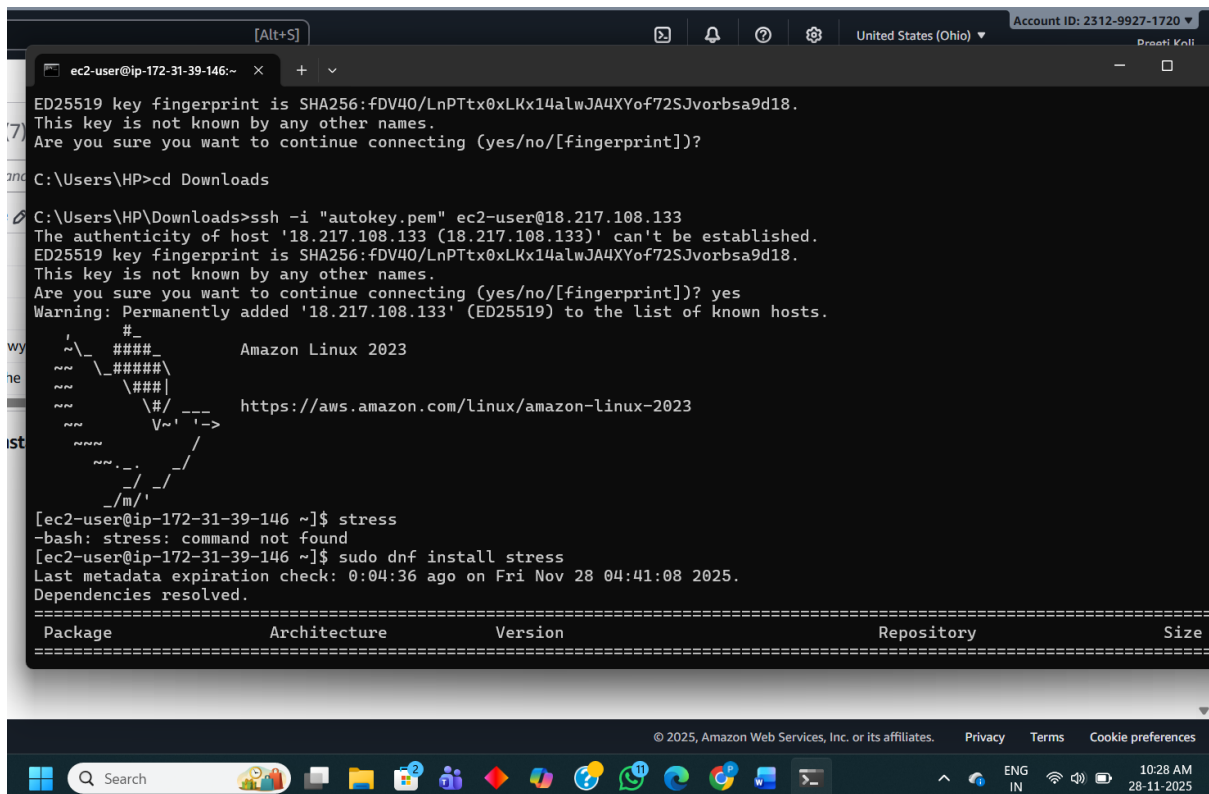
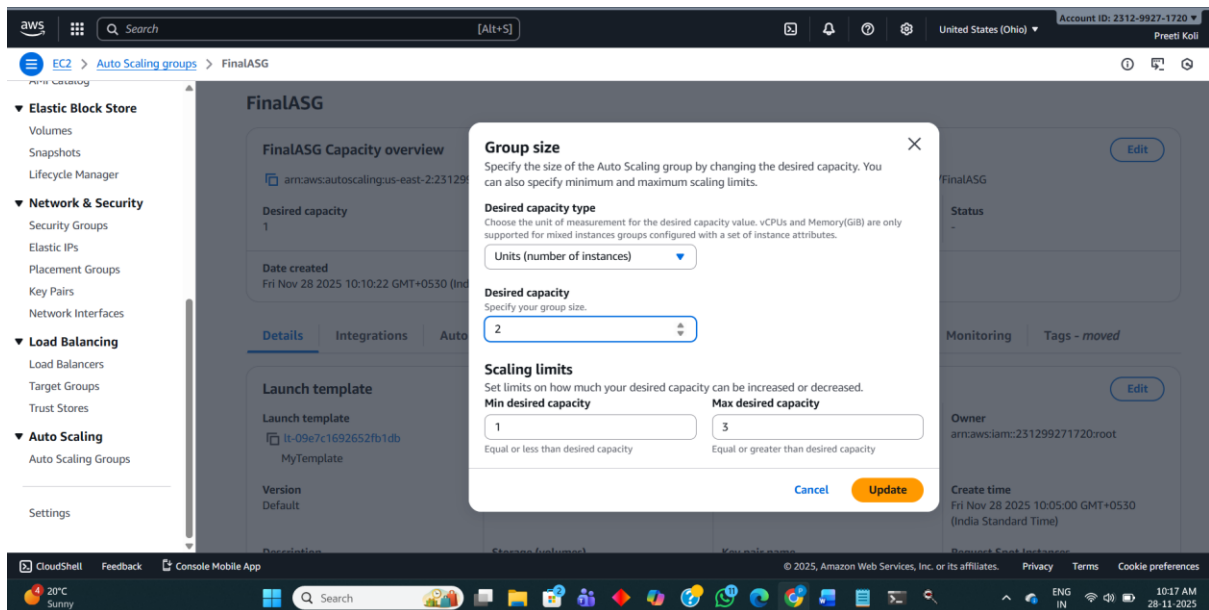




As soon as the autoscaling is launched ,instance is created with the key which we used while creating / launching the template.



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



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EC2 > Instances

EC2 Dashboard
EC2 Global View
Events

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Instances (7)
Find Instances

Select an instance

Terminal: ec2-user@ip-172-31-39-146 ~
stress x86_64 1.0.7-2.amzn2023.0.1 amazonlinux 34 k

```
Transaction Summary
-----
Install 1 Package
Total download size: 34 k
Installed size: 68 k
Is this ok [y/N]: y
Downloading Packages:
stress-1.0.7-2.amzn2023.0.1.x86_64.rpm 797 kB/s | 34 kB 00:00
-----
Total 491 kB/s | 34 kB 00:00
Running transaction check
Transaction check succeeded.
Running transaction test
Transaction test succeeded.
Running transaction
Preparing : stress-1.0.7-2.amzn2023.0.1.x86_64 1/1
Installing : stress-1.0.7-2.amzn2023.0.1.x86_64 1/1
Running scriptlet: stress-1.0.7-2.amzn2023.0.1.x86_64 1/1
Verifying : stress-1.0.7-2.amzn2023.0.1.x86_64 1/1
Installed:
stress-1.0.7-2.amzn2023.0.1.x86_64
Complete!
[ec2-user@ip-172-31-39-146 ~]$ stress
'stress' imposes certain types of compute stress on your system
```

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EC2 > Instances

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Instances (7)
Find Instances

Select an instance

Terminal: ec2-user@ip-172-31-39-146 ~
Complete!
[ec2-user@ip-172-31-39-146 ~]\$ stress
'stress' imposes certain types of compute stress on your system

```
Usage: stress [OPTION [ARG]] ...
-?, --help          show this help statement
--?, --version      show version statement
-v, --verbose       be verbose
-q, --quiet         be quiet
-n, --dry-run       show what would have been done
-t, --timeout N     timeout after N seconds
--backoff N         wait factor of N microseconds before work starts
-c, --cpu N         spawn N workers spinning on sqrt()
-i, --io N          spawn N workers spinning on sync()
-m, --vm N          spawn N workers spinning on malloc()/free()
--vm-bytes B        malloc B bytes per vm worker (default is 256MB)
--vm-stride B       touch a byte every B bytes (default is 4096)
--vm-hang N         sleep N secs before free (default none, 0 is inf)
--vm-keep           redirty memory instead of freeing and reallocating
-d, --hdd N         spawn N workers spinning on write()/unlink()
--hdd-bytes B       write B bytes per hdd worker (default is 1GB)
```

Example: stress --cpu 8 --io 4 --vm 2 --vm-bytes 128M --timeout 10s

Note: Numbers may be suffixed with s,m,h,d,y (time) or B,K,M,G (size).

```
[ec2-user@ip-172-31-39-146 ~]$ stress --cpu 2 --timeout 30s
stress: info: [25878] dispatching hogs: 2 cpu, 0 io, 0 vm, 0 hdd
stress: info: [25878] successful run completed in 30s
[ec2-user@ip-172-31-39-146 ~]$
```

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After increasing the desired capacity one more new instance is created

The screenshot shows the AWS Management Console for the EC2 service. The left sidebar contains navigation links for EC2, including Dashboard, EC2 Global View, Events, Instances, Instance Types, Launch Templates, Spot Requests, Savings Plans, Reserved Instances, Dedicated Hosts, Capacity Reservations, and Capacity Manager. The main content area displays the 'Instances (7)' page. At the top, there are buttons for 'Connect', 'Instance state', 'Actions', and 'Launch instances'. Below these is a search bar and a table of instances. The table has columns for 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	ec2-3-15-35
ol	i-05ad008f9f536e53c	Terminated	t2.micro	-	View alarms +	us-east-2a	-
newwwwy	i-0f9136d144c2cc9ef	Terminated	t2.micro	-	View alarms +	us-east-2a	-
oldahe	i-076138d96fa1ef026	Running	t2.micro	2/2 checks passed	View alarms +	us-east-2a	ec2-3-15-21

Below the table, there is a 'Select an instance' section. The bottom of the console shows the footer with copyright information and links for Privacy, Terms, and Cookie preferences. The Windows taskbar at the bottom indicates the system time is 10:20 AM on 28-11-2025.