

1. Launch Template (with user data)

The screenshot displays the AWS Management Console interface for a Launch Template named 'Temp1'. The left sidebar shows the navigation menu with 'Instances' and 'Images' expanded. The main content area shows the 'Launch template details' for 'Temp1' (ID: lt-069bcc7a0f97e26ca). Below this, the 'Launch template version details' for version 1 (Default) are shown, including the description 'For task7', date created '2025-10-30T07:35:23.000Z', and created by 'arn:aws:iam::42405675943:root'. The bottom section shows the 'Instance details' tab with fields for AMI ID, Instance type, Availability Zone, and Availability Zone Id.

Launch template details			
Launch template ID	Launch template name	Default version	Owner
lt-069bcc7a0f97e26ca	Temp1	1	arn:aws:iam::42405675943:root

Launch template version details			
Version	Description	Date created	Created by
1 (Default)	For task7	2025-10-30T07:35:23.000Z	arn:aws:iam::42405675943:root

Instance details			
AMI ID	Instance type	Availability Zone	Availability Zone Id

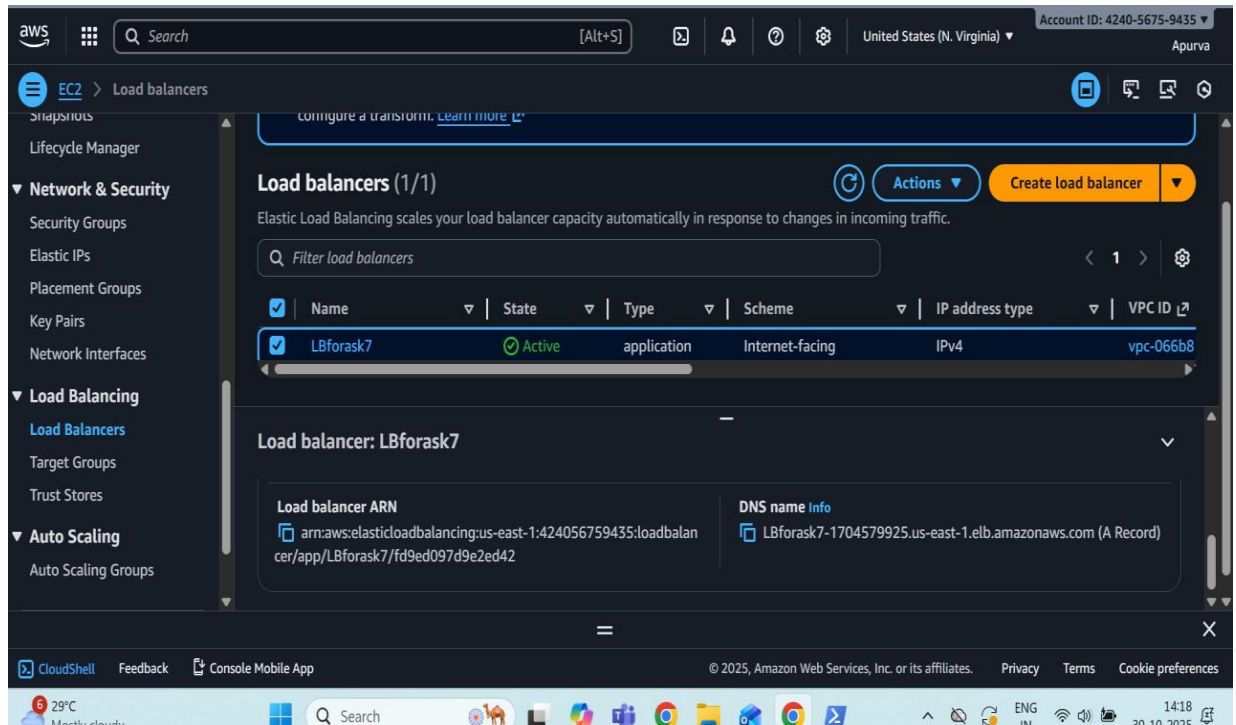
2. Target Group creation

The screenshot shows the 'Step 1: Target group details' screen for creating a new Target Group. The 'Target group details' section includes fields for Name ('TGfortask7'), Target type ('Instance'), Protocol : Port ('HTTP: 80'), Protocol version ('HTTP1'), VPC ('vpc-066b8176af26ca441'), and IP address type ('IPv4'). The 'Health check details' section includes fields for Health check protocol ('HTTP'), Health check path ('/'), Health check port ('traffic-port'), Interval ('30 seconds'), Timeout ('5 seconds'), Healthy threshold ('5'), Unhealthy threshold ('2'), and Success codes ('200').

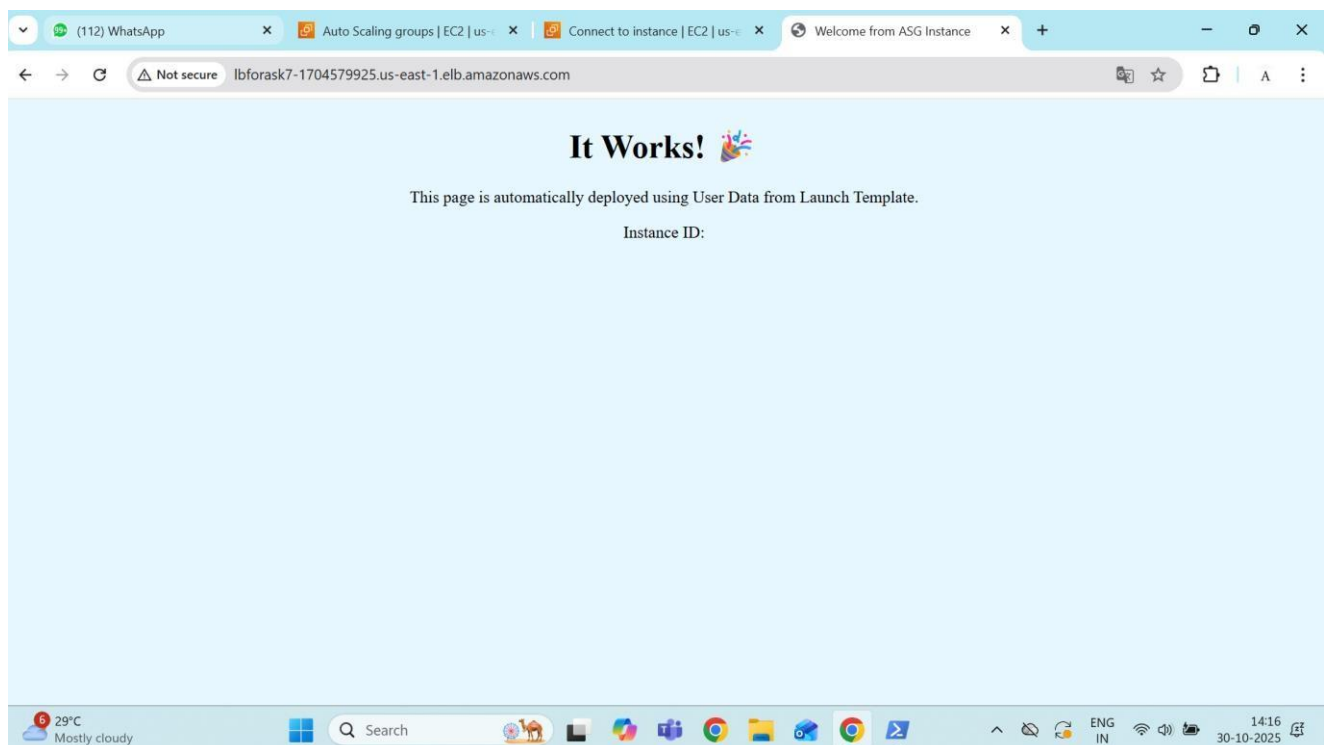
Target group details			
Name	Target type	Protocol : Port	Protocol version
TGfortask7	Instance	HTTP: 80	HTTP1
VPC	IP address type		
vpc-066b8176af26ca441	IPv4		

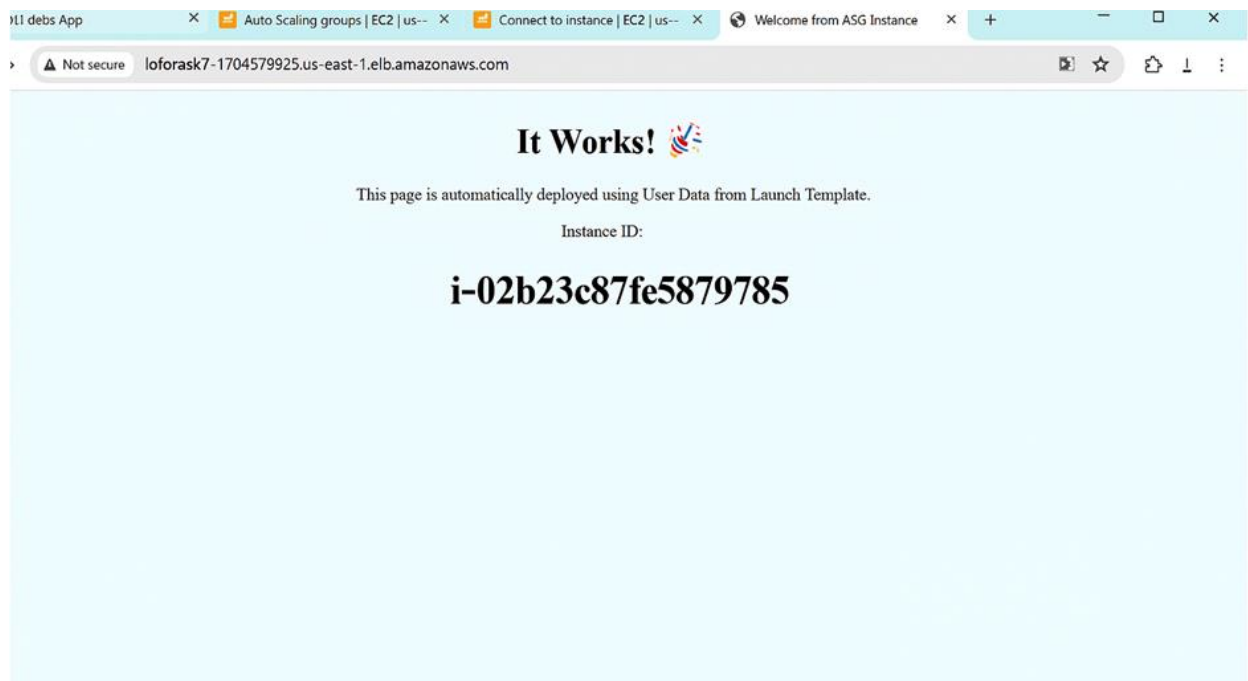
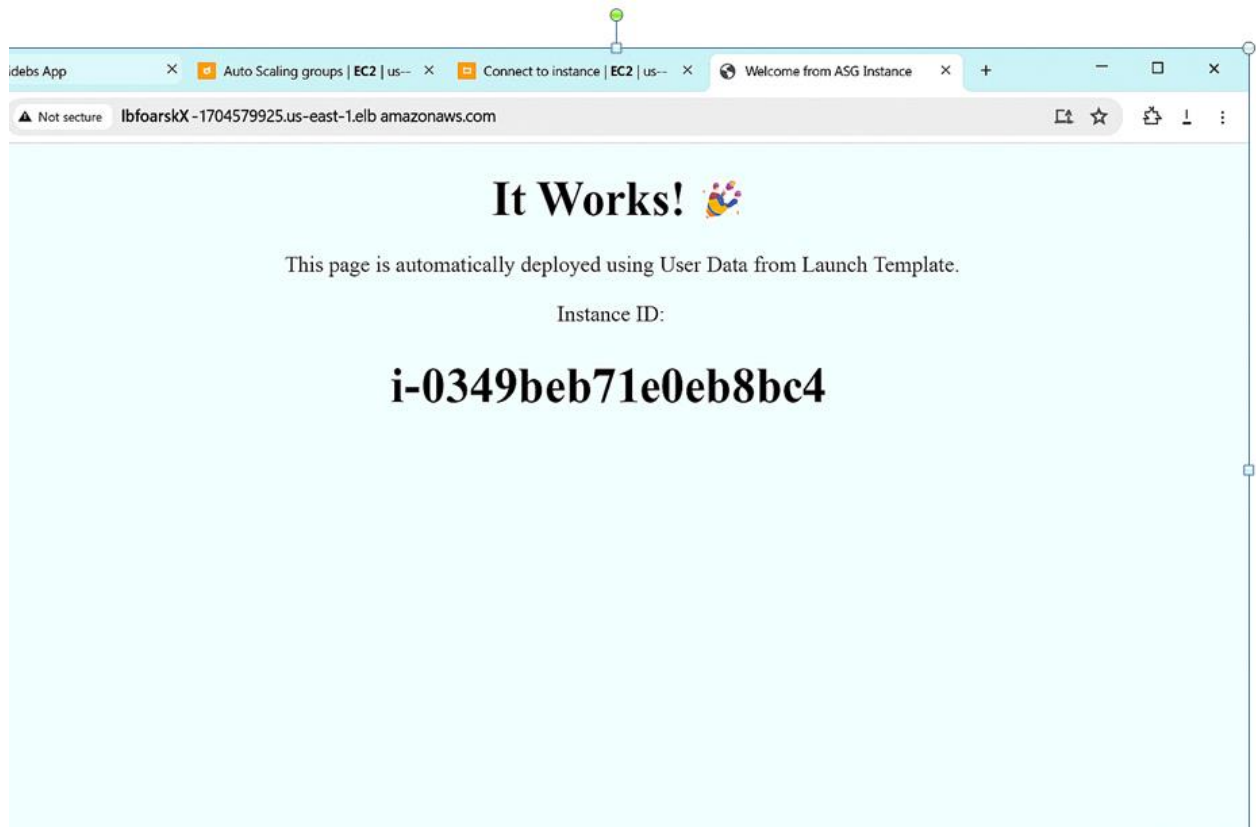
Health check details			
Health check protocol	Health check path	Health check port	Interval
HTTP	/	traffic-port	30 seconds
Timeout	Healthy threshold	Unhealthy threshold	Success codes
5 seconds	5	2	200

3. Load Balancer listener setup

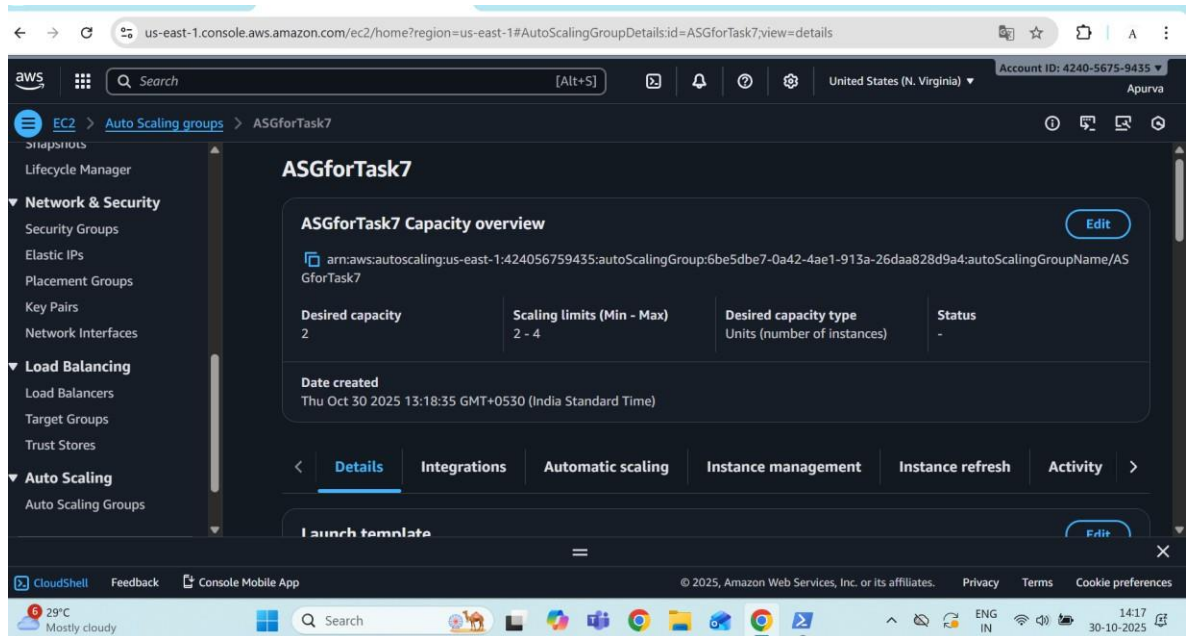


4. Public load balancer URL (working app) and resolving traffic to different instances as shown below





5.Auto Scaling Group details



6. Scaling Policy (Target Tracking)

Target Tracking Policy

Policy type
Target tracking scaling

Enabled or disabled
Enabled

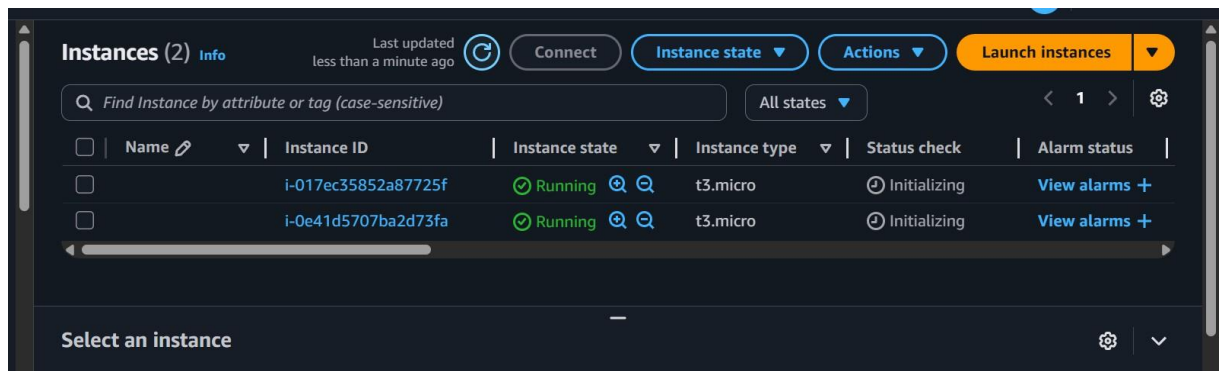
Execute policy when
As required to maintain Average CPU utilization at 45

Take the action
Add or remove capacity units as required

Instances need
60 seconds to warm up before including in metric

Scale in
Enabled

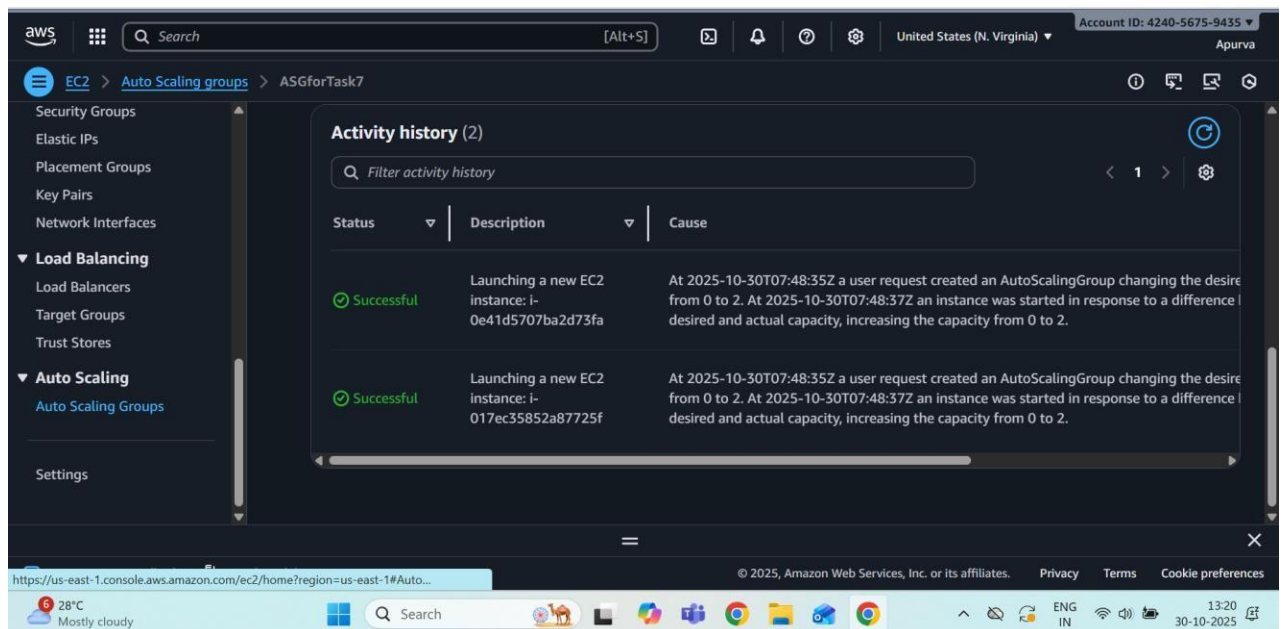
7. EC2 Instances list (Launched by ASG)



The screenshot shows the 'Instances (2)' page in the AWS Management Console. At the top, there's a 'Last updated' timestamp and a 'Refresh' button. Below this is a search bar and a filter dropdown set to 'All states'. The main area contains a table with two instances, both in a 'Running' state. Each instance has a 'View alarms' link. At the bottom, there's a 'Select an instance' button.

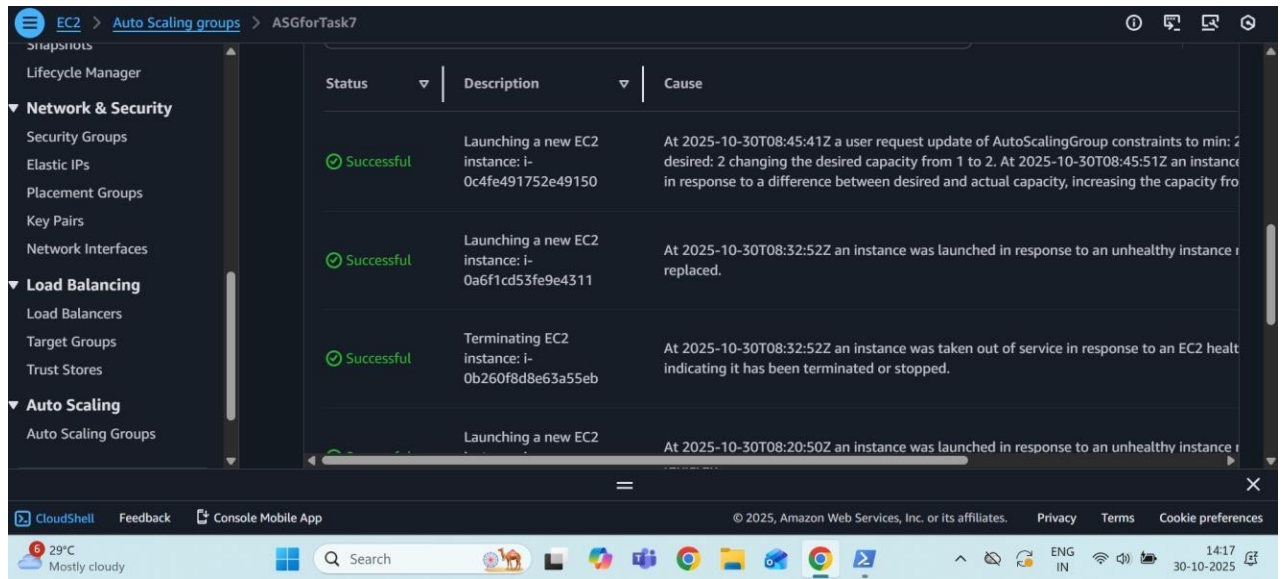
	Name	Instance ID	Instance state	Instance type	Status check	Alarm status
<input type="checkbox"/>		i-017ec35852a87725f	Running	t3.micro	Initializing	View alarms +
<input type="checkbox"/>		i-0e41d5707ba2d73fa	Running	t3.micro	Initializing	View alarms +

8. ASG Activity

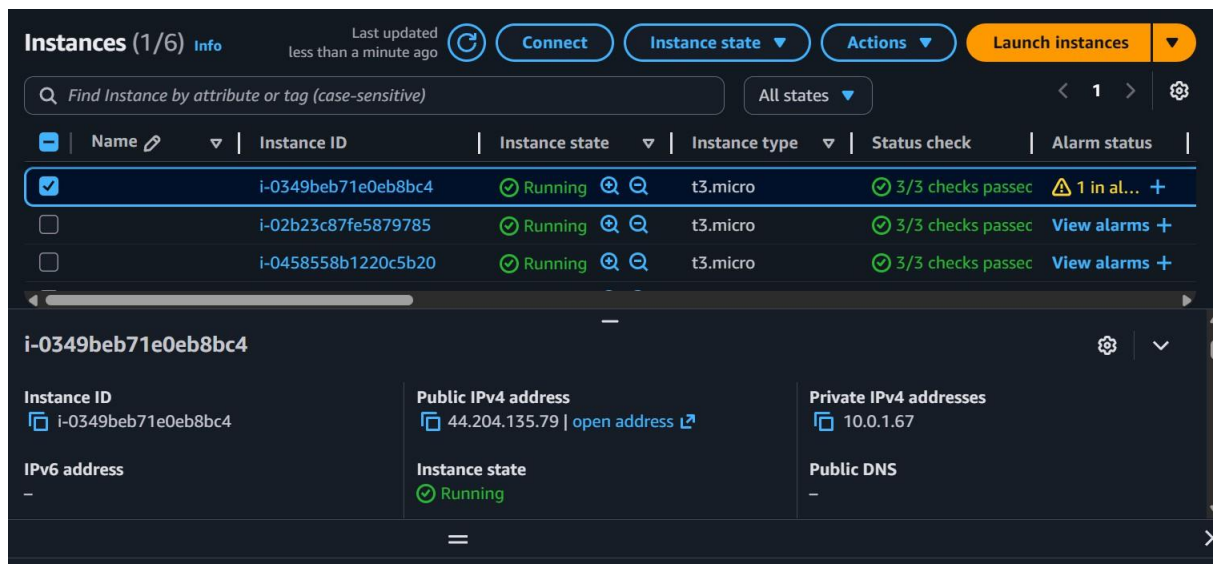


The screenshot shows the 'Activity history (2)' page in the AWS Management Console. The left sidebar shows the navigation menu with 'Auto Scaling' selected. The main area displays a table with two activity entries, both marked as 'Successful'. Each entry includes a description of the activity and a cause. The bottom of the page shows the AWS footer with copyright information and links to Privacy, Terms, and Cookie preferences.

Status	Description	Cause
Successful	Launching a new EC2 instance: i-0e41d5707ba2d73fa	At 2025-10-30T07:48:35Z a user request created an AutoScalingGroup changing the desired capacity from 0 to 2. At 2025-10-30T07:48:37Z an instance was started in response to a difference between desired and actual capacity, increasing the capacity from 0 to 2.
Successful	Launching a new EC2 instance: i-017ec35852a87725f	At 2025-10-30T07:48:35Z a user request created an AutoScalingGroup changing the desired capacity from 0 to 2. At 2025-10-30T07:48:37Z an instance was started in response to a difference between desired and actual capacity, increasing the capacity from 0 to 2.



9. EC2 Instances list (during scale-out)



CPU Utilization Increased using dd if=/dev/zero of=/dev/null &

```
[ec2-user@ip-10-0-1-67 ~]$ dd if=/dev/zero of=/dev/null &
[1] 25690
[ec2-user@ip-10-0-1-67 ~]$ top
top - 09:35:30 up 14 min, 1 user, load average: 1.00, 0.98, 0.64
Tasks: 106 total, 2 running, 104 sleeping, 0 stopped, 0 zombie
%Cpu(s): 29.0 us, 20.5 sy, 0.0 ni, 49.8 id, 0.0 wa, 0.0 hi, 0.5 si, 0.3 st
MiB Mem : 904.8 total, 363.1 free, 197.9 used, 343.8 buff/cache
MiB Swap: 0.0 total, 0.0 free, 0.0 used. 571.3 avail Mem
```

PID	USER	PR	NI	VIRT	RES	SHR	S	%CPU	%MEM	TIME+	COMMAND
25690	ec2-user	20	0	221412	1008	916	R	99.3	0.1	11:40.14	dd
26239	ec2-user	20	0	224024	3484	2812	R	0.3	0.4	0:00.05	top
1	root	20	0	107176	17628	10760	S	0.0	1.9	0:01.53	systemd
2	root	20	0	0	0	0	S	0.0	0.0	0:00.00	kthreadd
3	root	0	-20	0	0	0	I	0.0	0.0	0:00.00	rcu_gp
4	root	0	-20	0	0	0	I	0.0	0.0	0:00.00	rcu_par_gp
5	root	0	-20	0	0	0	I	0.0	0.0	0:00.00	slub_flushwq
6	root	0	-20	0	0	0	I	0.0	0.0	0:00.00	netns
8	root	0	-20	0	0	0	I	0.0	0.0	0:00.00	kworker/0:0H-events_highpri
9	root	20	0	0	0	0	I	0.0	0.0	0:00.03	kworker/u4:0-events_unbound
10	root	0	-20	0	0	0	I	0.0	0.0	0:00.00	mm_percpu_wq
11	root	20	0	0	0	0	I	0.0	0.0	0:00.00	rcu_tasks_kthread



In Alarm condition

Alarms (4)

☐ Hide Auto Scaling alarms

Clear selection

Create composite alarm

Actions

Create alarm

Search

Alarm state: Any

Alarm type: Any

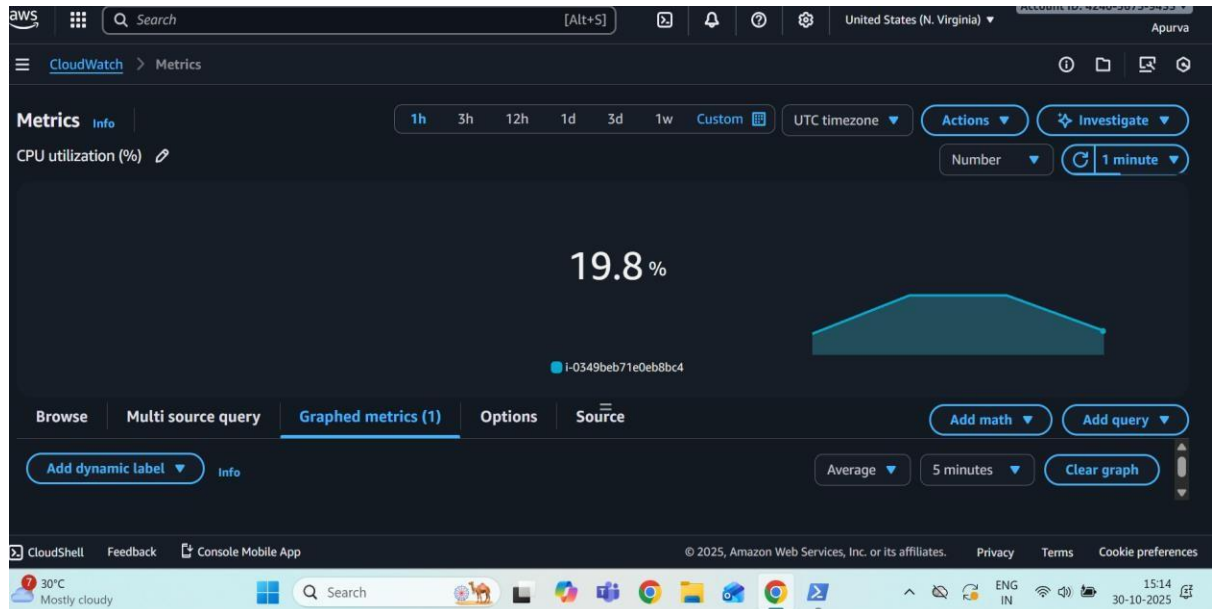
Actions status: Any

< 1 >

<input type="checkbox"/>	Name	State	Last state update (UTC)	Conditions
<input type="checkbox"/>	TargetTracking-ASGforTask7-f6a-4971-8c01-c60a-f60eb7f	In alarm	2025-10-30 09:34:01	CPUUtilization > 45 for 3 datapoints w minutes

10. ASG Activity tab (scale-in event)

After killing the cpu utilization dropped and asg terminated extra launched instances



Instances (6) <small>Info</small>						
<small>Last updated less than a minute ago</small>						
<div>Connect</div> <div>Instance state</div> <div>Actions</div> <div>Launch instances</div>						
<div>Find Instance by attribute or tag (case-sensitive)</div> <div>All states</div>						
<input type="checkbox"/>	Name	Instance ID	Instance state	Instance type	Status check	Alarm status
<input type="checkbox"/>		i-02b23c87fe5879785	Running	t3.micro	3/3 checks passed	View alarms
<input type="checkbox"/>		i-0458558b1220c5b20	Terminated	t3.micro	-	View alarms
<input type="checkbox"/>		i-041caad600cfa349f	Running	t3.micro	3/3 checks passed	View alarms