

Project Name: Auto Scaling

To do: Create Auto scaling vm and test the load,configure monitor ,alerts,logs.

Description:

Autoscaling alerts and logs monitoring are critical components of managing and maintaining the scalability and reliability of cloud-based applications and infrastructure. These monitoring activities help ensure that your resources automatically adjust to changing demand and that you're aware of any issues or anomalies that might affect your application's performance.

Here's a description of autoscaling alerts, logs, and monitoring:

1. **Autoscaling**:

- **What is Autoscaling?**: Autoscaling is a cloud computing feature that allows your infrastructure to automatically adjust its capacity based on real-time demand. It can scale both up (adding resources) and down (removing resources) to maintain optimal performance and cost-efficiency.

- **Why is Autoscaling Important?**: Autoscaling is crucial to ensure that your application can handle fluctuations in traffic and load. It helps maintain consistent performance during traffic spikes and reduces costs during periods of low demand.

- **How Does Autoscaling Work?**: Autoscaling relies on predefined policies and triggers to determine when to scale. Common triggers include CPU utilization, memory usage, network traffic, and custom metrics. When a trigger threshold is reached, autoscaling can add or remove instances, containers, or other resources as needed.

2. **Alerts**:

- **What Are Alerts?**: Alerts are notifications generated by monitoring systems when predefined thresholds or conditions are met. They serve as a way to proactively detect and respond to issues before they impact your application's performance or availability.

- **Why Are Alerts Important?**: Alerts allow you to take immediate action when something goes wrong or when a resource needs to be scaled. They help minimize downtime and ensure the reliability of your application.

- **Alerting Policies**: Alerting policies define the conditions that trigger alerts. These conditions can be based on metrics like CPU usage, latency, error rates, and more. You can set different severity levels for alerts and specify how they should be delivered (e.g., via email, SMS, or integration with incident management tools).

3. **Logs**:

- **What Are Logs?**: Logs are records of events and activities generated by applications, servers, and other infrastructure components. They contain valuable information about the state of your system, errors, and user interactions.

- **Why Are Logs Important?**: Logs are essential for troubleshooting, debugging, and auditing. They provide a historical record of what has happened in your application, making it easier to identify the root causes of issues.

- **Log Analysis and Monitoring**: Log analysis tools and monitoring systems collect, store, and analyze logs. They can help you identify patterns, anomalies, and security threats in your log data. Common log analysis platforms include the ELK Stack (Elasticsearch, Logstash, Kibana) and cloud-based solutions like AWS CloudWatch Logs and Google Cloud Logging.

4. **Monitoring**:

- **What Is Monitoring?**: Monitoring involves the continuous observation of key performance indicators (KPIs), metrics, and logs to ensure the health and performance of your application and infrastructure.

- **Continuous Improvement**: Effective monitoring not only helps you detect and respond to issues but also provides insights for optimizing your application's performance and resource utilization over time.

- **Integration**: Monitoring, alerts, and logs should be seamlessly integrated into your DevOps and incident response processes to ensure rapid and efficient issue resolution.

In summary, autoscaling alerts and logs monitoring are integral components of a robust cloud infrastructure management strategy. They enable you to maintain the reliability and scalability of your applications, respond to issues proactively, and gain valuable insights into your system's behavior.

Steps to create auto scaling:

Step 1: Search for Virtual machine scale sets in the search bar in azure portal.
Create a scale set as shown below.

scale1 - Microsoft Azure

scale1 | Virtual machine scale set

Overview

Activity log

Access control (IAM)

Tags

Diagnose and solve problems

Instances

Networking

Scaling

Disk

Operating system

Microsoft Defender for Cloud

Size

Extensions + applications

Configuration

Upgrade policy

Health and repair

Move ▾

Start ▾

Restart ▾

Stop ▾

Reimage ▾

Delete ▾

Refresh ▾

Feedback ▾

Resource group (move) : rg2

Status : 1 out of 1 succeeded

Location : West US

Subscription (move) : Azure for Students

Subscription ID : 2dc11c06-dff8-4f53-ae3a-f17d684e9b52

Operating system : Linux

Size : Standard_B2s (1 instance)

Public IP address : 20.163.55.182

Public IP address (IPv6) :

Virtual network/subnet : rg2-vnet/default

Orchestration mode : Flexible

Tags (edit) : Add tags

Properties Monitoring Capabilities (6) Recommendations Tutorials

Virtual machine profile

Operating system : Linux

Image publisher : canonical

Image offer : 0001-com-ubuntu-server-focal

Image plan : 20_04-lts-gen2

Capacity reservation group : -

Networking

Public IP address : 20.163.55.182

Public IP address (IPv6) : -

Virtual network/subnet : rg2-vnet/default

Size

Size : Standard_B2s

vCPUs : 2

RAM : 4 GiB

Availability + scaling

Availability zone : -

Proximity placement group : -

33°C Partly sunny 12:33 09-09-2023

Step 2: After creation click on instances in the left navigation and check the created instance.

scale1 - Microsoft Azure

scale1 | Instances

Overview

Activity log

Access control (IAM)

Tags

Diagnose and solve problems

Instances

Networking

Scaling

Disk

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Microsoft Defender for Cloud

Size

Extensions + applications

Configuration

Upgrade policy

Health and repair

Search virtual machine instances

Instance	Computer name	Type	Status	Provisioning state
scale1_c7bda72	scale1byJFMGI	VM	Running	Succeeded

Give feedback

33°C Partly sunny 12:34 09-09-2023

Step 3 : Open the created instance and we can see that the instance is created and it is in running state.

The screenshot shows the Microsoft Azure portal interface. The left sidebar has a tree view with 'scale1' selected, under which 'Instances' is also selected. The main content area shows a table titled 'Search virtual machine instances'. It contains one row with the following data:

Instance	Computer name	Type	Status	Provisioning state
scale1_7c7bda72	scale1yJFMGI	VM	Running	Succeeded

At the bottom right of the main content area, there is a 'Give feedback' link. The taskbar at the bottom of the screen shows various application icons and the system tray with weather information (33°C Partly sunny) and date/time (09-09-2023 12:34).

Open the instance and see whether the public ip is assigned to it.

The screenshot shows the Microsoft Azure portal interface, specifically the details page for the instance 'scale1_7c7bda72'. The left sidebar shows the instance's properties. The main content area is divided into sections: 'Essentials' and 'Properties'.

Essentials section:

Resource group (move)	: rg2
Status	: Running
Location	: West US 3
Subscription (move)	: Azure for Students
Subscription ID	: 2dc11c06-dff8-4f53-ae3a-f17d684e9b52

Properties section:

Virtual machine	Networking
Computer name	scale1yJFMGI
Operating system	Linux (ubuntu 20.04)
Image publisher	canonical
Image offer	0001-com-ubuntu-server-focal
Image plan	20_04-lts-gen2
VM generation	V2
VM architecture	x64
Agent status	Ready

Public IP address	20.168.40.222 (Network interface rg2-vnet-nic01-55e3807e)
Public IP address (IPv6)	-
Private IP address	10.0.0.4
Private IP address (IPv6)	-
Virtual network/subnet	rg2-vnet/default
DNS name	Configure

At the bottom right of the main content area, there is a 'JSON View' link. The taskbar at the bottom of the screen shows various application icons and the system tray with weather information (33°C Partly sunny) and date/time (09-09-2023 12:34).

Step 4: In the overview of the scaleset click on networking and add the inbound port rule.
Here ssh is added.

Priority	Name	Port	Protocol	Source	Destination	Action
300	Tcp	80	TCP	Any	Any	Allow
310	AllowAnySSHinbound	22	TCP	Any	Any	Allow
65000	AllowVnetInBound	Any	Any	VirtualNetwork	VirtualNetwork	Allow
65001	AllowAzureLoadBalancerInBound	Any	Any	AzureLoadBalancer	Any	Allow
65500	DenyAllInBound	Any	Any	Any	Any	Deny

Step 5: Now create a action group by clicking alerts in the left navigation.

Notification type	Name	Selected
Email/SMS message/Push/Voice	Notification for CPU OverUsage	Email, SMS message, Push

Here the details like your email , mobile number must be given so that you'll receive a notification as an alert whenever it is necessary.

Create action group

Basics

Subscription	Azure for Students
Resource group	rg2
Region	global
Action group name	Action Group 1
Display name	AG1

Notifications

Notification type	Name	Selected
Email/SMS message/Push/Voice	Notification for CPU OverUsage	Email, SMS message, Push

Actions

None

Tags

None

Create **Previous**

Step 6 : Now create a alert rule .

Create an alert rule

Details

Project details

Select the subscription and resource group in which to save the alert rule.

Subscription *

Resource group * [Create new](#)

Alert rule details

Severity *

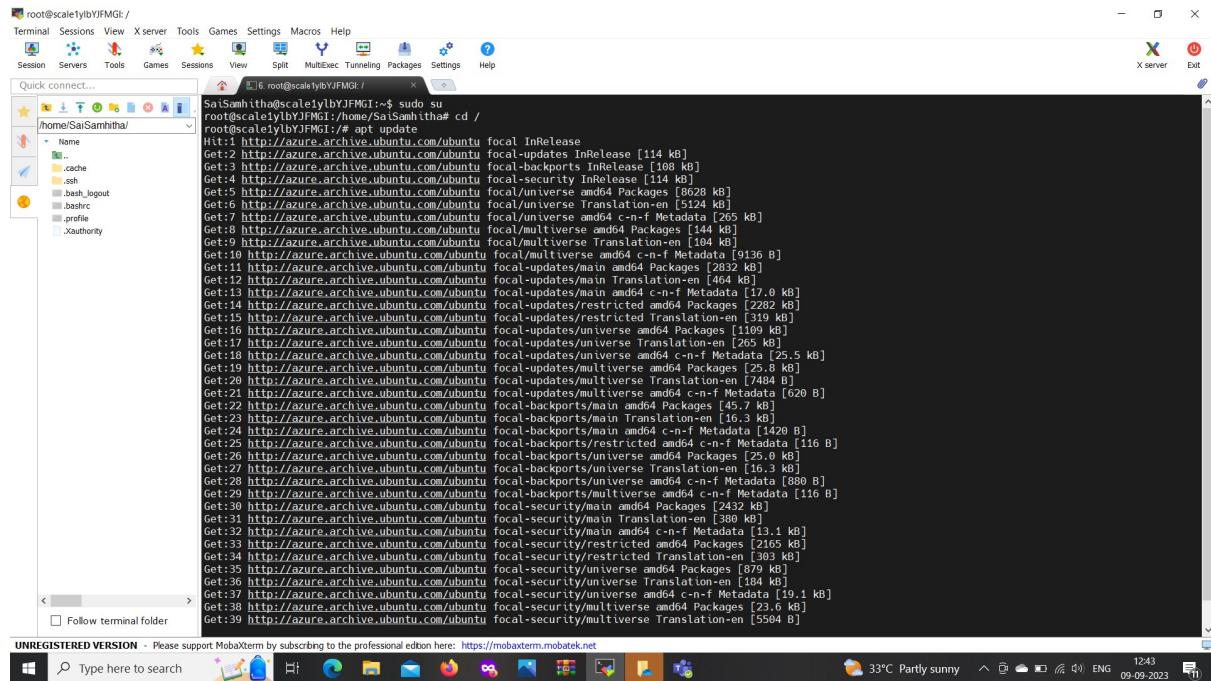
Alert rule name *

Alert rule description

Advanced options

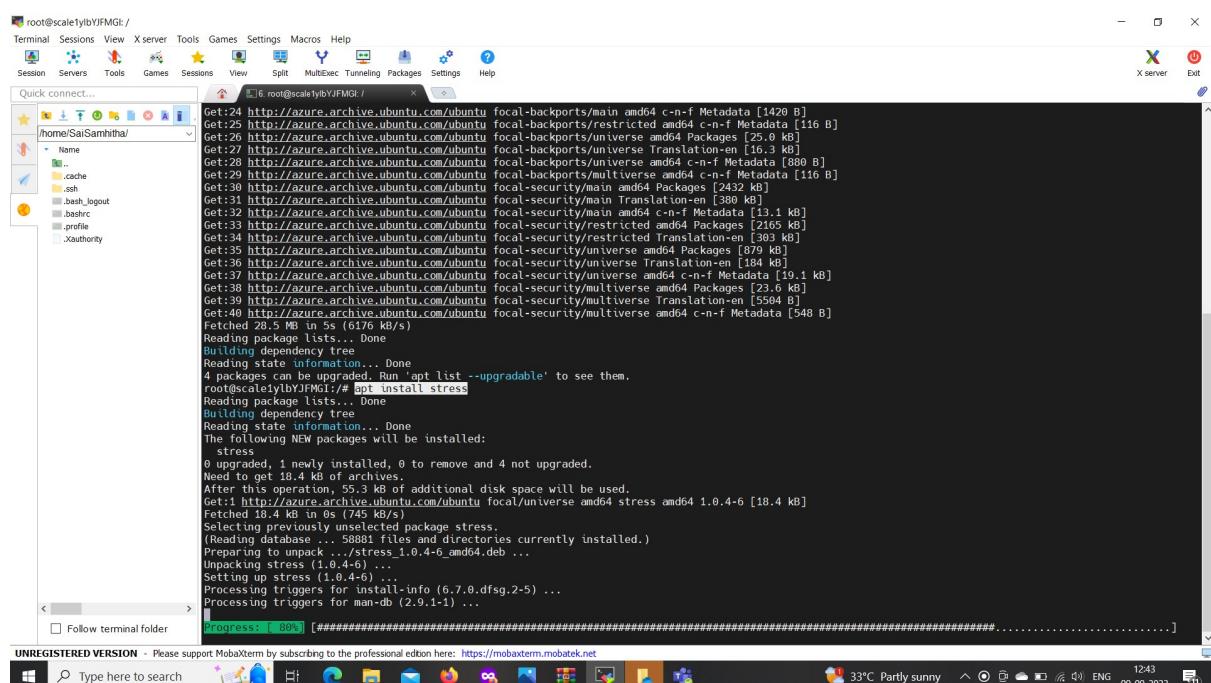
Review + create **Previous** **Next: Tags >**

Step 7: Now by copying the public ip of the created instance is used to open the server.



root@scale1ybYJFMG1:/home/SaiSamitha# cd /opt/scale1ybYJFMG1/home/SaiSamitha# cd /opt/scale1ybYJFMG1# apt update
Get:1 http://archive.ubuntu.com/ubuntu focal InRelease
Get:2 http://archive.ubuntu.com/ubuntu focal-updates InRelease [114 kB]
Get:3 http://archive.ubuntu.com/ubuntu focal-backports InRelease [108 kB]
Get:4 http://archive.ubuntu.com/ubuntu focal-security InRelease [114 kB]
Get:5 http://archive.ubuntu.com/ubuntu focal/universe amd64 Packages [8628 kB]
Get:6 http://archive.ubuntu.com/ubuntu focal/universe Translation-en [5124 kB]
Get:7 http://archive.ubuntu.com/ubuntu focal/universe amd64 c-n-f Metadata [265 kB]
Get:8 http://archive.ubuntu.com/ubuntu focal/multiverse amd64 Packages [144 kB]
Get:9 http://archive.ubuntu.com/ubuntu focal/multiverse Translation-en [104 kB]
Get:10 http://archive.ubuntu.com/ubuntu focal/universe Translation-en [1036 kB]
Get:11 http://archive.ubuntu.com/ubuntu focal-updates/main amd64 Packages [2832 kB]
Get:12 http://archive.ubuntu.com/ubuntu focal-updates/main Translation-en [464 kB]
Get:13 http://archive.ubuntu.com/ubuntu focal-updates/main amd64 c-n-f Metadata [17.0 kB]
Get:14 http://archive.ubuntu.com/ubuntu focal-updates/restricted amd64 Packages [2282 kB]
Get:15 http://archive.ubuntu.com/ubuntu focal-updates/restricted Translation-en [319 kB]
Get:16 http://archive.ubuntu.com/ubuntu focal-updates/universe amd64 Packages [1109 kB]
Get:17 http://archive.ubuntu.com/ubuntu focal-updates/universe Translation-en [265 kB]
Get:18 http://archive.ubuntu.com/ubuntu focal-updates/universe amd64 c-n-f Metadata [25.5 kB]
Get:19 http://archive.ubuntu.com/ubuntu focal-updates/universe Translation-en [103 kB]
Get:20 http://archive.ubuntu.com/ubuntu focal-updates/multiverse Translation-en [7484 kB]
Get:21 http://archive.ubuntu.com/ubuntu focal-updates/multiverse amd64 c-n-f Metadata [620 B]
Get:22 http://archive.ubuntu.com/ubuntu focal-backports/main amd64 Packages [45.7 kB]
Get:23 http://archive.ubuntu.com/ubuntu focal-backports/main Translation-en [16.3 kB]
Get:24 http://archive.ubuntu.com/ubuntu focal-backports/main amd64 c-n-f Metadata [1420 B]
Get:25 http://archive.ubuntu.com/ubuntu focal-backports/restricted amd64 c-n-f Metadata [116 B]
Get:26 http://archive.ubuntu.com/ubuntu focal-backports/universe amd64 Packages [25.0 kB]
Get:27 http://archive.ubuntu.com/ubuntu focal-backports/universe Translation-en [16.3 kB]
Get:28 http://archive.ubuntu.com/ubuntu focal-backports/universe amd64 c-n-f Metadata [880 B]
Get:29 http://archive.ubuntu.com/ubuntu focal-security/main amd64 c-n-f Metadata [116 B]
Get:30 http://archive.ubuntu.com/ubuntu focal-security/main Translation-en [380 kB]
Get:31 http://archive.ubuntu.com/ubuntu focal-security/main amd64 Packages [2432 kB]
Get:32 http://archive.ubuntu.com/ubuntu focal-security/main amd64 c-n-f Metadata [13.1 kB]
Get:33 http://archive.ubuntu.com/ubuntu focal-security/restricted amd64 Packages [2165 kB]
Get:34 http://archive.ubuntu.com/ubuntu focal-security/restricted Translation-en [303 kB]
Get:35 http://archive.ubuntu.com/ubuntu focal-security/universe amd64 Packages [879 kB]
Get:36 http://archive.ubuntu.com/ubuntu focal-security/universe Translation-en [184 kB]
Get:37 http://archive.ubuntu.com/ubuntu focal-security/universe amd64 c-n-f Metadata [19.1 kB]
Get:38 http://archive.ubuntu.com/ubuntu focal-security/multiverse amd64 Packages [23.6 kB]
Get:39 http://archive.ubuntu.com/ubuntu focal-security/multiverse Translation-en [5504 B]
Get:40 http://archive.ubuntu.com/ubuntu focal-security/multiverse amd64 c-n-f Metadata [548 B]
Fetched 28.5 MB in 5s (1617 kB/s)
Reading package lists... Done
Building dependency tree
Reading state information... Done
4 packages can be upgraded. Run 'apt list --upgradable' to see them.
root@scale1ybYJFMG1:# apt install stress
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following NEW packages will be installed:
stress
0 upgraded, 1 newly installed, 0 to remove and 4 not upgraded.
Need to get 18.4 kB of archives.
After this operation, 55.3 kB of additional disk space will be used.
Get:1 http://archive.ubuntu.com/ubuntu focal/universe amd64 stress amd64 1.0.4-6 [18.4 kB]
Fetched 18.4 kB in 0s (745 kB/s)
Selecting previously unselected package stress.
(Reading database ... 58881 files and directories currently installed.)
Preparing to unpack .../stress_1.0.4-6_amd64.deb ...
Unpacking stress (1.0.4-6) ...
Setting up stress (1.0.4-6) ...
Processing triggers for install-info (6.7.8.dfsg.2-5) ...
Processing triggers for man-db (2.9.1-1) ...
Progress: [0%] [=====].....

Here the stress is installed in order to increase the load.



root@scale1ybYJFMG1:/home/SaiSamitha# cd /opt/scale1ybYJFMG1/home/SaiSamitha# cd /opt/scale1ybYJFMG1# apt update
Get:24 http://archive.ubuntu.com/ubuntu focal-backports/main amd64 c-n-f Metadata [1420 B]
Get:25 http://archive.ubuntu.com/ubuntu focal-backports/restricted amd64 c-n-f Metadata [116 B]
Get:26 http://archive.ubuntu.com/ubuntu focal-backports/universe amd64 Packages [25.0 kB]
Get:27 http://archive.ubuntu.com/ubuntu focal-backports/universe Translation-en [16.3 kB]
Get:28 http://archive.ubuntu.com/ubuntu focal-backports/universe amd64 c-n-f Metadata [880 B]
Get:29 http://archive.ubuntu.com/ubuntu focal-backports/multiverse amd64 c-n-f Metadata [116 B]
Get:30 http://archive.ubuntu.com/ubuntu focal-security/main amd64 Packages [2432 kB]
Get:31 http://archive.ubuntu.com/ubuntu focal-security/main Translation-en [380 kB]
Get:32 http://archive.ubuntu.com/ubuntu focal-security/main amd64 c-n-f Metadata [13.1 kB]
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Get:40 http://archive.ubuntu.com/ubuntu focal-security/multiverse amd64 c-n-f Metadata [548 B]
Fetched 28.5 MB in 5s (1617 kB/s)
Reading package lists... Done
Building dependency tree
Reading state information... Done
4 packages can be upgraded. Run 'apt list --upgradable' to see them.
root@scale1ybYJFMG1:# apt install stress
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following NEW packages will be installed:
stress
0 upgraded, 1 newly installed, 0 to remove and 4 not upgraded.
Need to get 18.4 kB of archives.
After this operation, 55.3 kB of additional disk space will be used.
Get:1 http://archive.ubuntu.com/ubuntu focal/universe amd64 stress amd64 1.0.4-6 [18.4 kB]
Fetched 18.4 kB in 0s (745 kB/s)
Selecting previously unselected package stress.
(Reading database ... 58881 files and directories currently installed.)
Preparing to unpack .../stress_1.0.4-6_amd64.deb ...
Unpacking stress (1.0.4-6) ...
Setting up stress (1.0.4-6) ...
Processing triggers for install-info (6.7.8.dfsg.2-5) ...
Processing triggers for man-db (2.9.1-1) ...
Progress: [0%] [=====].....

Stress is applied to increase the load.

```
root@scale1ybYJFMG1:/home/SaiSamitha/ [root@scale1ybYJFMG1 ~]# stress --cpu 1 -c 1 -t 5
[...]
root@scale1ybYJFMG1:~#
```

The terminal window shows the execution of the 'stress' command with one core and a duration of 5 seconds. The output indicates that 4 packages are upgradable and lists the following packages being installed:

- focal-backports/restricted amd64 c-n-f Metadata [116 B]
- focal-backports/universe amd64 Packages [25.0 kB]
- focal-backports/universe Translation-en [16.9 kB]
- focal-backports/multiverse amd64 c-n-f Metadata [880 B]
- focal-backports/main amd64 Packages [2432 kB]
- focal-security/main Translation-en [380 kB]
- focal-security/restricted amd64 Packages [2165 kB]
- focal-security/restricted Translation-en [303 kB]
- focal-security/universe amd64 Packages [879 kB]
- focal-security/universe Translation-en [184 kB]
- focal-security/main Translation-en [10.1 kB]
- focal-security/multiverse amd64 Packages [23.6 kB]
- focal-security/multiverse Translation-en [5564 B]
- focal-security/multiverse amd64 c-n-f Metadata [548 B]

Fetched 28.5 MB in 5s (6176 kB/s)

Reading package lists... Done

Building dependency tree

Reading state information... Done

4 packages can be upgraded. Run 'apt list --upgradable' to see them.

Reading package lists... Done

Building dependency tree

Reading state information... Done

The following NEW packages will be installed:

stress

0 upgraded, 1 newly installed, 0 to remove and 4 not upgraded.

Need to get 18.4 kB of archives.

After this operation, 55.3 kB of additional disk space will be used.

Get:1 http://archive.ubuntu.com/ubuntu focal/universe amd64 stress amd64 1.0.4-6 [18.4 kB]

Fetched 18.4 kB in 0s (5883 kB/s)

Selecting previously unselected package stress.

(Reading database ... 58881 files and directories currently installed.)

Preparing to unpack .../stress 1.0.4-6_amd64.deb ...

Unpacking stress (1.0.4-6) ...

Setting up stress (1.0.4-6) ...

Processing triggers for install-info (6.7.0.dsfg.2-5) ...

Processing triggers for man-db (2.9.1-1) ...

root@scale1ybYJFMG1:~# stress -c 1
stress: info: [14744] dispatching hogs: 1 cpu, 0 io, 0 vm, 0 hdd

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Windows taskbar at the bottom showing various icons and system status.

In another window observe the cpu load using top command.

```
SaiSamitha@scale1ybYJFMG1:~ [root@scale1ybYJFMG1 ~]# top
Last login: Sat Sep 9 07:33:01 2023 from 223.196.192.181
Tasks: 129 total, 2 running, 127 sleeping, 0 stopped, 0 zombie
%Cpu(s): 50.1 us, 0.0 sy, 0.0 nt, 49.9 id, 0.0 wa, 0.0 hi, 0.0 si, 0.0 st
Hib Mem : 3863.3 total, 2867.8 free, 292.8 used, 702.7 buff/cache
Hib Swap: 0.0 total, 0.0 free, 0.0 used, 3327.5 avail Mem
```

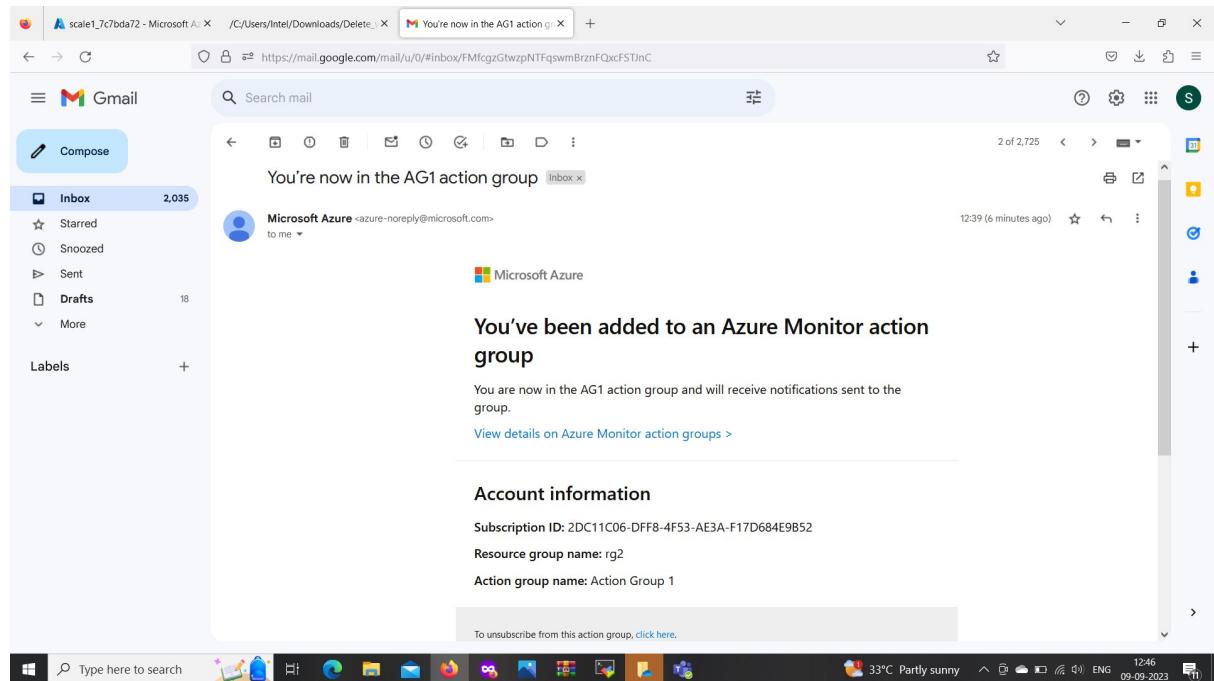
PID	USER	PR	NI	VIRT	RES	SHR	S	%CPU	%MEM	TIME+ COMMAND
14745	root	20	0	3864	96	0	R	100.0	0.0	1:40.54 stress
1	root	20	0	104096	13056	849	S	0.0	0.3	0:04.10 systemd
2	root	20	0	104096	13056	849	S	0.0	0.0	0:00.00 rcu_gp
3	root	0	-20	0	0	0	I	0.0	0.0	0:00.00 rCU_p
4	root	0	-20	0	0	0	I	0.0	0.0	0:00.00 rCU_par_gp
5	root	0	-20	0	0	0	I	0.0	0.0	0:00.00 slab_flushq
6	root	0	-20	0	0	0	I	0.0	0.0	0:00.00 netns
7	root	20	0	0	0	0	I	0.0	0.0	0:00.00 kworker/0:0-events
8	root	0	-20	0	0	0	I	0.0	0.0	0:00.00 kworker/0:0-kblockd
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	S	0.0	0.0	0:00.00 rCU_tasks_rude
12	root	20	0	0	0	0	S	0.0	0.0	0:00.00 rCU_tasks_trace
13	root	20	0	0	0	0	S	0.0	0.0	0:00.00 rCU_tasks_fair
14	root	20	0	0	0	0	I	0.0	0.0	0:00.17 rCU_sched
15	root	rt	0	0	0	0	S	0.0	0.0	0:00.05 migration/0
17	root	20	0	0	0	0	S	0.0	0.0	0:00.00 cpuhp/0
18	root	20	0	0	0	0	S	0.0	0.0	0:00.00 cpuhp/1
19	root	rt	0	0	0	0	S	0.0	0.0	0:00.05 migration/1
28	root	20	0	0	0	0	S	0.0	0.0	0:00.07 ksoftirqd/1
22	root	0	-20	0	0	0	I	0.0	0.0	0:00.00 kworker/1:0-H-events_highpri
23	root	20	0	0	0	0	S	0.0	0.0	0:00.00 kdevtmpfs
24	root	0	-20	0	0	0	S	0.0	0.0	0:00.00 inet_frag_wq
25	root	20	0	0	0	0	S	0.0	0.0	0:00.00 ksoftirqd/0
26	root	20	0	0	0	0	S	0.0	0.0	0:00.00 khungtaskd
27	root	20	0	0	0	0	S	0.0	0.0	0:00.00 oom_reaper
28	root	0	-20	0	0	0	I	0.0	0.0	0:00.00 writeback
29	root	20	0	0	0	0	S	0.0	0.0	0:00.30 kcompactd0
30	root	25	0	0	0	0	S	0.0	0.0	0:00.00 kcompactd1
31	root	39	19	0	0	0	S	0.0	0.0	0:00.06 khugepaged
78	root	0	-20	0	0	0	I	0.0	0.0	0:00.00 kintegrityd
79	root	0	-20	0	0	0	I	0.0	0.0	0:00.00 kblockd
80	root	0	-20	0	0	0	I	0.0	0.0	0:00.00 blkcg_punt_bio

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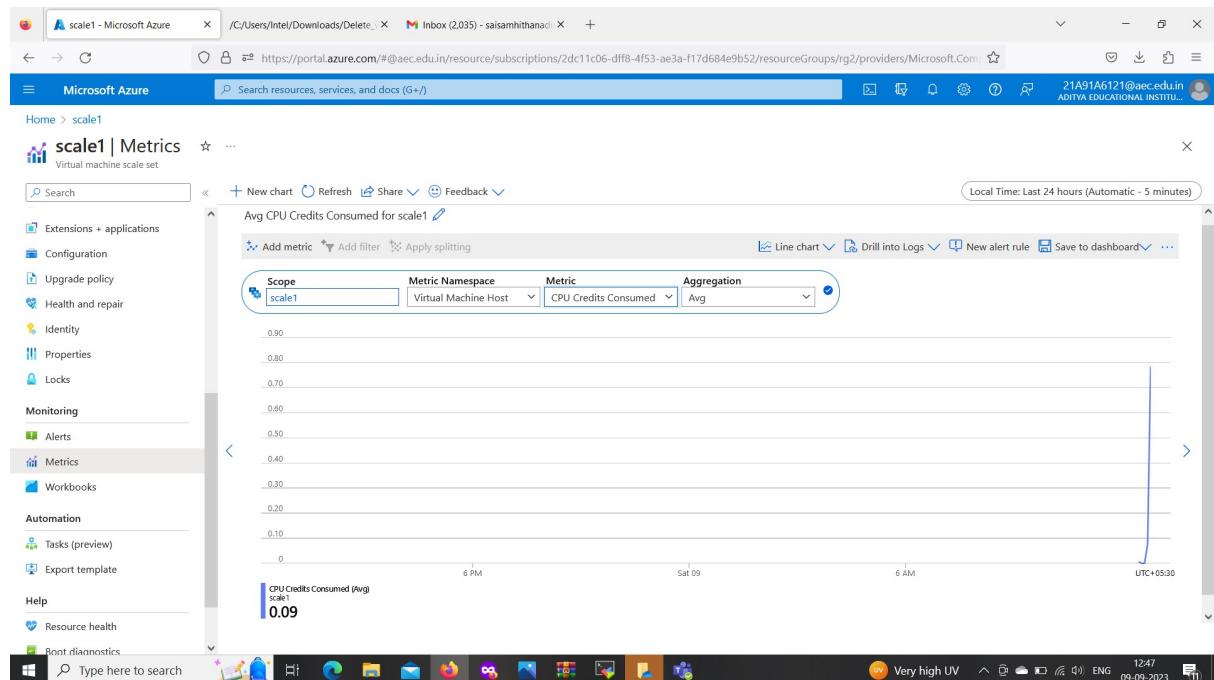
Windows taskbar at the bottom showing various icons and system status.

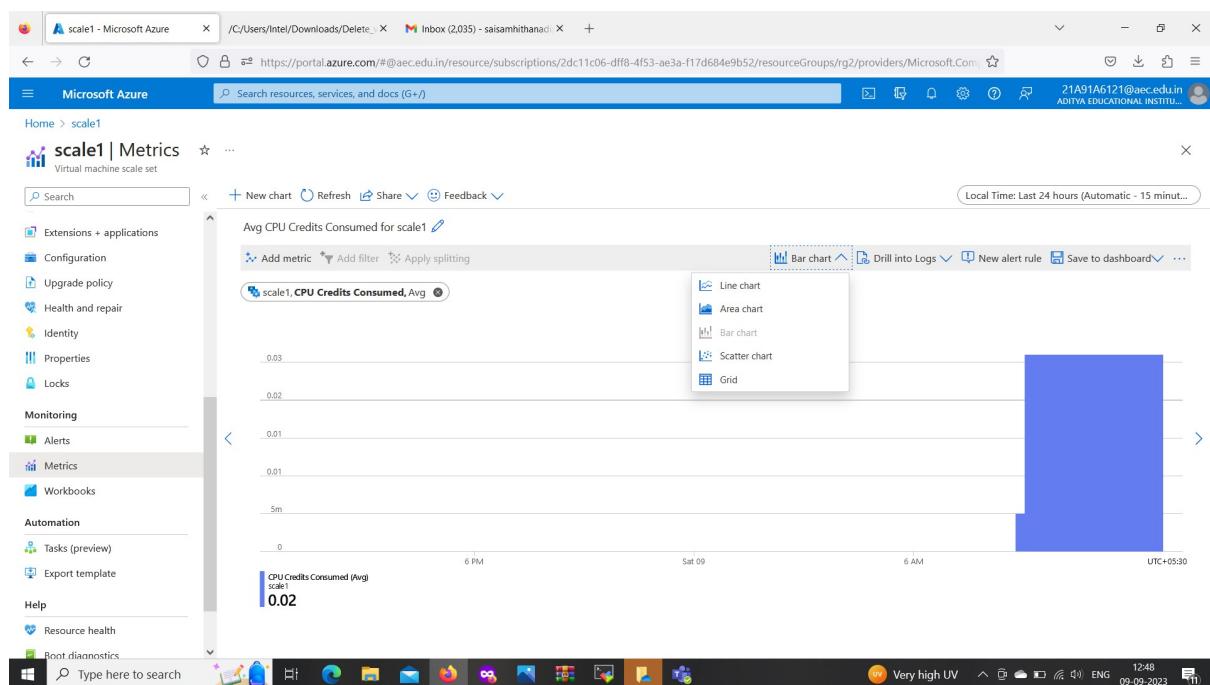
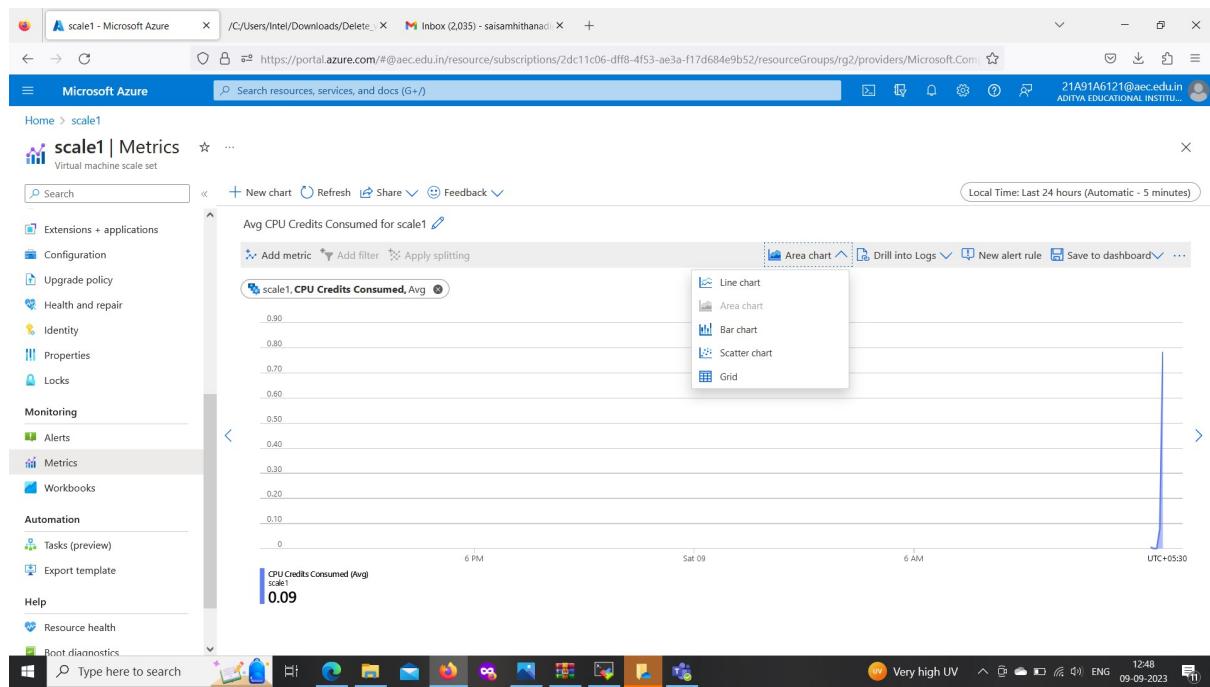
Step 7

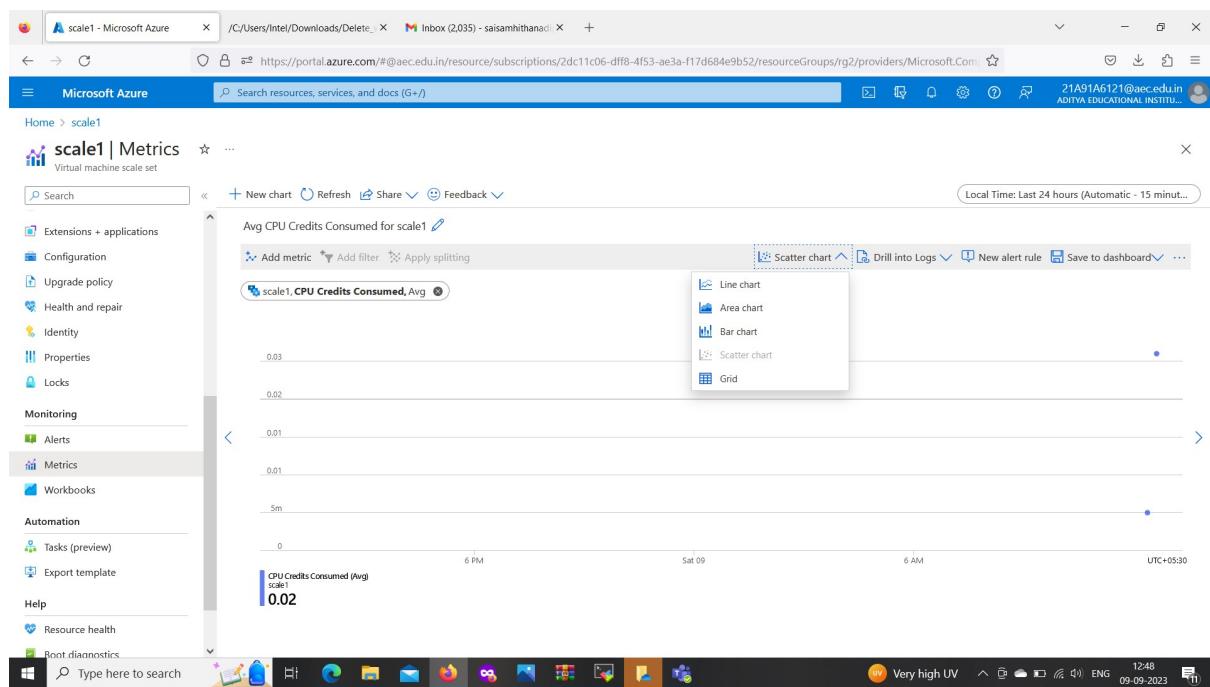
Once the action group got created we'll get a email that the action group is created.



Step 8: Now click on metrics in the navigation and observe the graph of the usage of the CPU.







After the load got increased we'll get an alert message to our email and mobile number.



12:52

to me

Microsoft Azure

⚠ Your Azure Monitor alert was triggered

Azure monitor alert rule ALertRule1 was triggered for scale1 at September 9, 2023 7:21 UTC.

Alert rule description	Your machine CPU percentage crossed 40%
Rule ID	/subscriptions/2dc11c06-dff8-4f53-ae3a-f17d684e9b52/resourceGroups/rg2/providers/microsoft.insights/metricAlerts/ALertRule1 View Rule >
Resource ID	/subscriptions/2dc11c06-dff8-4f53-ae3a-f17d684e9b52/resourceGroups/rg2/providers/Microsoft.Compute/virtualMachineScaleSets/scale1 View Resource >

Alert Activated Because:

Metric name	Percentage CPU
Metric namespace	virtualMachineScaleSets/scale1
Dimensions	microsoft.resourceId = /subscriptions/2dc11c06-dff8-4f53-ae3a-f17d684e9b52/resourceGroups/rg2/providers/Microsoft.Compute/virtualMachineScaleSets/scale1 microsoft.resourceType = Microsoft.Compute/virtualMachineScaleSets
Time Aggregation	Average
Period	Over the last 5 mins
Value	42.1305
Operator	GreaterThan
Threshold	40
Criterion Type	StaticThresholdCriterion

[See in the Azure portal >](#)

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When the load is increased another instance is created .

The screenshot shows the Microsoft Azure portal interface. The left sidebar is titled 'scale1 | Instances' under 'Virtual machine scale set'. It includes sections for Overview, Activity log, Access control (IAM), Tags, and Diagnose and solve problems. The main content area displays a table of virtual machine instances:

Instance	Computer name	Type	Status	Provisioning state
scale1_00ba4bf3	scale1lb079OMR	VM	Running	Succeeded
scale1_7c7bda72	scale1ybYfMGI	VM	Running	Succeeded

The status bar at the bottom indicates the date and time as 09-09-2023 12:57.

When the instance is loaded more another instance is created automatically.

Step 9:

Now select activity logs in the navigation and check the logs.

The screenshot shows the Microsoft Azure portal interface. The left sidebar is titled 'Monitor' under 'Microsoft'. It includes sections for Overview, Activity log, Alerts, Metrics, Logs, Change Analysis, Service health, Workbooks, Insights, Applications, Virtual Machines, Storage accounts, Containers, Networks, SQL (preview), Azure Cosmos DB, and Key Vaults. The main content area displays the 'Activity log' table:

Operation name	Status	Time	Time stamp	Subscription	Event initiated by
Create or Update Virtual Machine Scale Set	Succeeded	8 minutes ago	Sat Sep 09 ...	Azure for Students	AzureApplicationInsights
Create or Update Virtual Machine Extension	Succeeded	9 minutes ago	Sat Sep 09 ...	Azure for Students	Azure Compute
Create or Update Network Interface	Succeeded	10 minutes ago	Sat Sep 09 ...	Azure for Students	Azure Traffic Manager an...
Autoscale scale up initiated	Succeeded	18 minutes ago	Sat Sep 09 ...	Azure for Students	Microsoft.Insights/autos...
Create or update metric alert	Succeeded	19 minutes ago	Sat Sep 09 ...	Azure for Students	21A91A6121@aec.edu.in
Autoscale scale up initiated	Succeeded	20 minutes ago	Sat Sep 09 ...	Azure for Students	Microsoft.Insights/autos...
Create or update action group	Succeeded	21 minutes ago	Sat Sep 09 ...	Azure for Students	21A91A6121@aec.edu.in
Delete Vault	Succeeded	28 minutes ago	Sat Sep 09 ...	Azure for Students	21A91A6121@aec.edu.in
Update Storage Account Create	Succeeded	33 minutes ago	Sat Sep 09 ...	Azure for Students	21A91A6121@aec.edu.in
Create or Update Security Rule	Succeeded	35 minutes ago	Sat Sep 09 ...	Azure for Students	21A91A6121@aec.edu.in

The status bar at the bottom indicates the date and time as 09-09-2023 13:10.