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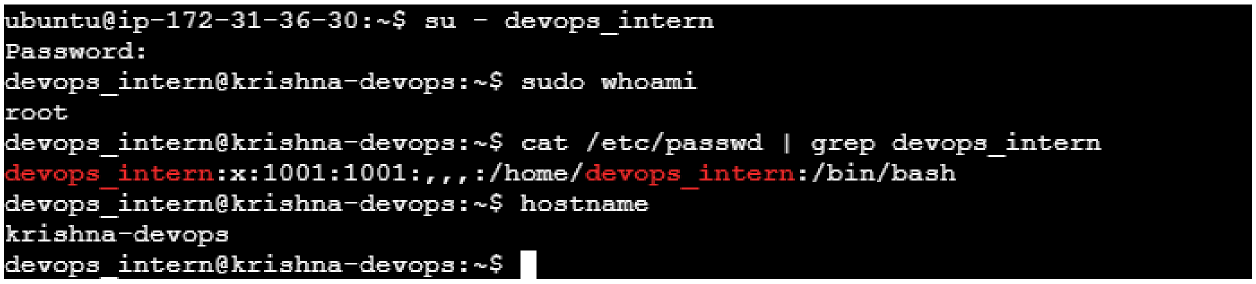
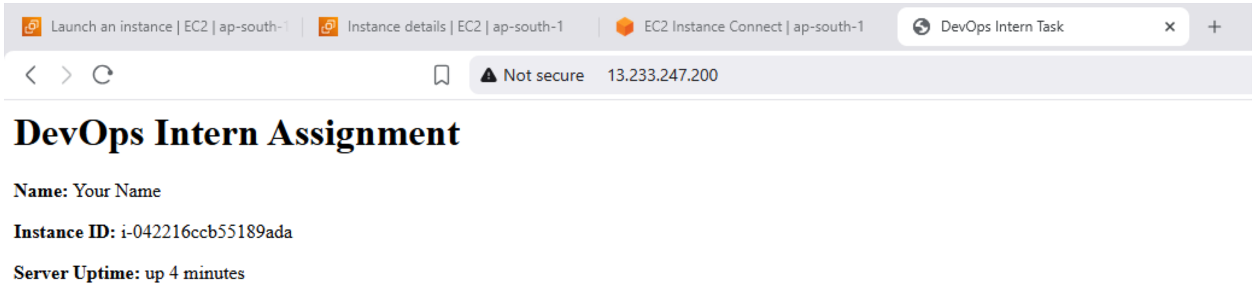
Part 1: Environment Setup:- Screenshot showing the hostname, the new user in /etc/passwd, and output of 'sudo whoami' run by devops_intern.



```
ubuntu@ip-172-31-36-30:~$ su - devops_intern
Password:
devops_intern@krishna-devops:~$ sudo whoami
root
devops_intern@krishna-devops:~$ cat /etc/passwd | grep devops_intern
devops_intern:x:1001:1001:,,,:/home/devops_intern:/bin/bash
devops_intern@krishna-devops:~$ hostname
krishna-devops
devops_intern@krishna-devops:~$
```

Part 2: Simple Web Service Setup :- Screenshot of the webpage accessed through the instance's public IP.


Launch an instance | EC2 | ap-south-1
Instance details | EC2 | ap-south-1
EC2 Instance Connect | ap-south-1
DevOps Intern Task
Not secure
13.233.247.200

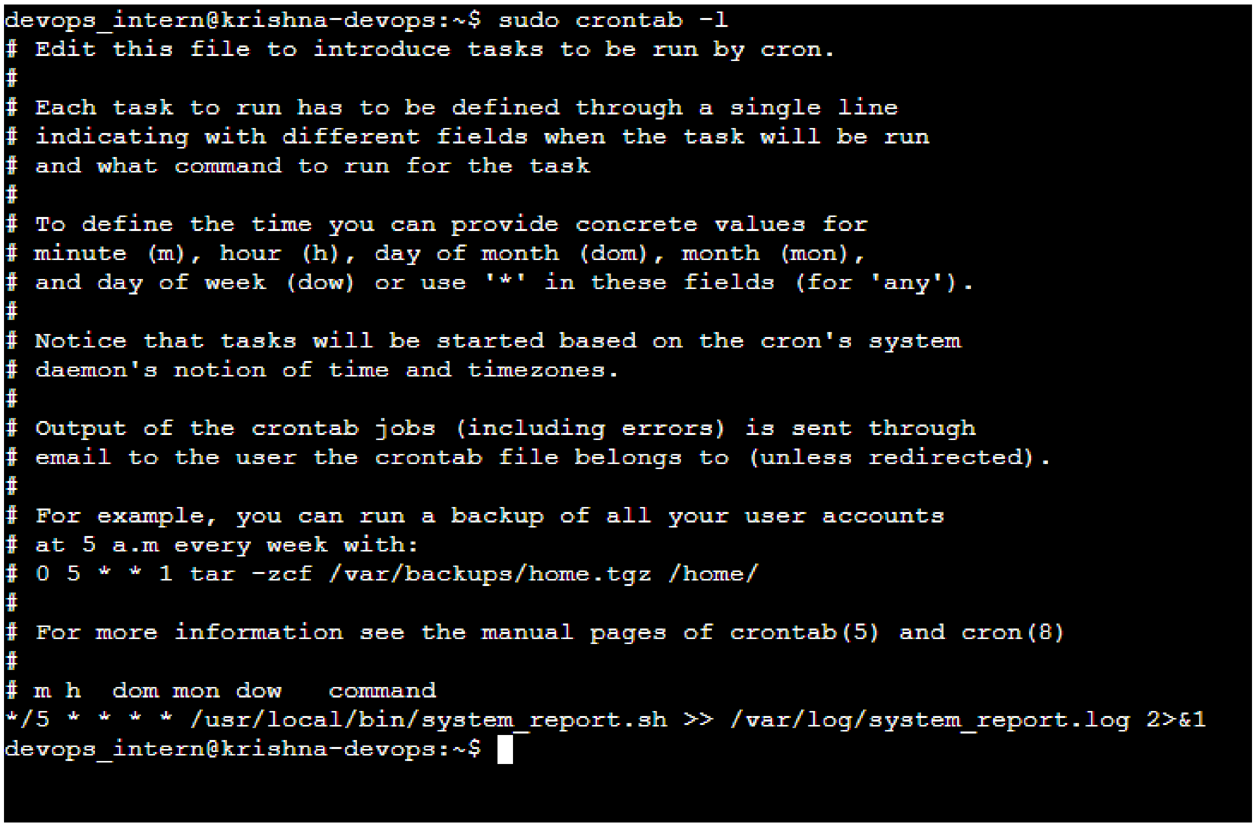
DevOps Intern Assignment

Name: Your Name

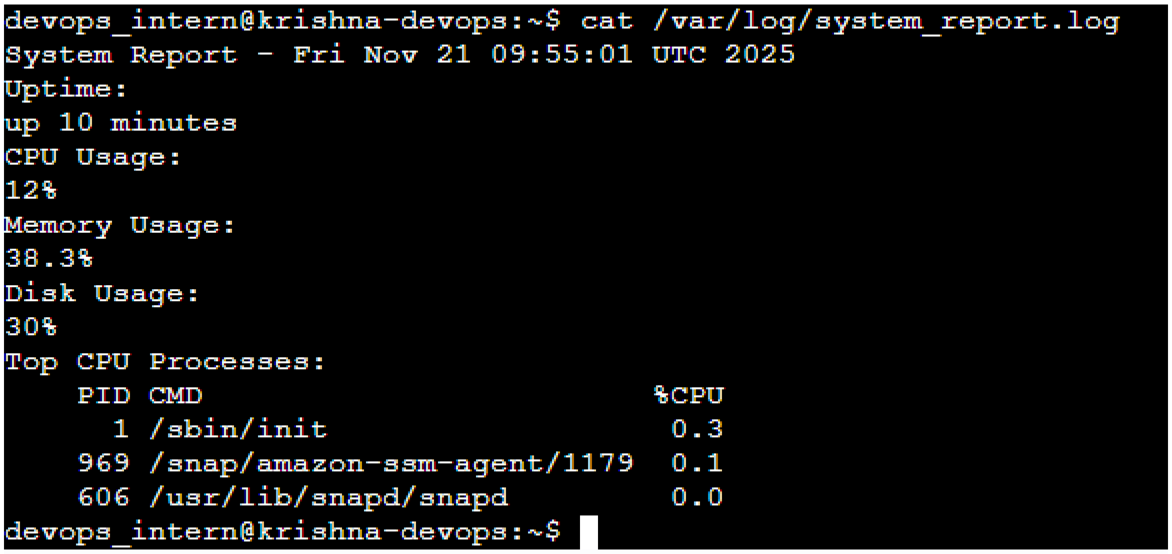
Instance ID: i-042216ccb55189ada

Server Uptime: up 4 minutes

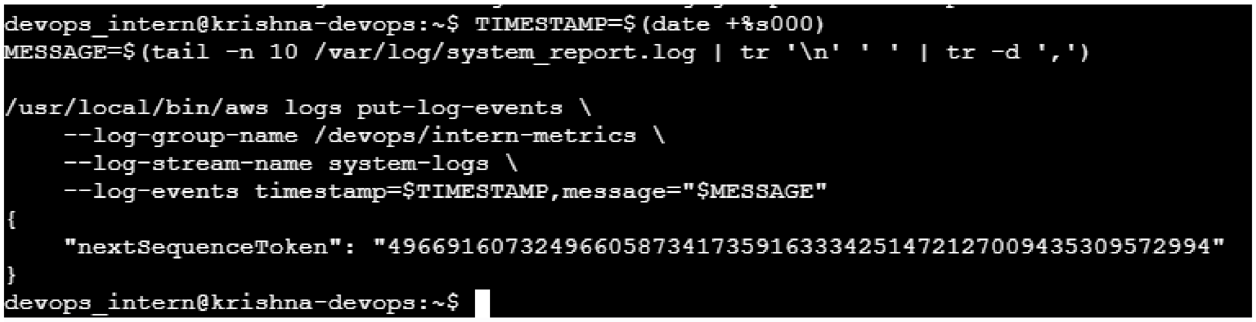
Part 3: Monitoring Script



```
devops_intern@krishna-devops:~$ sudo crontab -l
# Edit this file to introduce tasks to be run by cron.
#
# Each task to run has to be defined through a single line
# indicating with different fields when the task will be run
# and what command to run for the task
#
# To define the time you can provide concrete values for
# minute (m), hour (h), day of month (dom), month (mon),
# and day of week (dow) or use '*' in these fields (for 'any').
#
# Notice that tasks will be started based on the cron's system
# daemon's notion of time and timezones.
#
# Output of the crontab jobs (including errors) is sent through
# email to the user the crontab file belongs to (unless redirected).
#
# For example, you can run a backup of all your user accounts
# at 5 a.m every week with:
# 0 5 * * 1 tar -zcf /var/backups/home.tgz /home/
#
# For more information see the manual pages of crontab(5) and cron(8)
#
# m h  dom mon dow   command
*/5 * * * * /usr/local/bin/system_report.sh >> /var/log/system_report.log 2>&1
devops_intern@krishna-devops:~$
```



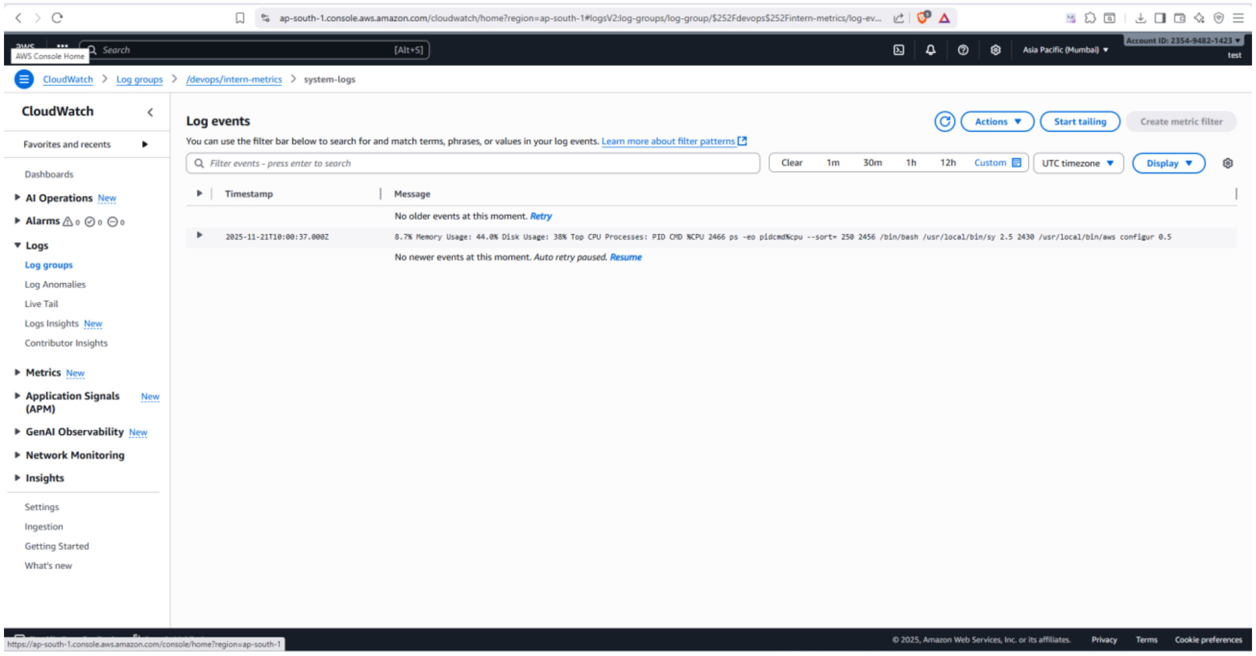
```
devops_intern@krishna-devops:~$ cat /var/log/system_report.log
System Report - Fri Nov 21 09:55:01 UTC 2025
Uptime:
up 10 minutes
CPU Usage:
12%
Memory Usage:
38.3%
Disk Usage:
30%
Top CPU Processes:
    PID CMD                            %CPU
      1 /sbin/init                      0.3
    969 /snap/amazon-ssm-agent/1179     0.1
    606 /usr/lib/snapd/snapd            0.0
devops_intern@krishna-devops:~$
```



```
devops_intern@krishna-devops:~$ TIMESTAMP=$(date +%s000)
MESSAGE=$(tail -n 10 /var/log/system_report.log | tr '\n' ' ' | tr -d ',')

/usr/local/bin/aws logs put-log-events \
    --log-group-name /devops/intern-metrics \
    --log-stream-name system-logs \
    --log-events timestamp=$TIMESTAMP,message="$MESSAGE"
{
    "nextSequenceToken": "49669160732496605873417359163334251472127009435309572994"
}
devops_intern@krishna-devops:~$
```

Part 4: AWS Integration



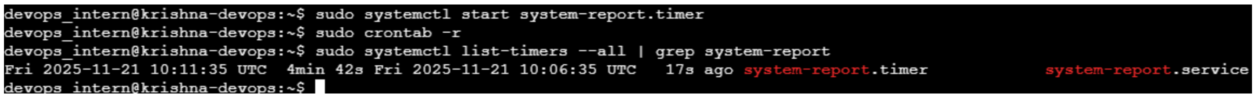
CloudWatch > Log groups > /devops/intern-metrics > system-logs

Log events

You can use the filter bar below to search for and match terms, phrases, or values in your log events. Learn more about filter patterns

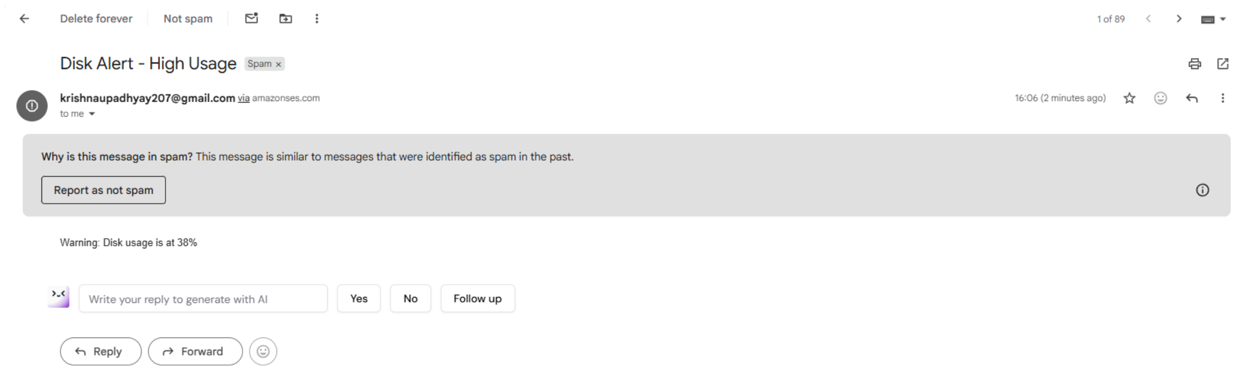
```
Timestamp                 Message
                          No older events at this moment. Retry
2025-11-21T10:00:37.000Z  8.7% Memory Usage: 44.0% Disk Usage: 38% Top CPU Processes: PID CMD %CPU 2466 ps -eo pidcmd%cpu --sort= 250 2456 /bin/bash /usr/local/bin/sy 2.5 2430 /usr/local/bin/aws configur 0.5
                          No newer events at this moment. Auto retry paused. Resume
```

BONUS : - Use a systemd service instead of cron for the report script.



```
devops_intern@krishna-devops:~$ sudo systemctl start system-report.timer
devops_intern@krishna-devops:~$ sudo crontab -r
devops_intern@krishna-devops:~$ sudo systemctl list-timers --all | grep system-report
Fri 2025-11-21 10:11:35 UTC  4min 42s Fri 2025-11-21 10:06:35 UTC   17s ago system-report.timer           system-report.service
devops_intern@krishna-devops:~$
```

BONUS :- Add an email alert (using AWS SES or mail command) when disk usage > 80%.
BUT I HAVE USE 5% AS IT IS USING LESS DISK USAGE



Disk Alert - High Usage Spam

krishnaupadhyay207@gmail.com via amazonses.com
to me

16:06 (2 minutes ago)

Why is this message in spam? This message is similar to messages that were identified as spam in the past.

Warning: Disk usage is at 38%

Write your reply to generate with AI