

TASK 1-A:

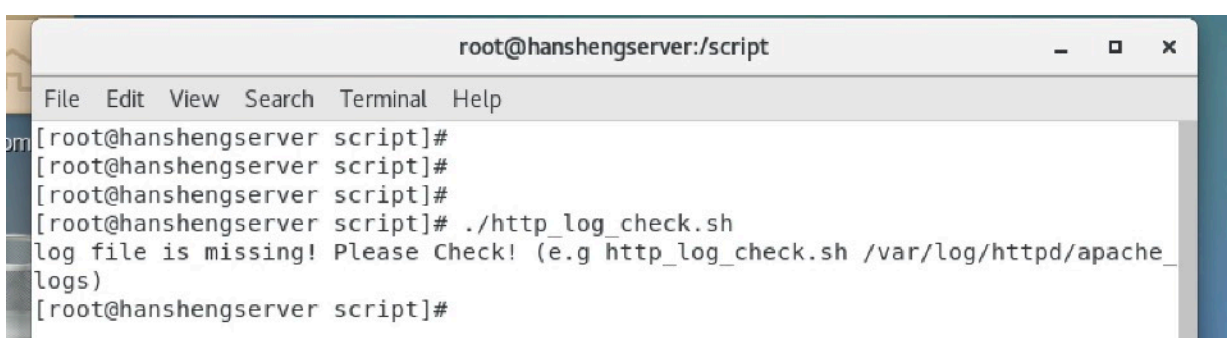
```
#!/bin/bash
#HanShengNg Assessment – Task 1
```

```
ScriptLocation=/script/http_log_check.sh
LogFile=/var/log/httpd/apache_logs
CountResponses=$(grep -e "HTTP/1\..1\" 5.." -e "HTTP/1\..1\" 4.."
$LogFile | wc -l)
Threshold=100
Email=operations.email@govtech.com
```

```
if [ -f "$1" ]; then
```

```
    if [ "$CountResponses" -gt "$Threshold" ]
    then
        echo -e "Number of HTTP 4xx & 5xx errors has a total count
of $CountResponses and is above threshold! Notifying $Email
regarding this event\n"
        grep -e "HTTP/1\..1\" 5.." -e "HTTP/1\..1\" 4.." $LogFile >
countresponse_details.txt
        mail -s "WARNING: '($CountResponses)' total of Error
Reponses as of `date`" $Email < countresponse_details.txt
        if [ $? -eq 0 ]; then
            echo "Operations team have been notified regarding
this incident!"
        fi
    else
        echo "$CountResponses is in normal threshold as of `date`"
    fi
else
    echo "log file is missing! Please Check! (e.g $ScriptLocation
$LogFile)"
fi
```

Sample output if the file is missing as the parameter:



```
root@hanshengserver:/script
File Edit View Search Terminal Help
[root@hanshengserver script]#
[root@hanshengserver script]#
[root@hanshengserver script]#
[root@hanshengserver script]# ./http_log_check.sh
log file is missing! Please Check! (e.g http_log_check.sh /var/log/httpd/apache_
logs)
[root@hanshengserver script]#
```

Sample output/log of the script:

```
root@hanshengserver:/script
File Edit View Search Terminal Help
[om[root@hanshengserver script]#
[root@hanshengserver script]# ./http_log_check.sh /var/log/httpd/apache_logs
Numer of HTTP 4xx & 5xx errors has a total count of 189 and is above threshold!
Notifying operations.team@localhost.com regarding this event

Operations team have been notified on the event
[root@hanshengserver script]#
```

I have added a cron job within the unix host to trigger the script periodically. In this example, I have configured it to run every hour and I have directed the output to `apache_cron_check.log`, in case there's a need to verify if the script is being run successfully or not.

I also verified to ensure that the cron service is running:

```
[root@hanshengserver log]# systemctl status crond.service
● crond.service - Command Scheduler
   Loaded: loaded (/usr/lib/systemd/system/crond.service; enabled; vendor preset: enabled)
   Active: active (running) since Mon 2021-04-12 18:36:18 +08; 49min ago
 Main PID: 3286 (crond)
    Tasks: 1
   CGroup: /system.slice/crond.service
           └─3286 /usr/sbin/crond -n

Apr 12 18:36:18 hanshengserver systemd[1]: Started Command Scheduler.
Apr 12 18:36:18 hanshengserver crond[3286]: (CRON) INFO (RANDOM_DELAY will b...)
Apr 12 18:36:23 hanshengserver crond[3286]: (CRON) INFO (running with inotif...)
Apr 12 19:25:01 hanshengserver crond[3286]: (root) RELOAD (/var/spool/cron/root)
Hint: Some lines were ellipsized, use -l to show in full.
[root@hanshengserver log]# crontab -e
crontab: installing new crontab
[root@hanshengserver log]# crontab -l
#This command will check the apache log errors every hour and will notify the op
erations team if above threshold
0 * * * * /script/http_log_check.sh /var/log/httpd/apache_log > /script/apache_c
ron_check.log 2>&1
```