



**National University**  
of computer and emerging sciences

## OS Assignment 1

CS2006 Operating System

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# Q1

You just have to run the file

it would check the cpu,memory,disk and log file size

and if they are above a certain threshold

it would just get alerted in the log file

```
$ Q1.sh ×
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1  #!/bin/bash
2
3  CPU_THS=30
4  DISK_THS=30
5  MEM_THS=10
6  FILE_THS=10485760
7
8  echo "$(date +%Y-%m-%d %H:%M:%S)" >> "log_file.log"
9
10 # echo $(top -bn1 | grep "Cpu(s)" | awk '{print $2}')
11
12 cpu_usage=$(top -bn1 | grep "Cpu(s)" | awk '{print $2}' | cut -d '.' -f1)
13 if [ "$cpu_usage" -gt "$CPU_THS" ]; then
14     echo "CPU usage alert: $cpu_usage% used (threshold: $CPU_THS%)" >> "log_file.log"
15 fi
16
17 freemem=$(free | awk '/^Mem:/{print $4}')
18 totmem=$(free | awk '/^Mem:/{print $2}')
19 mem_usage=$((($totmem - $freemem) * 100 / $totmem))
20
21 # echo $mem_usage
22 # echo $totmem
23 # echo $freemem
24

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

(lalaleo@Leo) - [~/Documents/FAST/OS/Q1]
$ ./Q1.sh

(lalaleo@Leo) - [~/Documents/FAST/OS/Q1]
$ cat log_file.log
2024-03-09 22:57:48
Memory usage alert: 47% used (threshold: 10%)
2024-03-09 22:58:19
Memory usage alert: 47% used (threshold: 10%)
2024-03-10 00:35:07
Memory usage alert: 34% used (threshold: 10%)

(lalaleo@Leo) - [~/Documents/FAST/OS/Q1]
```