

# Capstone Task Day 02

**Name:** Ibrahim Shnouda

**Group:** IoT701-A

**Facilitator:** Eng.Ehab Elsayed

---

## Tasks:

1.

1.1 run this command to create file in logrotate to temp.log

`sudo nano /etc/logrotate.d/temp`

1.2 then write this main configurations to temp in logrotate

`/home/ibrahim/iot_logger/logs/temp.log {`

`size 1M`

`compress`

`}`

1.3 run this command to change mode of temp.log to temp can read temp.log

`sudo chmod 666 temp.log`

2. `sudo logrotate -f /etc/logrotate.d/temp`  
to rotate by force

3. run `crontab -e` then chose 1 for nano editor then write this line

`* /5 * * * * /usr/bin/python3 /home/ibrahim/iot_logger/scripts/sensor_script.py`

`>> /home/ibrahim/iot_logger/logs/temp.log 2>&1`

“every 5 minuts run sensor\_script.py using python and write the output and errors in temp.log”

4. checking file size by this line

`ls -lh temp.log` “ increased by teime”

5. `tar -czf /home/ibrahim/iot_logger/data/temp_$(date +%Y%m%d).tar.gz -C /home/ibrahim/iot_logger/logs temp.log`

if we added this command to crontab and added time to compress, say every day at 12 AM

command analysis:

`tar -czf /home/ibrahim/iot_logger/data/temp_$(date +%Y%m%d).tar.gz` → compress file in path “/home/ibrahim/iot\_logger/data/” by name temp\_(time).tar.gz

`C /home/ibrahim/iot_logger/logs temp.log` → directory to compress

## **6.1 create virtual server**

**mkdir -p /home/ibrahim/server/**

**6.2 cp /home/ibrahim/iot\_logger/data/\*.tar.gz /home/ibrahim/server/  
copying by cp**

## **Open-Ended Questions:**

**1. \* \* \* \* \* command-to-run 5 starst simulats time (minuts – hours – day of  
month – months – day of week)**

**explain: evert (x) time run command**

**2.whithout rotation consume disk space by rotation we do limaits and cnstarains  
to files , compression ,size limit, store logs.**

**3.VM: runs over host machine, sperated for all resources, has its own recources  
and kernel, simulates the hardware and isoaltes from host**

**container: uses the host kernel and shered recources so that host and container  
must have runs the same kernel , not isolated from host**

## **4.corn with io redirection**

**file compression with premissions**

**conrn → to atuomate task every (x) time**

**we used to run script and write output in log file**

**this action is important in IoT to automate actions like store date in logs and  
rotate every (x) time and compression and send to server .**