

VIETNAM NATIONAL UNIVERSITY, HO CHI MINH CITY  
UNIVERSITY OF TECHNOLOGY  
FACULTY OF COMPUTER SCIENCE AND ENGINEERING



## HỆ ĐIỀU HÀNH (TN) (CO2018)

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### Report

### Lab 4

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HO CHI MINH CITY, 04/11/2023

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## 1 Trả lời câu hỏi

### 1.1 Exercise 1.3: Convert the following intervals to crontab presentation

**Every Monday at 08:30**

Trả lời: `30 8 * * 1 /path/to/script.sh`

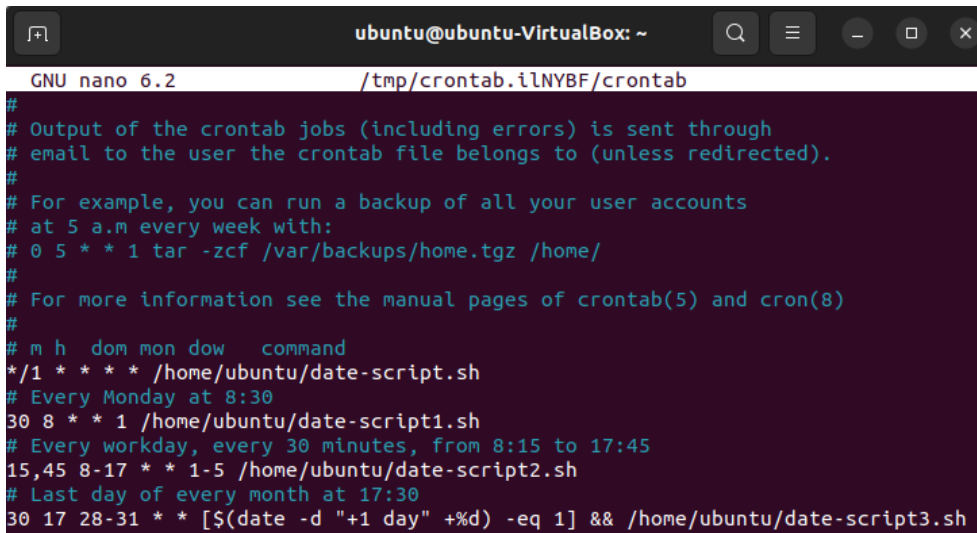
**Every workday, every 30 minutes, from 8:15 to 17:45**

Trả lời: `15,45 8-17 * * 1-5 /path/to/script.sh`

**Last day of every month at 17:30**

Trả lời: `30 17 28-31 * * [$(date -d "+1 day" +%d) -eq 1] && /path/to/script.sh`

Hình ảnh trong crontab edit, trong đó các file `date-script.sh`, `date-script1.sh`, `date-script2.sh`, `date-script3.sh` là các file xuất ra date hiện tại và ghi lần lượt vào trong các file `data-out.txt`, `data-out1.txt`, `data-out2.txt`, `data-out3.txt`. Và path to file `.sh` là `/home/ubuntu/file.sh`.



```
ubuntu@ubuntu-VirtualBox: ~
GNU nano 6.2 /tmp/crontab.ilNYBF/crontab
#
# 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
*/1 * * * * /home/ubuntu/date-script.sh
# Every Monday at 8:30
30 8 * * 1 /home/ubuntu/date-script1.sh
# Every workday, every 30 minutes, from 8:15 to 17:45
15,45 8-17 * * 1-5 /home/ubuntu/date-script2.sh
# Last day of every month at 17:30
30 17 28-31 * * [$(date -d "+1 day" +%d) -eq 1] && /home/ubuntu/date-script3.sh
```

## 2 Kết quả chạy code

### 2.1 Kết quả chạy bài in class exercise 2.2

```
ubuntu@ubuntu-VirtualBox: ~/Downloads/lab4_code/lab4_c...  
ubuntu@ubuntu-VirtualBox:~/Downloads/lab4_code/lab4_code$ make all  
Input file:  
2 4  
0 7  
2 4  
4 1  
5 4  
Results  
1- 3: Execute 0  
3- 5: Execute 1  
5- 7: Execute 0  
7- 8: Execute 2  
8-10: Execute 1  
10-12: Execute 3  
12-14: Execute 0  
14-16: Execute 3  
16-17: Execute 0  
ubuntu@ubuntu-VirtualBox:~/Downloads/lab4_code/lab4_code$ make clean  
rm -f sched  
ubuntu@ubuntu-VirtualBox:~/Downloads/lab4_code/lab4_code$
```

### 2.2 Kết quả chạy bài homework

```
ubuntu@ubuntu-VirtualBox: ~/Downloads/lab4_code/lab4_...  
ubuntu@ubuntu-VirtualBox:~/Downloads/lab4_code/lab4_homework$ make all  
Input file:  
2 4  
0 7 1  
2 4 2  
4 1 2  
5 4 1  
Results  
1- 8: Execute 0  
8-12: Execute 3  
12-16: Execute 1  
16-17: Execute 2  
ubuntu@ubuntu-VirtualBox:~/Downloads/lab4_code/lab4_homework$ make clean  
rm -f sched  
ubuntu@ubuntu-VirtualBox:~/Downloads/lab4_code/lab4_homework$
```