

Trần Tấn Phát

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LAB8

Bài làm

BT1:

```
GNU nano 6.2                                     bg_sleep.sh
#!/bin/bash
# bg_sleep.sh
sleep 300 &          # chay background
PID=$!                # PID cai tinh trang background vao
echo "Started sleep 300 in background with PID: $PID"
echo "Job list:"
jobs -l
```

```
ubuntu@ubuntu-2274802010644:~/iDragonCloud$ ./bg_sleep.sh
Started sleep 300 in background with PID: 356
Job list:
[1]+ 356 Running          sleep 300 &
ubuntu@ubuntu-2274802010644:~/iDragonCloud$
```

```
ubuntu@ubuntu-2274802010644:~/iDragonCloud$ nano bg_sleep.sh
ubuntu@ubuntu-2274802010644:~/iDragonCloud$ nano bg_sleep.sh
chmod +x bg_sleep.sh
./bg_sleep.sh
# Kiểm tra jobs:
jobs -l
# Giả sử job là %1, đưa về foreground:
fg %1
# Khi ở foreground, Ctrl+C sẽ dừng tiến trình.
Started sleep 300 in background with PID: 357
Job list:
[1]+ 357 Running          sleep 300 &
[1]+ 352 Running          sleep 300 &
sleep 300
```

BT2:

```
GNU nano 6.2                                     trap_example.sh
handle_signal() {
    local sig="$1"
    case "$sig" in
        SIGINT) echo ">> Banyak t SIGINT (2) t i PID $$" ;;
        SIGTERM) echo ">> Banyak t SIGTERM (15) t i PID $$" ;;
        SIGQUIT) echo ">> Banyak t SIGQUIT (3) ^C tho t."; exit 0 ;;
        SIGHUP) echo ">> Banyak t SIGHUP (1)" ;;
        *)      echo ">> Banyak t n hi 'gu: $sig'" ;;
    esac
}
trap 'handle_signal SIGINT' SIGINT
trap 'handle_signal SIGTERM' SIGTERM
```

GNU nano 6.2 trap *

```

handle_signal() {
    local sig="$1"
    case "$sig" in
        SIGINT) echo "Caught SIGINT (2) at PID $$" ;;
        SIGTERM) echo "Caught SIGTERM (15) at PID $$" ;;
        SIGQUIT) echo "Caught SIGQUIT (3) - exiting."; exit 0 ;;
        *) echo "Caught $sig" ;;
    esac
}

trap 'handle_signal SIGINT' SIGINT
trap 'handle_signal SIGTERM' SIGTERM
```

^G Help ^O Write Out ^W Where Is ^K Cut ^T Execute ^C Location ^U Undo
 ^X Exit ^R Read File ^A Replace ^U Paste ^J Justify ^Y Go To Line ^M-E Redo

Bt3

GNU nano 6.2 parallel_count.sh

```

#!/bin/bash
N=20

count_up() {
    local n=$1
    for ((i=0;i<=n;i++)); do
        printf "UP : %d (pid:%d)\n" "$i" "$$"
        sleep 0.2
    done
}

count_down() {
    local n=$1
    for ((i=n;i>=0;i--)); do
        printf "DOWN : %d (pid:%d)\n" "$i" "$$"
        sleep 0.2
    done
}
```

./parallel_count.sh 30

```

Started count_up (PID 410) and count_down (PID 411).
UP : 0 (pid:409)
DOWN : 30 (pid:409)
UP : 1 (pid:409)
DOWN : 29 (pid:409)
UP : 2 (pid:409)
DOWN : 28 (pid:409)

UP : 3 (pid:409)
DOWN : 27 (pid:409)
UP : 4 (pid:409)
DOWN : 26 (pid:409)
UP : 5 (pid:409)
UP : 6 (pid:409)
```

[Read 25 lines]

^G Help ^O Write Out ^W Where Is ^K Cut ^T Execute ^C Location ^U Undo
 ^X Exit ^R Read File ^A Replace ^U Paste ^J Justifyv ^Y Go To Line ^M-E Redo
 ^I-A Set Mark ^M-J To Bracket ^O Where Was

Bt4:

GNU nano 6.2 network_scan_if.sh *

```

#!/bin/bash
set -e
iface="$1"
if [ -z "$iface" ]; then
    echo "Usage: sudo $0 <interface>"
    exit 1
fi

ipinfo=$(ip -o -4 addr show dev "$iface" | awk '{print $4}')
if [ -z "$ipinfo" ]; then
    echo "No interface found for $iface"
    exit 2
fi
```

^G Help ^O Write Out ^W Where Is ^K Cut ^T Execute ^C Location ^U Undo
 ^X Exit ^R Read File ^A Replace ^U Paste ^J Justify ^Y Go To Line ^M-E Redo
 ^I-A Set Mark ^M-J To Bracket ^O Where Was

```

Hit:2 http://archive.ubuntu.com/ubuntu jammy InRelease
Hit:3 http://archive.ubuntu.com/ubuntu jammy-updates InRelease
Hit:4 http://archive.ubuntu.com/ubuntu jammy-backports InRelease
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
All packages are up to date.
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
nmap is already the newest version (7.91+dfsg1+really7.80+dfsg1-2ubuntu0.1).
0 upgraded, 0 newly installed, 0 to remove and 0 not upgraded.
Interface eth0: 172.19.0.38/16 ...
Quét host trong mang 172.19.0.38/16 ...
Connection to fit-lab.vlu.edu.vn closed by remote host.
Connection to fit-lab.vlu.edu.vn closed.
(base) trantanphat@Macintosh-5 ~ %

```

Bt5:

UW PICO 5.09 File: dns_and_route.sh

```

host="$1"
if [ -z "$host" ]; then
    echo "Usage: $0 <domain>"
    exit 1
fi

echo "Resolving IP addresses for $host ..."
if command -v dig >/dev/null 2>&1; then
    dig +short "$host"
elif command -v host >/dev/null 2>&1; then
    host "$host" | awk '/has address/ {print $4}'
else
    echo "No resolver found for host resolution"
    exit 1
fi

```

^G Get Help
^O WriteOut
^R Read File
^Y Prev Pg
^V Next Pg
^K Cut Text
^U UnCut Text
^C Cur Pos
^T To Spell

```

(base) trantanphat@Macintosh-5 ~ % sudo apt update
sudo apt install -y dnsutils traceroute
chmod +x dns_and_route.sh
./dns_and_route.sh github.com

```

```

20.205.243.166

Traceroute to github.com:
traceroute to github.com (20.205.243.166), 64 hops max, 40 byte packets
 1  192.168.1.1 (192.168.1.1)  4.418 ms  4.154 ms  4.005 ms
 2  125.235.249.147.adsl.viettel.vn (125.235.249.147)  6.116 ms  7.028 ms  5.781 ms
 3  10.255.38.215 (10.255.38.215)  6.294 ms
 10.255.38.221 (10.255.38.221)  7.081 ms
 10.255.38.219 (10.255.38.219)  7.675 ms
 4  localhost (27.68.237.138)  5.838 ms
  localhost (27.68.237.130)  5.568 ms  6.447 ms
 5  localhost (27.68.237.139)  8.350 ms

```