

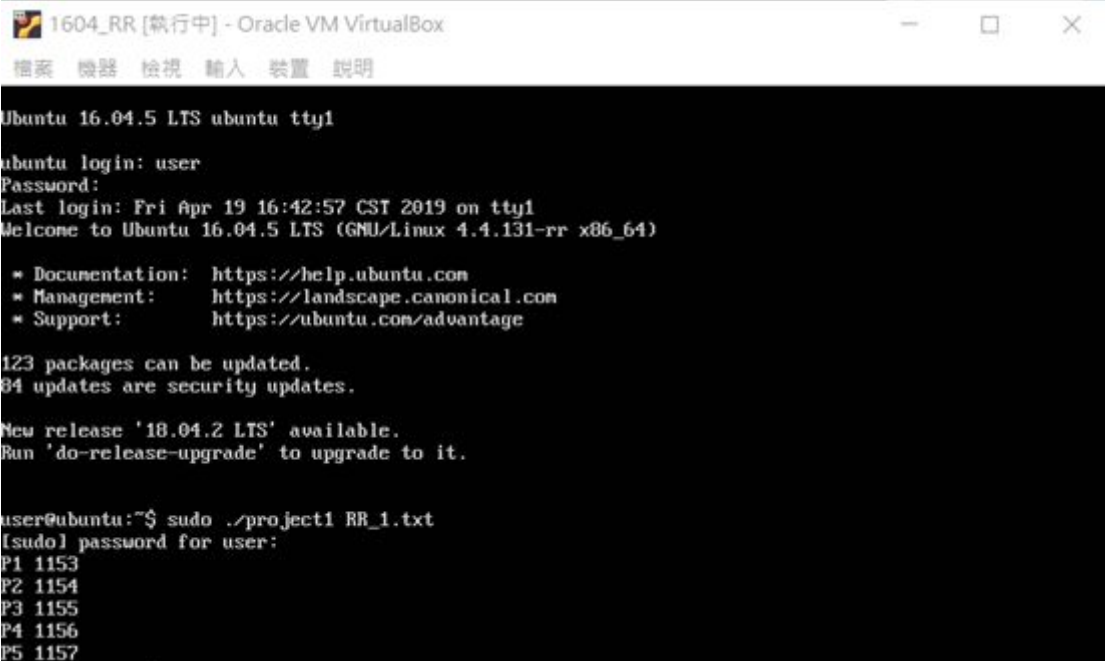
## Project 1 report

### 1. 設計:

rr:在這種設計中, 把一小段時間定義為Time Quantum或Time Slice, 每個 process 皆有固定時 間量來使用 CPU, 當 process 使用 CPU 超過一個 Time Slice 時, 則Timer會產生中斷促使此 process 從 Running state 回到 Ready state。

### 2. 執行範例測資的結果:

rr:



```
1604_RR [執行中] - Oracle VM VirtualBox
檔案 機器 檢視 輸入 裝置 說明

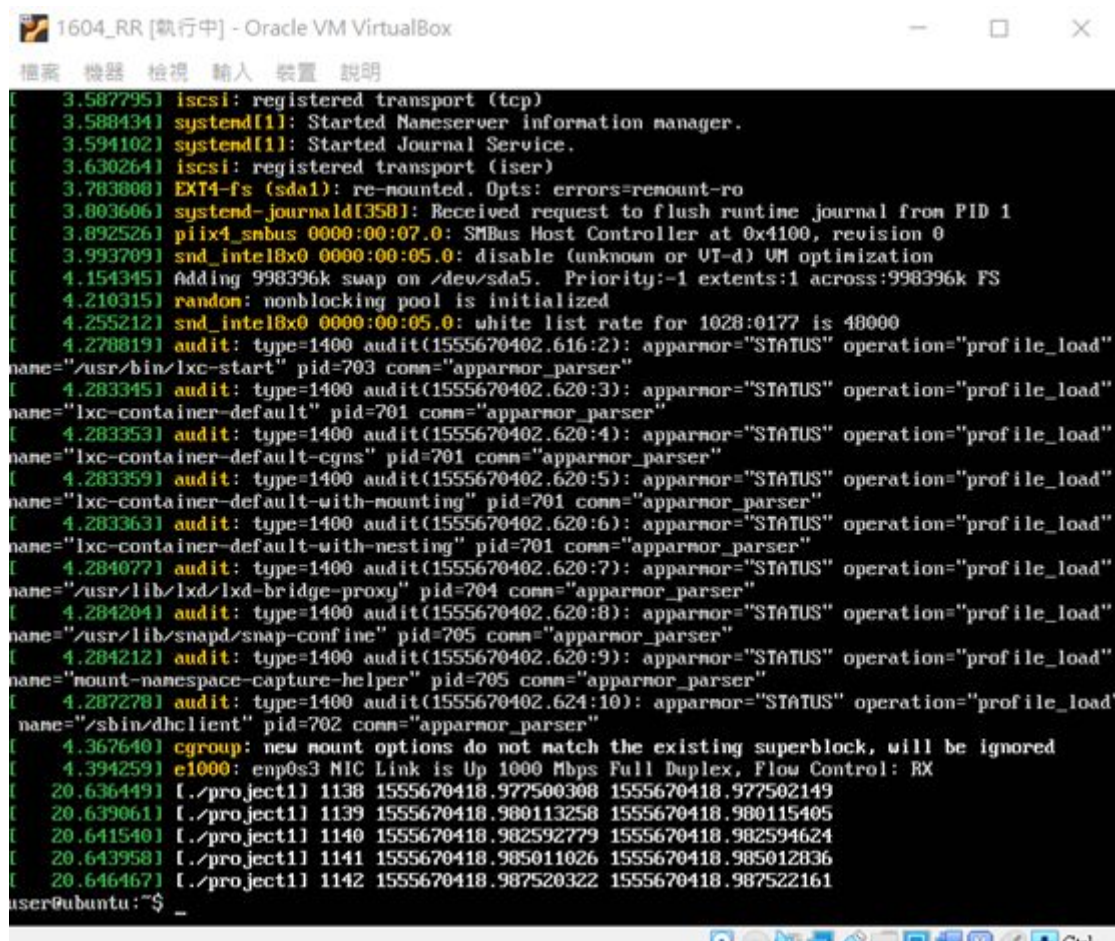
Ubuntu 16.04.5 LTS ubuntu tty1
ubuntu login: user
Password:
Last login: Fri Apr 19 16:42:57 CST 2019 on tty1
Welcome to Ubuntu 16.04.5 LTS (GNU/Linux 4.4.131-rr x86_64)

 * Documentation:  https://help.ubuntu.com
 * Management:    https://landscape.canonical.com
 * Support:        https://ubuntu.com/advantage

123 packages can be updated.
84 updates are security updates.

New release '18.04.2 LTS' available.
Run 'do-release-upgrade' to upgrade to it.

user@ubuntu:~$ sudo ./project1 RR_1.txt
[sudo] password for user:
P1 1153
P2 1154
P3 1155
P4 1156
P5 1157
```



```
1604_RR [執行中] - Oracle VM VirtualBox
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[ 3.587795] iscsi: registered transport (tcp)
[ 3.588434] systemd[1]: Started Nameserver information manager.
[ 3.594102] systemd[1]: Started Journal Service.
[ 3.630264] iscsi: registered transport (iser)
[ 3.783808] EXT4-fs (sda1): re-mounted. Opts: errors=remount-ro
[ 3.803606] systemd-journald[358]: Received request to flush runtime journal from PID 1
[ 3.892526] piix4_smbus 0000:00:07.0: SMBus Host Controller at 0x4100, revision 0
[ 3.993709] snd_intel8x0 0000:00:05.0: disable (unknown or VT-d) VM optimization
[ 4.154345] Adding 998396k swap on /dev/sda5. Priority:-1 extents:1 across:998396k FS
[ 4.210315] random: nonblocking pool is initialized
[ 4.255212] snd_intel8x0 0000:00:05.0: white list rate for 1028:0177 is 48000
[ 4.278819] audit: type=1400 audit(1555670402.616:2): apparmor="STATUS" operation="profile_load"
name="/usr/bin/lxc-start" pid=703 comm="apparmor_parser"
[ 4.283345] audit: type=1400 audit(1555670402.620:3): apparmor="STATUS" operation="profile_load"
name="/lxc-container-default" pid=701 comm="apparmor_parser"
[ 4.283353] audit: type=1400 audit(1555670402.620:4): apparmor="STATUS" operation="profile_load"
name="/lxc-container-default-cgns" pid=701 comm="apparmor_parser"
[ 4.283359] audit: type=1400 audit(1555670402.620:5): apparmor="STATUS" operation="profile_load"
name="/lxc-container-default-with-mounting" pid=701 comm="apparmor_parser"
[ 4.283363] audit: type=1400 audit(1555670402.620:6): apparmor="STATUS" operation="profile_load"
name="/lxc-container-default-with-nesting" pid=701 comm="apparmor_parser"
[ 4.284077] audit: type=1400 audit(1555670402.620:7): apparmor="STATUS" operation="profile_load"
name="/usr/lib/lxd/lxd-bridge-proxy" pid=704 comm="apparmor_parser"
[ 4.284204] audit: type=1400 audit(1555670402.620:8): apparmor="STATUS" operation="profile_load"
name="/usr/lib/snapd/snap-confine" pid=705 comm="apparmor_parser"
[ 4.284212] audit: type=1400 audit(1555670402.620:9): apparmor="STATUS" operation="profile_load"
name="/mount-namespaces-capture-helper" pid=705 comm="apparmor_parser"
[ 4.287278] audit: type=1400 audit(1555670402.624:10): apparmor="STATUS" operation="profile_load"
name="/sbin/dhclient" pid=702 comm="apparmor_parser"
[ 4.367640] cgroup: new mount options do not match the existing superblock, will be ignored
[ 4.394259] e1000: enp0s3 NIC Link is Up 1000 Mbps Full Duplex, Flow Control: RX
[ 20.636449] [./project1] 1138 1555670418.977500308 1555670418.977502149
[ 20.639061] [./project1] 1139 1555670418.980113258 1555670418.980115405
[ 20.641540] [./project1] 1140 1555670418.982592779 1555670418.982594624
[ 20.643958] [./project1] 1141 1555670418.985011026 1555670418.985012836
[ 20.646467] [./project1] 1142 1555670418.987520322 1555670418.987522161
user@ubuntu:~$
```

3. 比較實際結果與理論結果，並解釋造成差異的原因：

rr:以rr\_1.txt

理論: p1→p2→p3→p4→p5

實際: p1→p2→p3→p4→p5

差異:無差異

4. 各組員的貢獻

王憲儀：撰寫FIFO程式碼、撰寫報告

巫尚謙：撰寫RR程式碼、撰寫報告

林子翔：撰寫SJF程式碼、撰寫報告

陳翰生：撰寫PSJF程式碼、撰寫報告

禰詠詩

