Laporan Praktikum 5

Administrasi Sistem

Penjadualan Tugas

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Penjadualan Tugas

Penjadualan Tugas merupakan sebuah metode otomatisasi tugas agar dilaksanakan oleh sistem komputer dan bukan oleh manusia.

Berikut merupakan **implementasi dari penjadualan tugas** dan sistem operasi yang digunakan adalah **Ubuntu 16.04 LTS :**

Lab 5.1 Memeriksa service at

1. Untuk memeriksa apakah service at sudah berjalan atau belum maka Anda dapat memeriksanya dengan menjakankan perintah berikut:

2. Jika service at belum berjalan, Anda dapat menjalankannya dengan perintah sebagai berikut:

Lab 5.2 Membuat jadual tugas dengan at

1. Buatlah jadual tugas untuk menjalankan proses download halaman web STT NF (http://www.nurulfikri.ac.id) dengan spesifikasi waktu di atur untuk 3 menit ke depan. Gunakan perintah seperti berikut ini (misal saat ini waktu menunjukkan pukul 12:50):

```
mazharrasyad@mazharrasyad:~$ at 12:55
warning: commands will be executed using /bin/sh
at> /usr/bin/wget -O /tmp/xyz.html http://www.nurulfikri.ac.id
at> <EOT>
job 1 at Wed Nov 21 12:55:00 2018
mazharrasyad@mazharrasyad:~$
```

2. Periksalah hasilnya , jika service at berhasil menjalankan atau mengeksekusi tugas yang telah Anda jadualkan maka pada direktori /tmp akan ada file xyz.html

```
mazharrasyad@mazharrasyad:~$ ls /tmp
config-err-3nqJeU
lu4329qqxcc0.tmp
OSL_PIPE_1000_SingleOfficeIPC_dd9f151e59c1b9864f9d360557371e1
systemd-private-c7e6a70eba0e47dc95843f11eb7b7e3c-colord.service-Lu8sQT
systemd-private-c7e6a70eba0e47dc95843f11eb7b7e3c-fwupd.service-7e34p0
systemd-private-c7e6a70eba0e47dc95843f11eb7b7e3c-rtkit-daemon.service-TvLLcJ
systemd-private-c7e6a70eba0e47dc95843f11eb7b7e3c-systemd-timesyncd.service-NWa2c
1
Temp-5cd397d5-baf8-4928-8b06-c9cbe11915e8
unity_support_test.0
xyz.html
mazharrasyad@mazharrasyad:~$
```

3. Sekarang buatlah lagi jadual tugas yang akan melakukan penyalinan file /etc/passwd kedalam direktori /tmp pada 3 menit berikutnya.

```
mazharrasyad@mazharrasyad:~$ at 13:00
warning: commands will be executed using /bin/sh
at> cp /etc/passwd /tmp
at> <EOT>
job 2 at Wed Nov 21 13:00:00 2018
mazharrasyad@mazharrasyad:~$
```

```
mazharrasyad@mazharrasyad:~$ ls /tmp
config-err-3nqJeU
lu4329qqxcc0.tmp
OSL_PIPE_1000_SingleOfficeIPC_dd9f151e59c1b9864f9d360557371e1
passwd
systemd-private-c7e6a70eba0e47dc95843f11eb7b7e3c-colord.service-Lu8sQT
systemd-private-c7e6a70eba0e47dc95843f11eb7b7e3c-fwupd.service-7e34p0
systemd-private-c7e6a70eba0e47dc95843f11eb7b7e3c-rtkit-daemon.service-TvLLcJ
systemd-private-c7e6a70eba0e47dc95843f11eb7b7e3c-systemd-timesyncd.service-NWa2c
1
Temp-5cd397d5-baf8-4928-8b06-c9cbe11915e8
unity_support_test.0
xyz.html
mazharrasyad@mazharrasyad:~$
```

Lab 5.3 Melihat daftar jadual tugas dengan at

1. Anda dapat melihat daftar jadual tugas yang ada dengan menggunakan perintah at, seperti perintah berikut ini:

```
mazharrasyad@mazharrasyad:~$ at -l
2        Wed Nov 21 13:00:00 2018 a mazharrasyad
mazharrasyad@mazharrasyad:~$
```

2. Melihat detail tugas yang telah dijadualkan, lakukan perintah berikut ini:

```
mazharrasyad@mazharrasyad:~$ at -c 2
#!/bin/sh
# atrun uid=1000 gid=1000
# mail mazharrasyad 0
umask 2
XDG_VTNR=7; export XDG_VTNR
LC_PAPER=id_ID.UTF-8; export LC_PAPER
LC_ADDRESS=id_ID.UTF-8; export LC_ADDRESS
XDG_SESSION_ID=c1; export XDG_SESSION_ID
LC_NAME=id_ID.UTF-8; export LC_NAME
XAUTHORITY=/home/mazharrasyad/.Xauthority; export XAUTHORITY
cd /home/mazharrasyad || {
        echo 'Execution directory inaccessible' >&2
        exit 1
}
cp /etc/passwd /tmp

mazharrasyad@mazharrasyad:~$
```

Lab 5.4 Menghapus jadual tugas dengan at

1. Anda dapat menghapus jadual tugas yang telah dibuat dan belum dijalankan, dengan menggunakan perintah at, seperti perintah berikut ini:

```
mazharrasyad@mazharrasyad:~$ at 13:00
warning: commands will be executed using /bin/sh
at> cp /etc/passwd /home/mazharrasyad/Desktop
at> <EOT>
job 4 at Thu Nov 22 13:00:00 2018
mazharrasyad@mazharrasyad:~$ at -l
4       Thu Nov 22 13:00:00 2018 a mazharrasyad
mazharrasyad@mazharrasyad:~$
```

```
mazharrasyad@mazharrasyad:~$ at -r 4
mazharrasyad@mazharrasyad:~$
```

2. Periksa dengan perintah berikut ini untuk membuktukan bahwa jadual tugas dengan job id 3 telah dihapus dari daftar jadual tugas:

```
mazharrasyad@mazharrasyad:~$ at -c 4
Cannot find jobid 4
mazharrasyad@mazharrasyad:~$
```

Lab 5.5 Memeriksa service cron

1. Untuk memeriksa apakah service cron sudah berjalan atau belum maka Anda dapat memeriksanya dengan menjakankan perintah berikut:

```
mazharrasyad@mazharrasyad:~$ service cron status
● cron.service - Regular background program processing daemon
   Loaded: loaded (/lib/systemd/system/cron.service; enabled; vendor preset: ena
   Active: active (running) since Rab 2018-11-21 12:27:09 WIB; 41min ago
     Docs: man:cron(8)
 Main PID: 878 (cron)
   CGroup: /system.slice/cron.service
           └─878 /usr/sbin/cron -f

Nov 21 12:39:01 mazharrasyad CRON[3746]: (root) CMD (  [ -x /usr/lib/php/session
Nov 21 12:39:01 mazharrasyad CRON[3745]: pam_unix(cron:session): session closed
Nov 21 12:45:01 mazharrasyad CRON[4156]: pam_unix(cron:session): session opened
Nov 21 12:45:01 mazharrasyad CRON[4157]: (root) CMD (command -v debian-sa1 > /de
Nov 21 12:55:01 mazharrasyad CRON[4885]: pam_unix(cron:session): session opened
Nov 21 12:55:01 mazharrasyad CRON[4886]: (root) CMD (command -v debian-sa1 > /de
Nov 21 12:55:01 mazharrasyad CRON[4885]: pam_unix(cron:session): session closed
Nov 21 13:05:01 mazharrasyad CRON[5671]: pam_unix(cron:session): session opened
Nov 21 13:05:01 mazharrasyad CRON[5672]: (root) CMD (command -v debian-sa1 > /de
Nov 21 13:05:01 mazharrasyad CRON[5671]: pam_unix(cron:session): session closed
lines 1-18/18 (END)
```

2. Jika service cron belum berjalan , Anda dapat menjalankannya dengan perintah sebagai berikut:

```
mazharrasyad@mazharrasyad: ~
mazharrasyad@mazharrasyad:~$ sudo service cron start
[sudo] password for mazharrasyad:
mazharrasyad@mazharrasyad:~$
```

Lab 5.6 Membuat jadual tugas dengan cron

1. Buatlah jadual tugas untuk menjalankan proses download halaman web STT NF (http://www.nurulfikri.ac.id) dengan spesifikasi waktu di atur untuk tiap 3 menit

```
mazharrasyad@mazharrasyad: ~
mazharrasyad@mazharrasyad:~$ crontab -e
```

```
mazharrasyad@mazharrasyad: ~
  GNU nano 2.5.3          File: /tmp/crontab.nmfPGp/crontab              Modified

# 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


^G Get Help   ^O Write Out ^W Where Is  ^K Cut Text  ^J Justify   ^C Cur Pos
^X Exit       ^R Read File ^\ Replace   ^U Uncut Text^T To Spell  ^_ Go To Line
```

```
mazharrasyad@mazharrasyad: ~
  GNU nano 2.5.3          File: /tmp/crontab.2206vx/crontab              Modified

# 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
*/3 * * * * /usr/bin/wget -O /tmp/xyz.html http://www.nurulfikri.ac.id


^G Get Help   ^O Write Out ^W Where Is  ^K Cut Text  ^J Justify   ^C Cur Pos
^X Exit       ^R Read File ^\ Replace   ^U Uncut Text^T To Spell  ^_ Go To Line
```

```
mazharrasyad@mazharrasyad: ~
mazharrasyad@mazharrasyad:~$ crontab -e
no crontab for mazharrasyad - using an empty one
crontab: installing new crontab
mazharrasyad@mazharrasyad:~$
```

2. Lihatlah daftar jadual tugas yang baru Anda buat dengan perintah berikut ini:


```
mazharrasyad@mazharrasyad:~$ crontab -l
# Edit this file to introduce tasks to be run by cron.
#
# Each task to run has to be defined through a single line
# indicating with different fields when the task will be run
# and what command to run for the task
#
# To define the time you can provide concrete values for
# minute (m), hour (h), day of month (dom), month (mon),
# and day of week (dow) or use '*' in these fields (for 'any').#
# Notice that tasks will be started based on the cron's system
# daemon's notion of time and timezones.
#
# 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
*/3 * * * * /usr/bin/wget -O /tmp/xyz.html http://www.nurulfikri.ac.id
mazharrasyad@mazharrasyad:~$
```

3. Periksalah hasilnya, jika service cron berhasil menjalankan atau mengeksekusi tugas yang telah Anda jadualkan, maka pada direktori /tmp akan ada file xyz.html dengan last modified date time nya menunjukkan waktu per 3 menit.


```
mazharrasyad@mazharrasyad:~$ ls -l /tmp
total 32
-rw------- 1 mazharrasyad mazharrasyad    0 Nov 21 12:27 config-err-3nqJeU
drwx------ 2 mazharrasyad crontab      4096 Nov 21 13:14 crontab.nmfPGp
drwx------ 2 mazharrasyad mazharrasyad 4096 Nov 21 13:16 lu4329qqxcc0.tmp
srwxrwxr-x 1 mazharrasyad mazharrasyad    0 Nov 21 12:47 OSL_PIPE_1000_SingleOff
iceIPC_dd9f151e59c1b9864f9d360557371e1
-rw-r--r-- 1 mazharrasyad mazharrasyad 2771 Nov 21 13:00 passwd
drwx------ 3 root         root         4096 Nov 21 12:27 systemd-private-c7e6a70
eba0e47dc95843f11eb7b7e3c-colord.service-Lu8sQT
drwx------ 3 root         root         4096 Nov 21 12:28 systemd-private-c7e6a70
eba0e47dc95843f11eb7b7e3c-fwupd.service-7e34p0
drwx------ 3 root         root         4096 Nov 21 12:27 systemd-private-c7e6a70
eba0e47dc95843f11eb7b7e3c-rtkit-daemon.service-TvLLcJ
drwx------ 3 root         root         4096 Nov 21 12:25 systemd-private-c7e6a70
eba0e47dc95843f11eb7b7e3c-systemd-timesyncd.service-NWa2c1
drwx------ 2 mazharrasyad mazharrasyad 4096 Nov 21 12:28 Temp-5cd397d5-baf8-4928
-8b06-c9cbe11915e8
-rw-rw-r-- 1 mazharrasyad mazharrasyad    0 Nov 21 12:27 unity_support_test.0
-rw-rw-r-- 1 mazharrasyad mazharrasyad    0 Nov 21 13:18 xyz.html
mazharrasyad@mazharrasyad:~$
```

4. Sekarang buatlah lagi jadual tugas yang akan melakukan penyalinan file /etc/passwd kedalam direktori /tmp setiap 2


```
GNU nano 2.5.3            File: /tmp/crontab.LjuwIY/crontab              Modified

#
# m h  dom mon dow    command
*/3 * * * * /usr/bin/wget -O /tmp/xyz.html http://www.nurulfikri.ac.id
*/2 * * * * cp /etc/passwd /tmp

^G Get Help   ^O Write Out ^W Where Is  ^K Cut Text  ^J Justify   ^C Cur Pos
^X Exit       ^R Read File ^\ Replace   ^U Uncut Text^T To Spell  ^_ Go To Line
```

```
mazharrasyad@mazharrasyad: ~

mazharrasyad@mazharrasyad:~$ crontab -l
# Edit this file to introduce tasks to be run by cron.
#
# Each task to run has to be defined through a single line
# indicating with different fields when the task will be run
# and what command to run for the task
#
# To define the time you can provide concrete values for
# minute (m), hour (h), day of month (dom), month (mon),
# and day of week (dow) or use '*' in these fields (for 'any').#
# Notice that tasks will be started based on the cron's system
# daemon's notion of time and timezones.
#
# 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
*/3 * * * * /usr/bin/wget -O /tmp/xyz.html http://www.nurulfikri.ac.id
*/2 * * * * cp /etc/passwd /tmp
mazharrasyad@mazharrasyad:~$
```

```
mazharrasyad@mazharrasyad: ~

mazharrasyad@mazharrasyad:~$ ls -l /tmp
total 112
-rw------- 1 mazharrasyad mazharrasyad      0 Nov 21 12:27 config-err-3nqJeU
drwx------ 2 mazharrasyad crontab        4096 Nov 21 13:14 crontab.nmfPGp
drwx------ 2 mazharrasyad mazharrasyad  4096 Nov 21 13:23 lu4329qqxcc0.tmp
srwxrwxr-x 1 mazharrasyad mazharrasyad      0 Nov 21 12:47 OSL_PIPE_1000_SingleOf
ficeIPC_dd9f151e59c1b9864f9d360557371e1
-rw-r--r-- 1 mazharrasyad mazharrasyad   2771 Nov 21 13:26 passwd
drwx------ 3 root         root          4096 Nov 21 12:27 systemd-private-c7e6a7
0eba0e47dc95843f11eb7b7e3c-colord.service-Lu8sQT
drwx------ 3 root         root          4096 Nov 21 12:28 systemd-private-c7e6a7
0eba0e47dc95843f11eb7b7e3c-fwupd.service-7e34p0
drwx------ 3 root         root          4096 Nov 21 12:27 systemd-private-c7e6a7
0eba0e47dc95843f11eb7b7e3c-rtkit-daemon.service-TvLLcJ
drwx------ 3 root         root          4096 Nov 21 12:25 systemd-private-c7e6a7
0eba0e47dc95843f11eb7b7e3c-systemd-timesyncd.service-NWa2c1
drwx------ 2 mazharrasyad mazharrasyad  4096 Nov 21 12:28 Temp-5cd397d5-baf8-492
8-8b06-c9cbe11915e8
-rw-rw-r-- 1 mazharrasyad mazharrasyad      0 Nov 21 12:27 unity_support_test.0
-rw-rw-r-- 1 mazharrasyad mazharrasyad  80714 Nov 21 13:24 xyz.html
mazharrasyad@mazharrasyad:~$
```

```
mazharrasyad@mazharrasyad: ~
mazharrasyad@mazharrasyad:~$ ls -l /tmp
total 112
-rw------- 1 mazharrasyad mazharrasyad      0 Nov 21 12:27 config-err-3nqJeU
drwx------ 2 mazharrasyad crontab        4096 Nov 21 13:14 crontab.nmfPGp
drwx------ 2 mazharrasyad mazharrasyad   4096 Nov 21 13:23 lu4329qqxcc0.tmp
srwxrwxr-x 1 mazharrasyad mazharrasyad      0 Nov 21 12:47 OSL_PIPE_1000_SingleOf
ficeIPC_dd9f151e59c1b9864f9d360557371e1
-rw-r--r-- 1 mazharrasyad mazharrasyad   2771 Nov 21 13:28 passwd
drwx------ 3 root         root          4096 Nov 21 12:27 systemd-private-c7e6a7
0eba0e47dc95843f11eb7b7e3c-colord.service-Lu8sQT
drwx------ 3 root         root          4096 Nov 21 12:28 systemd-private-c7e6a7
0eba0e47dc95843f11eb7b7e3c-fwupd.service-7e34p0
drwx------ 3 root         root          4096 Nov 21 12:27 systemd-private-c7e6a7
0eba0e47dc95843f11eb7b7e3c-rtkit-daemon.service-TvLLcJ
drwx------ 3 root         root          4096 Nov 21 12:25 systemd-private-c7e6a7
0eba0e47dc95843f11eb7b7e3c-systemd-timesyncd.service-NWa2c1
drwx------ 2 mazharrasyad mazharrasyad   4096 Nov 21 12:28 Temp-5cd397d5-baf8-492
8-8b06-c9cbe11915e8
-rw-rw-r-- 1 mazharrasyad mazharrasyad      0 Nov 21 12:27 unity_support_test.0
-rw-rw-r-- 1 mazharrasyad mazharrasyad  80714 Nov 21 13:27 xyz.html
mazharrasyad@mazharrasyad:~$
```

Lab 5.7 Menghapus jadual tugas dengan cron

1. Anda dapat menghapus jadual tugas yang telah dibuat dan belum dijalankan , dengan menggunakan perintah crontab, seperti perintah berikut ini:


```
mazharrasyad@mazharrasyad: ~
mazharrasyad@mazharrasyad:~$ crontab -r
mazharrasyad@mazharrasyad:~$
```

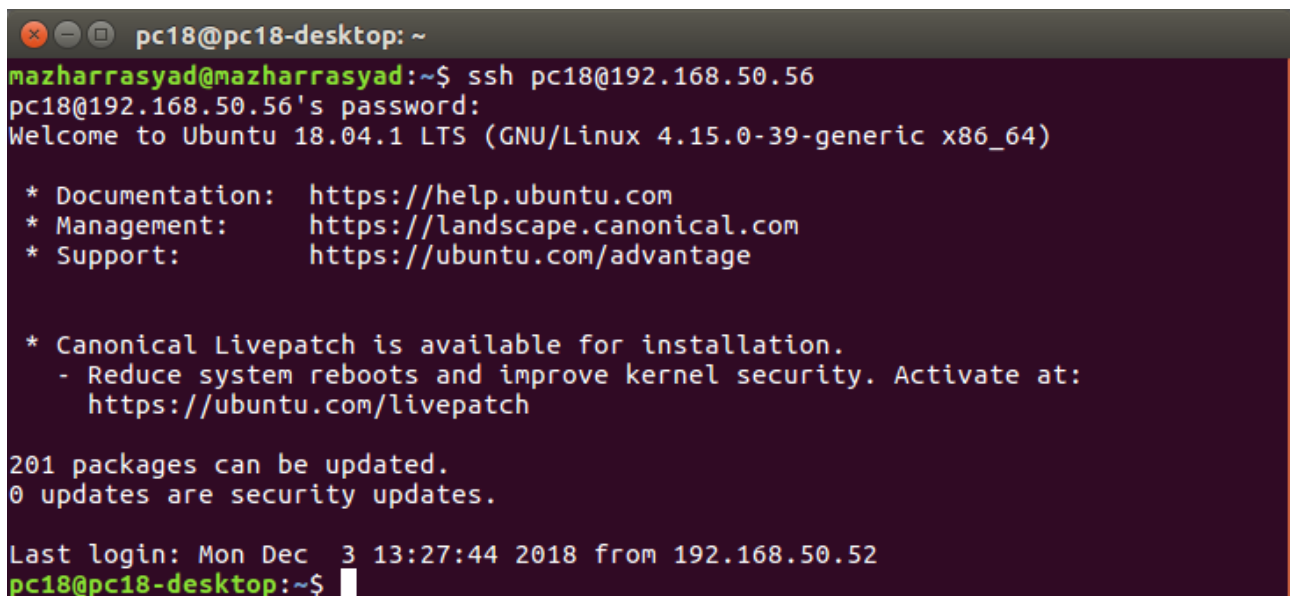2. Periksalah apakah jadual tugas Anda masih ada atau tidak, gunakan perintah berikut ini:


```
mazharrasyad@mazharrasyad: ~
mazharrasyad@mazharrasyad:~$ crontab -l
no crontab for mazharrasyad
mazharrasyad@mazharrasyad:~$
```

Lab 5.8 Membuat jadual tugas backup

1. Buatlah jadual tugas untuk menjalankan proses backup direktori /boot pada komputer Anda ke komputer lain (misal: komputer teman Anda) pada direktori /tmp menggunakan tool 'rsync' , yang akan melakukan backup setiap 5 menit, diantara jam 12:00 s/d 21:00 , disetiap hari senin sampai dengan jumat.

2. Langkah pertama , pastikan bahwa dari komputer Anda dapat melakukan remote login via ssh ke komputer teman Anda. Misal komputer teman Anda memiliki alamat IP 192.168.1.1, lakukan hal berikut:

Jika berhasil login maka komputer Anda berhak dan dapat mengakses komputer teman Anda melalui ssh. Ingat untuk melakukan rsync antar komputer Anda dan teman Anda, dibutuhkan kanal komunikasi SSH ini.

3. Untuk mengotomatisasi tugas backup dengan rsync ini , Anda harus memastikan bahwa tugas tersebut tidak bersifat interaktif. Jika Anda melakukan backup menggunakan tool rsync dan melalui kanal komunikasi SSH maka proses tersebut akan menjadi proses interaktif. Hal ini tentunya tidak memenuhi persyaratan penjadualan tugas bahwa proses atau tugas yang dijadualkan harus non interaktif. Untuk itu lakukan hal berikut ini untuk mengubah proses rsync via ssh tersebut menjadi non interaktif. Ikuti langkah langkahnya sebagai berikut:

• Buat public key ssh, dengan perintah berikut ini:

```
mazharrasyad@mazharrasyad:~$ ssh-keygen
Generating public/private rsa key pair.
Enter file in which to save the key (/home/mazharrasyad/.ssh/id_rsa):
Enter passphrase (empty for no passphrase):
Enter same passphrase again:
Your identification has been saved in /home/mazharrasyad/.ssh/id_rsa.
Your public key has been saved in /home/mazharrasyad/.ssh/id_rsa.pub.
The key fingerprint is:
SHA256:kyjWcRGdScOgBmhskL4uhnDNCNwUIelkEdNYMnS4X3c mazharrasyad@mazharrasyad
The key's randomart image is:
+---[RSA 2048]----+
|o%O*+   +*oo     |
|.*@o . . .=.     |
|*o+   + .        |
|.= . + = E       |
| .o++ + S        |
|..ooo.   .       |
|+.               |
|oo               |
|o                |
+----[SHA256]-----+
mazharrasyad@mazharrasyad:~$ 
```

4. Selanjutnya salin public key yang telah Anda buat ke komputer teman Anda (192.168.1.1), dengan perintah berikut ini:

```
mazharrasyad@mazharrasyad:~$ ssh-copy-id pc18@192.168.50.56
/usr/bin/ssh-copy-id: INFO: attempting to log in with the new key(s), to filter
out any that are already installed
/usr/bin/ssh-copy-id: INFO: 1 key(s) remain to be installed -- if you are prompt
ed now it is to install the new keys
pc18@192.168.50.56's password:

Number of key(s) added: 1

Now try logging into the machine, with:   "ssh 'pc18@192.168.50.56'"
and check to make sure that only the key(s) you wanted were added.

mazharrasyad@mazharrasyad:~$ 
```

5. Sekarang, cobalah Anda login ke komputer teman Anda, perhatikan apakah meminta password atau tidak, jika tidak maka Anda sudah berhasil mengubah proses ssh menjadi non interaktif, artinya proses rsync melalui ssh ini juga menjadi non interaktif.

```
⊗⊖⊡   pc18@pc18-desktop: ~
mazharrasyad@mazharrasyad:~$ ssh pc18@192.168.50.56
Welcome to Ubuntu 18.04.1 LTS (GNU/Linux 4.15.0-39-generic x86_64)

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


 * Canonical Livepatch is available for installation.
   - Reduce system reboots and improve kernel security. Activate at:
     https://ubuntu.com/livepatch

201 packages can be updated.
0 updates are security updates.

Last login: Mon Dec  3 14:57:05 2018 from 192.168.50.52
pc18@pc18-desktop:~$ ▮
```

6. Langkah berikutnya adalah menjadualkan tugas backup menggunakan rsync sebagaimana yang telah direncanakan.

```
⊗⊖⊡   mazharrasyad@mazharrasyad: ~
mazharrasyad@mazharrasyad:~$ crontab -e▮
```

```
⊗⊖⊡   mazharrasyad@mazharrasyad: ~
  GNU nano 2.5.3          File: /tmp/crontab.ib3HhL/crontab          Modified

# 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
*/5 12-21 * * 1-5 /usr/bin/rsync -av -rsh='ssh' /boot pc18@192.168.50.56:/tmp/ ▮




^G Get Help   ^O Write Out ^W Where Is   ^K Cut Text   ^J Justify    ^C Cur Pos
^X Exit       ^R Read File ^\ Replace    ^U Uncut Text^T To Spell    ^_ Go To Line
```

```
⊗⊖⊡   mazharrasyad@mazharrasyad: ~
mazharrasyad@mazharrasyad:~$ crontab -e
no crontab for mazharrasyad - using an empty one
crontab: installing new crontab
mazharrasyad@mazharrasyad:~$ ▮
```

7. Perhatikan hasilnya , lihat apakah pada komputer teman Anda (192.168.1.1) tepatnya pada direktori /tmp/ ada hasil backup yaitu direktori boot


```
pc18@pc18-desktop: ~

mazharrasyad@mazharrasyad:~$ ssh pc18@192.168.50.56
Welcome to Ubuntu 18.04.1 LTS (GNU/Linux 4.15.0-39-generic x86_64)

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


 * Canonical Livepatch is available for installation.
   - Reduce system reboots and improve kernel security. Activate at:
     https://ubuntu.com/livepatch

201 packages can be updated.
0 updates are security updates.

Last login: Mon Dec  3 15:01:35 2018 from 192.168.50.52
pc18@pc18-desktop:~$ ls /tmp
boot
config-err-t4Yz24
ssh-Q0DeEPUwfR0h
systemd-private-a1093a986b5a4551a7f8075dcd4f857c-apache2.service-AtzGtr
systemd-private-a1093a986b5a4551a7f8075dcd4f857c-bolt.service-yDXuxy
systemd-private-a1093a986b5a4551a7f8075dcd4f857c-colord.service-WxpDTC
systemd-private-a1093a986b5a4551a7f8075dcd4f857c-fwupd.service-7iX1SF
systemd-private-a1093a986b5a4551a7f8075dcd4f857c-rtkit-daemon.service-1nkiJK
systemd-private-a1093a986b5a4551a7f8075dcd4f857c-systemd-resolved.service-H6JsN5
systemd-private-a1093a986b5a4551a7f8075dcd4f857c-systemd-timesyncd.service-g08Ze
j
pc18@pc18-desktop:~$
```

- *Selesai*- -

Referensi

- Modul praktikum Administrasi sistem dan jaringan – STT NF (Disusun oleh: Henry Saptono, S.Si, M.Kom)