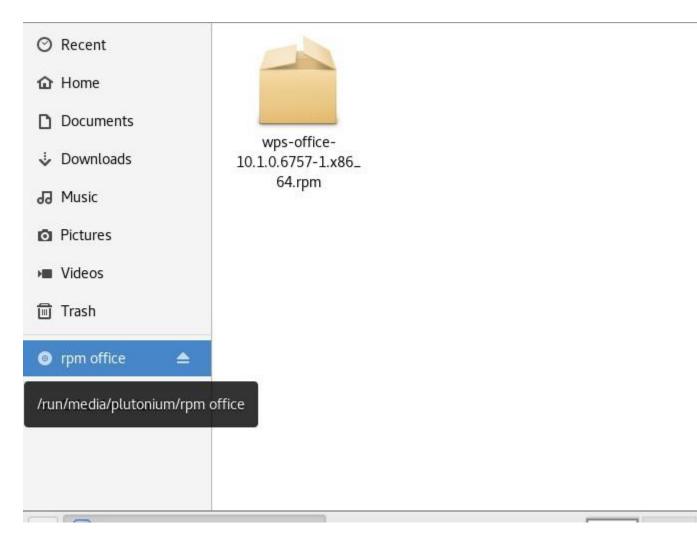
HỆ ĐIỀU HÀNH MÃ NGUỒN MỞ

TUẦN 7

THỰC HÀNH CÀI ĐẶT PHẦN MỀM

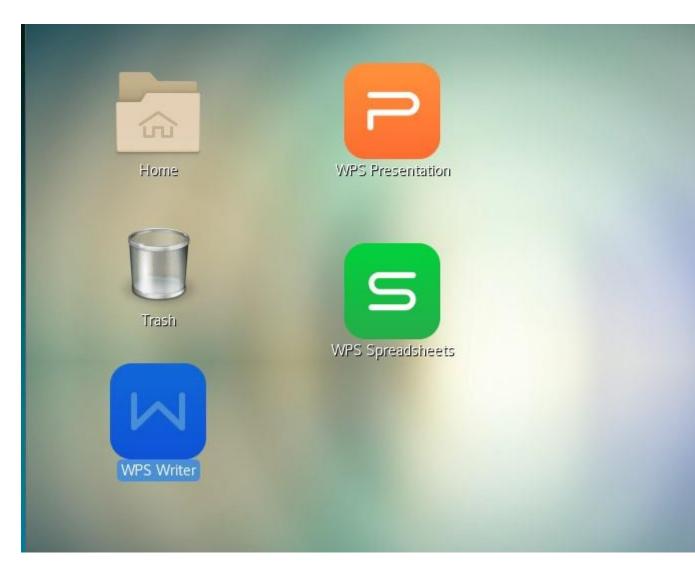
1. Sinh viên thực hiện cài đặt phần mềm WPS office với bộ source đã cung cấp tại site của giáo viên.



Thực hiện cài đặt

```
[root@localhost plutonium]# rpm -ivh '/run/media/plutonium/rpm office/wps-o
.6757-1.x86_64.rpm' --nodeps
Preparing... ################################ [16
Updating / installing...
1:wps-office-10.1.0.6757-1 ######################## [16
```

Kết quả thành công



2. Sinh viên thực hiện cấu hình địa chỉ IP cho máy tính có thể truy cập được internet.

Kiểm tra IPv4 ta thấy ipv4 192.168.44.129

```
[root@localhost plutonium]# ip a
1: lo: <LOOPBACK,UP,LOWER UP> mtu 65536 qdisc noqueue state UNKNOWN group default qlen 10
00
   link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00
   inet 127.0.0.1/8 scope host lo
      valid_lft forever preferred_lft forever
   inet6 ::1/128 scope host
      valid lft forever preferred lft forever
2: ens33: <BROADCAST,MULTICAST,UP, LOWER UP> mtu 1500 qdisc pfifo fast state UP group defa
ult qlen 1000
    link/ether 00:0c:29:c7:da:6a brd ff:ff:ff:ff:ff
   inet 192.168.44.129/24 brd 192.168.44.255 scope global noprefixroute dynamic ens33
      valid_lft 1267sec preferred_lft 1267sec
   inet6 fe80::2b5:bcff:d2a:91a5/64 scope link noprefixroute
      valid lft forever preferred lft forever
3: virbr0: <NO-CARRIER,BROADCAST,MULTICAST,UP> mtu 1500 qdisc noqueue state DOWN group de
fault qlen 1000
   link/ether 52:54:00:1d:ce:fc brd ff:ff:ff:ff:ff
   inet 192.168.122.1/24 brd 192.168.122.255 scope global virbr0
      valid_lft forever preferred_lft forever
4: virbr0-nic: <BROADCAST,MULTICAST> mtu 1500 qdisc pfifo_fast master virbr0 state DOWN g
roup default glen 1000
   link/ether 52:54:00:1d:ce:fc brd ff:ff:ff:ff:ff
[root@localhost plutonium]#
```

```
Kiểm tra ip default rỗng
[root@localhost plutonium]# ip route
192.168.44.0/24 dev ens33 proto kernel scope link src 192.168.44.129 metric 100
192.168.122.0/24 dev virbr0 proto kernel scope link src 192.168.122.1
[root@localhost plutonium]#
Xem DNS sever ta thấy đang rỗng
[root@localhost plutonium]# cat /etc/resolv.conf
# Generated by NetworkManager
[root@localhost plutonium]#
Tiến hành thay đổi
[root@localhost plutonium]# cd /etc/sysconfig/network-scripts/
[root@localhost network-scripts]# ls
ifcfg-ens33
             ifdown-isdn
                                            ifup-plip
                                                            ifup-tunnel
ifcfg-lo
             ifdown-post
                              ifup-aliases
                                            ifup-plusb
                                                            ifup-wireless
             ifdown-ppp
                              ifup-bnep
                                                            init.ipv6-global
                                            ifup-post
ifdown-bnep
            ifdown-routes
                              ifup-eth
                                            ifup-ppp
                                                            network-functions
             ifdown-sit
                              ifup-ib
                                                           network-functions-ipv6
ifdown-eth
                                            ifup-routes
             ifdown-Team
ifdown-ib
                              ifup-ippp
                                            ifup-sit
                                            ifup-Team
ifdown-ippp ifdown-TeamPort ifup-ipv6
ifdown-ipv6 ifdown-tunnel
                                            ifup-TeamPort
                              ifup-isdn
[root@localhost network-scripts]#
ta thay đổi ifcfg-ens33
TYPE=Ethernet
PROXY METHOD=none
BROWSER ONLY=no
DEFROUTE=yes
IPV4 FAILURE FATAL=no
IPV6INIT=yes
IPV6 AUTOCONF=yes
IPV6 DEFROUTE=yes
IPV6 FAILURE FATAL=no
IPV6 ADDR GEN MODE=stable-privacy
NAME=ens33
UUID=79155266-f0c9-4c62-b486-f8b33412bc6e
DEVICE=ens33
ONBOOT=yes
PEERDNS=no
PEERROUTES=no
B00TPR0T0=dhcp
CONNECTION METERED=yes
IPADDR=192.168.1.81
NETMASK=255.255.255.0
                                                        ^G Get Help
^X Exit
                            ^R Read File
^W Where Is
                                          ^Y Prev Page
^V Next Page
              `O WriteOut
                               Read File
                                             Prev Page
              ^J Justify
```

Ta khởi động lại dịch vụ mạng

```
[root@localhost network-scripts]# nano ifcfg-ens33
[root@localhost network-scripts]# service network restart
Restarting network (via systemctl): [ OK ]
[root@localhost network-scripts]#
```

Kiểm tra lại ipv4 đã thay đổi thành 192.168.1.81

```
[root@localhost network-scripts]# ip a
1: lo: <LOOPBACK,UP,LOWER UP> mtu 65536 qdisc noqueue state UNKNOWN group default glen 10
00
    link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00
    inet 127.0.0.1/8 scope host lo
       valid lft forever preferred_lft forever
    inet6 ::1/128 scope host
       valid_lft forever preferred_lft forever
2: ens33: <BROADCAST,MULTICAST,UP,LOWER UP> mtu 1500 qdisc pfifo fast state UP group defa
ult alen 1000
    link/ether 00:0c:29:c7:da:6a brd ff:ff:ff:ff:ff
    inet 192.168.1.81/24 brd 192.168.1.255 scope global noprefixroute ens33
      valid lft forever preferred lft forever
    inet 192.168.44.129/24 brd 192.168.44.255 scope global noprefixroute dynamic ens33
       valid lft 1723sec preferred lft 1723sec
    inet6 fe80::2b5:bcff:d2a:91a5/64 scope link noprefixroute
       valid lft forever preferred lft forever
3: virbr0: <NO-CARRIER,BROADCAST,MULTICAST,UP> mtu 1500 qdisc noqueue state DOWN group de
fault glen 1000
    link/ether 52:54:00:1d:ce:fc brd ff:ff:ff:ff:ff
    inet 192.168.122.1/24 brd 192.168.122.255 scope global virbr0
       valid_lft forever preferred_lft forever
4: virbr0-nic: <BROADCAST,MULTICAST> mtu 1500 qdisc pfifo_fast master virbr0 state DOWN g
roup default qlen 1000
```

Kiểm tra lại gateway ta thấy ip đã đổi thành 192.168.1.1

```
[root@localhost network-scripts]# ip route
default via 192.168.1.1 dev ens33 proto static metric 100
192.168.1.0/24 dev ens33 proto kernel scope link src 192.168.1.81 metric 100
192.168.44.0/24 dev ens33 proto kernel scope link src 192.168.44.129 metric 100
192.168.122.0/24 dev virbr0 proto kernel scope link src 192.168.122.1
[root@localhost network-scripts]# S
```

Tương tự dns ta thấy vẫn chưa được thiết lập

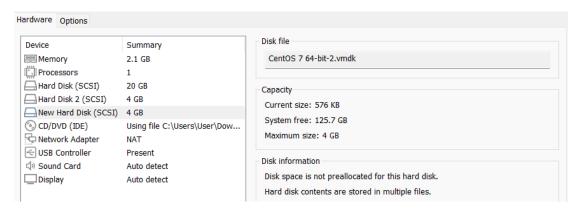
```
[root@localhost network-scripts]# cat /etc/resolv.conf
# Generated by NetworkManager
[root@localhost network-scripts]#
```

Tiến hành thiết lập DNS

[root@localhost plutonium]# cat /etc/resolv.conf

```
# Generated by NetworkManager
nameserver 8.8.8.8
[root@localhost plutonium]#
```

- 3. Sinh viên hãy cài đặt bộ gỗ bằng gói YUM.
- 4. Sinh viên hãy gắn thêm 1 ổ cứng.



Disk /dev/sdc: 4294 MB, 4294967296 bytes, 8388608 sectors Units = sectors of 1 * 512 = 512 bytes Sector size (logical/physical): 512 bytes / 512 bytes I/O size (minimum/optimal): 512 bytes / 512 bytes

5. Sinh viên hãy format ổ cứng này để có thể sử dụng được.

```
[root@localhost plutonium]# fdisk /dev/sdc
Welcome to fdisk (util-linux 2.23.2).
Changes will remain in memory only, until you decide to write them.
Be careful before using the write command.
Device does not contain a recognized partition table
Building a new DOS disklabel with disk identifier 0xf797cc94.
Command (m for help): n
Partition type:
      primary (0 primary, 0 extended, 4 free)
  р
  е
      extended
Select (default p): p
Partition number (1-4, default 1): 1
First sector (2048-8388607, default 2048): 2048
Last sector, +sectors or +size{K,M,G} (2048-8388607, default 8388607): +900MB
Partition 1 of type Linux and of size 858 MiB is set
Partition number (2-4, default 2): 2
First sector (1759232-8388607, default 1759232): 1759232
Last sector, +sectors or +size{K,M,G} (1759232-8388607, default 8388607): +900MB
Partition 2 of type Linux and of size 858 MiB is set
Command (m for help): n
Partition type:
  p primary (2 primary, 0 extended, 2 free)
  е
      extended
Select (default p): e
Partition number (3,4, default 3): 3
First sector (3516416-8388607, default 3516416): 3516416
Last sector, +sectors or +size{K,M,G} (3516416-8388607, default 8388607): +2GB
Partition 3 of type Extended and of size 1.9 GiB is set
Adding logical partition 5
First sector (3518464-7421951, default 3518464): 3518464
ast sector, +sectors or +size{K,M,G} (3518464-7421951, default 7421951): +900MB-
Partition 5 of type Linux and of size 858 MiB is set
Command (m for help): n
artition type:
  p primary (2 primary, 1 extended, 1 free)
      logical (numbered from 5)
Select (default p): l
Adding logical partition 6
irst sector (5277696-7421951, default 5277696): 5277696
ast sector, +sectors or +size{K,M,G} (5277696-7421951, default 7421951): +900MB-
Partition 6 of type Linux and of size 858 MiB is set
Command (m for help): w
The nartition table has been altered!
Disk /dev/sdc: 4294 MB, 4294967296 bytes, 8388608 sectors
Units = sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O size (minimum/optimal): 512 bytes / 512 bytes
Disk label type: dos
Disk identifier: 0xf797cc94
   Device Boot
                                          Blocks
                                                  Id System
                   Start
                                 End
/dev/sdc1
                            1759231
                                          878592 83 Linux
                    2048
                                          878592
                 1759232
                             3516415
/dev/sdc2
                                                  83 Linux
/dev/sdc3
                  3516416
                             7421951
                                         1952768
                                                   5 Extended
/dev/sdc5
                 3518464
                             5275647
                                         878592 83 Linux
                 5277696
                             7034879
                                         878592 83 Linux
/dev/sdc6
```

```
[root@localhost plutonium]# mkfs.ext3 /dev/sdc1
nke2fs 1.42.9 (28-Dec-2013)
Filesystem label=
OS type: Linux
Block size=4096 (log=2)
Fragment size=4096 (log=2)
Stride=0 blocks, Stripe width=0 blocks
54992 inodes, 219648 blocks
10982 blocks (5.00%) reserved for the super user
First data block=0
Maximum filesystem blocks=226492416
7 block groups
32768 blocks per group, 32768 fragments per group
7856 inodes per group
Superblock backups stored on blocks:
        32768, 98304, 163840
Allocating group tables: done
Nriting inode tables: done
Creating journal (4096 blocks): done
Writing superblocks and filesystem accounting information: done
[root@localhost plutonium]# mkfs.ext3 /dev/sdc2
mke2fs 1.42.9 (28-Dec-2013)
Filesystem label=
OS type: Linux
Block size=4096 (log=2)
Fragment size=4096 (log=2)
Stride=0 blocks, Stripe width=0 blocks
54992 inodes, 219648 blocks
10982 blocks (5.00%) reserved for the super user
First data block=0
Maximum filesystem blocks=226492416
7 block groups
32768 blocks per group, 32768 fragments per group
7856 inodes per group
Superblock backups stored on blocks:
        32768, 98304, 163840
Allocating group tables: done
Writing inode tables: done
Creating journal (4096 blocks): done
Writing superblocks and filesystem accounting information: done
[root@localhost plutonium]# mkfs.ext3 /dev/sdc5
mke2fs 1.42.9 (28-Dec-2013)
Filesystem label=
OS type: Linux
Block size=4096 (log=2)
Fragment size=4096 (log=2)
Stride=0 blocks, Stripe width=0 blocks
54992 inodes, 219648 blocks
10982 blocks (5.00%) reserved for the super user
First data block=0
Maximum filesystem blocks=226492416
7 block groups
32768 blocks per group, 32768 fragments per group
7856 inodes per group
Superblock backups stored on blocks:
        32768, 98304, 163840
Allocating group tables: done
Writing inode tables: done
Creating journal (4096 blocks): done
Writing superblocks and filesystem accounting information: done
```

```
[root@localhost plutonium]# mkfs.ext3 /dev/sdc6
mke2fs 1.42.9 (28-Dec-2013)
Filesystem label=
OS type: Linux
Block size=4096 (log=2)
Fragment size=4096 (log=2)
Stride=0 blocks, Stripe width=0 blocks
54992 inodes, 219648 blocks
10982 blocks (5.00%) reserved for the super user
First data block=0
Maximum filesystem blocks=226492416
7 block groups
32768 blocks per group, 32768 fragments per group
7856 inodes per group
Superblock backups stored on blocks:
        32768, 98304, 163840
Allocating group tables: done
Writing inode tables: done
Creating journal (4096 blocks): done
Writing superblocks and filesystem accounting information: done
```

```
[root@localhost plutonium]# lsblk -f
NAME FSTYPE LABEL
                                                                  MOUNTPOINT
sda
 -sdal xfs
                           b1102486-2bfb-429c-98cd-00546fa0f302
                                                                  /boot
 -sda2 LVM2 mem
                          T9ULiE-r3yl-cs5p-sfGM-i1de-Ai5c-RStTks
  -centos-root
      xfs
                          366c38b1-b8c7-48ce-bbf5-7efcb4ba8c2f
  └centos-swap
                           85f74ac3-a5c2-4400-b669-40cb1210de31
                                                                  [SWAP]
      swap
sdb
 -sdb1 ext3
                           6249b40b-9b19-4a74-9471-513c154cb779
 -sdb2 ext3
                          0193645e-cfe3-4387-bd28-d0b96f07f435
 -sdh3
 -sdb5 ext3
                           8f8eeaa8-0045-4352-b4ce-ed4080317ac3
-sdb6 ext3
                          192433f6-8f19-4af2-a820-35a8b9d534df
sdc
                           8d381b66-b6f1-42df-a6b7-c2edbf3a93f3
 -sdc1 ext3
 -sdc2_ext3
                          88b13e7b-5f40-4e84-9e37-df776beaa42a
 -sdc3
 -sdc5 ext3
                           2e5822c9-5f01-4420-83e8-ac73d0ffde58
—sdc6 ext3
                           e68663bc-39b8-4600-9e4e-d8911f6dd9fb
```

6. Sinh viên hãy tạo ra 1 thư mục tên là documents trên thư mục root.

```
[root@localhost plutonium]# mkdir /documents
[root@localhost plutonium]#
```

7. Sau đó hãy mount thư mục này vào ổ cứng vừa tạo.

```
[root@localhost plutonium]# mkdir /documents
[root@localhost plutonium]# mount /dev/sdc1 /documents
[root@localhost plutonium]# mount /dev/sdc2 /documents
[root@localhost plutonium]# mount /dev/sdc5 /documents
[root@localhost plutonium]# mount /dev/sdc6 /documents
```

8. Sinh viên hãy tạo ra 2 user với tên tùy chọn.

```
[root@localhost plutonium]# useradd radium
[root@localhost plutonium]# useradd sodium
[root@localhost plutonium]# ■
```

9. Sinh viên hãy tạo ra 2 thư mục trùng tên với 2 user ở trong thư mục documents.

```
[root@localhost plutonium]# mkdir /documents/radium
[root@localhost plutonium]# mkdir /documents/sodium
[root@localhost plutonium]#
```

10. Hãy thực hiện phân quyền cho các thư mục này sao cho user nào thì chỉ sử dụng thư mục trùng tên với user đó.

[root@localhost plutonium]# chown radium /documents/radium [root@localhost plutonium]# chown sodium /documents/sodium [root@localhost plutonium]#