京峰教育 第四次作業－0406 課程

[作業一] 如何快速在命令模式將 worker_processes 1;改為 worker_processes 2;
　　編輯/etc/nginx/nginx.conf 配置檔, 如圖一

```
[root@CentOS7 ~]# vim /etc/nginx/nginx.conf
```

圖一、vim 修改配置檔

將滑鼠光標移至 worker_processes 1 的 1 上, 如圖二

```
# For more information on configuration, see:
#    * Official English Documentation: http://nginx.org/en/docs/
#    * Official Russian Documentation: http://nginx.org/ru/docs/

user nginx;
worker_processes 1;
error_log /var/log/nginx/error.log;
pid /run/nginx.pid;

# Load dynamic modules. See /usr/share/doc/nginx/README.dynamic.
include /usr/share/nginx/modules/*.conf;

events {
    worker_connections 1024;
}
```

圖二、光標移至 1 上

鍵盤敲入 r, 再按 2 進行變更, 並 esc 退出快速命令模式, :wq!進行存檔, 如圖三

```
# For more information on configuration, see:
#    * Official English Documentation: http://nginx.org/en/docs/
#    * Official Russian Documentation: http://nginx.org/ru/docs/

user nginx;
worker_processes 2;
error_log /var/log/nginx/error.log;
pid /run/nginx.pid;

# Load dynamic modules. See /usr/share/doc/nginx/README.dynamic.
include /usr/share/nginx/modules/*.conf;

events {
    worker_connections 1024;
}

http {
    log_format  main  '$remote_addr - $remote_user [$time_local] "$request" '
                      '$status $body_bytes_sent "$http_referer" '
                      '"$http_user_agent" "$http_x_forwarded_for"';

    access_log  /var/log/nginx/access.log  main;

    sendfile            on;
    tcp_nopush          on;
    tcp_nodelay         on;
    keepalive_timeout   65;
    types_hash_max_size 2048;

:wq!
```

圖三、修改並存檔

[作業二] 如何快速刪掉空白行和被#註釋的行

編輯/etc/nginx/nginx.conf 配置檔, 如圖四

```
[root@CentOS7 ~]# vim /etc/nginx/nginx.conf
```

圖四、vim 修改配置檔

確認原始文件有眾多空白行, 如圖五

```
# For more information on configuration, see:
#    * Official English Documentation: http://nginx.org/en/docs/
#    * Official Russian Documentation: http://nginx.org/ru/docs/

user nginx;
worker_processes 2;
error_log /var/log/nginx/error.log;
pid /run/nginx.pid;

# Load dynamic modules. See /usr/share/doc/nginx/README.dynamic.
include /usr/share/nginx/modules/*.conf;

events {
    worker_connections 1024;
}

```

圖五、原始文件空白行

刪除空白行, :g/^$/d 指令進行刪除, 如圖六

```
# For more information on configuration, see:
#    * Official English Documentation: http://nginx.org/en/docs/
#    * Official Russian Documentation: http://nginx.org/ru/docs/
user nginx;
worker_processes 2;
error_log /var/log/nginx/error.log;
pid /run/nginx.pid;
# Load dynamic modules. See /usr/share/doc/nginx/README.dynamic.
include /usr/share/nginx/modules/*.conf;

events {
    worker_connections 1024;
}

http {
    log_format  main  '$remote_addr - $remote_user [$time_local] "$request" '
                      '$status $body_bytes_sent "$http_referer" '
                      '"$http_user_agent" "$http_x_forwarded_for"';

    access_log  /var/log/nginx/access.log  main;

    sendfile            on;
    tcp_nopush          on;
    tcp_nodelay         on;
    keepalive_timeout   65;
    types_hash_max_size 2048;

:g/^$/d
```

圖六、:g/^$/d 刪除空白行

確認已刪除空白行, 如圖七

```
# For more information on configuration, see:
#    * Official English Documentation: http://nginx.org/en/docs/
#    * Official Russian Documentation: http://nginx.org/ru/docs/
user nginx;
worker_processes 2;
error_log /var/log/nginx/error.log;
pid /run/nginx.pid;
# Load dynamic modules. See /usr/share/doc/nginx/README.dynamic.
include /usr/share/nginx/modules/*.conf;
events {
    worker_connections 1024;
}
http {
    log_format  main  '$remote_addr - $remote_user [$time_local] "$request" '
                      '$status $body_bytes_sent "$http_referer" '
                      '"$http_user_agent" "$http_x_forwarded_for"';
    access_log  /var/log/nginx/access.log  main;
    sendfile            on;
    tcp_nopush          on;
    tcp_nodelay         on;
    keepalive_timeout   65;
    types_hash_max_size 2048;
    include             /etc/nginx/mime.types;
    default_type        application/octet-stream;
    # Load modular configuration files from the /etc/nginx/conf.d directory.
    # See http://nginx.org/en/docs/ngx_core_module.html#include
    # for more information.
    include /etc/nginx/conf.d/*.conf;
    server {
```

圖七、已刪除空白行

刪除#開頭的行(包含以 tab 開頭), :%g/^#.*$/d, 如下圖八

```
# For more information on configuration, see:
#    * Official English Documentation: http://nginx.org/en/docs/
#    * Official Russian Documentation: http://nginx.org/ru/docs/
user nginx;
worker_processes 2;
error_log /var/log/nginx/error.log;
pid /run/nginx.pid;
# Load dynamic modules. See /usr/share/doc/nginx/README.dynamic.
include /usr/share/nginx/modules/*.conf;
events {
    worker_connections 1024;
}
http {
    log_format  main  '$remote_addr - $remote_user [$time_local] "$request" '
                      '$status $body_bytes_sent "$http_referer" '
                      '"$http_user_agent" "$http_x_forwarded_for"';
    access_log  /var/log/nginx/access.log  main;
    sendfile            on;
    tcp_nopush          on;
    tcp_nodelay         on;
    keepalive_timeout   65;
    types_hash_max_size 2048;
    include             /etc/nginx/mime.types;
    default_type        application/octet-stream;
    # Load modular configuration files from the /etc/nginx/conf.d directory.
    # See http://nginx.org/en/docs/ngx_core_module.html#include
    # for more information.
    include /etc/nginx/conf.d/*.conf;
    server {
:%g/^\s*#/d
```

圖八、刪除以#註釋開頭的行

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確認已刪除以#註釋開頭的行, 如下圖九

```
user nginx;
worker_processes 2;
error_log /var/log/nginx/error.log;
pid /run/nginx.pid;
include /usr/share/nginx/modules/*.conf;
events {
    worker_connections 1024;
}
http {
    log_format  main  '$remote_addr - $remote_user [$time_local] "$request" '
                      '$status $body_bytes_sent "$http_referer" '
                      '"$http_user_agent" "$http_x_forwarded_for"';
    access_log  /var/log/nginx/access.log  main;
    sendfile            on;
    tcp_nopush          on;
    tcp_nodelay         on;
    keepalive_timeout   65;
    types_hash_max_size 2048;
    include             /etc/nginx/mime.types;
    default_type        application/octet-stream;
    include /etc/nginx/conf.d/*.conf;
    server {
        listen       80 default_server;
        listen       [::]:80 default_server;
        server_name  _;
        root         /usr/share/nginx/html;
        include /etc/nginx/default.d/*.conf;
        location / {
        }
```

圖九、確認已刪除

[作業三] 如何快速將 location ~\.php${…}這一個指令塊全部註釋
　　將滑鼠光標移至 location ~\.php$行最前頭, 如圖十

```
        location / {
                root /usr/share/nginx/html/cacti;
        }

        location ~\.php$ {
                root /usr/share/nginx/html/cacti;
                # this block need to delete by vim command.
        }

        error_page 404 /404.html;
            location = /40x.html {
        }
        error_page 500 502 503 504 /50x.html;
            location = /50x.html {
        }
```

圖十、光標移至指定位置

　　敲入 ctrl + v, 進入縱向編輯模式, 畫面最下方出現 VIRTUAL BLOCK, 如圖十一

```
        location / {
                root /usr/share/nginx/html/cacti;
        }

        location ~\.php$ {
                root /usr/share/nginx/html/cacti;
                # this block need to delete by vim command.
        }

        error_page 404 /404.html;
            location = /40x.html {
        }
        error_page 500 502 503 504 /50x.html;
            location = /50x.html {
        }
    }
-- VISUAL BLOCK --
```

圖十一、縱向編輯模式

用鍵盤方向鍵下, 選取要註釋的指令塊, 如圖十二

圖十二、選取區塊

鍵盤敲入 shift + i 進入編輯模式, 並輸入#註釋符號, 如圖十三

圖十三、進入編輯模式並輸入#

鍵盤 esc 退出編輯模式, 新增#註釋 location ~\.php${...}成功, 如圖十四

圖十四、新增#註釋成功

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[作業四] 如何快速將上面修改的內容保存到 nginx.conf.bak 文件

　　在命令模式下敲入:wq! [檔案路徑], 如下圖十五

```
        }

         location ~\.php$ {
#                root /usr/share/nginx/html/cacti;
#                # this block need to delete by vim command.
#         }

        error_page 404 /404.html;
            location = /40x.html {
        }
        error_page 500 502 503 504 /50x.html;
            location = /50x.html {
        }
    }
}
:wq! /etc/nginx/nginx.conf.bak
```

圖十五、將檔案保存至 nginx.conf.bak

[作業五] 預習 rpm 和 yum 命令

　　　rpm 命令為 redhat 體系下的 linux 一種軟件包管理機制, 當需要安裝特定軟體時, 不需要再自行編譯源碼, 軟體廠商已將其源碼進行編譯及打包, 使用者直接使用.rpm 包即可進行查詢、安裝、升級, 以及移除

查詢命令

　　　以 rpm 進行軟件的查詢, 如查詢本機有無安裝 nginx 軟件, 通常以 rpm –qa | grep nginx 查詢, 如下圖十六

```
[root@CentOS7 src]# rpm -qa | grep nginx
[root@CentOS7 src]#
```

圖十六、rpm 查詢本機有無安裝 nginx

安裝命令

　　　一般安裝命令都會使用 rpm 搭配 ivh 參數, i 表示 install, vh 為顯示安裝進度, 此下以安裝 nginx 為例, 先至 nginx 官網下載 nginx-1.8.1-1.el7.ngx.x86_64.rpm 包, 再進行安裝, 如下圖十七

```
[root@CentOS7 src]# rpm -ivh nginx-1.8.1-1.el7.ngx.x86_64.rpm
warning: nginx-1.8.1-1.el7.ngx.x86_64.rpm: Header V4 RSA/SHA1 Signature, key ID 7bd9bf62: NOKEY
Preparing...                          ############################### [100%]
Updating / installing...
   1:nginx-1:1.8.1-1.el7.ngx          ############################### [100%]
----------------------------------------------------------------

Thanks for using nginx!

Please find the official documentation for nginx here:
* http://nginx.org/en/docs/

Commercial subscriptions for nginx are available on:
* http://nginx.com/products/


----------------------------------------------------------------
[root@CentOS7 src]# rpm -qa  | grep nginx
nginx-1.8.1-1.el7.ngx.x86_64
```

圖十七、rpm –ivh 安裝 nginx

　　將以 **nginx-1.8.1** 升級為 **nginx-1.16.0,** 使用 **rpm** 搭配 **Uvh** 參數,U 表示 **update,** **vh** 為顯示安裝進度,如下圖十八

```
[root@CentOS7 src]# rpm -Uvh nginx-1.16.0-1.el7.ngx.x86_64.rpm
warning: nginx-1.16.0-1.el7.ngx.x86_64.rpm: Header V4 RSA/SHA1 Signature, key ID 7bd9bf62: NOKEY
Preparing...                          ############################### [100%]
Updating / installing...
   1:nginx-1:1.16.0-1.el7.ngx          ############################### [ 50%]
Cleaning up / removing...
   2:nginx-1:1.8.1-1.el7.ngx           ############################### [100%]
```

圖十八、更新 **nginx**

　　一般用 **rpm** 搭配**-evh** 參數進行軟件移除 **e** 表示移除,**vh** 為顯示移除進度,並以 **rpm** 搭配**-qa** 查詢套件是否移除,如下圖十九

```
[root@CentOS7 src]# rpm -evh nginx-1:1.16.0-1.el7.ngx
Preparing...                          ############################### [100%]
Cleaning up / removing...
   1:nginx-1:1.16.0-1.el7.ngx          ############################### [100%]

[root@CentOS7 src]#
[root@CentOS7 src]# rpm -qa | grep nginx
[root@CentOS7 src]#
```

圖十九、移除 **nginx**

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rpm 命令為 redhat 體系下的 linux 一種軟件包管理機制,當安裝特定軟體時,可以處理軟件相依性問題,需要指定特定的 yum 源倉庫,即可進行查詢、安裝、升級,以及移除

yum 提供軟件相關資訊查詢,可以利用 yum search 查詢當前 yum 源倉庫是否提供此軟件,如圖二十

```
[root@CentOS7 src]# yum search nginx
Loaded plugins: fastestmirror
Loading mirror speeds from cached hostfile
 * base: mirrors.bestthaihost.com
 * extras: mirrors.bestthaihost.com
 * updates: mirrors.bangmod.cloud
========================================================= N/S matched: nginx ====
pcp-pmda-nginx.x86_64 : Performance Co-Pilot (PCP) metrics for the Nginx Webserver

  Name and summary matches only, use "search all" for everything.
[root@CentOS7 src]# yum search all nginx
Loaded plugins: fastestmirror
Loading mirror speeds from cached hostfile
 * base: mirrors.bestthaihost.com
 * extras: mirrors.bestthaihost.com
 * updates: mirrors.bangmod.cloud
========================================================= Matched: nginx ======
pcp-pmda-nginx.x86_64 : Performance Co-Pilot (PCP) metrics for the Nginx Webserver
```

圖二十、查詢 nginx 軟件在當前 yum 源倉庫是否提供

yum 提供查詢軟體資訊,可以利用 yum info 查詢該軟件相關資訊,如圖二十一

```
[root@CentOS7 src]# yum info pcp-pmda-nginx.x86_64
Loaded plugins: fastestmirror
Loading mirror speeds from cached hostfile
 * base: mirrors.bestthaihost.com
 * extras: mirrors.bestthaihost.com
 * updates: mirrors.bangmod.cloud
Available Packages
Name        : pcp-pmda-nginx
Arch        : x86_64
Version     : 4.3.2
Release     : 5.el7_7
Size        : 24 k
Repo        : updates/7/x86_64
Summary     : Performance Co-Pilot (PCP) metrics for the Nginx Webserver
URL         : https://pcp.io
License     : GPLv2+
Description : This package contains the PCP Performance Metrics Domain Agent (PMDA) for
            : collecting metrics about the Nginx Webserver.
```

圖二十一、查詢軟件訊息

在 **yum list [**軟件名稱**]**後，如果在 **yum** 倉庫源有該軟件，則可進行安裝，在此以安裝 **nginx** 為例，如圖二十二為 **yum info** 查詢 **nginx** 軟件

```
[root@CentOS7 src]# yum info nginx
Loaded plugins: fastestmirror
Loading mirror speeds from cached hostfile
 * base: mirrors.bestthaihost.com
 * epel: mirrors.bangmodhosting.com
 * extras: mirrors.bestthaihost.com
 * updates: mirrors.bangmod.cloud
Available Packages
Name        : nginx
Arch        : x86_64
Epoch       : 1
Version     : 1.16.1
Release     : 1.el7
Size        : 562 k
Repo        : epel/x86_64
Summary     : A high performance web server and reverse proxy server
URL         : http://nginx.org/
License     : BSD
Description : Nginx is a web server and a reverse proxy server for HTTP, SMTP, POP3 and
            : IMAP protocols, with a strong focus on high concurrency, performance and low
            : memory usage.
```

圖二十二、查詢有 **nginx** 網頁服務器軟件

以 **yum –y install nginx** 進行軟件安裝，如圖二十三

```
[root@CentOS7 src]# yum -y install nginx
Loaded plugins: fastestmirror
Loading mirror speeds from cached hostfile
 * base: mirrors.bestthaihost.com
 * epel: mirrors.bangmodhosting.com
 * extras: mirrors.bestthaihost.com
 * updates: mirrors.bangmod.cloud
Resolving Dependencies
--> Running transaction check
---> Package nginx.x86_64 1:1.16.1-1.el7 will be installed
--> Processing Dependency: nginx-all-modules = 1:1.16.1-1.el7 for package: 1:nginx-1.16.1-1.el7.x86_64
--> Processing Dependency: nginx-filesystem = 1:1.16.1-1.el7 for package: 1:nginx-1.16.1-1.el7.x86_64
--> Processing Dependency: nginx-filesystem for package: 1:nginx-1.16.1-1.el7.x86_64
--> Running transaction check
```

圖二十四、**yum** 命令安裝 **nginx**

在安裝完成後，可用 **rpm –qa│grep nginx** 檢查軟件是否安裝成功，如圖二十四

```
[root@CentOS7 src]# rpm -qa | grep nginx
nginx-filesystem-1.16.1-1.el7.noarch
nginx-mod-mail-1.16.1-1.el7.x86_64
nginx-mod-http-image-filter-1.16.1-1.el7.x86_64
nginx-mod-stream-1.16.1-1.el7.x86_64
nginx-mod-http-perl-1.16.1-1.el7.x86_64
nginx-mod-http-xslt-filter-1.16.1-1.el7.x86_64
nginx-1.16.1-1.el7.x86_64
nginx-all-modules-1.16.1-1.el7.noarch
```

圖二十四、檢查 **nginx** 是否安裝成功

使用 **yum update** 和 **yum upgrade** 基本上是相同的,唯一的區別在於 **yum update** 會保留舊有的 **package,**而 **yum upgrade** 會刪除

移除命令

可以使用 **yum remove [** 軟件名稱 **],**進行軟件移除,如圖二十五,以移除 **nginx** 為例

```
[root@CentOS7 src]# yum -y remove nginx
Loaded plugins: fastestmirror
Resolving Dependencies
--> Running transaction check
---> Package nginx.x86_64 1:1.16.1-1.el7 will be erased
--> Processing Dependency: nginx for package: 1:nginx-mod-http-xslt-filter-1.16.1-1.el7.x86_64
--> Processing Dependency: nginx for package: 1:nginx-mod-http-perl-1.16.1-1.el7.x86_64
--> Processing Dependency: nginx for package: 1:nginx-mod-stream-1.16.1-1.el7.x86_64
--> Processing Dependency: nginx for package: 1:nginx-mod-mail-1.16.1-1.el7.x86_64
--> Processing Dependency: nginx for package: 1:nginx-mod-http-image-filter-1.16.1-1.el7.x86_64
--> Running transaction check
```

圖二十五、移除 **nginx** 軟件

yum 倉庫源

yum 的倉庫源文件路徑**/etc/yum.repos.d/xxx.repo,**一般放置在此,若要新增倉庫源,則手動新增該文件,在此以新增 **nginx** 倉庫源為例,新增 **nginx.repo** 文件,如圖二十六

```
[nginx-stable]
name=nginx stable repo
baseurl=http://nginx.org/packages/centos/$releasever/$basearch/
gpgcheck=1
enabled=1
gpgkey=https://nginx.org/keys/nginx_signing.key
module_hotfixes=true

[nginx-mainline]
name=nginx mainline repo
baseurl=http://nginx.org/packages/mainline/centos/$releasever/$basearch/
gpgcheck=1
enabled=0
gpgkey=https://nginx.org/keys/nginx_signing.key
module_hotfixes=true
```

圖二十六、新增 **nginx yum** 倉庫源

　　yum-config-manager 可以啟用特定倉庫源，如圖二十七，啟用 **nginx** 提供的源，圖二十八為確認當前 **nginx** 軟件提供源為 **nginx-mainline**

```
[root@CentOS7 yum.repos.d]# tail /etc/yum.repos.d/nginx.repo
gpgkey=https://nginx.org/keys/nginx_signing.key
module_hotfixes=true

[nginx-mainline]
name=nginx mainline repo
baseurl=http://nginx.org/packages/mainline/centos/$releasever/$basearch/
gpgcheck=1
enabled=0
gpgkey=https://nginx.org/keys/nginx_signing.key
module_hotfixes=true
[root@CentOS7 yum.repos.d]# yum-config-manager --enable nginx-mainline
```

圖二十七、**yum-config-manager** 啟用 **nginx** 提供的源

```
[root@CentOS7 yum.repos.d]# yum list nginx
Loaded plugins: fastestmirror
Loading mirror speeds from cached hostfile
 * base: mirrors.bestthaihost.com
 * epel: mirrors.thzhost.com
 * extras: mirrors.bestthaihost.com
 * updates: mirrors.bangmod.cloud
nginx-mainline                                                   | 2.9 kB  00:00:00
nginx-stable                                                     | 2.9 kB  00:00:00
nginx-mainline/7/x86_64/primary_db                              | 168 kB  00:00:01
Available Packages
nginx.x86_64                        1:1.17.9-1.el7.ngx                    nginx-mainline
```

圖二十八、當前 **nginx** 軟件提供源為 **nginx-mainline**