Experiment No 5

Automation Scripts that save Time and Effort

1. Set the crontab to create text file every minute in a given directory. Note that the name of the files should be different. However, you may choose any name file name.

CODE:

\* \* \* \* \* touch ~/desktop/temp/`date +%Y%m%d%H%M%S`.txt

2. Write a shell script to archive all the created files (in above question 1) in the given directory. Move the archive to a given specified backup directory (different from the given directory). Insert this script as a cronjob using the crontab command, which needs to be run every 5 minutes.

CODE:

#!/bin/bash

$dir=~/desktop/temp

$backup=~/desktop/backup

$files = `ls $dir`

for file in $files

do

tar -cvf $backup/$file.tar $dir/$file

done

1. \* \* \* \* ~/desktop/temp/backup.sh

3. Write a shell script to automatically delete the archive files (in the backup archive) that are older than 30 minutes.

#!/bin/bash

$dir=~/desktop/backup

$files=`ls $dir`

for file in $files

do

if [ `find $dir/$file -mmin +30` ]

then

rm $dir/$file

fi

done

4. Monitor the disk usage of the given disk and alert if it is beyond the given threshold.

#!/bin/bash

df -Ph | grep -vE '^Filesystem|tmpfs|cdrom' | awk '{ print $5,$1 }' | while read output;

do

# echo $output

used=$(echo $output | awk '{print $1}' | sed s/%//g)

partition=$(echo $output | awk '{print $2}')

if [ $used -ge 60 ]; then

echo "The partition \"$partition\" has been $used% used"

else

echo "Disk space usage of partition \"$partition\" is in under threshold"

fi

done

5. Write a shell script to install the LAMP stack on Linux Machine (A-Apache, M-Mysql, P-PHP).

CODE:

#!/bin/bash

echo -e "\n\nUpdating Apt Packages and upgrading latest patches\n"

sudo apt-get update -y && sudo apt-get upgrade -y

echo -e "\n\nInstalling Apache2 Web server\n"

sudo apt-get install apache2 apache2-doc apache2-mpm-prefork apache2-utils libexpat1 ssl-cert -y

echo -e "\n\nInstalling PHP & Requirements\n"

sudo apt-get install libapache2-mod-php7.0 php7.0 php7.0-common php7.0-curl php7.0-dev php7.0-gd php-pear php7.0-mcrypt php7.0-mysql -y

echo -e "\n\nInstalling MySQL\n"

sudo apt-get install mysql-server mysql-client -y

echo -e "\n\nPermissions for /var/www\n"

sudo chown -R www-data:www-data /var/www

echo -e "\n\n Permissions have been set\n"

echo -e "\n\nEnabling Modules\n"

sudo a2enmod rewrite

sudo phpenmod mcrypt

echo -e "\n\nRestarting Apache\n"

sudo service apache2 restart

echo -e "\n\nLAMP Installation Completed"

exit 0