Shell/bash Scripts

Shell Script

A text file that contains a sequence of commands for a UNIX-based OS.

Functions that shell scripts support include loops, variables, if/then/else statements, arrays and shortcuts.

Typically saved in .txt or .sh extension with execute permission in linux.

Types

The two major types of shell scripts are:

1. Bourne again shells (BASH)- BASH is the default shell for Unix version 7. The character for prompting a bourne again shell is $.

2. C shells- A C shell is run in a text terminal window and is able to easily read file commands. The character for prompting a C shell is %.

Used for:

- Automating the code compiling process.
- Running a program or creating a program environment.
- Manipulating files.
- Linking existing programs together.
- Executing routine backups.
- Monitoring a system.

Example 1: Delete Old files.

```
#Create files with older timestamp.
  touch -d "Thu, 1 March 2018 12:30:00" a
#Find and delete files older than 90 days.
  find /path-to-dir -mtime +90 -exec ls -l {} \;
  find /path-to-dir -mtime +90 -exec rm -l {} \;
#Again step 1 & Find and rename old files.
  find . -mtime +90 -exec mv {} {}.old \;
```

Example 2: Copying a file to a list of remote hosts.

```
#!/bin/bash

a=`cat /home/vagrant/abc`

for HOST in $a

do

scp somefile $HOST:/var/tmp/

done
```

Example 3: Status on Total Number of Files (Send alert if files are less than 20)

```
# First create 20 files

  touch file{1..20}.txt

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# create a script:

#!/bin/bash

a=`ls -l file* | wc -l`

        if [ $a -eq 20 ]

        then

        echo Yes there are $a files

        else

        echo Files are less than 20

        fi
```

The End.