

Shell Script 1

- Create the startup script for an application start and stop.

```
root@DESKTOP-M3TSUJI:/home# vi script1.sh
```

```
#!/bin/bash

APP_NAME="script1"
APP_PATH="C:\Users\Simran\Infobell"

start() {
    if pgrep -f "$APP_NAME" > /dev/null; then
        echo "$APP_NAME is already running"
    else
        cd "$APP_PATH"
        nohup ./run.sh > /dev/null 2>&1 &
        echo "Started $APP_NAME"
    fi
}

stop() {
    if pgrep -f "$APP_NAME" > /dev/null; then
        pkill -f "$APP_NAME"
        echo "Stopped $APP_NAME"
    else
        echo "$APP_NAME is not running"
    fi
}

case "$1" in
    start)
        start
        ;;
    stop)
        stop
        ;;
    restart)
        stop
        sleep 1
        start
        ;;
    *)
        echo "Usage: $0 {start|stop|restart}"
        exit 1
        ;;
esac

exit 0
```

```
root@DESKTOP-M3TSUJI:/home# chmod +x script1.sh
root@DESKTOP-M3TSUJI:/home# ./script1.sh start
script1 is already running
root@DESKTOP-M3TSUJI:/home# ./script1.sh stop
Terminated
root@DESKTOP-M3TSUJI:/home# ./script1.sh restart
Terminated
```

- Write a shell script that consists of a function that displays the number of files in the present working directory. Name this function “file_count” and call it in your script. If you use variable in your function, remember to make it a local variable.

```
root@DESKTOP-W3TSUJI:/home# vi script2.sh
```

```
#!/bin/bash

file_count () {
    local count=$(ls -l | wc -l)
    echo "count number of files are present in the directory"
}

file_count

-- INSERT --
```

```
root@DESKTOP-W3TSUJI:/home# vi script2.sh
root@DESKTOP-W3TSUJI:/home# chmod +x script2.sh
root@DESKTOP-W3TSUJI:/home# ./script2.sh
./script2.sh: line 4: local: `53': not a valid identifier
number of files are present in the directory
```

- For each directory in the \$PATH, display the number of executable in that directory

```
#!/bin/bash

IFS=" "
for dir in $PATH; do
    echo "Directory: $dir"
    echo "Number of executables: $(find "$dir" -type f -executable | wc -l)"
done
```

-- INSERT --

8,1 All

```
root@DESKTOP-M3TSUJ1:/home# vi script3.sh
root@DESKTOP-M3TSUJ1:/home# chmod +x script3.sh
root@DESKTOP-M3TSUJ1:/home# ./script3.sh
Directory: /usr/local/sbin
Number of executables: 0
Directory: /usr/local/bin
Number of executables: 0
Directory: /usr/sbin
Number of executables: 253
Directory: /usr/bin
Number of executables: 823
Directory: /sbin
Number of executables: 0
Directory: /bin
Number of executables: 0
Directory: /usr/games
Number of executables: 0
Directory: /usr/local/games
Number of executables: 0
Directory: /snap/bin
Number of executables: 0
root@DESKTOP-M3TSUJ1:/home#
```

- Display the names of any file-system which have less than 10% free space available

```
#!/bin/bash

# Check the free space percentage for each file-system and print the name if less than 10%
df -h | awk '{if ($5 < "10%") print $6 " has less than 10% free space available"}'
```

```
root@DESKTOP-W3TSUJI:/home# vi script4.sh
root@DESKTOP-W3TSUJI:/home# chmod +x script4.sh
root@DESKTOP-W3TSUJI:/home# ./script4.sh
/ has less than 10% free space available
/mnt/wsl has less than 10% free space available
/dev has less than 10% free space available
/run has less than 10% free space available
/run/lock has less than 10% free space available
/run/shm has less than 10% free space available
/run/user has less than 10% free space available
/sys/fs/cgroup has less than 10% free space available
/mnt/e has less than 10% free space available
/mnt/f has less than 10% free space available
root@DESKTOP-W3TSUJI:/home#
```

- Write a script that takes any number of directories as command-line arguments and then lists the contents of each of these directories.

```
#!/bin/bash
for dir in "$@"
do
    echo "Contents of directory $dir:"
    ls -l "$dir"
done
```

"script5.sh" 8L, 90C 3,1

```
root@DESKTOP-M3TSUJI:/home# vi script4.sh
root@DESKTOP-M3TSUJI:/home# vi script5.sh
root@DESKTOP-M3TSUJI:/home# chmod +x script5.sh
root@DESKTOP-M3TSUJI:/home# ./script5.sh /home/infobell
Contents of directory /home/infobell:
total 16
-rwxrwxrwx 1 root root  24 Apr 12 13:10 f1
-rw-r--r-- 1 root root  40 Apr 12 14:07 f2.txt.gz
-rw-r--r-- 1 root root 152 Apr 12 13:13 f3.txt
drwxr-xr-x 3 root root 4096 Apr 12 13:17 t1
```