

Homework 3

SUBJECT: RE: Security Questions

FROM: Jonas Zhonghan Xie (SA Team)

TO: Kim Min-Jae

Hi Kim,

Thank you for your email. I am happy to work with you and answer your questions.

Part 1:

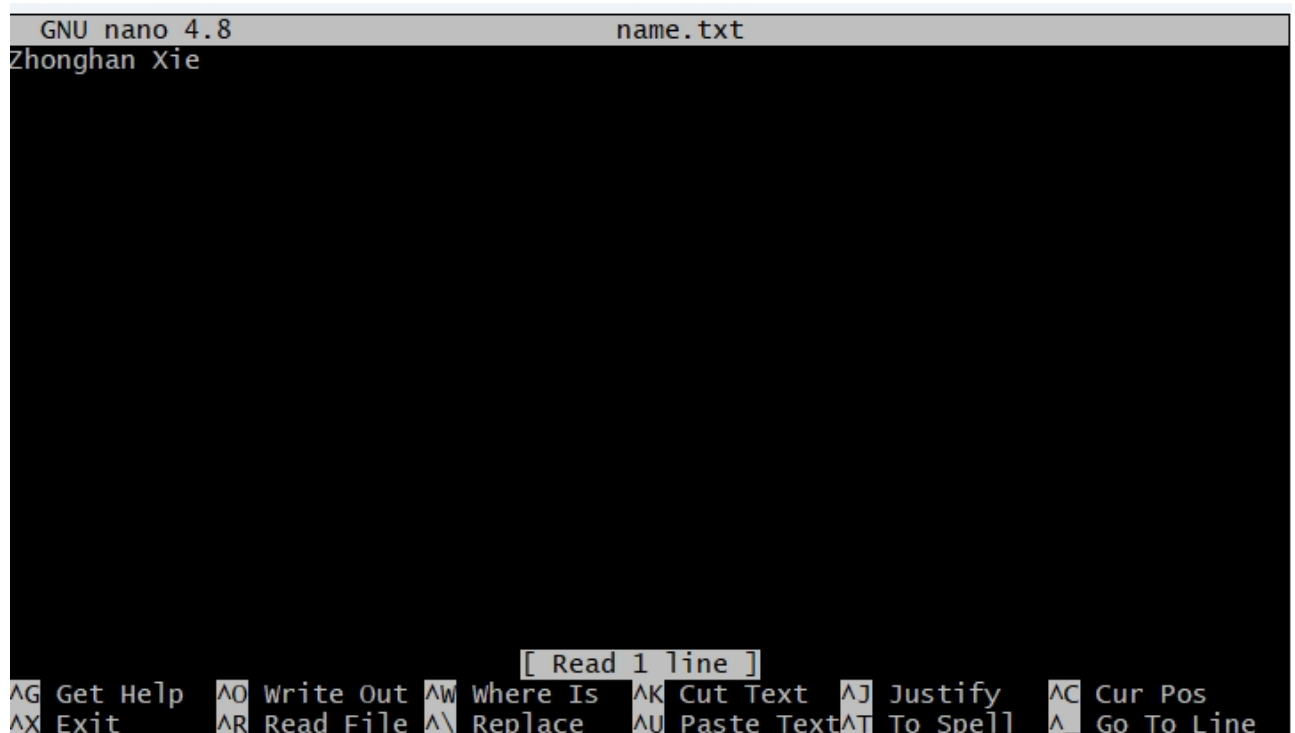
1. I used `mkdir security` to create the new directory in my home directory.

```
jonasxie@ip-172-31-78-96:~$ ls
week2  welcome.txt
jonasxie@ip-172-31-78-96:~$ mkdir security
```

2. To create the text file, I got into the new directory I just created and used `touch name.txt` to create the txt file.

```
jonasxie@ip-172-31-78-96:~$ cd security
jonasxie@ip-172-31-78-96:~/security$ touch name.txt
```

3. To edit the file, I used `nano name.txt` to open the file and add the text. This is what the nano editor looks like.



```
GNU nano 4.8 name.txt
Zhonghan Xie

[ Read 1 line ]
^G Get Help  ^O Write Out ^W Where Is  ^K Cut Text  ^J Justify   ^C Cur Pos
^X Exit      ^R Read File ^_ Replace   ^U Paste Text ^T To Spell  ^_ Go To Line
```

4. 5. I followed the same procedures to create a another text file `id.txt` and add the text. This is what the `id.txt` file looks like.

```
jonasxie@ip-172-31-78-96:~/security$ touch id.txt
jonasxie@ip-172-31-78-96:~/security$ nano id.txt
jonasxie@ip-172-31-78-96:~/security$ cat id.txt
Student ID: 83866049
```

5. This is what `name.txt` and `id.txt` look like in the `security` directory.

```
jonasxie@ip-172-31-78-96:~/security$ cat id.txt
Student ID: 83866049
jonasxie@ip-172-31-78-96:~/security$ cat name.txt
Zhonghan Xie
jonasxie@ip-172-31-78-96:~/security$ cat id.txt
Student ID: 83866049
```

Part 2:

7. I followed your instructions and downloaded the puzzles directories.

```
jonasxie@ip-172-31-78-96:~/security$ curl https://raw.githubusercontent.com/SI504/downloader/master/week3.sh | bash
% Total    % Received % Xferd  Average Speed   Time    Time     Time  Current
           %             %             Dload  Upload  Total  Spent    Left  Speed
100  146  100  146    0     0  1186      0 --:--:-- --:--:-- --:--:-- 1186
Downloading Puzzles
Done
jonasxie@ip-172-31-78-96:~/security$ ls
id.txt  name.txt  puzzles
```

8. I navigated to the `puzzles/puzzle1` directory. I used `nano` to inspect every parts of the story. And I found the right order of the story should be: d-g-b-a-c-e-f.

```
jonasxie@ip-172-31-78-96:~/security/puzzles$ cd puzzle1
jonasxie@ip-172-31-78-96:~/security/puzzles/puzzle1$ ls
a.txt b.txt c.txt d.txt e.txt f.txt g.txt
jonasxie@ip-172-31-78-96:~/security/puzzles/puzzle1$ nano a.txt
jonasxie@ip-172-31-78-96:~/security/puzzles/puzzle1$ nano b.txt
jonasxie@ip-172-31-78-96:~/security/puzzles/puzzle1$ nano c.txt
jonasxie@ip-172-31-78-96:~/security/puzzles/puzzle1$ nano d.txt
jonasxie@ip-172-31-78-96:~/security/puzzles/puzzle1$ nano e.txt
jonasxie@ip-172-31-78-96:~/security/puzzles/puzzle1$ nano f.txt
jonasxie@ip-172-31-78-96:~/security/puzzles/puzzle1$ nano g.txt
jonasxie@ip-172-31-78-96:~/security/puzzles/puzzle1$ nano b.txt
jonasxie@ip-172-31-78-96:~/security/puzzles/puzzle1$ nano a.txt
jonasxie@ip-172-31-78-96:~/security/puzzles/puzzle1$ nano c.txt
jonasxie@ip-172-31-78-96:~/security/puzzles/puzzle1$ nano d.txt
jonasxie@ip-172-31-78-96:~/security/puzzles/puzzle1$ nano a.txt
jonasxie@ip-172-31-78-96:~/security/puzzles/puzzle1$ nano g.txt
jonasxie@ip-172-31-78-96:~/security/puzzles/puzzle1$ nano c.txt
jonasxie@ip-172-31-78-96:~/security/puzzles/puzzle1$ nano a.txt
jonasxie@ip-172-31-78-96:~/security/puzzles/puzzle1$ nano b.txt
jonasxie@ip-172-31-78-96:~/security/puzzles/puzzle1$ nano d.txt
jonasxie@ip-172-31-78-96:~/security/puzzles/puzzle1$ cat d.txt
You notice you are out of milk, you know you have a store on the other side
of the road from yourselfjonasxie@ip-172-31-78-96:~/security/puzzles/puzzle1$ ca
t g.txt
jonasxie@ip-172-31-78-96:~/security/puzzles/puzzle1$ cat b.txt
walk up to intersectionjonasxie@ip-172-31-78-96:~/security/puzzles/puzzle1$ cat a.txt
Look both waysjonasxie@ip-172-31-78-96:~/security/puzzles/puzzle1$ cat c.txt
cross the streetjonasxie@ip-172-31-78-96:~/security/puzzles/puzzle1$ cat e.txt
Open door to the storejonasxie@ip-172-31-78-96:~/security/puzzles/puzzle1$ cat f.txt
Buy Milkjonasxie@ip-172-31-78-96:~/security/puzzles/puzzle1$ |
```

Then I used `mv` commands to rename the files in the chronological order.

```
Buy Milkjonasxie@ip-172-31-78-96:~/security/puzzles/puzzle1$ mv d.txt 1.txt
jonasxie@ip-172-31-78-96:~/security/puzzles/puzzle1$ mv g.txt 2.txt
jonasxie@ip-172-31-78-96:~/security/puzzles/puzzle1$ mv b.txt 3.txt
jonasxie@ip-172-31-78-96:~/security/puzzles/puzzle1$ mv a.txt 4.txt
jonasxie@ip-172-31-78-96:~/security/puzzles/puzzle1$ mv c.txt 5.txt
jonasxie@ip-172-31-78-96:~/security/puzzles/puzzle1$ mv e.txt 6.txt
jonasxie@ip-172-31-78-96:~/security/puzzles/puzzle1$ mv f.txt 7.txt
jonasxie@ip-172-31-78-96:~/security/puzzles/puzzle1$ ls
1.txt 2.txt 3.txt 4.txt 5.txt 6.txt 7.txt
```

9. I navigated to `puzzle2` directory and used `cat` to read every files. I found the time when each story happened. Then I used `mv` command to rename those files.

```
jonasxie@ip-172-31-78-96:~/security/puzzles$ cd puzzle2
jonasxie@ip-172-31-78-96:~/security/puzzles/puzzle2$ ls
Harvard UMS arb bh cb first_house maize umich200
jonasxie@ip-172-31-78-96:~/security/puzzles/puzzle2$ cat Harvard
Harvard First
Alice Hamilton receives her medical degree and goes on to become the first woman on the faculty of Harvard University.jonasxie@ip-172-31-78-96:~/security/puzzles/puzzle2$ cat UMS
UMS Begins
The University Musical Society is formed under the leadership of Professor Henry Frieze.jonasxie@ip-172-31-78-96:~/security/puzzles/puzzle2$ cat arb
The Arb
Alumni Walter and Esther Nichols offer the University 27 acres between the Huron River and Geddes Avenue for use as a botanical garden.jonasxie@ip-172-31-78-96:~/security/puzzles/puzzle2$ cat bh
Bates Street
The University erects its first building, a two-story structure on Bates Street in Detroit.jonasxie@ip-172-31-78-96:~/security/puzzles/puzzle2$ cat cb
Voter Support
Michigan voters ratify a state constitution that includes support for a state university.jonasxie@ip-172-31-78-96:~/security/puzzles/puzzle2$ cat first_house
First House
The President's House opens as one of four faculty residences; today it is the oldest building on campus.jonasxie@ip-172-31-78-96:~/security/puzzles/puzzle2$ cat maize
Maize and Blue
Students adopt "azure blue and maize" as the school colors.jonasxie@ip-172-31-78-96:~/security/puzzles/puzzle2$ cat umich200
Celebrating #UMich200
The University launches its bicentennial with academic programming and celebratory events across campus.jonasxie@ip-172-31-78-96:~/security/puzzles/puzzle2$ mv Harvard 1893.txt
jonasxie@ip-172-31-78-96:~/security/puzzles/puzzle2$ mv UMS 1880.txt
jonasxie@ip-172-31-78-96:~/security/puzzles/puzzle2$ mv arb 1907.txt
jonasxie@ip-172-31-78-96:~/security/puzzles/puzzle2$ mv bh 1817.txt
jonasxie@ip-172-31-78-96:~/security/puzzles/puzzle2$ mv cb 1835.txt
jonasxie@ip-172-31-78-96:~/security/puzzles/puzzle2$ mv first_house 1840.txt
jonasxie@ip-172-31-78-96:~/security/puzzles/puzzle2$ mv maize 1867.txt
jonasxie@ip-172-31-78-96:~/security/puzzles/puzzle2$ mv umich200 2017.txt
```

10. I used `ls -nR` to list all the files in the `security` directory recursively. Here is the screenshot of the terminal output.

```
jonasxie@ip-172-31-78-96:~/security$ ls -nR
.:
total 12
-rw-rw-r-- 1 1002 1002  21 Feb 10 15:29 id.txt
-rw-rw-r-- 1 1002 1002  13 Feb 10 15:27 name.txt
drwxrwxr-x 5 1002 1002 4096 Feb 10 15:32 puzzles

./puzzles:
total 12
drwxrwxr-x 2 1002 1002 4096 Feb 10 15:41 puzzle1
drwxrwxr-x 2 1002 1002 4096 Feb 10 15:47 puzzle2
drwxrwxr-x 2 1002 1002 4096 Feb 10 15:32 puzzle3

./puzzles/puzzle1:
total 28
-rw-rw-r-- 1 1002 1002 101 Feb 10 15:32 1.txt
-rw-rw-r-- 1 1002 1002  16 Feb 10 15:32 2.txt
-rw-rw-r-- 1 1002 1002  23 Feb 10 15:32 3.txt
-rw-rw-r-- 1 1002 1002  14 Feb 10 15:32 4.txt
-rw-rw-r-- 1 1002 1002  16 Feb 10 15:32 5.txt
-rw-rw-r-- 1 1002 1002  22 Feb 10 15:32 6.txt
-rw-rw-r-- 1 1002 1002   8 Feb 10 15:32 7.txt

./puzzles/puzzle2:
total 32
-rw-rw-r-- 1 1002 1002 104 Feb 10 15:32 1817.txt
-rw-rw-r-- 1 1002 1002 103 Feb 10 15:32 1835.txt
-rw-rw-r-- 1 1002 1002 119 Feb 10 15:32 1840.txt
-rw-rw-r-- 1 1002 1002  78 Feb 10 15:32 1867.txt
-rw-rw-r-- 1 1002 1002  99 Feb 10 15:32 1880.txt
-rw-rw-r-- 1 1002 1002 132 Feb 10 15:32 1893.txt
-rw-rw-r-- 1 1002 1002 143 Feb 10 15:32 1907.txt
-rw-rw-r-- 1 1002 1002 126 Feb 10 15:32 2017.txt

./puzzles/puzzle3:
total 20
-rw-rw-r-- 1 1002 1002 23 Feb 10 15:32 statement1.txt
-rw-rw-r-- 1 1002 1002 54 Feb 10 15:32 statement2.txt
-rw-rw-r-- 1 1002 1002 23 Feb 10 15:32 statement3.txt
-rw-rw-r-- 1 1002 1002 29 Feb 10 15:32 statement4.txt
-rw-rw-r-- 1 1002 1002 31 Feb 10 15:32 statement5.txt
```


11. I used `nano` to edit each file. The output of the files are as follows:

```
jonasxie@ip-172-31-78-96:~/security$ cd puzzles/puzzle3
jonasxie@ip-172-31-78-96:~/security/puzzles/puzzle3$ ls
statement1.txt statement2.txt statement3.txt statement4.txt statement5.txt
jonasxie@ip-172-31-78-96:~/security/puzzles/puzzle3$ nano statement1.txt
jonasxie@ip-172-31-78-96:~/security/puzzles/puzzle3$ nano statement2.txt
jonasxie@ip-172-31-78-96:~/security/puzzles/puzzle3$ nano statement3.txt
jonasxie@ip-172-31-78-96:~/security/puzzles/puzzle3$ nano statement4.txt
jonasxie@ip-172-31-78-96:~/security/puzzles/puzzle3$ statement5.txt
statement5.txt: command not found
jonasxie@ip-172-31-78-96:~/security/puzzles/puzzle3$ nano statement5.txt
jonasxie@ip-172-31-78-96:~/security/puzzles/puzzle3$ cat statement1.txt
I am happy when I am playing.
jonasxie@ip-172-31-78-96:~/security/puzzles/puzzle3$ cat statement2.txt
The best part about the University of Michgian is football.
jonasxie@ip-172-31-78-96:~/security/puzzles/puzzle3$ cat statement3.txt
I think highly about snow
jonasxie@ip-172-31-78-96:~/security/puzzles/puzzle3$ cat statement4.txt
Matcha chocolate icecream is my favorite icecream
jonasxie@ip-172-31-78-96:~/security/puzzles/puzzle3$ cat statement5.txt
I play valorant (video game) is a random fact about me
```

- Part 3:** 12. I used `cp -r` to make a backup of `puzzles` directory.

```
jonasxie@ip-172-31-78-96:~/security$ cp -r puzzles puzzles_backup
jonasxie@ip-172-31-78-96:~/security$ cd puzzles_backup
jonasxie@ip-172-31-78-96:~/security/puzzles_backup$ ls
puzzle1 puzzle2 puzzle3
```

13. To delete the `puzzles` directory, I first deleted all the files in the subdirectories. Then I used `rmdir` to delete the empty directories.

```
jonasxie@ip-172-31-78-96:~/security$ cd puzzles/puzzle1
jonasxie@ip-172-31-78-96:~/security/puzzles/puzzle1$ ls
1.txt 2.txt 3.txt 4.txt 5.txt 6.txt 7.txt
jonasxie@ip-172-31-78-96:~/security/puzzles/puzzle1$ rm *.txt
jonasxie@ip-172-31-78-96:~/security/puzzles/puzzle1$ cd ..
jonasxie@ip-172-31-78-96:~/security/puzzles$ rmdir puzzle1
jonasxie@ip-172-31-78-96:~/security/puzzles$ cd puzzle2
jonasxie@ip-172-31-78-96:~/security/puzzles/puzzle2$ rm *
jonasxie@ip-172-31-78-96:~/security/puzzles/puzzle2$ cd ..
jonasxie@ip-172-31-78-96:~/security/puzzles$ rmdir puzzle2
jonasxie@ip-172-31-78-96:~/security/puzzles$ cd puzzle3
jonasxie@ip-172-31-78-96:~/security/puzzles/puzzle3$ rm *
jonasxie@ip-172-31-78-96:~/security/puzzles/puzzle3$ cd ..
jonasxie@ip-172-31-78-96:~/security/puzzles$ rmdir puzzle3
jonasxie@ip-172-31-78-96:~/security/puzzles$ cd ..
jonasxie@ip-172-31-78-96:~/security$ rmdir puzzles
jonasxie@ip-172-31-78-96:~/security$ ls
id.txt name.txt puzzles_backup
```

14. To move all the subdirectories and files in the backup folder to `security/`, I used `mv security_backup/* ./` command. Then I deleted the backup folder.

```
jonasxie@ip-172-31-78-96:~/security$ mv puzzles_backup/* ./
jonasxie@ip-172-31-78-96:~/security$ ls
id.txt name.txt puzzle1 puzzle2 puzzle3 puzzles_backup
jonasxie@ip-172-31-78-96:~/security$ rmdir puzzles_backup
jonasxie@ip-172-31-78-96:~/security$ ls
id.txt name.txt puzzle1 puzzle2 puzzle3
```

15. This is all the files I worked on this week in the [security](#) directory.

```
jonasxie@ip-172-31-78-96:~/security$ ls -nR
.:
total 20
-rw-rw-r-- 1 1002 1002 21 Feb 10 15:29 id.txt
-rw-rw-r-- 1 1002 1002 13 Feb 10 15:27 name.txt
drwxrwxr-x 2 1002 1002 4096 Feb 10 15:56 puzzle1
drwxrwxr-x 2 1002 1002 4096 Feb 10 15:56 puzzle2
drwxrwxr-x 2 1002 1002 4096 Feb 10 15:56 puzzle3

./puzzle1:
total 28
-rw-rw-r-- 1 1002 1002 101 Feb 10 15:56 1.txt
-rw-rw-r-- 1 1002 1002 16 Feb 10 15:56 2.txt
-rw-rw-r-- 1 1002 1002 23 Feb 10 15:56 3.txt
-rw-rw-r-- 1 1002 1002 14 Feb 10 15:56 4.txt
-rw-rw-r-- 1 1002 1002 16 Feb 10 15:56 5.txt
-rw-rw-r-- 1 1002 1002 22 Feb 10 15:56 6.txt
-rw-rw-r-- 1 1002 1002 8 Feb 10 15:56 7.txt

./puzzle2:
total 32
-rw-rw-r-- 1 1002 1002 104 Feb 10 15:56 1817.txt
-rw-rw-r-- 1 1002 1002 103 Feb 10 15:56 1835.txt
-rw-rw-r-- 1 1002 1002 119 Feb 10 15:56 1840.txt
-rw-rw-r-- 1 1002 1002 78 Feb 10 15:56 1867.txt
-rw-rw-r-- 1 1002 1002 99 Feb 10 15:56 1880.txt
-rw-rw-r-- 1 1002 1002 132 Feb 10 15:56 1893.txt
-rw-rw-r-- 1 1002 1002 143 Feb 10 15:56 1907.txt
-rw-rw-r-- 1 1002 1002 126 Feb 10 15:56 2017.txt

./puzzle3:
total 20
-rw-rw-r-- 1 1002 1002 30 Feb 10 15:56 statement1.txt
-rw-rw-r-- 1 1002 1002 60 Feb 10 15:56 statement2.txt
-rw-rw-r-- 1 1002 1002 26 Feb 10 15:56 statement3.txt
-rw-rw-r-- 1 1002 1002 51 Feb 10 15:56 statement4.txt
-rw-rw-r-- 1 1002 1002 55 Feb 10 15:56 statement5.txt
```

16. My Github username is [NakaFrozn](#).

Let me know if you have any additional questions. Thank you!

Best, Jonas