Level 0:

Set up the WSL using the guide and the steps provided in the Taskphase_details document and installed the Ubuntu Unix System.

https://learn.microsoft.com/en-us/windows/wsl/setup/environment#set-up-your-linux-username-and-password

https://learn.microsoft.com/en-us/windows/wsl/install

Level $0 \rightarrow \text{Level } 1$:

Tried working out different commands. In the end, sought a YouTube tutorial for the first answer as I was getting confused as to how the different Bash Commands Work.

https://www.youtube.com/watch?v=ff2Au8BIy_A&t=170s

https://man7.org/linux/man-pages/man1/cd.1p.html

https://man7.org/linux/man-pages/man1/cat.1.html

https://man7.org/linux/man-pages/man1/file.1.html

https://man7.org/linux/man-pages/man1/du.1.html

https://man7.org/linux/man-pages/man1/find.1.html

https://man7.org/linux/man-pages/man1/ls.1.html

Password: NH2SXQwcBdpmTEzi3bvBHMM9H66vVXjL

Level 1 → Level 2:

While trying out the smaller commands, I was thinking that the file's name is located instead of the file's name being '-'. I realized it when there was no file in the directory named located after 10 minutes of trying and then re-read the question. On re-reading, I realized that the file's name is '-'. Therefore, I sought the following link to find the password:

https://linux-tips.com/t/dashed-filename-in-linux/188

Password: rRGizSaX8Mk1RTb1CNQoXTcYZWU6lgzi

Level 2 \rightarrow Level 3:

Started to get a hang of Bash code slowly. Realized that I would need to start reading on how the basic commands work. This time, the file needed had spaces in them, therefore I did the logical thing of googling how to cat a file that had spaces in it.

https://linuxhandbook.com/filename-spaces-linux/

Password: aBZOW5EmUfAf7kHTQeOwd8bauFJ2lAiG

Level $3 \rightarrow \text{Level } 4$:

This one was nicely done, my first one without the help of the internet, just trying to figure out how the directories and the find function works. First, I found the location of the file, changed directories and then I cat the file to get the password.

Password: 2EW7BBsr6aMMoJ2HjW067dm8EgX26xNe

Level $4 \rightarrow$ Level 5:

This one was a little tough for me, from going to absolutely not reading to figuring out what the hell is a human readable file. It took me sometime to try to understand the basics of what a human readable file is, and I still do not know the exact specifications of it. All I know is that it is not a data file and has ASCII text in it. There was a command xargs that was used which I read upon while trying to figure out the password. In the end, I ended up seeking the help of YouTube to figure out the exact command to find human readable files.

https://www.youtube.com/watch?v=ff2Au8BIy_A&t=440s

https://unix.stackexchange.com/questions/313442/find-human-readable-files

https://man7.org/linux/man-pages/man1/find.1.html

https://en.wikipedia.org/wiki/Xargs

Password: IrIWWI6bB37kxfiCQZqUdOIYfr6eEeqR

Level 5 → Level 6:

Oh dear. This one was painful. First of all, why are there two more additional restrictions. Secondly, why is it 1033c to signify 1033 bytes. This mistake of mine cost me so many attempts. Learnt new form of the find command, with the amount of limiters that you can put into the file. There was a !-executable which stood for not executable, the -type f to signify that it's a file, etc. And then finally was me being a dummy and doing this again and again:

```
~/inhere/maybehere07$ cat .file03
o such file or directory
~/inhere/maybehere07$ cat .file02
o such file or directory
~/inhere/maybehere07$ cat /.file02
No such file or directory
~/inhere/maybehere07$ cat /.file2
o such file or directory
~/inhere/maybehere07$ cat file2
such file or directory
~/inhere/maybehere07$ cat file2
```

In the end, I finally got the password using the help of the following sites:

https://www.youtube.com/watch?v=ff2Au8BIy_A&t=440s

https://unix.stackexchange.com/questions/313442/find-human-readable-files

Password: P4L4vucdmLnm8I7VI7jG1ApGSfjYKqJU

Level 6 → Level 7:

After getting a hang of the find subcommands, it was much easier to find this one for some reason. I still haven't really understood the meaning or how exactly grep works. I will continue working on that. Also, I learnt that to find files in directories, you have to use '/' instead of the usual '.'.

https://man7.org/linux/man-pages/man1/grep.1.html

Password: z7WtoNQU2XfjmMtWA8u5rN4vzqu4v99S

Level 7 → Level 8:

This one, why? I opened the data.txt file to see that it is filled to the brim with words and strings that make and do not make any sense. Now there is an entire list of new commands that are there absolutely Greek to me. It took so long to try and figure out how everything finally works. I finally used the grep command properly and somewhat understood it's use in filtering data in large data file sheets.

https://man7.org/linux/man-pages/man1/grep.1.html

https://man7.org/linux/man-pages/man1/man.1.html

Password: TESKZCOXvTetKOS9xNwm25STk5iWrBvP

Level 8 \rightarrow Level 9:

Sorting this one really helped clear out a lot of things. I also read the man for the uniq program and tried implementing that as well into my attempts. In the end I used the -u subcommand to filter out the one I needed.

https://ryanstutorials.net/linuxtutorial/piping.php

Password: EN632PlfYiZbn3PhVK3XOGSINInNE00t

Level 9 → Level 10:

I was messing around with the various commands such as uniq, sort and string. On using string, I immediately found the answer next to the == sign within 2 seconds. However, since it was purely luck and not because of the sorted command, I wanted to see if I could find a way to sort and get the command.



In the end, since I was really confused with how the entire thing works, I resort to taking help on a YouTube video. grep is still a very confusing command.

https://www.youtube.com/watch?v=V0ncN90Nc9Q&t=249s

Password: G7w8LIi6J3kTb8A7j9LgrywtEUlyyp6s

Level 10 → Level 11:

This one was relatively simpler to solve. I quickly read through the manual of the base64 command and understood what to do. Intially going blind, I tried sorting the data.txt file and seeing what I can see in the sorted set of files. Then I turned to encoding the already encoded file, which confused me even more, until I realized that to decode, I needed to explicitly state it.

Password: 6zPeziLdR2RKNdNYFNb6nVCKzphlXHBM

ssh bandit11@bandit.labs.overthewire.org -p 2220