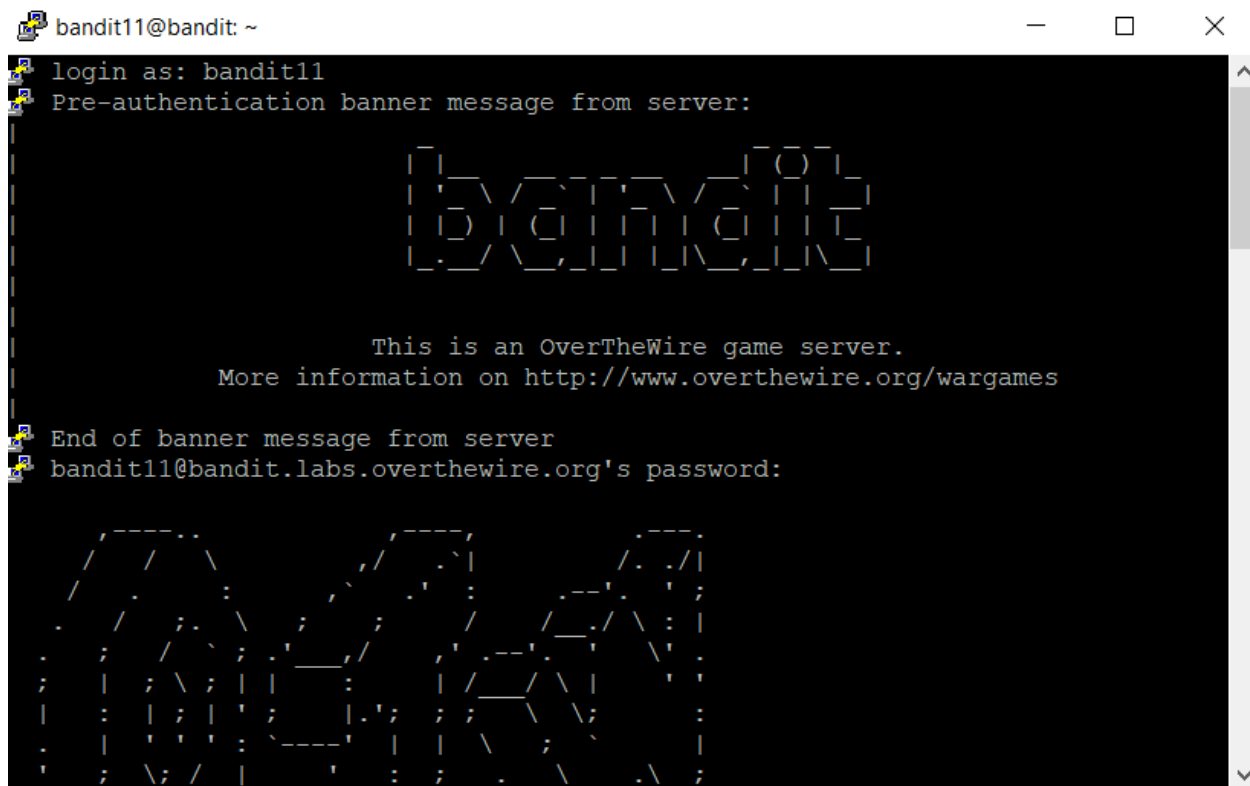# Bandit OTW Walkthrough Write-Up
Level : 11 → 12

Challenge: The password for the next level is stored in the file data.txt, where all lowercase (a-z) and uppercase (A-Z) letters have been rotated by 13 positions

Step 1: Make sure you used the password from the previous level (Level 10 → 11) to login to bandit11.

Step 2 : I used the "**pwd**" command upon logging in into bandit12 to see which directory I was under. I was in the home directory of bandit11.

Step 3 : Since all lowercase letters and uppercase letters have been rotated by 13 positions, I decided to use the "**tr**" command to translate them accordingly. I used the following translation ..'A-Za-z' 'N-ZA-Mn-za-m' , because From A to Z it's 13 characters and from N - Z its 13 characters and from A - M its 13 characters.

```
ABCDEFGHIJKLMNOPQRSTUVWXYZ = A-Z        abcdefghijklmnopqrstuvwxyz = a-z
             NOPQRSTUVWXYZ = N-Z                     nopqrstuvwxyz = n-z
ABCDEFGHIJKLM                = A-M        abcdefghijklm                = a-m
```
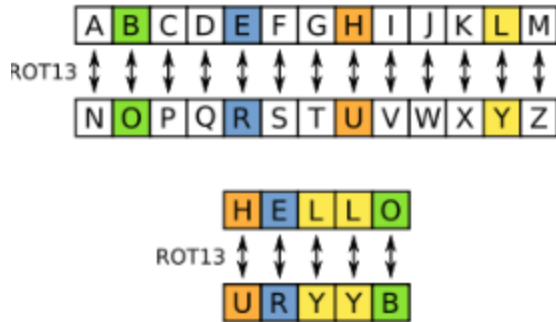
```
bandit11@bandit: ~                                    —    □    ×

bandit11@bandit:~$ pwd
/home/bandit11
bandit11@bandit:~$ ls
data.txt
bandit11@bandit:~$ man tr
bandit11@bandit:~$ cat data.txt | 'A-Za-z' 'N-ZA-Mn-za-m'
A-Za-z: command not found
bandit11@bandit:~$ cat data.txt | tr 'A-Za-z' 'N-ZA-Mn-za-m'
The password is JVNBBFSmZwKKOP0XbFXOoW8chDz5yVRv
bandit11@bandit:~$ █
```

Step 4: After the previous command was executed, It successfully revealed the password for the next level. I copied the password to use it for the next level login.