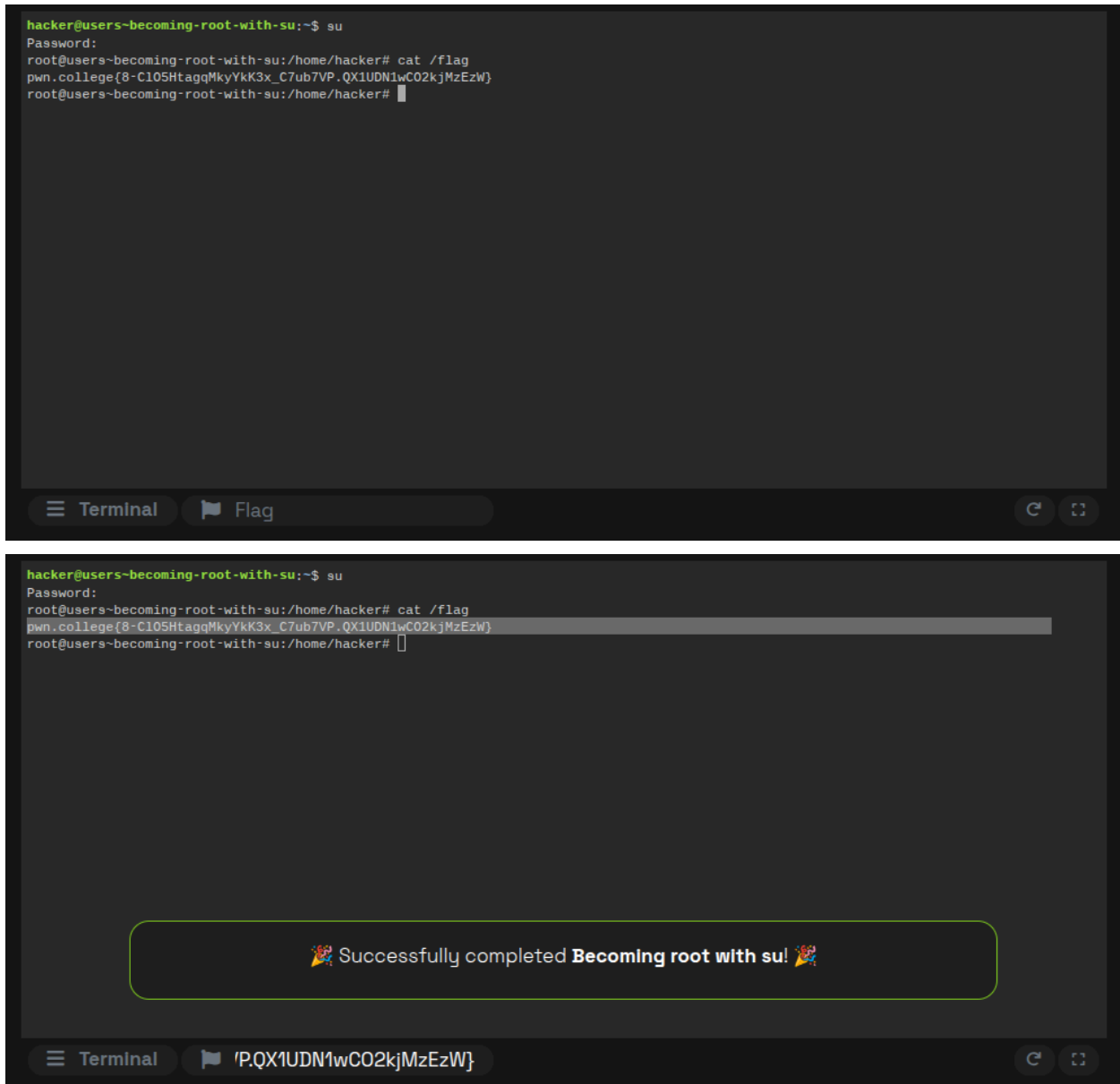


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## Untangling Users

- Becoming root with su



The first screenshot shows a terminal window with the prompt `hacker@users-becoming-root-with-su:~$`. The user enters `su`, followed by the password prompt `Password:`. After entering the password, the prompt changes to `root@users-becoming-root-with-su:/home/hacker#`. The user then enters `cat /flag`, and the output is `pwn.college{8-C105HtaggMkyYkK3x_C7ub7VP.QX1UDN1wC02kjMzEzW}`. The second screenshot shows the same terminal window, but with a green box at the bottom containing the text `🎉 Successfully completed Becoming root with su! 🎉`. The terminal prompt is now `root@users-becoming-root-with-su:/home/hacker#`.

```
hacker@users-becoming-root-with-su:~$ su
Password:
root@users-becoming-root-with-su:/home/hacker# cat /flag
pwn.college{8-C105HtaggMkyYkK3x_C7ub7VP.QX1UDN1wC02kjMzEzW}
root@users-becoming-root-with-su:/home/hacker#
```

🎉 Successfully completed **Becoming root with su!** 🎉

To get the flag, I ran the su command in the terminal and entered the root password "hack-the-planet" when prompted. After gaining root access, I read the flag by executing cat /flag.

- Other users with su

```
hacker@users-other-users-with-su:~$ su zardus
Password:
zardus@users-other-users-with-su:/home/hacker$ /challenge/run
Congratulations, you have become Zardus! Here is your flag:
pwn.college{oAGT1sKfkt4TRjbH8z_vyYgrz8u.QX2UDN1wC02kjMzEzW}
zardus@users-other-users-with-su:/home/hacker$
```

```
hacker@users-other-users-with-su:~$ su zardus
Password:
zardus@users-other-users-with-su:/home/hacker$ /challenge/run
Congratulations, you have become Zardus! Here is your flag:
pwn.college{oAGT1sKfkt4TRjbH8z_vyYgrz8u.QX2UDN1wC02kjMzEzW}
zardus@users-other-users-with-su:/home/hacker$
```

🎉 Successfully completed **Other users with su!** 🎉

To get the flag, I used the `su zardus` command and entered the password "dont-hack-me" when prompted. After switching to the zardus user, I executed `/challenge/run` to retrieve the flag.

- Cracking passwords

```
hacker@users-cracking-passwords:~$ john /challenge/shadow-leak
Created directory: /home/hacker/.john
Loaded 1 password hash (crypt, generic crypt(3) [?/64])
Press 'q' or Ctrl-C to abort, almost any other key for status
aardvark          (zardus)
lg 0:00:00:22 100% 2/3 0.04395g/s 255.9p/s 255.9c/s 255.9C/s Johnson..buzz
Use the "--show" option to display all of the cracked passwords reliably
Session completed
hacker@users-cracking-passwords:~$ su zardus
Password:
zardus@users-cracking-passwords:/home/hacker$ /challenge/run
Congratulations, you have become Zardus! Here is your flag:
pwn.college{Qpjs4-onliog-r-hAwqW9d9TZs9.QX3UDN1wC02kjMzEzW}
zardus@users-cracking-passwords:/home/hacker$
```

Terminal Flag

```
hacker@users-cracking-passwords:~$ john /challenge/shadow-leak
Created directory: /home/hacker/.john
Loaded 1 password hash (crypt, generic crypt(3) [?/64])
Press 'q' or Ctrl-C to abort, almost any other key for status
aardvark          (zardus)
lg 0:00:00:22 100% 2/3 0.04395g/s 255.9p/s 255.9c/s 255.9C/s Johnson..buzz
Use the "--show" option to display all of the cracked passwords reliably
Session completed
hacker@users-cracking-passwords:~$ su zardus
Password:
zardus@users-cracking-passwords:/home/hacker$ /challenge/run
Congratulations, you have become Zardus! Here is your flag:
pwn.college{Qpjs4-onliog-r-hAwqW9d9TZs9.QX3UDN1wC02kjMzEzW}
zardus@users-cracking-passwords:/home/hacker$
```

Successfully completed Cracking passwords!

Terminal 9.QX3UDN1wC02kjMzEzW}

To retrieve the flag, I cracked the password for the user zardus from the leaked shadow file using John the Ripper, which revealed the password aardvark. I then used su zardus to switch to that user, entered the password, and ran /challenge/run to obtain the flag.

- Using sudo

```
hacker@users-using-sudo:~$ sudo cat /flag
pwn.college{UmMqTT0vApmuWbkmIo9PqWUxHeq.QX4UDN1wC02kjMzEzW}
hacker@users-using-sudo:~$
```

Terminal Flag

Challenge successfully started!

```
hacker@users-using-sudo:~$ sudo cat /flag
pwn.college{UmMqTT0vApmuWbkmIo9PqWUxHeq.QX4UDN1wC02kjMzEzW}
hacker@users-using-sudo:~$
```

Successfully completed Using sudo!

Terminal j.QX4UDN1wC02kjMzEzW}

To retrieve the flag, I used the sudo command to run cat /flag with root privileges. This allowed me to read the flag file directly without needing a password, as the sudo policy was configured to grant access. The command looked like the following: sudo cat /flag.