Lab 4: Bash scripting

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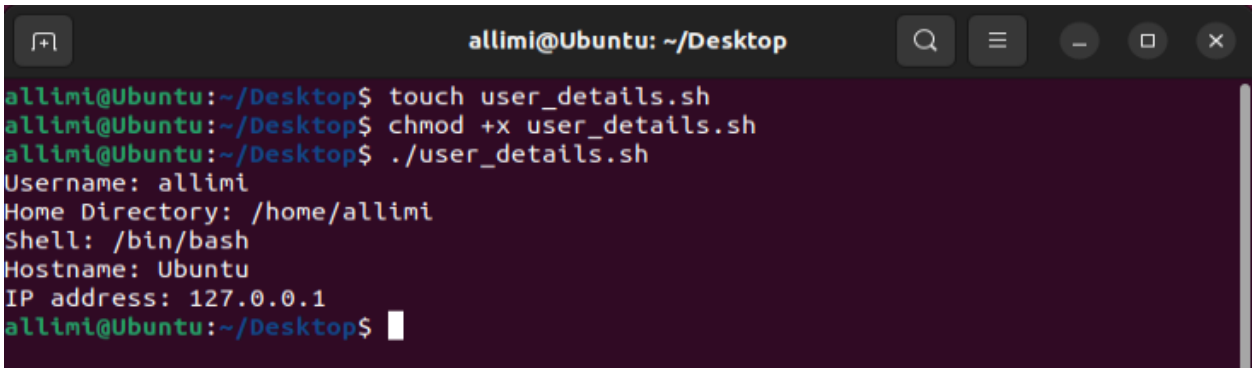
Assignment Report

SD-01

I. Task 1 (user_details.sh file) :

1. Write a bash script that displays the following details of the logged-in user from the environment variables:

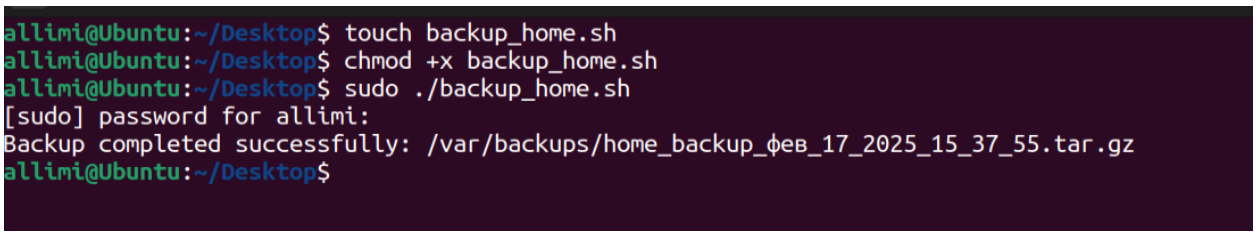
- Login username
- Home directory
- Shell
- The hostname of the system
- The script should extract the IP address of the system from the ifconfig or ip command. Save the IP address to the ipaddress variable and display it as output.

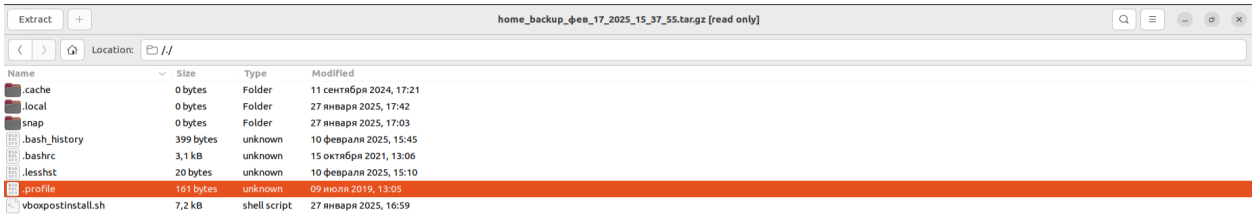


II. Task 2 (backup_home.sh file):

1. Backups are important in system administration. Create a script that will backup your home directory.

- The backup file should be compressed to tar.gz.
- All files and directory permissions should be preserved in the backup.
- The backup destination directory is /var/backups/
- The script should create the destination directory if it doesn't already exist.
- The backup file name should take the format home_backup_month_day_year_hour_minute_second.tar.gz. For example home_backup_Feb_18_2023_02_30_02.tar.gz

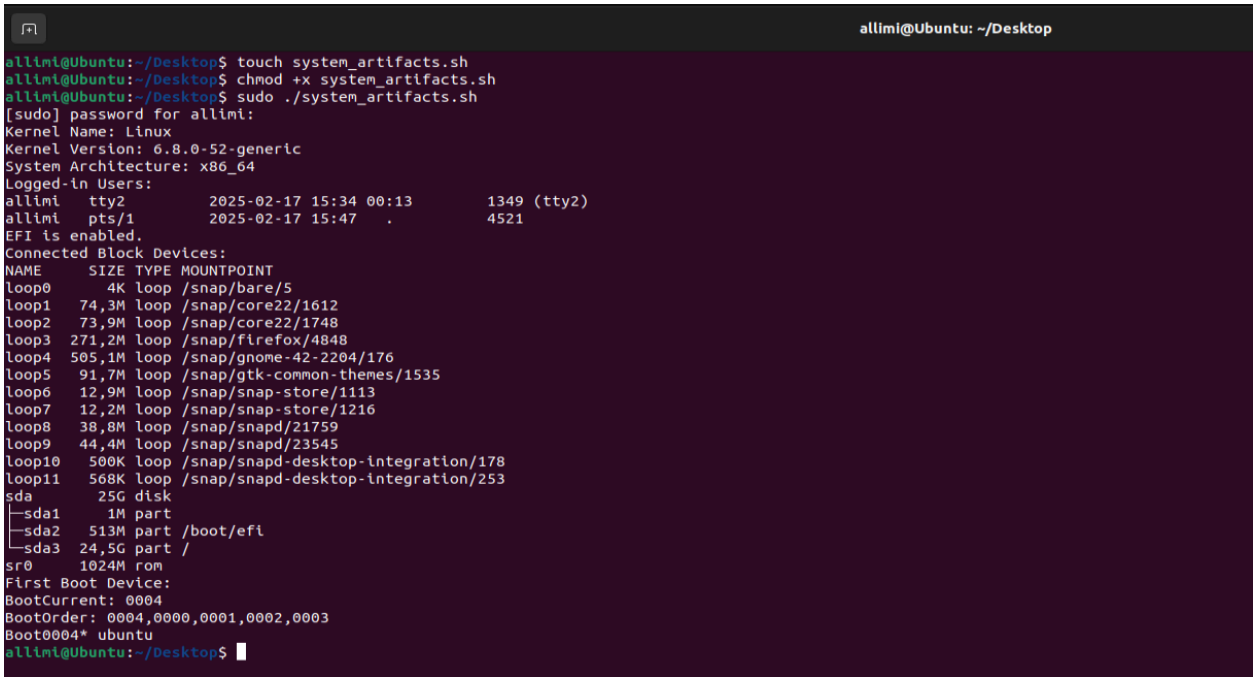




III. Task 3 (system_artifacts.sh file):

1. Write a bash script that checks various artifacts on the system. The script mainly checks for system information, and OS components. Your script should do the following:

- Print the OS kernel name and kernel version.
- Print the system architecture.
- Print all currently logged in users (show the date or time which the users logged in, and show the command line of the users' current process).
- Verify that EFI is enabled and print the relevant output.
- List all connected block devices (Bonus: Identify the devices that have the GPT partition by adding an * to them in the output).
- List the first boot device on your system. This should be done according to the boot order in the NVRAM.



IV. Bonus Task 4 (`scan_bash_files.sh file`):

1. Write a bash script that scans the entire system for files that contain the string "/bin/bash". The script should print only the matches that the currently logged in user has execute permission on.