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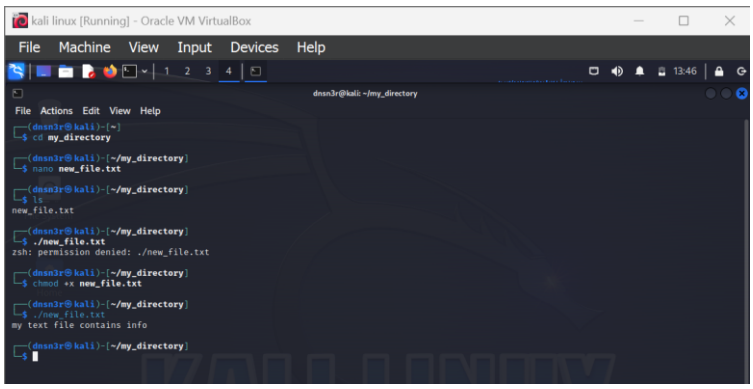
20MIA1025

Assignment: Bash Shell Basics

Task 1: File and Directory Manipulation

1. Create a directory called "my_directory".
   mkdir my_directory
2. Navigate into the "my_directory".
   cd my_directory
3. Create an empty file called "my_file.txt".
   touch my_file.txt
4. List all the files and directories in the current directory.
   ls
5. Rename "my_file.txt" to "new_file.tx
   mv my_file.txt new_file.txt

6. Display the content of "new_file.txt" using a pager tool of your choice.
   cat new_file.txt



7. Append the text "Hello, World!" to "new_file.txt".
   echo "Hello, World!" >> new_file.txt

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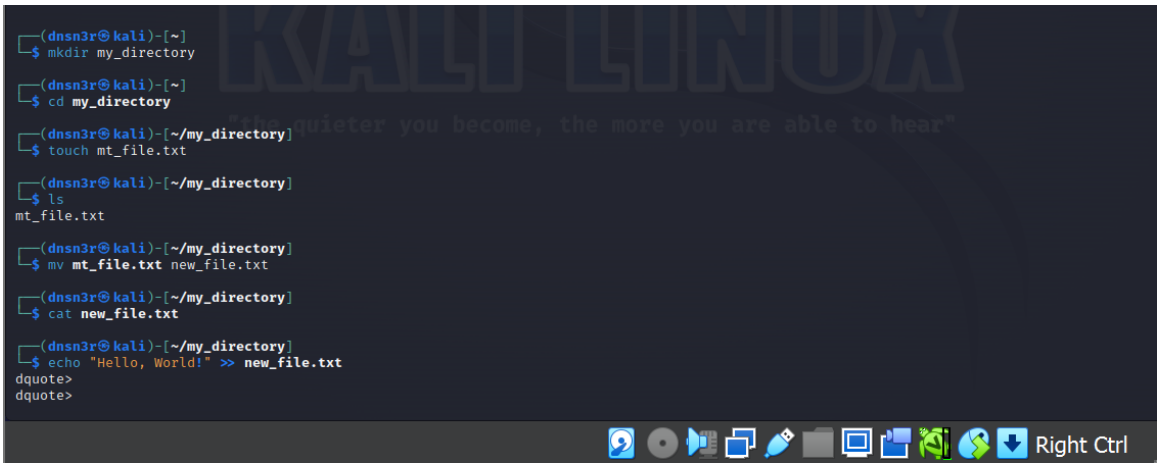

8. Create a new directory called "backup" within "my_directory".
   mkdir backup
9. Move "new_file.txt" to the "backup" directory.
   mv new_file.txt backup/
10. Verify that "new_file.txt" is now located in the "backup" directory.
    ls backup/
11. Delete the "backup" directory and all its contents.
    rm -r backup/

Task 2: Permissions and Scripting

- Create a new file called "my_script.sh".

- Edit "my_script.sh" using a text editor of your choice and add the following lines:

bash

#!/bin/bash
echo "Welcome to my script!"
echo "Today's date is $(date)."

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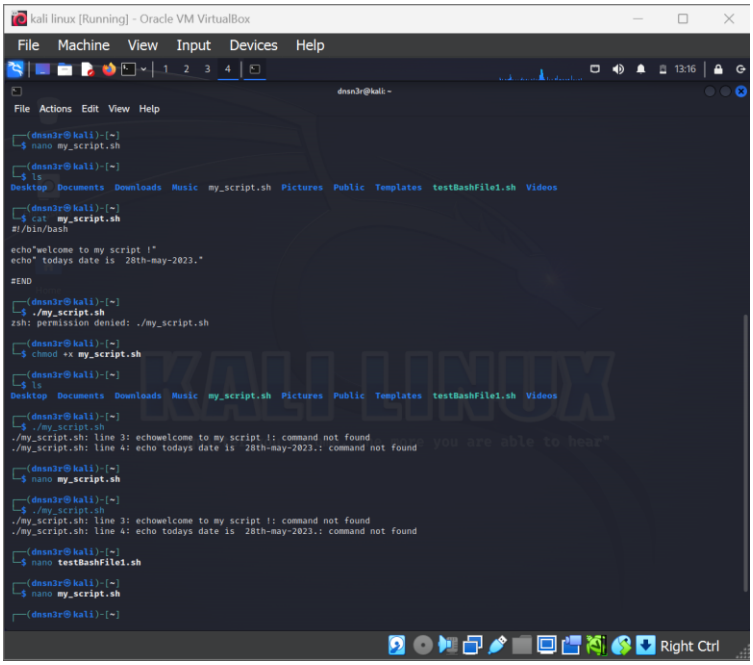
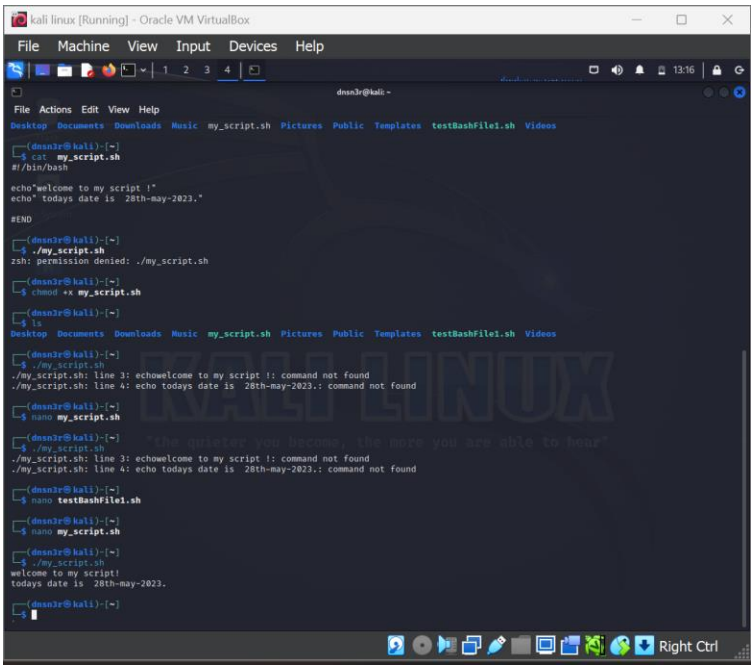
Save and exit the file.

- Make "my_script.sh" executable.
- Run "my_script.sh" and verify that the output matches the expected result.





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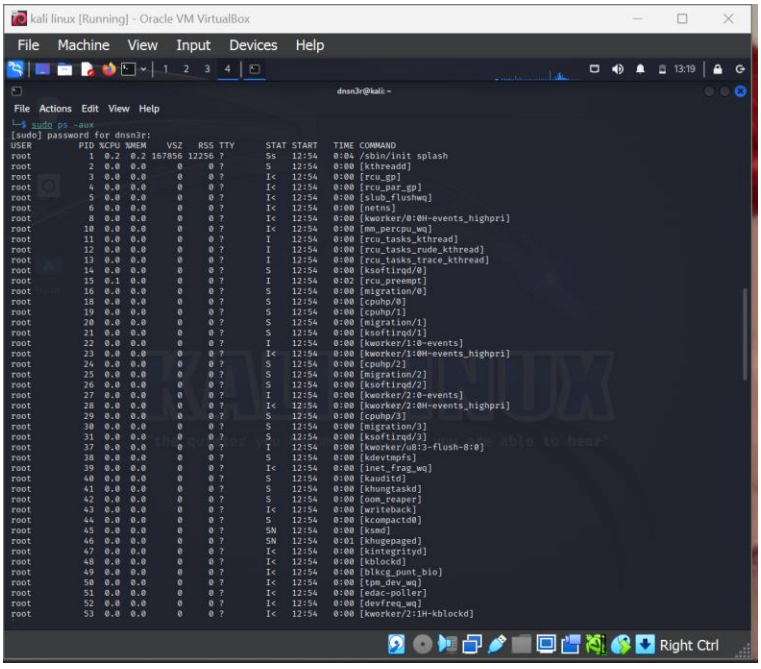
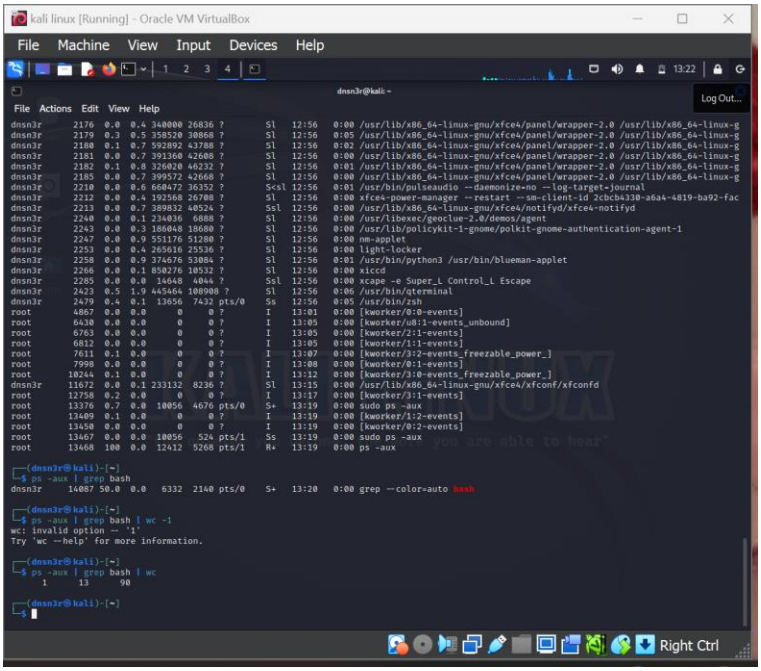
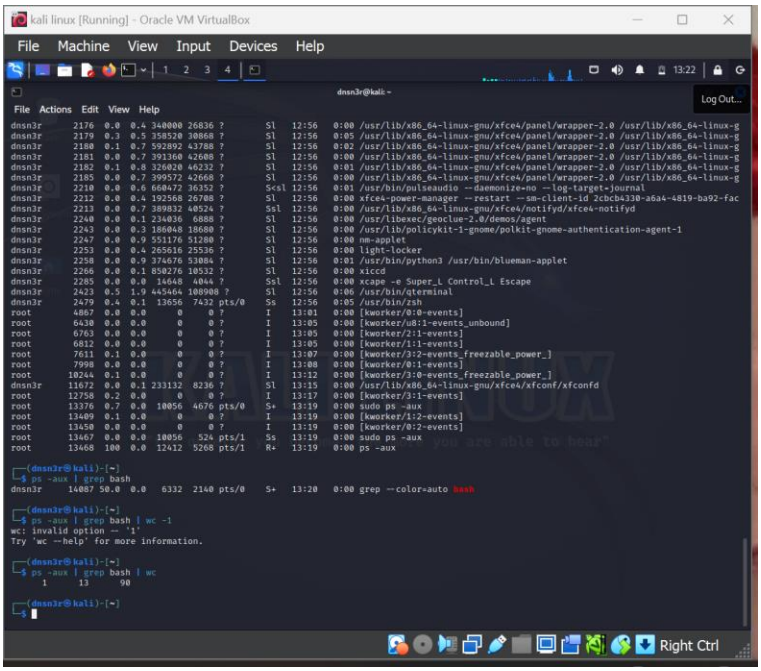
Task 3: Command Execution and Pipelines

- List all the processes running on your system using the "ps" command.
  sudo ps -aux



- Use the "grep" command to filter the processes list and display only the processes with "bash" in their name.
  ps -aux | grep bash



- Use the "wc" command to count the number of lines in the filtered output.
  ps -aux | grep bash | wc

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