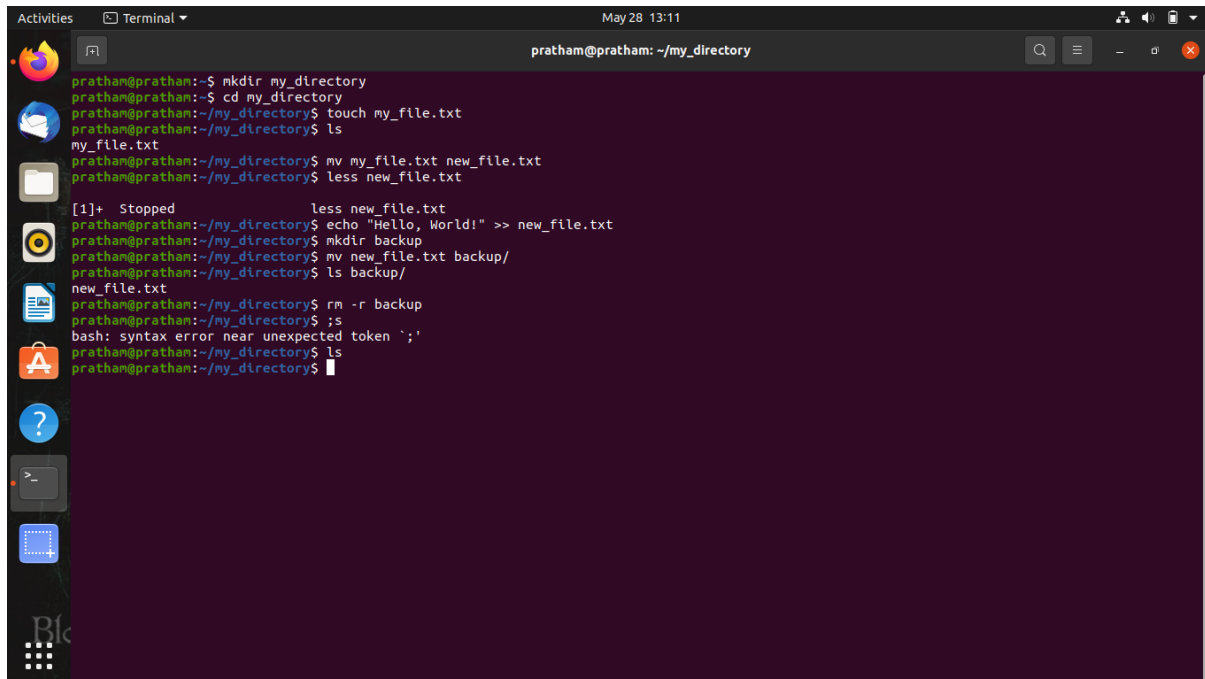


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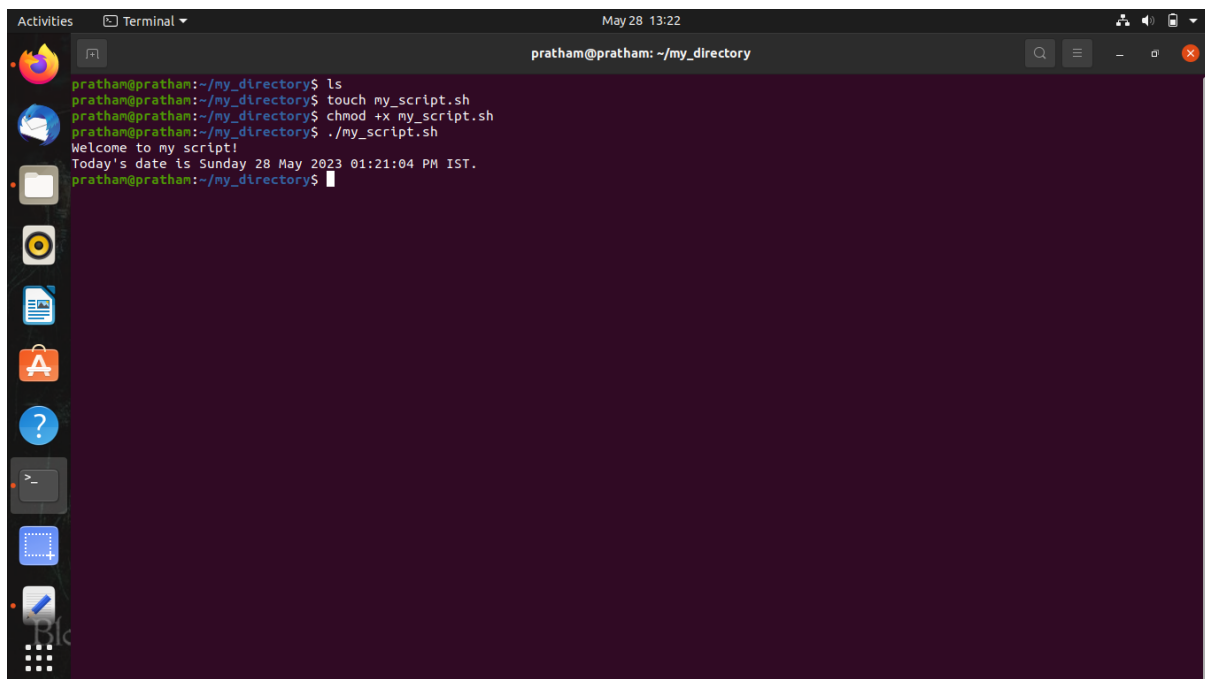
Assignment: Bash Shell Basics

Task 1: File and Directory Manipulation

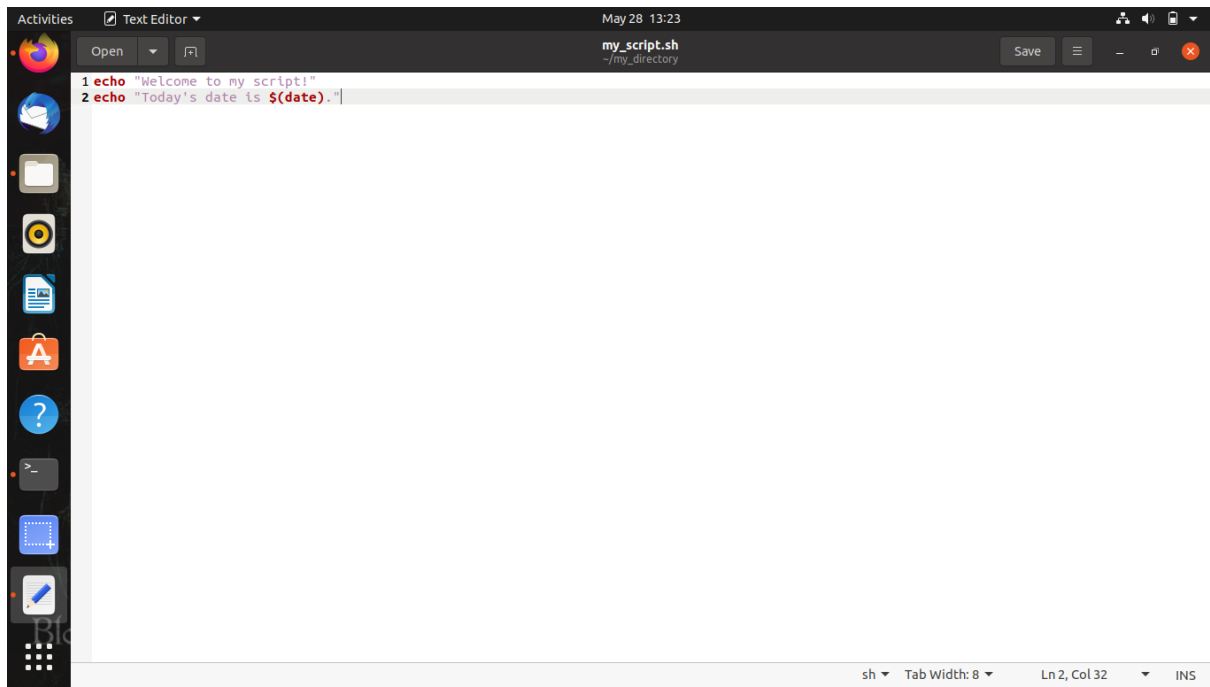
A terminal window titled 'pratham@pratham: ~/my_directory' showing a series of commands for file and directory manipulation. The commands include creating a directory, changing to it, creating a file, listing files, moving a file, viewing file contents, creating a new file with echo, creating a backup directory, moving a file to backup, and removing the backup directory. A syntax error is shown for an incorrect semicolon usage.

```
pratham@pratham:~$ mkdir my_directory
pratham@pratham:~$ cd my_directory
pratham@pratham:~/my_directory$ touch my_file.txt
pratham@pratham:~/my_directory$ ls
my_file.txt
pratham@pratham:~/my_directory$ mv my_file.txt new_file.txt
pratham@pratham:~/my_directory$ less new_file.txt
[1]+  Stopped                  less new_file.txt
pratham@pratham:~/my_directory$ echo "Hello, World!" >> new_file.txt
pratham@pratham:~/my_directory$ mkdir backup
pratham@pratham:~/my_directory$ mv new_file.txt backup/
pratham@pratham:~/my_directory$ ls backup/
new_file.txt
pratham@pratham:~/my_directory$ rm -r backup
pratham@pratham:~/my_directory$ ;s
bash: syntax error near unexpected token `;'
pratham@pratham:~/my_directory$ ls
pratham@pratham:~/my_directory$
```

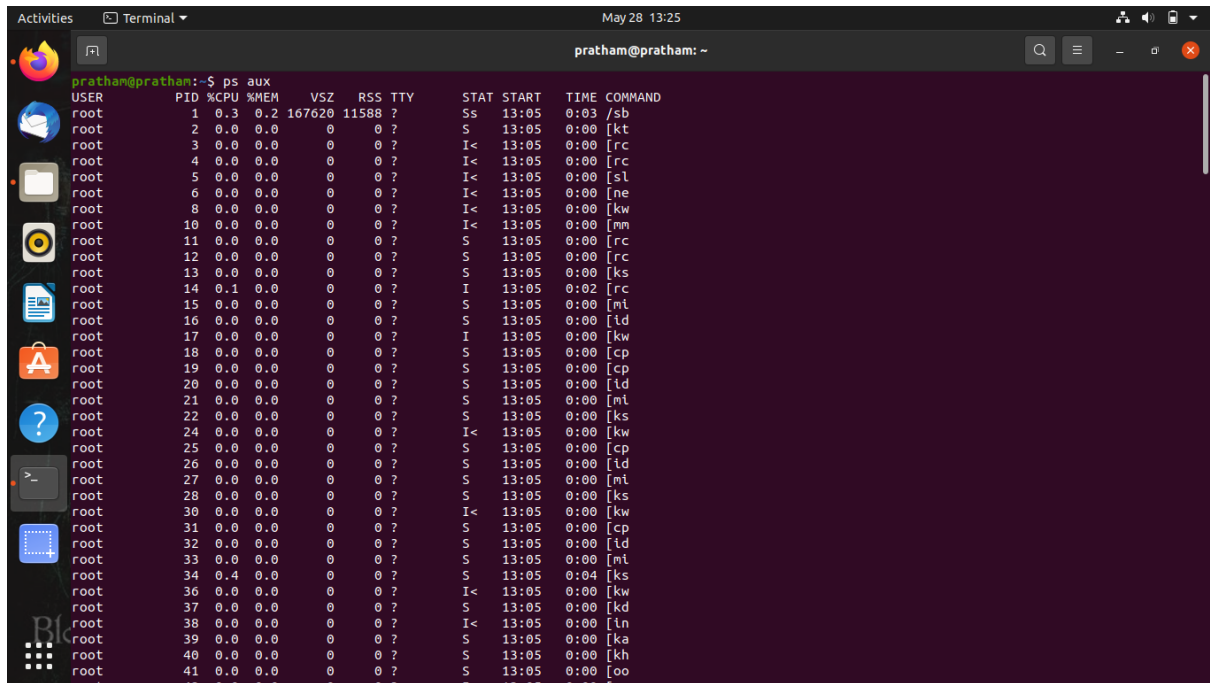
Task 2: Permissions and Scripting

A terminal window titled 'pratham@pratham: ~/my_directory' showing commands for creating a script, setting permissions, and running it. The script outputs a welcome message and the current date and time.

```
pratham@pratham:~/my_directory$ ls
pratham@pratham:~/my_directory$ touch my_script.sh
pratham@pratham:~/my_directory$ chmod +x my_script.sh
pratham@pratham:~/my_directory$ ./my_script.sh
Welcome to my script!
Today's date is Sunday 28 May 2023 01:21:04 PM IST.
pratham@pratham:~/my_directory$
```



Task 3: Command Execution and Pipelines



```
Activities Terminal May 28 13:26 pratham@pratham: ~  
pratham 1875 0.0 0.1 605028 6680 ? Ssl 13:06 0:00 /us  
pratham 1993 0.0 0.2 610040 10608 ? Ssl 13:06 0:00 /us  
pratham 1997 0.0 0.5 493704 28568 ? Ssl 13:06 0:01 /us  
root 2033 0.3 1.6 437440 81052 ? Ssl 13:06 0:03 /us  
pratham 2106 0.9 1.0 814452 51056 ? Rsl 13:06 0:10 /us  
pratham 2226 0.0 0.0 10748 4900 pts/0 Ss 13:06 0:00 bash  
pratham 2474 29.9 8.9 4065752 451656 ? Sl 13:07 5:28 /us  
root 2509 0.1 0.0 0 0 ? I 13:07 0:01 [kw  
pratham 2571 0.0 0.7 192768 39088 ? Sl 13:07 0:00 /us  
pratham 2623 1.1 2.4 2424972 121900 ? Sl 13:07 0:13 /us  
pratham 2700 0.2 1.9 2418308 97164 ? Sl 13:07 0:02 /us  
pratham 2866 0.0 0.6 494132 31680 ? Sl 13:07 0:00 upd  
pratham 3226 5.8 4.6 2607512 236060 ? Rl 13:07 1:01 /us  
pratham 3259 0.0 0.7 197996 39960 ? Sl 13:08 0:00 /us  
pratham 3326 0.0 0.0 8444 2592 pts/0 T 13:09 0:00 les  
pratham 3555 0.0 0.1 387836 8400 ? Sl 13:10 0:00 /us  
root 3562 0.3 0.0 0 0 ? I 13:10 0:03 [kw  
pratham 3578 0.0 0.1 314988 8260 ? Sl 13:10 0:00 /us  
root 3676 0.0 0.0 0 0 ? I 13:11 0:00 [kw  
pratham 3724 22.4 7.0 9232932 355788 ? Sl 13:11 3:06 /us  
root 3768 0.1 0.0 0 0 ? I 13:11 0:00 [kw  
root 3784 0.0 0.0 0 0 ? I 13:12 0:00 [kw  
pratham 3794 0.6 1.4 1131856 73972 ? Sl 13:13 0:04 /us  
root 3872 0.1 0.0 0 0 ? I 13:16 0:00 [kw  
pratham 3900 0.0 1.4 2383784 73096 ? Sl 13:18 0:00 /us  
root 5839 0.0 0.0 0 0 ? I 13:20 0:00 [kw  
root 5840 0.0 0.0 0 0 ? I 13:20 0:00 [kw  
root 5843 0.0 0.0 0 0 ? I 13:20 0:00 [kw  
root 6268 0.0 0.0 0 0 ? I 13:22 0:00 [kw  
root 6269 0.0 0.0 0 0 ? I 13:22 0:00 [kw  
root 6270 0.0 0.0 0 0 ? I 13:22 0:00 [kw  
pratham 6517 0.0 0.0 11496 3484 pts/0 R+ 13:25 0:00 ps  
pratham@pratham:~$ ps aux | grep bash  
pratham 2226 0.0 0.0 10748 4900 pts/0 Ss 13:06 0:00 bash  
pratham 6519 0.0 0.0 8908 712 pts/0 R+ 13:25 0:00 grep --color=auto bash  
pratham@pratham:~$ ps aux | grep bash | wc -l  
3  
pratham@pratham:~$
```