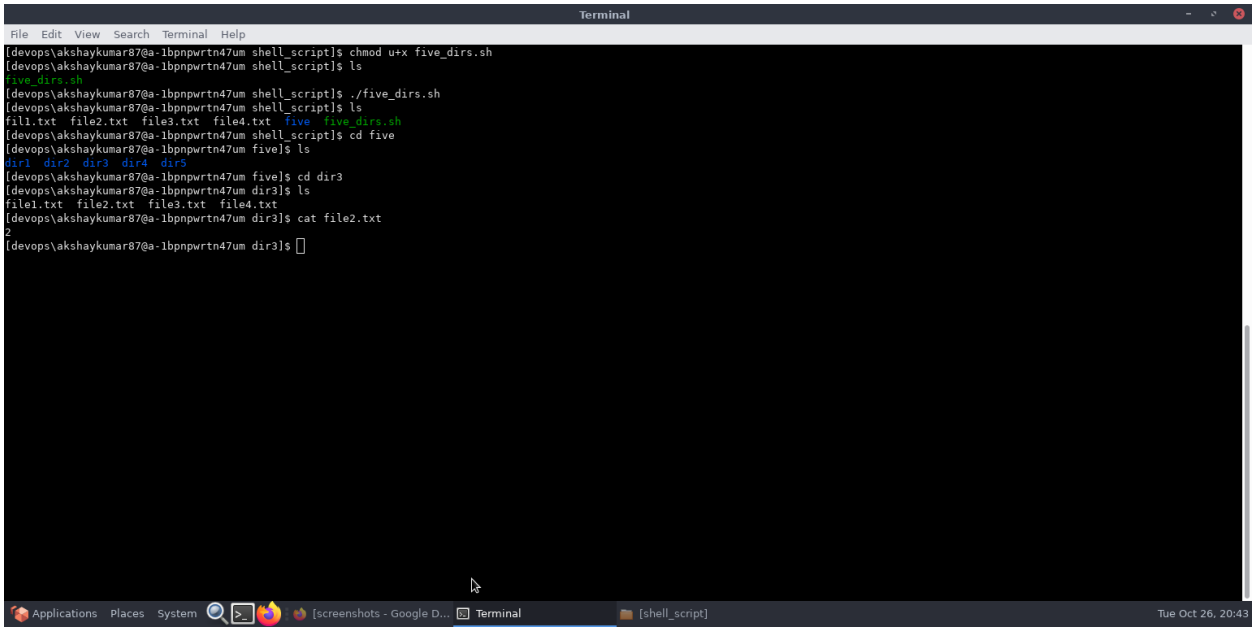
1. Write a script five_dirs.sh that does these tasks:
   a. make a directory five.
   b. make five subdirectories five/dir1 through five/dir5.
   c. in each subdirectory, make four files, file1 through file4, such that file1 has one line containing the digit 1, file2 has two lines, each containing the digit 2, ..., and file4 has four lines, each containing the digit 4

Answer:

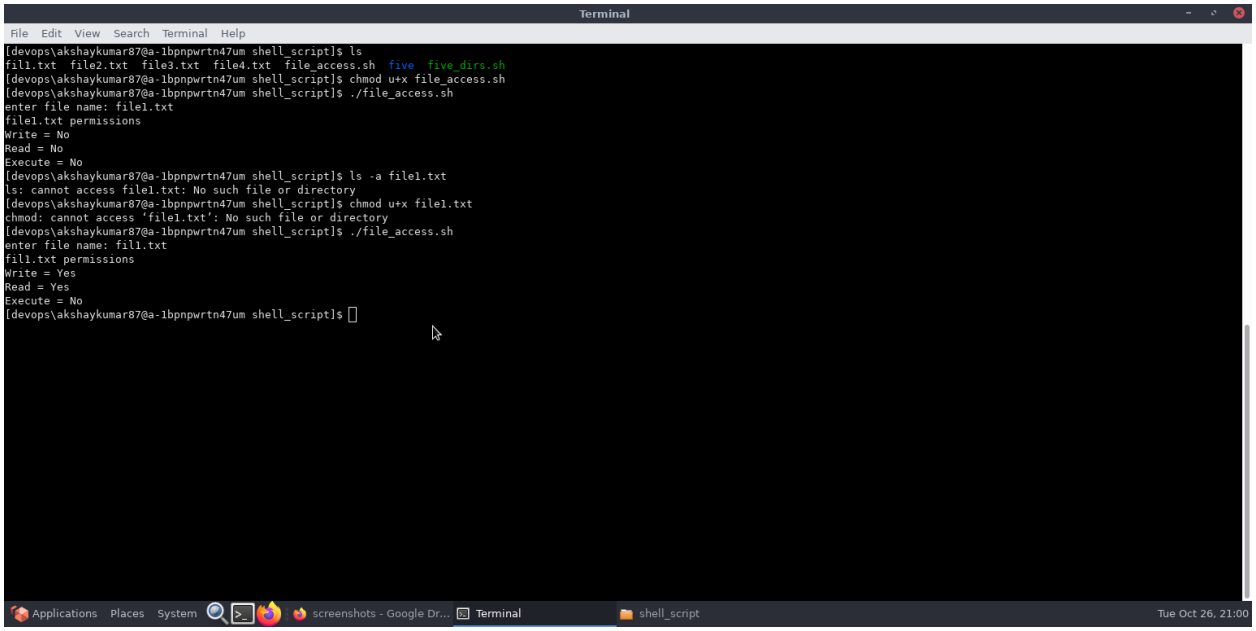
For this made a .sh file and inside it given the command to form such required directory and sub-directory. Showing the same in the terminal and also showing the final output..



2. Get user input of file path and evaluate the status of a file (Whether it is writable, executable/searchable, readable, directory etc)

Answer:

In support of this made a file_access.sh file. Showing the same and output in the screenshot.



3. Write a program to calculate overtime pay of employees. Overtime is paid at the rate of Rs. 12.00 per hour for every hour worked above 40 hours. Assume that employees do not work for fractional part of an hour.

Answer:

Made a .sh file and inside this done some arithmetic operation.

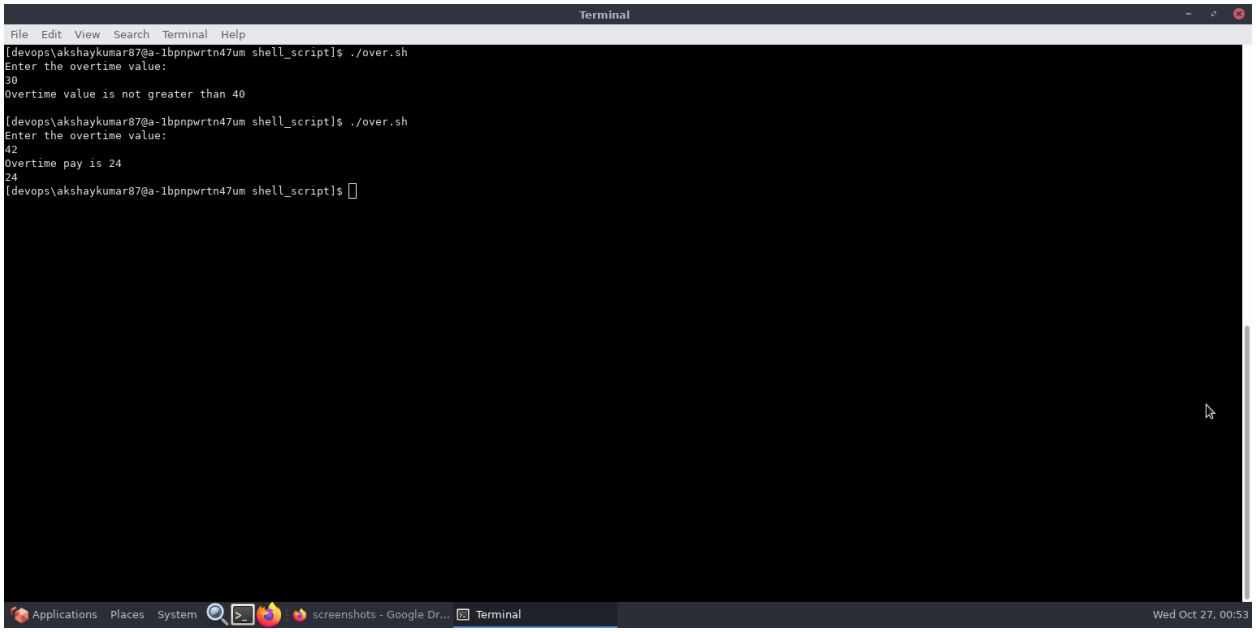
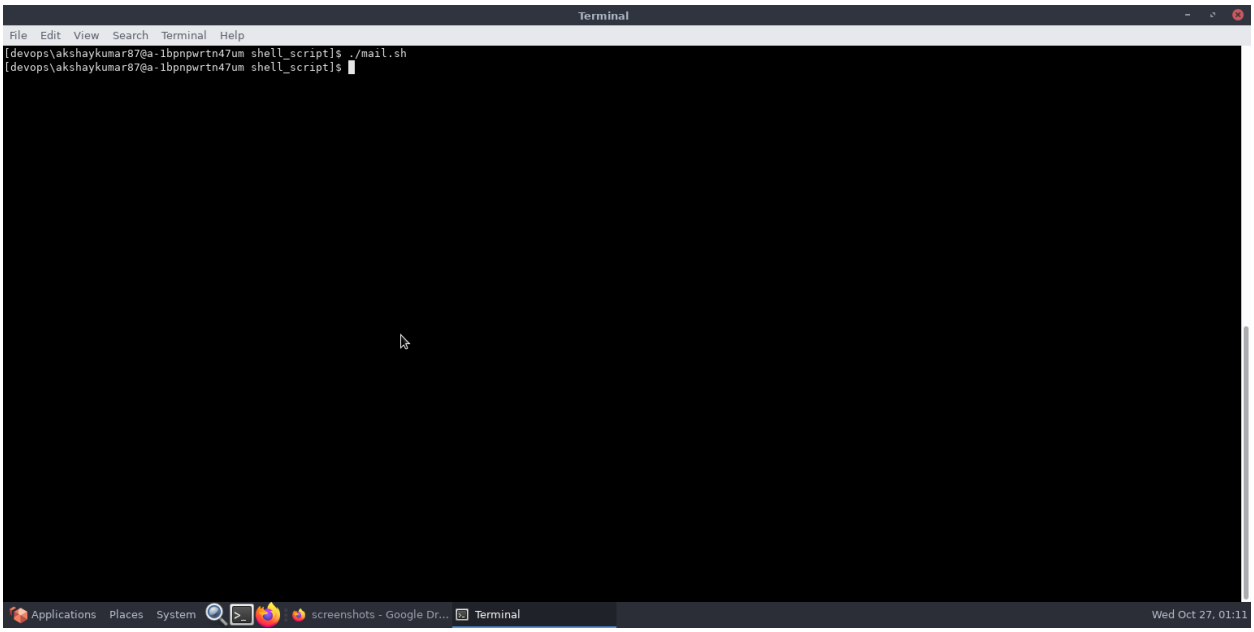


Figure showing the calculated value of overtime.

4. Write a script that every time, I reboot there should be an email sent to Admin that takes dump of last 100 message of dmesg in zipped form.

Anser:

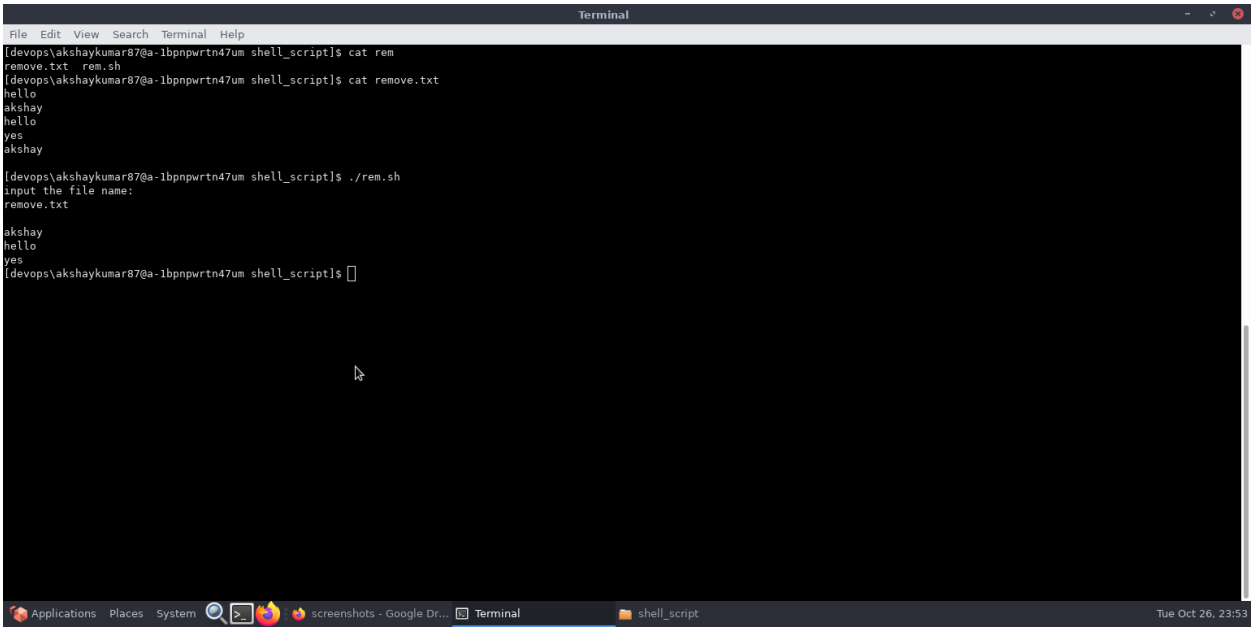
In the screenshot we can see that ./mail.sh file is running fine. Inside this the runlevel value is given 6 as it is for reboot.



5. Write a shell script that will take an input file and remove identical lines (or duplicate lines from the file).

Answer:

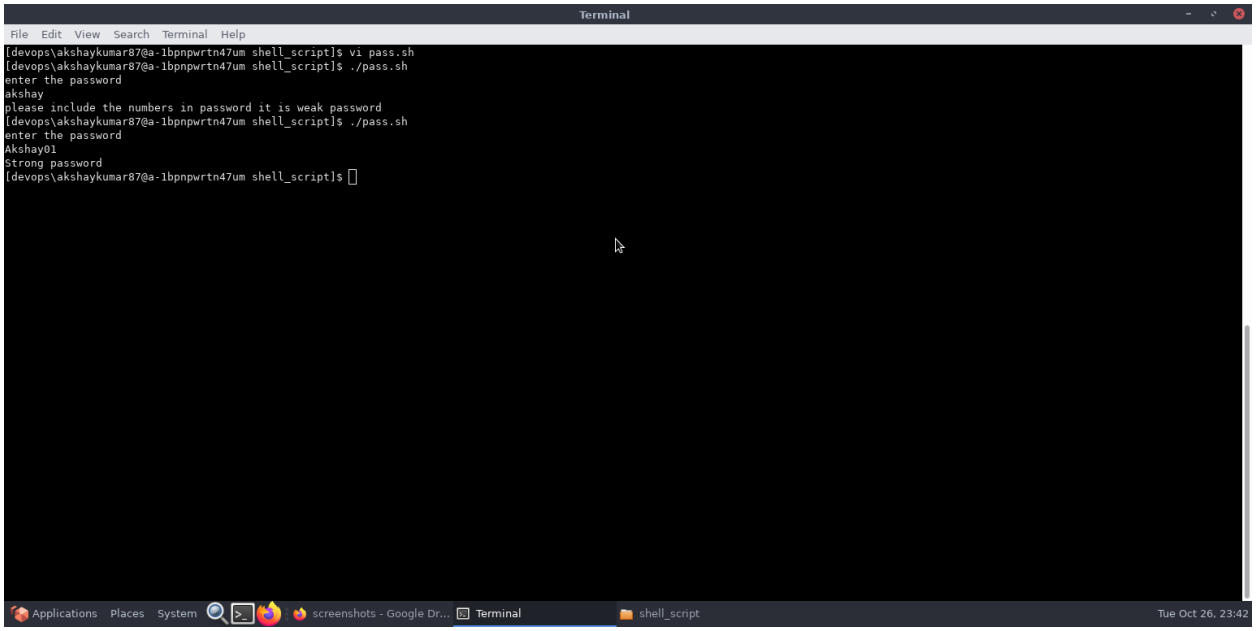
For this I need to run uniq command with sort command . And this helped in the above result.



6. Create a bash file to assess password strength.
   a. Minimum Characters should be 6.
   b. Should Contain both alphabet and number.
   c. Should Include both the small and capital case letters.
   d. If the password doesn't comply with any of the above conditions, then the script should report it as a <Weak Password>

Answer:

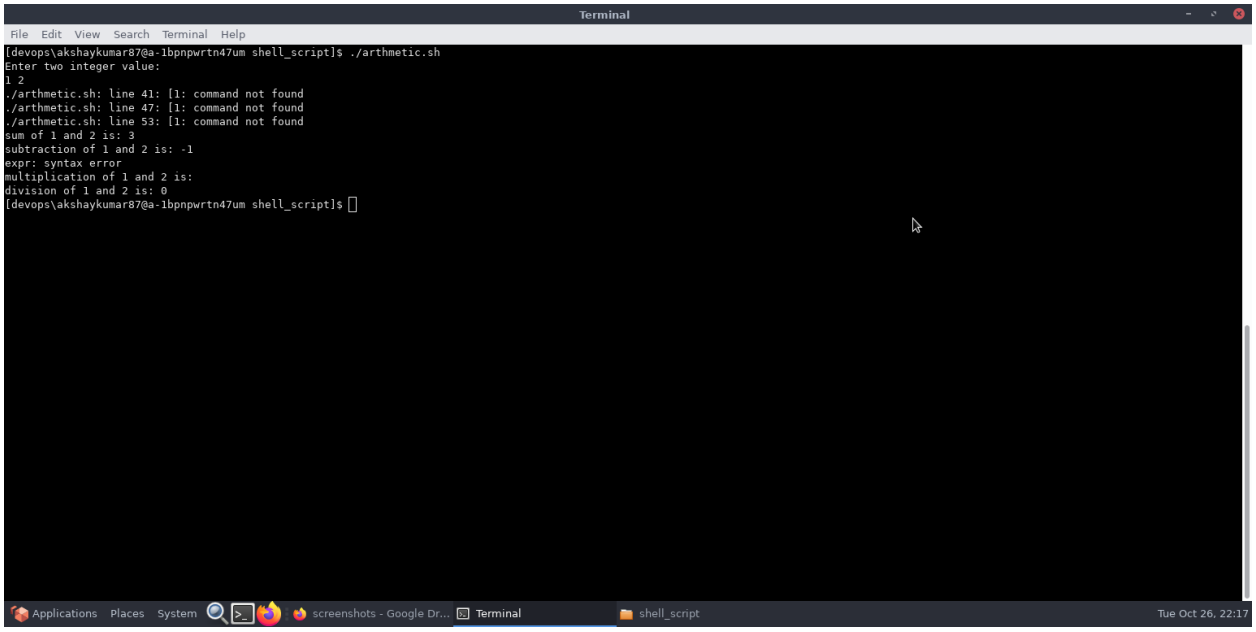
Showing the screenshot after running the pass.sh file where I have used the logic for this.



7. Write a shell script to accept two integer values for two variables Perform following actions -
   Create the following functions for the same –
   1. Addition
      b. Multiplication
      c. Division
      d. Subtraction
      e. If the input is invalid it should return the input is invalid with a comment

Answer:

Showing the above using screenshot where I have used my logic inside the arithmetic.sh file.

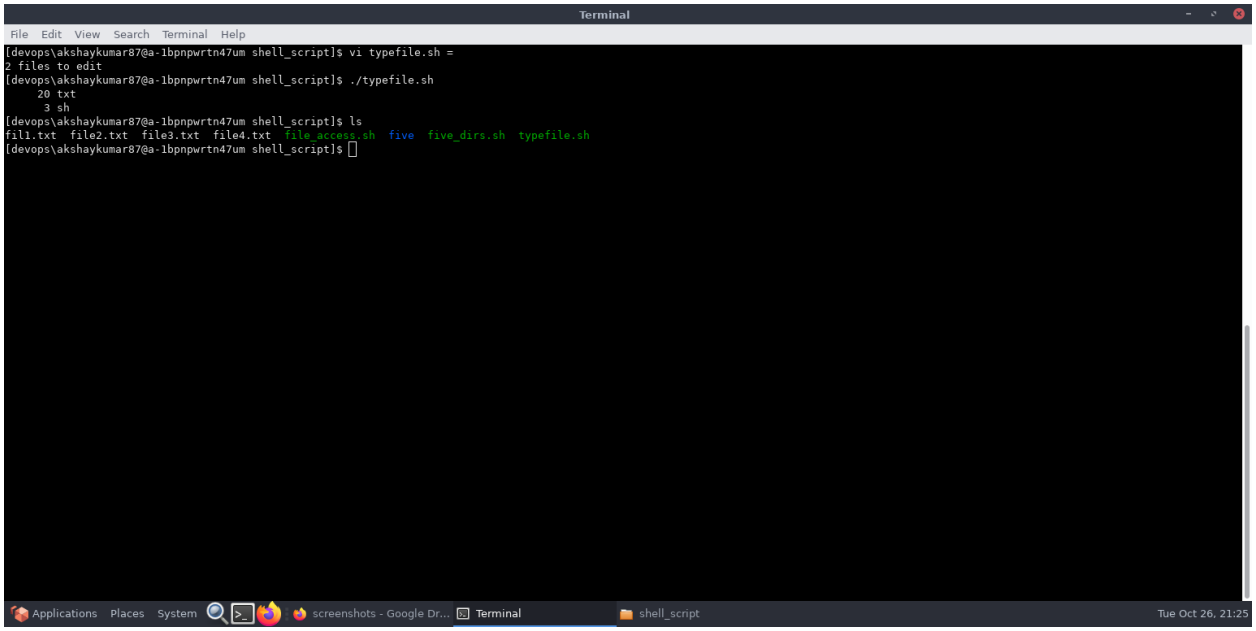


8. Write a shell script that takes a directory as an input and counts the total number of different types of files and directories present in the input directory

Answer:

My typefile.sh has the logic of calculating the above result and solving the problem. We can refer to the mentioned .sh file.

Sharing the screenshot for the same:



THANK YOU!