



Summer Internship Industrial
Training on

Linux System Administration v9



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Summer Internship Tasks

- * Send Whatsapp Message using terminal
- * Output of a command should be spoken from the speaker also .
- * Send Email from Linux Terminal .
- * Send SMS using terminal .
- * Use linux as a zoom server .
- * To make a post in telegram,instagram,facebook, discord from the linux terminal
- * Change the color of files and folder in linux .
- * Reading the entire RAM .
- * Change the look and feel of GNome terminal .
- * To create user and set password.
- * Running linux in the browser .
- * Google search from terminal .
- * Run Windows softwares e.g notepad in linux .
- * Sync two different folders in linux . It should ask the user which folders to sync.
- * On your cmd you print something and it will be converted to ascii art.



Task 1

1.Send Whatsapp Message using terminal

In this article, we will explore how to send WhatsApp messages directly from the command line using Node.js and Mudslide.

Step 1: Installing Node.js:

To install Node.js, follow these commands in your terminal:

```
$ curl -fsSL https://rpm.nodesource.com/setup_19.x | sudo bash -  
$ sudo yum install -y nodejs  
$ sudo yum groupinstall 'Development Tools'
```

```
Updating Subscription Management repositories.  
Last metadata expiration check: 18:52:54 ago on Saturday 24 August 2024 05:07:08 PM.  
Dependencies resolved.  
=====
```

Package	Architecture	Version	Repository	Size
---------	--------------	---------	------------	------

```
=====
```

Installing Groups:				
Development Tools				

```
=====
```

Transaction Summary				
---------------------	--	--	--	--

```
=====
```

Is this ok [y/N]: y
Complete!



Task 1

1.Send Whatsapp Message using terminal

In this article, we will explore how to send WhatsApp messages directly from the command line using Node.js and Mudslide.

Step 2: Installing Mudslide:

Mudslide is a powerful command-line tool that enables interaction with WhatsApp directly from your terminal.

```
$ npm install -g mudslide
```

```
[root@localhost ~]# npm install -g mudslide
npm WARN EBADENGINE Unsupported engine {
npm WARN EBADENGINE   package: '@thi.ng/bitstream@2.4.0',
npm WARN EBADENGINE   required: { node: '>=18' },
npm WARN EBADENGINE   current: { node: 'v16.20.2', npm: '8.19.4' }
npm WARN EBADENGINE }
npm WARN EBADENGINE Unsupported engine {
npm WARN EBADENGINE   package: '@thi.ng/errors@2.5.15',
npm WARN EBADENGINE   required: { node: '>=18' },
npm WARN EBADENGINE   current: { node: 'v16.20.2', npm: '8.19.4' }
npm WARN EBADENGINE }

changed 154 packages, and audited 155 packages in 27s

30 packages are looking for funding
  run `npm fund` for details

found 0 vulnerabilities
```



Task 1

1.Send Whatsapp Message using terminal

In this article, we will explore how to send WhatsApp messages directly from the command line using Node.js and Mudslide.

Step 3: Logging in to WhatsApp:

To utilize Mudslide, you need to log in to your WhatsApp account through the command line.

```
$ npx mudslide login
```





Task 1

1.Send Whatsapp Message using terminal

In this article, we will explore how to send WhatsApp messages directly from the command line using Node.js and Mudslide.

Step 4: Sending WhatsApp Messages:

Now that you've successfully logged in, you can start sending WhatsApp messages directly from your terminal using Mudslide.

```
$ npx mudslide send me 'Hello Linux Worls'
```

```
[root@localhost ~]# npx mudslide send me 'Hello khemraj'
. awaiting Sending message: "Hello khemraj" to: 919356456823@s.whatsapp.net
✓ success Done
. awaiting Closing WA connection, waiting for 3 second(s)...
★ Please star Mudslide on GitHub! https://github.com/robvanderleek/mudslide
[root@localhost ~]# npx mudslide send 7057173707 'Hello khemraj'
. awaiting Sending message: "Hello khemraj" to: 7057173707@s.whatsapp.net
✓ success Done
. awaiting Closing WA connection, waiting for 3 second(s)...
★ Please star Mudslide on GitHub! https://github.com/robvanderleek/mudslide
[root@localhost ~]#
```



Task 2

2.Send SMS using terminal

For programmatically sending SMS messages, Twilio is a popular service. Start by installing the Twilio Python library

pip install twilio

Create a Python script to send an SMS directly from your terminal using Mudslide.

```
from twilio.rest import Client
```

```
account_sid = 'your_account_sid'
auth_token = 'your_auth_token'
client = Client(account_sid, auth_token)
message = client.messages.create(
    body="Your SMS message here",
    from_="your_twilio_phone_number",
    to="recipient_phone_number"
)
print(message.sid)
```

```
[root@localhost ~]# yum install twilio
Updating Subscription Management repositories.
Last metadata expiration check: 20:07:20 ago on Saturday 24 August 2024 05:07:08 PM.
No match for argument: twilio
Error: Unable to find a match: twilio
[root@localhost ~]# pip install twilio
Collecting twilio
  Downloading twilio-9.2.3-py2.py3-none-any.whl (1.8 MB)
    |#####| 1.8 MB 979 kB/s
Collecting aiohttp>=3.8.4
  Downloading aiohttp-3.10.5-cp39-cp39-manylinux_2_17_x86_64.manylinux2014_x86_64.whl (1.2 MB)
    |#####| 1.2 MB 1.6 MB/s
Collecting aiohttp-retry>=2.8.3
  Downloading aiohttp_retry-2.8.3-py3-none-any.whl (9.8 kB)
Collecting PyJWT<3.0.0,>=2.0.0
  Downloading PyJWT-2.9.0-py3-none-any.whl (22 kB)
Requirement already satisfied: requests>=2.0.0 in /usr/lib/python3.9/site-packages (from twilio) (2.25.1)
Collecting attrs>=17.3.0
  Downloading attrs-24.2.0-py3-none-any.whl (63 kB)
    |#####| 63 kB 1.5 MB/s
Collecting aiohappyeyeballs>=2.3.0
  Downloading aiohappyeyeballs-2.4.0-py3-none-any.whl (12 kB)
Collecting yarl<2.0,>=1.0
```



Task 3

3.Send Email from Linux Terminal

The mail command is a simple yet effective way to send emails right from the terminal. If you don't have it installed, you can do so with

```
sudo yum install mailx
```

Compose an email and send it using the following syntax:

```
echo "This is the body of the email" |  
mail -s "Subject"  
recipient@example.com
```

```
[root@localhost ~]# yum install twilio  
Updating Subscription Management repositories.  
Last metadata expiration check: 20:07:20 ago on Saturday 24 August 2024 05:07:08 PM.  
No match for argument: twilio  
Error: Unable to find a match: twilio  
[root@localhost ~]# pip install twilio  
Collecting twilio  
  Downloading twilio-9.2.3-py2.py3-none-any.whl (1.8 MB)  
    |#####| 1.8 MB 979 kB/s  
Collecting aiohttp>=3.8.4  
  Downloading aiohttp-3.10.5-cp39-cp39-manylinux_2_17_x86_64.manylinux2014_x86_64.whl (1.2 MB)  
    |#####| 1.2 MB 1.6 MB/s  
Collecting aiohttp-retry>=2.8.3  
  Downloading aiohttp_retry-2.8.3-py3-none-any.whl (9.8 kB)  
Collecting PyJWT<3.0.0,>=2.0.0  
  Downloading PyJWT-2.9.0-py3-none-any.whl (22 kB)  
Requirement already satisfied: requests>=2.0.0 in /usr/lib/python3.9/site-packages (from twilio) (2.25.1)  
Collecting attrs>=17.3.0  
  Downloading attrs-24.2.0-py3-none-any.whl (63 kB)  
    |#####| 63 kB 1.5 MB/s  
Collecting aiohappyeyeballs>=2.3.0  
  Downloading aiohappyeyeballs-2.4.0-py3-none-any.whl (12 kB)  
Collecting yarl<2.0,>=1.0
```




Task 4

4. On your cmd you print something and it will be converted to ascii art

Installing Figlet

First, you need to install Figlet. Depending on your Linux distribution, you can use one of the following commands:

```
$:sudo yum install figlet
$:figlet "Hello World"
```

ASCII into text file

```
$:figlet "Hello World" > hello.txt
```

[illegible]



Task 5

5.Sync two different folders in linux . It should ask the user which folders to sync

I have recently came across a request/challenge to setup a two-way sync with as less voodoo as possible

Step 1: ssh passwordless access

Lsyncd requires rsync to work without user intervention.

```
$> ssh webdev@193.92.100.2
```

Login to server WebApp1 and on the command prompt issue:

```
$> ssh-keygen -t rsa  
$> ssh-copy-id webdev@193.92.100.2  
$> service sshd status -l  
$> sudo ssh webdev@193.92.100.2  
$> sudo ssh-keygen -t rsa  
$> sudo ssh-copy-id webdev@193.92.100.2
```



Task 5

5.Sync two different folders in linux . It should ask the user which folders to sync

I have recently came across a request/challenge to setup a two-way sync with as less voodoo as possible

Step 2: Setup folders and folder structure

- the replication (project)folder.
- For example: /var/www/html/mysite/
- the rsync temporary files folder. For example: /home/webdev/mysite/rsync_temp/

Step 3: Install lsyncd and its log and status files

This is quite straightforward. Use yum to install lsyncd:

Once done, do not start the service, as it requires a few more steps

```
$> sudo yum install lsyncd
```

Once done, do not start the service, as it requires a few more steps prior to starting it.

```
$> sudo touch /var/log/lsyncd/lsyncd.{log,status}
```



Task 6

6.Google search from terminal.

Have you wondered about searching Google directly from the terminal?

In this article, I will be showing you an easy and simple way to Google Search directly from the terminal.

Step 1: Install the glook first

```
$> npm i -g glook
```

Step 1: Search on google

```
$> glook search
```

```
[root@localhost ~]# npx mudslide send me 'Hello khemraj'
- awaiting Sending message: "Hello khemraj" to: 919356456823@s.whatsapp.net
✓ success Done
- awaiting Closing WA connection, waiting for 3 second(s)...
★ Please star Mudslide on GitHub! https://github.com/robvanderleek/mudslide
[root@localhost ~]# npx mudslide send 7057173707 'Hello khemraj'
- awaiting Sending message: "Hello khemraj" to: 7057173707@s.whatsapp.net
✓ success Done
- awaiting Closing WA connection, waiting for 3 second(s)...
★ Please star Mudslide on GitHub! https://github.com/robvanderleek/mudslide
[root@localhost ~]#
```

Task 7

7.Run Windows softwares e.g notepad in linux

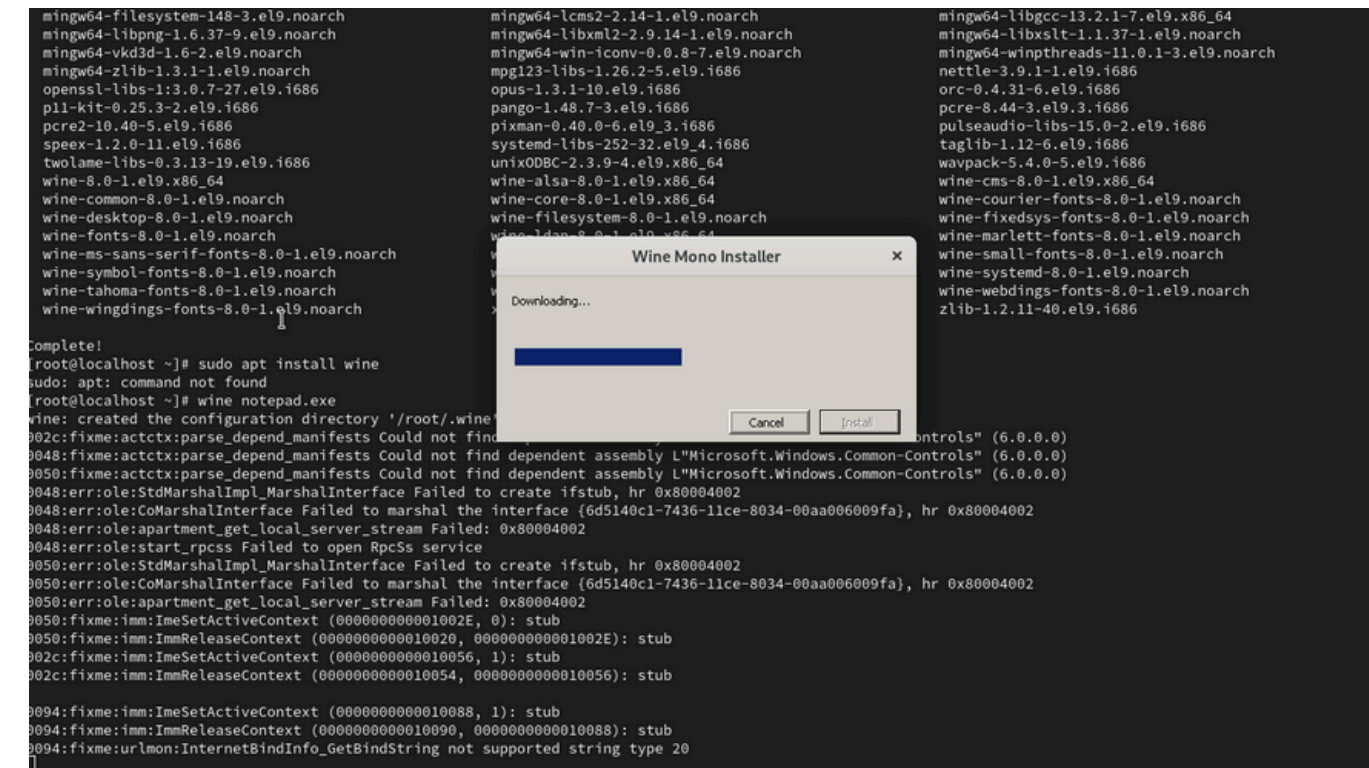
want to run Windows applications like Notepad on a Linux system

1.Install Wine:

- Open your terminal and run the following
sudo dnf install wine
- For Ubuntu or Debian-based systems, you would use:
sudo apt install wine
-

1.Run the Application:

- wine notepad.exe



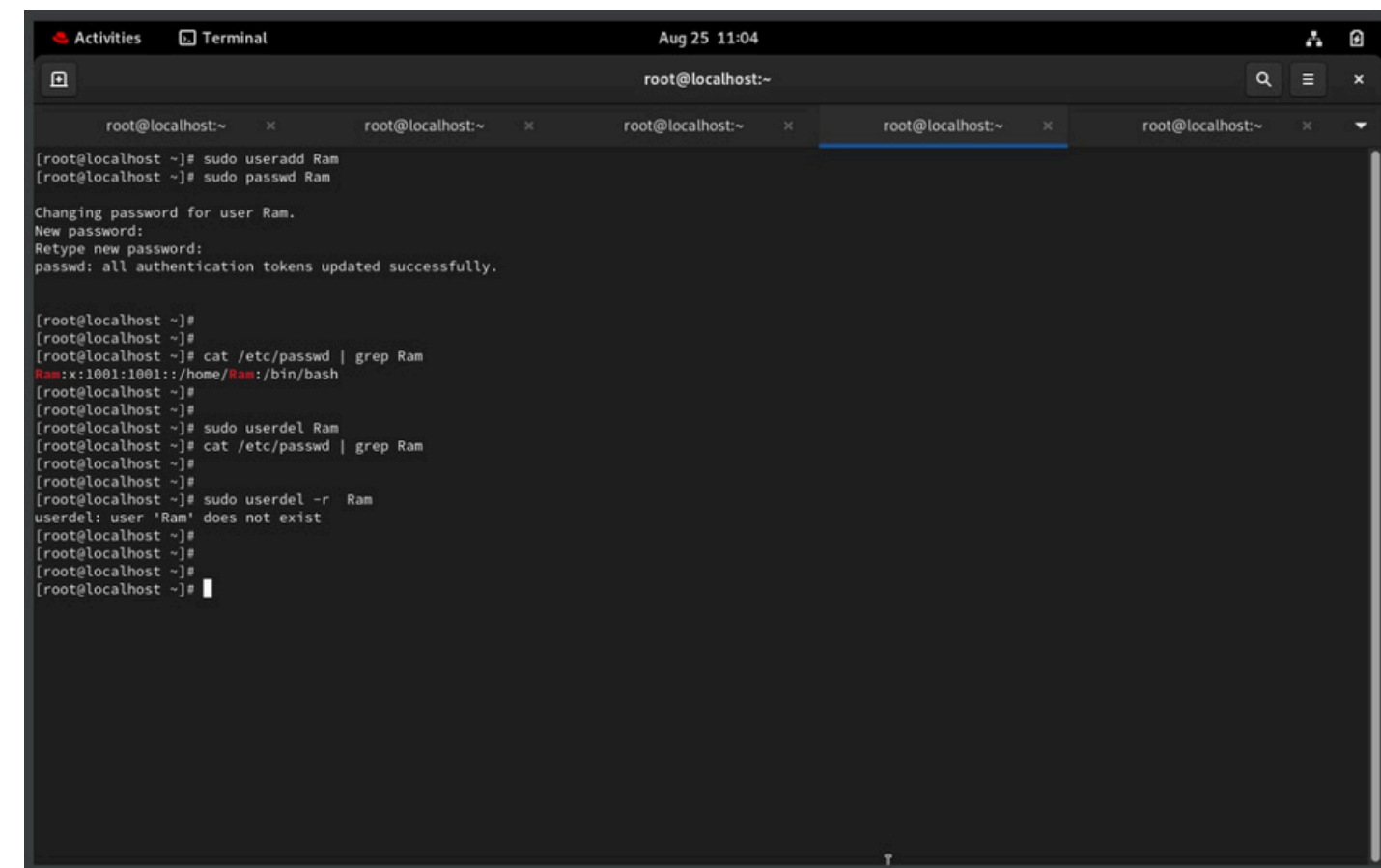
Task 8

8.To create user and set password

1. Create a user
2. The simple format for this command is `useradd [options] USERNAME`.
3. For example `useradd test` (as the root user - prefix with `sudo` if you are not logged in as root).

PassWord

- You then add a password for the test user by using the `passwd` command: `passwd test`. This will prompt you to enter a password for the user.
- There is an option for adding an encrypted password via the `-p` option on `useradd`, but this is not recommended for security purposes.



```
root@localhost:~  
[root@localhost ~]# sudo useradd Ram  
[root@localhost ~]# sudo passwd Ram  
  
Changing password for user Ram.  
New password:  
Retype new password:  
passwd: all authentication tokens updated successfully.  
  
[root@localhost ~]#  
[root@localhost ~]#  
[root@localhost ~]# cat /etc/passwd | grep Ram  
Ram:x:1001:1001:/home/Ram:/bin/bash  
[root@localhost ~]#  
[root@localhost ~]#  
[root@localhost ~]# sudo userdel Ram  
[root@localhost ~]# cat /etc/passwd | grep Ram  
[root@localhost ~]#  
[root@localhost ~]#  
[root@localhost ~]# sudo userdel -r Ram  
userdel: user 'Ram' does not exist  
[root@localhost ~]#  
[root@localhost ~]#  
[root@localhost ~]#  
[root@localhost ~]#
```

Task 9

9. Use linux as a zoom server

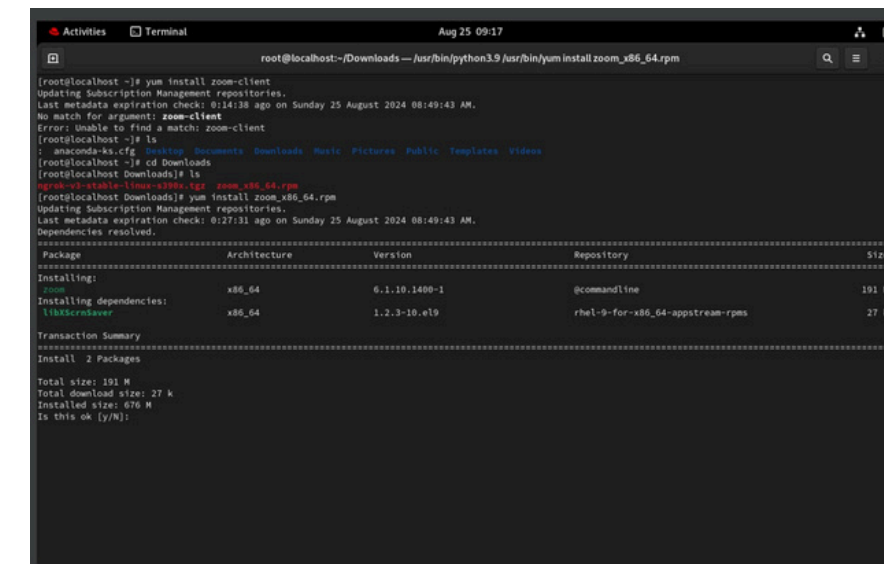
To use Linux as a Zoom server, you can set up a self-hosted version of Zoom.

step 1: Install the zoom-client file

- yum install zoom-client
- cd downloads
- yum install zoom.x86.64.rpm

Step 2: Open zoom

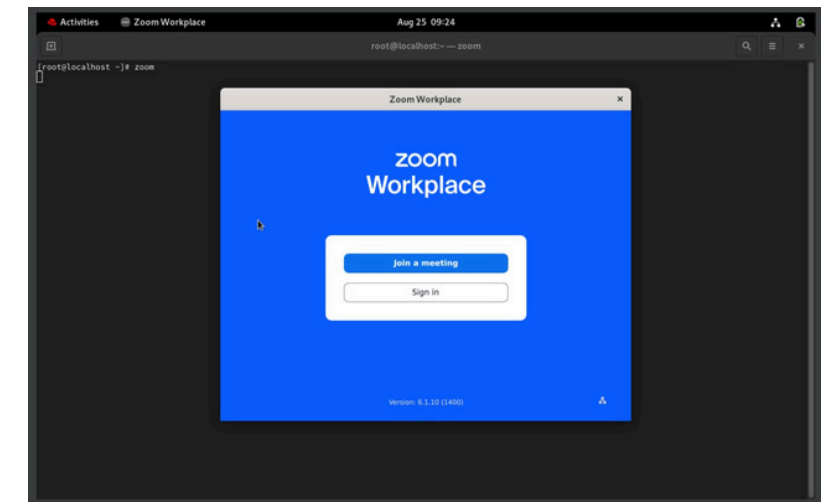
- zoom



```

root@localhost:~/Downloads - /usr/bin/python3.9 /usr/bin/yum install zoom_x86_64.rpm
root@localhost:~/Downloads - /usr/bin/python3.9 /usr/bin/yum install zoom_x86_64.rpm
Updating Subscription Management repositories.
Last metadata expiration check: 8:14:38 ago on Sunday 25 August 2024 08:49:43 AM.
No match for argument: zoom-client
Error: Unable to find a match: zoom-client
root@localhost:~/Downloads - /usr/bin/python3.9 /usr/bin/yum install zoom_x86_64.rpm
root@localhost:~/Downloads - /usr/bin/python3.9 /usr/bin/yum install zoom_x86_64.rpm
Updating Subscription Management repositories.
Last metadata expiration check: 8:17:31 ago on Sunday 25 August 2024 08:49:43 AM.
Dependencies resolved.
Package Architecture Version Repository Size
Installing:
zoom x86_64 6.1.10-1400-1 @commandline 191 M
Installing dependencies:
libssnserver x86_64 1.2.3-10.el9 rhel-9-for-x86_64-appstream-rpms 27 k
Transaction Summary
Install 2 Packages
Total size: 191 M
Total download size: 27 k
Installed size: 476 M
Is this ok [y/N]:

```



Task 10

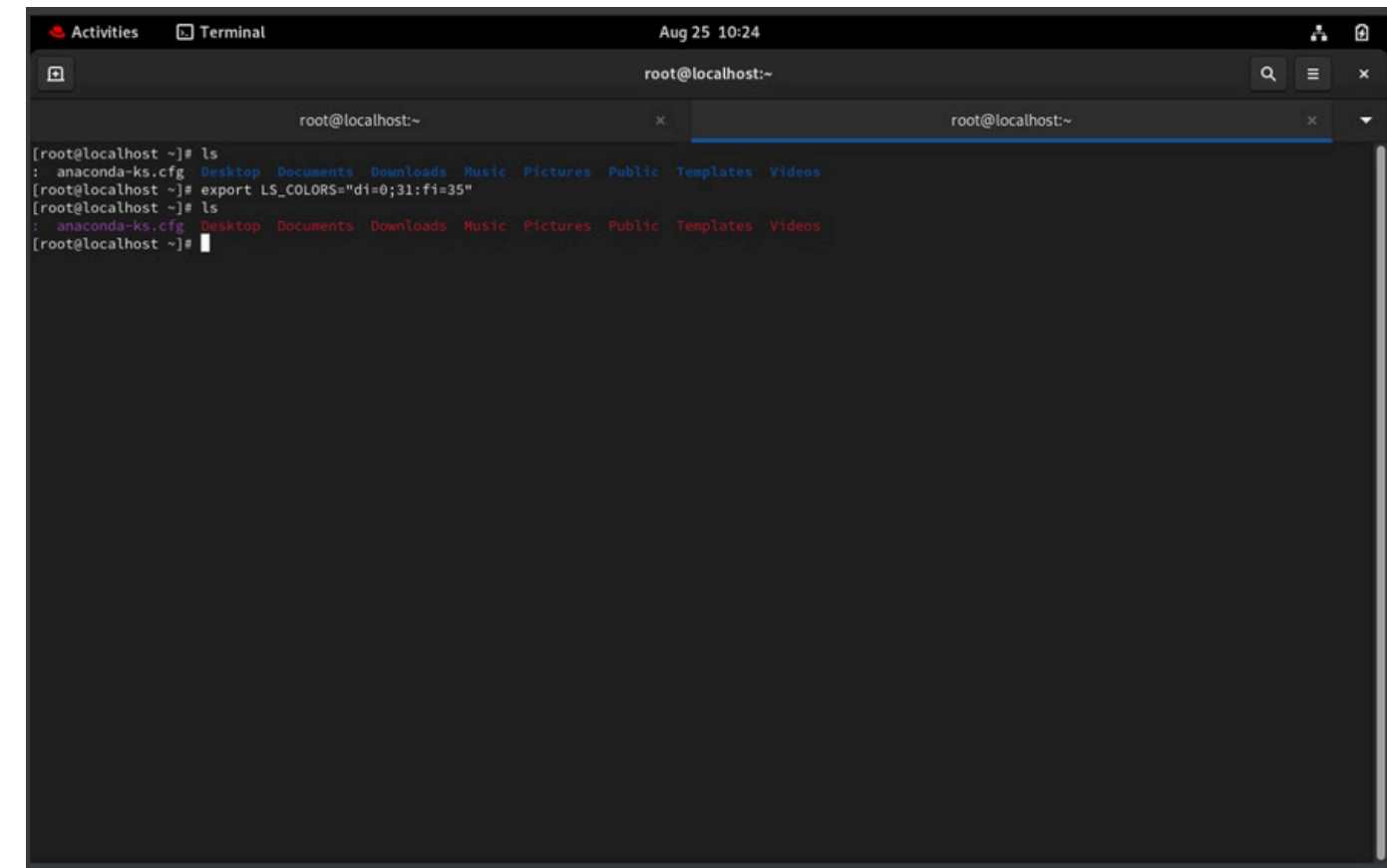
10.Change the color of files and folder in linux

Customizing the colors of files and folders in Linux can enhance your terminal experience and help you quickly identify different file types.

Cmd: \$ls

Cmd: \$export LS_COLORS="di=0; 31:fi=35"

Cmd: \$ls



```
root@localhost:~  
[root@localhost ~]# ls  
.: anaconda-ks.cfg Desktop Documents Downloads Music Pictures Public Templates Videos  
[root@localhost ~]# export LS_COLORS="di=0; 31:fi=35"  
[root@localhost ~]# ls  
.: anaconda-ks.cfg Desktop Documents Downloads Music Pictures Public Templates Videos  
[root@localhost ~]#
```



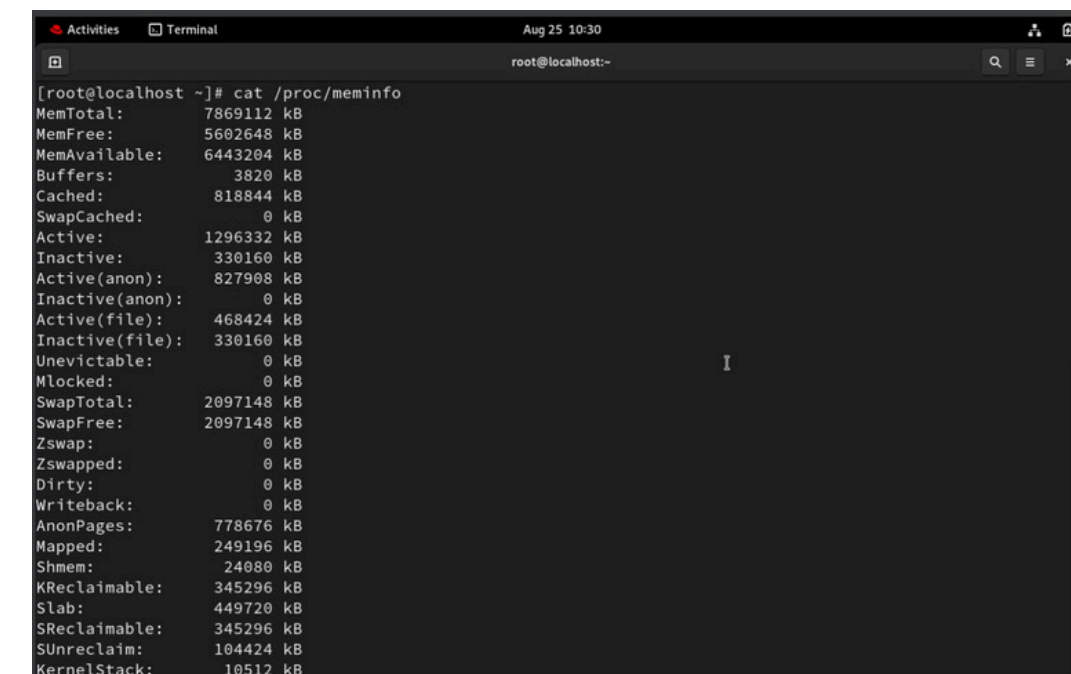

Task 11

11. Reading the entire RAM

Reading the entire RAM (Random Access Memory) on a Linux system can be useful for various purposes, including debugging, forensic analysis

For a quick view of the RAM contents, you can use the cat command, but this will only show a portion of the memory:

Cmd: `$cat/proc/meminfo`



```
[root@localhost ~]# cat /proc/meminfo
MemTotal:       7869112 kB
MemFree:        5602648 kB
MemAvailable:   6443204 kB
Buffers:         3820 kB
Cached:         818844 kB
SwapCached:      0 kB
Active:         1296332 kB
Inactive:        330160 kB
Active(anon):    827908 kB
Inactive(anon):  0 kB
Active(file):    468424 kB
Inactive(file):  330160 kB
Unevictable:     0 kB
Mlocked:         0 kB
SwapTotal:      2097148 kB
SwapFree:       2097148 kB
Zswap:          0 kB
Zswapped:        0 kB
Dirty:           0 kB
Writeback:       0 kB
AnonPages:      778676 kB
Mapped:         249196 kB
Shmem:          24080 kB
KReclaimable:   345296 kB
Slab:           449720 kB
SReclaimable:   345296 kB
SUnreclaim:     104424 kB
KernelStack:    10512 kB
```



Task 12

12. Running linux in the browser

If you prefer a command-line interface, you can use text-based browsers like Lynx or w3m.

If you prefer a command-line interface, you can use text-based browsers like Lynx or w3m.

1. Install Lynx:

Cmd: `$sudo dnf install lynx`

2. Install Lynx:

Cmd: `$lynx https://www.example.com`

```
[khemraj_parate@localhost ~]$ sudo -i
[sudo] password for khemraj_parate:
[root@localhost ~]#
[root@localhost ~]#
[root@localhost ~]# dnf install lynx
Updating Subscription Management repositories.

This system is registered with an entitlement server, but is not receiving updates. You can use subscription-manager to assign subscriptions.

Last metadata expiration check: 0:01:22 ago on Sunday 25 August 2024 04:39:37 PM.
Package lynx-2.8.9-20.el9.x86_64 is already installed.
Dependencies resolved.
Nothing to do.
Complete!
[root@localhost ~]# lynx https://www.google.com
```

