

Linux Assignment

Task 1:

root@sigmoid-ThinkPad-L460:/home/sigmoid# systemctl status sendmail

- sendmail.service - LSB: powerful, efficient, and scalable Mail Transport Agent

Loaded: loaded (/etc/init.d/sendmail; generated)

Active: active (exited) since Fri 2024-08-30 16:58:25 IST; 1h 34min ago

Docs: man:systemd-sysv-generator(8)

Tasks: 0 (limit: 9274)

Memory: 0B

CGroup: /system.slice/sendmail.service

Aug 30 16:58:25 sigmoid-ThinkPad-L460 systemd[1]: Starting LSB: powerful, efficient, and scalable Mail Transport Agent...

Aug 30 16:58:25 sigmoid-ThinkPad-L460 systemd[1]: Started LSB: powerful, efficient, and scalable Mail Transport Agent.

root@sigmoid-ThinkPad-L460:/home/sigmoid# nano email1.txt

root@sigmoid-ThinkPad-L460:/home/sigmoid# sendmail -t < email1.txt

root@sigmoid-ThinkPad-L460:/home/sigmoid# sudo tail -f /var/log/mail.log

```
Aug 27 18:40:01 sigmoid-TAS270 sm-nsp-queue[23542]: My unqualified host name (sigmoid-TAS270) unknown; sleeping for retry
Aug 27 18:41:01 sigmoid-TAS270 sm-nsp-queue[23542]: unable to qualify my own domain name (sigmoid-TAS270) -- using short name
Aug 28 11:53:07 sigmoid-TAS270 sendmail[26643]: My unqualified host name (sigmoid-TAS270) unknown; sleeping for retry
Aug 28 11:54:07 sigmoid-TAS270 sendmail[26643]: unable to qualify my own domain name (sigmoid-TAS270) -- using short name
Aug 28 11:54:07 sigmoid-TAS270 sendmail[26643]: 4756076E026643: from=root@sigmoid-TAS270, size=106, class=0, nrcpts=1, msgid=<202408280624.4756076E026643@sigmoid-TAS270>, relay=root@localhost
Aug 28 11:54:07 sigmoid-TAS270 sm-nta[26646]: 47560750026646: from=<root@sigmoid-TAS270>, size=368, class=0, nrcpts=1, msgid=<202408280624.4756076E026643@sigmoid-TAS270>, proto=ESMTP, daemon=MTA-v4, relay=localhost [127.0.0.1]
Aug 28 11:54:07 sigmoid-TAS270 sendmail[26643]: 4756076E026643: to=<krupa.ht@sigmoidanalytics.com>, ctladdr=root@sigmoid-TAS270 (0/0), delay=00:00:00, xdelay=00:00:00, mailer=relay, pri=30106, relay=[127.0.0.1] [127.0.0.1], dsn=2.0.0, stat=Sent (47560750026646 Message accepted for delivery)
Aug 28 11:54:08 sigmoid-TAS270 sm-nta[26648]: STARTTLS=client, relay=aspmx.l.google.com., version=TLSv1.3, verify=FAIL, cipher=TLS_AES_256_GCM_SHA384, bits=256/256
Aug 28 11:54:09 sigmoid-TAS270 sm-nta[26648]: 47560750026646: to=<krupa.ht@sigmoidanalytics.com>, ctladdr=<root@sigmoid-TAS270> (0/0), delay=00:00:02, xdelay=00:00:02, mailer=esmtpl, pri=120368, relay=aspmx.l.google.com. [142.251.10.27], dsn=5.0.0, stat=Service unavailable
Aug 28 11:54:09 sigmoid-TAS270 sm-nta[26648]: 47560750026646: 47560950026648: DSN: Service unavailable
Aug 28 11:54:09 sigmoid-TAS270 sm-nta[26648]: 47560950026648: to=<root@sigmoid-TAS270>, delay=00:00:00, xdelay=00:00:00, mailer=local, pri=30000, dsn=2.0.0, stat=Sent
Aug 28 12:00:03 sigmoid-TAS270 sm-nsp-queue[26844]: My unqualified host name (sigmoid-TAS270) unknown; sleeping for retry
Aug 28 12:01:03 sigmoid-TAS270 sm-nsp-queue[26844]: unable to qualify my own domain name (sigmoid-TAS270) -- using short name
Aug 28 12:09:26 sigmoid-TAS270 sendmail[26964]: My unqualified host name (sigmoid-TAS270) unknown; sleeping for retry
Aug 28 12:10:26 sigmoid-TAS270 sendmail[26964]: unable to qualify my own domain name (sigmoid-TAS270) -- using short name
Aug 28 12:10:26 sigmoid-TAS270 sendmail[26964]: 4756eQw9026964: from=sigmoid, size=144, class=0, nrcpts=1, msgid=<202408280640.4756eQw9026964@sigmoid-TAS270>, relay=root@localhost
Aug 28 12:10:26 sigmoid-TAS270 sm-nta[27015]: 4756eQIn027015: from=<sigmoid@sigmoid-TAS270>, size=438, class=0, nrcpts=1, msgid=<202408280640.4756eQw9026964@sigmoid-TAS270>, proto=ESMTP, daemon=MTA-v4, relay=localhost [127.0.0.1]
Aug 28 12:10:26 sigmoid-TAS270 sendmail[26964]: 4756eQw9026964: to=krupa.ht@sigmoidanalytics.com, ctladdr=sigmoid (1000/1000), delay=00:00:00, xdelay=00:00:00, mailer=relay, pri=30144, relay=[127.0.0.1] [127.0.0.1], dsn=2.0.0, stat=Sent (4756eQIn027015 Message accepted for delivery)
Aug 28 12:10:27 sigmoid-TAS270 sm-nta[27017]: STARTTLS=client, relay=aspmx.l.google.com., version=TLSv1.3, verify=FAIL, cipher=TLS_AES_256_GCM_SHA384, bits=256/256
Aug 28 12:10:28 sigmoid-TAS270 sm-nta[27017]: 4756eQIn027015: to=<krupa.ht@sigmoidanalytics.com>, ctladdr=sigmoid@sigmoid-TAS270 (1000/1000), delay=00:00:00, xdelay=00:00:00, mailer=local, pri=30000, dsn=2.0.0, stat=Sent (4756eQIn027015 Message accepted for delivery)
```

Task 2:

```
root@sigmoid-ThinkPad-L460:/home/sigmoid# adduser pentagonspace
Adding user `pentagonspace' ...
Adding new group `pentagonspace' (1004) ...
Adding new user `pentagonspace' (1004) with group `pentagonspace' ...
Creating home directory `/home/pentagonspace' ...
Copying files from `/etc/skel' ...
New password:
Retype new password:
passwd: password updated successfully
Changing the user information for pentagonspace
Enter the new value, or press ENTER for the default
    Full Name []: pentagon
    Room Number []: 007
    Work Phone []: 2
    Home Phone []: 1
    Other []: 1
Is the information correct? [Y/n] y
root@sigmoid-ThinkPad-L460:/home/sigmoid# su pentagon
pentagon@sigmoid-ThinkPad-L460:/home/sigmoid$ exit
exit
root@sigmoid-ThinkPad-L460:/home/sigmoid# groups pentagon
pentagon : pentagon
root@sigmoid-ThinkPad-L460:/home/sigmoid# su pentagon
pentagon@sigmoid-ThinkPad-L460:/home/sigmoid$
```

Task 3:

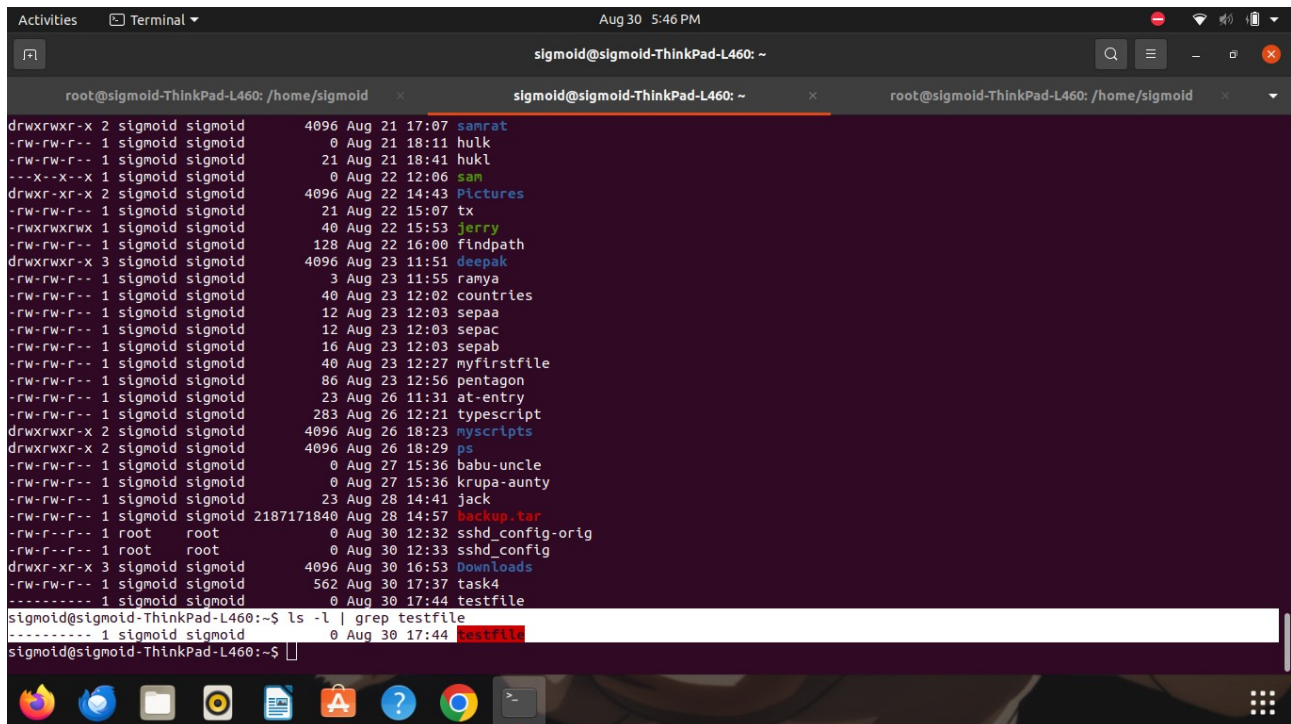
```
sigmoid@sigmoid-ThinkPad-L460:~$ alias describe='pwd'
sigmoid@sigmoid-ThinkPad-L460:~$ describe
/home/sigmoid
sigmoid@sigmoid-ThinkPad-L460:~$ unalias describe
sigmoid@sigmoid-ThinkPad-L460:~$ describe
describe: command not found
sigmoid@sigmoid-ThinkPad-L460:~$
```

Task 4:

```
#!/bin/bash
# Find the file
file_path=$(sudo find / -type f -name 'research.*' 2>/dev/null)
if [ -z "$file_path" ]; then
echo "No file named 'research' found."
exit 1
fi
# Check the file type
file_type=$(file -b "$file_path")
echo "Found file: $file_path"
echo "File type: $file_type"
# Uncompress based on file type
case "$file_type" in
*gzip*)
echo "Uncompressing gzip file..."
gunzip "$file_path"
;;
*bzip2*)
echo "Uncompressing bzip2 file..."
bunzip2 "$file_path"
;;
*XZ*)
echo "Uncompressing xz file..."
unxz "$file_path"
;;
*)
echo "Unknown compression type: $file_type"
exit 1
;;
esac
echo "File uncompressed successfully."
```

Task 5:

```
sigmoid@sigmoid-ThinkPad-L460:~$ sudo nano /etc/profile
sigmoid@sigmoid-ThinkPad-L460:~$ sudo nano /etc/bash.bashrc
sigmoid@sigmoid-ThinkPad-L460:~$ source /etc/profile
sigmoid@sigmoid-ThinkPad-L460:~$ source /etc/bash.bashrc
sigmoid@sigmoid-ThinkPad-L460:~$ nano ~/.bashrc
sigmoid@sigmoid-ThinkPad-L460:~$ nano ~/.zshrc
sigmoid@sigmoid-ThinkPad-L460:~$ source ~/.zshrc
bash: /home/sigmoid/.zshrc: Permission denied
sigmoid@sigmoid-ThinkPad-L460:~$ sudo source ~/.zshrc
sudo: source: command not found
sigmoid@sigmoid-ThinkPad-L460:~$ touch testfile
sigmoid@sigmoid-ThinkPad-L460:~$ ls -l | grep testfile
----- 1 sigmoid sigmoid      0 Aug 30 18:55 testfile
sigmoid@sigmoid-ThinkPad-L460:~$
```



```
Activities Terminal Aug 30 5:46 PM
sigmoid@sigmoid-ThinkPad-L460: ~
root@sigmoid-ThinkPad-L460: /home/sigmoid x sigmoid@sigmoid-ThinkPad-L460: ~ root@sigmoid-ThinkPad-L460: /home/sigmoid x
drwxrwxr-x 2 sigmoid sigmoid 4096 Aug 21 17:07 samrat
-rw-rw-r-- 1 sigmoid sigmoid 0 Aug 21 18:11 hulk
-rw-rw-r-- 1 sigmoid sigmoid 21 Aug 21 18:41 hukl
---x--x--x 1 sigmoid sigmoid 0 Aug 22 12:06 sam
drwxr-xr-x 2 sigmoid sigmoid 4096 Aug 22 14:43 Pictures
-rw-rw-r-- 1 sigmoid sigmoid 21 Aug 22 15:07 tx
-rwxrwxrwx 1 sigmoid sigmoid 40 Aug 22 15:53 jerry
-rw-rw-r-- 1 sigmoid sigmoid 128 Aug 22 16:00 findpath
drwxrwxr-x 3 sigmoid sigmoid 4096 Aug 23 11:51 deepak
-rw-rw-r-- 1 sigmoid sigmoid 3 Aug 23 11:55 ramya
-rw-rw-r-- 1 sigmoid sigmoid 40 Aug 23 12:02 countries
-rw-rw-r-- 1 sigmoid sigmoid 12 Aug 23 12:03 sepaa
-rw-rw-r-- 1 sigmoid sigmoid 12 Aug 23 12:03 sepac
-rw-rw-r-- 1 sigmoid sigmoid 16 Aug 23 12:03 sepab
-rw-rw-r-- 1 sigmoid sigmoid 40 Aug 23 12:27 myfirstfile
-rw-rw-r-- 1 sigmoid sigmoid 86 Aug 23 12:56 pentagon
-rw-rw-r-- 1 sigmoid sigmoid 23 Aug 26 11:31 at-entry
-rw-rw-r-- 1 sigmoid sigmoid 283 Aug 26 12:21 typescript
drwxrwxr-x 2 sigmoid sigmoid 4096 Aug 26 18:23 nyscripts
drwxrwxr-x 2 sigmoid sigmoid 4096 Aug 26 18:29 ps
-rw-rw-r-- 1 sigmoid sigmoid 0 Aug 27 15:36 babu-uncle
-rw-rw-r-- 1 sigmoid sigmoid 0 Aug 27 15:36 krupa-aunty
-rw-rw-r-- 1 sigmoid sigmoid 23 Aug 28 14:41 jack
-rw-rw-r-- 1 sigmoid sigmoid 2187171840 Aug 28 14:57 backup.tar
-rw-rw-r-- 1 root root 0 Aug 30 12:32 sshd_config-orig
-rw-rw-r-- 1 root root 0 Aug 30 12:33 sshd_config
drwxr-xr-x 3 sigmoid sigmoid 4096 Aug 30 16:53 Downloads
-rw-rw-r-- 1 sigmoid sigmoid 562 Aug 30 17:37 task4
----- 1 sigmoid sigmoid 0 Aug 30 17:44 testfile
sigmoid@sigmoid-ThinkPad-L460:~$ ls -l | grep testfile
----- 1 sigmoid sigmoid 0 Aug 30 17:44 testfile
sigmoid@sigmoid-ThinkPad-L460:~$
```

Task:6

```
root@sigmoid-ThinkPad-L460:/home/sigmoid# mkdir -p /usr/local/bin/showtime
root@sigmoid-ThinkPad-L460:/home/sigmoid# nano /usr/local/bin/showtime/showtime.sh
root@sigmoid-ThinkPad-L460:/home/sigmoid# nano /etc/systemd/system/showtime.service
root@sigmoid-ThinkPad-L460:/home/sigmoid# cat /etc/systemd/system/showtime.service
[Unit]
Description=Showtime Service
```

```
[Service]
ExecStart=/usr/local/bin/showtime/showtime.sh
ExecStop=/bin/bash -c "pkill -f '/usr/local/bin/showtime/showtime.sh'"
Restart=always
StandardOutput=append:/home/sigmoid/showtime1.log
StandardError=append:/home/sigmoid/showtime1.log
```

```
[Install]
WantedBy=multi-user.target
root@sigmoid-ThinkPad-L460:/home/sigmoid# systemctl daemon-reload
root@sigmoid-ThinkPad-L460:/home/sigmoid# systemctl enable showtime.service
root@sigmoid-ThinkPad-L460:/home/sigmoid# systemctl start showtime.service
root@sigmoid-ThinkPad-L460:/home/sigmoid# systemctl status showtime.service
```

```
command 'ld' from deb binutils (2.34-6ubuntu1.0)
Try: apt install <deb name>

root@sigmoid-ThinkPad-T450:-# ls -ld /home/sigmoid
drwxr-xr-x 26 sigmoid sigmoid 4096 Aug 30 13:12 /home/sigmoid
root@sigmoid-ThinkPad-T450:-# ss sigmoid
sigmoid@sigmoid-ThinkPad-T450:/root$ cd
sigmoid@sigmoid-ThinkPad-T450:-$ cat showtime.log
Friday 30 August 2024 01:12:35 PM IST
Friday 30 August 2024 01:13:35 PM IST
Friday 30 August 2024 01:14:35 PM IST
Friday 30 August 2024 01:15:35 PM IST
Friday 30 August 2024 01:16:35 PM IST
Friday 30 August 2024 01:17:35 PM IST
Friday 30 August 2024 01:18:35 PM IST
Friday 30 August 2024 01:19:35 PM IST
Friday 30 August 2024 02:17:39 PM IST
Friday 30 August 2024 02:18:39 PM IST
Friday 30 August 2024 02:19:39 PM IST
Friday 30 August 2024 02:20:39 PM IST
Friday 30 August 2024 02:21:39 PM IST
Friday 30 August 2024 02:22:39 PM IST
Friday 30 August 2024 02:23:39 PM IST
Friday 30 August 2024 02:24:39 PM IST
Friday 30 August 2024 02:25:39 PM IST
Friday 30 August 2024 02:26:39 PM IST
Friday 30 August 2024 02:27:39 PM IST
Friday 30 August 2024 02:28:39 PM IST
Friday 30 August 2024 02:29:39 PM IST
Friday 30 August 2024 02:30:39 PM IST
Friday 30 August 2024 02:31:39 PM IST
Friday 30 August 2024 02:32:39 PM IST
Friday 30 August 2024 02:33:39 PM IST
Friday 30 August 2024 02:34:39 PM IST
Friday 30 August 2024 02:35:39 PM IST
Friday 30 August 2024 02:36:39 PM IST
Friday 30 August 2024 02:37:39 PM IST
Friday 30 August 2024 02:38:39 PM IST
Friday 30 August 2024 02:39:39 PM IST
Friday 30 August 2024 02:40:39 PM IST
Friday 30 August 2024 02:41:39 PM IST
Friday 30 August 2024 02:42:39 PM IST
Friday 30 August 2024 02:43:39 PM IST
Friday 30 August 2024 02:44:39 PM IST
Friday 30 August 2024 02:45:39 PM IST
```