

1. Configure smtp in localhost.

2. Create a user in your localhost, which should not be able to execute the sudo command.

3. Configure your system in such a way that when a user type and executes a **describe command from anywhere of the system it must list all the files and folders of the user's current directory.**

Ex:- \$ **describe**

\$ content1 content2

Content3 content 4

1. Users can put a compressed file at any path of the linux file system. The name of the file will be **research** and the extension will be of compression type, example for gzip type extension will be .gz. You have to find the file and check the compression type and uncompress it.

2. Configure your system in such a way that any user of your system creates a file then there should not be permission to do any activity in that file.

Note:- Don't use the chmod command.

1. Create a service with the name **showtime**, after starting the service, every minute it should print the current time in a file in the user home directory.

Ex:-

sudo service showtime start -> It should start writing in file.

sudo service showtime stop -> It should stop writing in file.

sudo service showtime status -> It should show status.

Task 1

sigmoid@sigmoid-ThinkPad-L460:~\$ sudo apt install postfix -y

Reading package lists... Done

Building dependency tree

Reading state information... Done

postfix is already the newest version (3.4.13-0ubuntu1.4).

0 upgraded, 0 newly installed, 0 to remove and 90 not upgraded.

sigmoid@sigmoid-ThinkPad-L460:~\$ sudo nano /etc/postfix/main.cf

sigmoid@sigmoid-ThinkPad-L460:~\$ sudo cat /etc/postfix/main.cf

See /usr/share/postfix/main.cf.dist for a commented, more complete version

Debian specific: Specifying a file name will cause the first

line of that file to be used as the name. The Debian default

is /etc/mailname.

myorigin = /etc/mailname

smtpd_banner = \$myhostname ESMTP \$mail_name (Ubuntu)

biff = no

Appending .domain is the MUA's job.

append_dot_mydomain = no

Uncomment the next line to generate "delayed mail" warnings

delay_warning_time = 4h

```
readme_directory = no

# See http://www.postfix.org/COMPATIBILITY_README.html -- default to 2 on
# fresh installs.
compatibility_level = 2

# TLS parameters
smtpd_tls_cert_file=/etc/ssl/certs/ssl-cert-snakeoil.pem
smtpd_tls_key_file=/etc/ssl/private/ssl-cert-snakeoil.key
smtpd_tls_security_level=may
smtp_tls_CApath=/etc/ssl/certs
smtp_tls_security_level=may
smtp_tls_session_cache_database = btree:${data_directory}/smtp_scache

# SMTP relay and authentication settings
smtpd_relay_restrictions = permit_mynetworks, permit_sasl_authenticated,
defer_unauth_destination

# Set the hostname for the mail server
myhostname = localhost

# Specify the origin domain for outgoing emails
myorigin = $myhostname

# Domains for which this machine will accept mail
mydestination = $myhostname, localhost, localhost.localdomain

# Configure relayhost (leave empty for local delivery)
relayhost = [smtp.gmail.com]:587

# Define trusted networks
mynetworks = 127.0.0.0/8 [::1]/128

# Mailbox configuration
home_mailbox = Maildir/
mailbox_size_limit = 0
recipient_delimiter = +

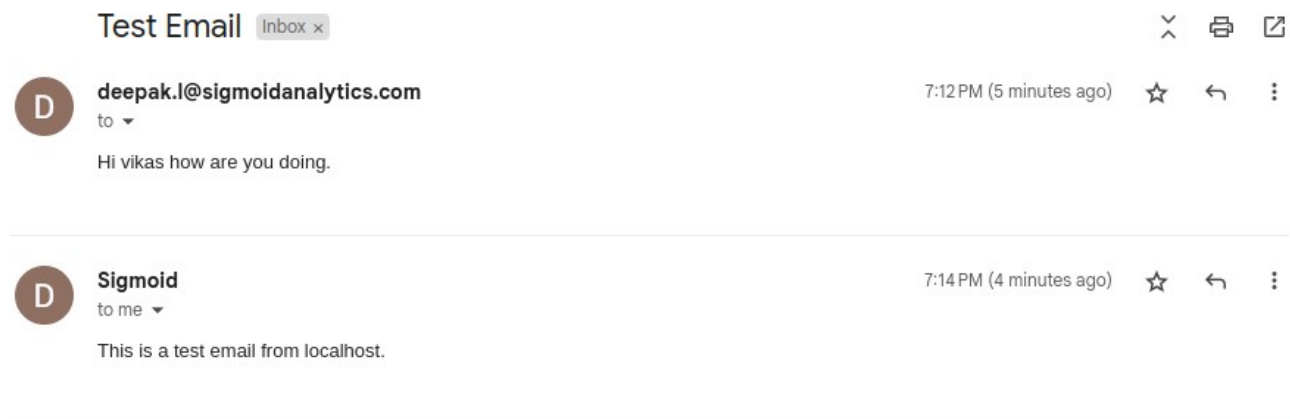
# Interfaces to listen on
inet_interfaces = localhost

# Protocols to use
inet_protocols = ipv4

relayhost = [smtp.gmail.com]:587
smtp_sasl_auth_enable = yes
smtp_sasl_password_maps = hash:/etc/postfix/sasl_passwd
smtp_sasl_security_options = noanonymous
smtp_use_tls = yes
sigmoid@sigmoid-ThinkPad-L460:~$ sudo systemctl restart postfix
sigmoid@sigmoid-ThinkPad-L460:~$ sudo apt install telnet -y
Reading package lists... Done
```

```
Building dependency tree
Reading state information... Done
telnet is already the newest version (0.30-41.2build1).
0 upgraded, 0 newly installed, 0 to remove and 90 not upgraded.
sigmoid@sigmoid-ThinkPad-L460:~$ telnet localhost 25
Trying 127.0.0.1...
Connected to localhost.
Escape character is '^]'.
220 localhost ESMTP Postfix (Ubuntu)
HELO localhost
250 localhost
MAIL FROM: deepak.l@sigmoidanalytics.com
250 2.1.0 Ok
RCPT TO: vikas.kr@sigmoidanalytics.com
250 2.1.5 Ok
DATA
354 End data with <CR><LF>.<CR><LF>
Subject: Test Email
Hi vikas how are you doing.
.
250 2.0.0 Ok: queued as 2B1A0E25AF0
QUIT
221 2.0.0 Bye
Connection closed by foreign host.
sigmoid@sigmoid-ThinkPad-L460:~$ sudo apt install mailutils -y
Reading package lists... Done
Building dependency tree
Reading state information... Done
mailutils is already the newest version (1:3.7-2.1).
0 upgraded, 0 newly installed, 0 to remove and 90 not upgraded.
sigmoid@sigmoid-ThinkPad-L460:~$ sudo nano /etc/postfix/sasl_passwd
sigmoid@sigmoid-ThinkPad-L460:~$ sudo cat /etc/postfix/sasl_passwd
[smtp.gmail.com]:587 deepak.l@sigmoidanalytics.com:ansb eroa smwj agnm
sigmoid@sigmoid-ThinkPad-L460:~$ sudo chmod 600 /etc/postfix/sasl_passwd
sigmoid@sigmoid-ThinkPad-L460:~$ sudo postmap /etc/postfix/sasl_passwd
sigmoid@sigmoid-ThinkPad-L460:~$ sudo systemctl restart postfix
sigmoid@sigmoid-ThinkPad-L460:~$ echo "This is a test email from localhost." | mail -s
"Test Email" vikas.kr@sigmoidanalytics.com
sigmoid@sigmoid-ThinkPad-L460:~$ sudo tail -f /var/log/mail.log
Aug 30 19:12:53 sigmoid-ThinkPad-L460 postfix/cleanup[8565]: 2B1A0E25AF0: message-
id=<20240130134150.2B1A0E25AF0@localhost>
Aug 30 19:12:53 sigmoid-ThinkPad-L460 postfix/qmgr[8363]: 2B1A0E25AF0:
from=<deepak.l@sigmoidanalytics.com>, size=363, nrcpt=1 (queue active)
Aug 30 19:12:56 sigmoid-ThinkPad-L460 postfix/smtp[8608]: 2B1A0E25AF0:
to=<vikas.kr@sigmoidanalytics.com>, relay=smtp.gmail.com[302.230.194.108]:587, delay=136,
delays=132/0.04/2.5/1, dsn=2.0.0, status=sent (250 2.0.0 OK 3037034976 d9443c01a7336-
21c2d3a87e4sm318685ad.111 - gsmtpt)
Aug 30 19:12:56 sigmoid-ThinkPad-L460 postfix/qmgr[8363]: 2B1A0E25AF0: removed
Aug 30 19:13:07 sigmoid-ThinkPad-L460 postfix/smtpd[8515]: disconnect from
localhost[127.0.0.1] helo=1 mail=1 rcpt=1 data=1 quit=1 commands=5
Aug 30 19:14:35 sigmoid-ThinkPad-L460 postfix/pickup[8362]: 7047DE25AF1: uid=1000
from=<sigmoid@sigmoid-ThinkPad-L460>
```

Aug 30 19:14:35 sigmoid-ThinkPad-L460 postfix/cleanup[8762]: 7047DE25AF1: message-id=<20240130134435.7047DE25AF1@localhost>
Aug 30 19:14:35 sigmoid-ThinkPad-L460 postfix/qmgr[8363]: 7047DE25AF1: from=<sigmoid@sigmoid-ThinkPad-L460>, size=386, nrcpt=1 (queue active)
Aug 30 19:14:38 sigmoid-ThinkPad-L460 postfix/smtp[8608]: 7047DE25AF1: to=<vikas.kr@sigmoidanalytics.com>, relay=smtp.gmail.com[302.230.194.108]:587, delay=3.5, delays=0.03/0/2.5/0.92, dsn=2.0.0, status=sent (250 2.0.0 OK 3037035078 d2e1a72fcca58-72d40668f2bsm11305299b3a.101 - gsmtpt)
Aug 30 19:14:38 sigmoid-ThinkPad-L460 postfix/qmgr[8363]: 7047DE25AF1: removed



Task 2

sigmoid@sigmoid-ThinkPad-L460:~\$ sudo adduser new

Adding user `new' ...

Adding new group `new' (1002) ...

Adding new user `new' (1002) with group `new' ...

Creating home directory `/home/new' ...

Copying files from `/etc/skel' ...

New password:

Retype new password:

passwd: password updated successfully

Changing the user information for new

Enter the new value, or press ENTER for the default

Full Name []:

Room Number []:

Work Phone []:

Home Phone []:

Other []:

Is the information correct? [Y/n] Y

sigmoid@sigmoid-ThinkPad-L460:~\$ sudo deluser new sudo

/usr/sbin/deluser: The user `new' is not a member of group `sudo'.

sigmoid@sigmoid-ThinkPad-L460:~\$ groups new

new : new

sigmoid@sigmoid-ThinkPad-L460:~\$ su - new

Password:

new@sigmoid-ThinkPad-L460:~\$ sudo ls

[sudo] password for new:

new is not in the sudoers file. This incident will be reported.

Task 3

sigmoid@sigmoid-ThinkPad-L460:~\$ nano ~/.bashrc

sigmoid@sigmoid-ThinkPad-L460:~\$ cat ~/.bashrc

~/.bashrc: executed by bash(1) for non-login shells.

see /usr/share/doc/bash/examples/startup-files (in the package bash-doc)

for examples

If not running interactively, don't do anything

case \$- in

i*) ;;

*) return;;

esac

don't put duplicate lines or lines starting with space in the history.

See bash(1) for more options

HISTCONTROL=ignoreboth

append to the history file, don't overwrite it

shopt -s histappend

for setting history length see HISTSIZE and HISTFILESIZE in bash(1)

HISTSIZE=1000

HISTFILESIZE=2000

check the window size after each command and, if necessary,

update the values of LINES and COLUMNS.

shopt -s checkwinsize

If set, the pattern "**" used in a pathname expansion context will

match all files and zero or more directories and subdirectories.

#shopt -s globstar

make less more friendly for non-text input files, see lesspipe(1)

[-x /usr/bin/lesspipe] && eval "\$(SHELL=/bin/sh lesspipe)"

set variable identifying the chroot you work in (used in the prompt below)

if [-z "\${debian_chroot:-}"] && [-r /etc/debian_chroot]; then

debian_chroot=\$(cat /etc/debian_chroot)

fi

set a fancy prompt (non-color, unless we know we "want" color)

case "\$TERM" in

xterm-color|*-256color) color_prompt=yes;;

esac

uncomment for a colored prompt, if the terminal has the capability; turned

off by default to not distract the user: the focus in a terminal window

should be on the output of commands, not on the prompt

#force_color_prompt=yes

if [-n "\$force_color_prompt"]; then

```

if [ -x /usr/bin/tput ] && tput setaf 1 >&/dev/null; then
    # We have color support; assume it's compliant with Ecma-48
    # (ISO/IEC-6429). (Lack of such support is extremely rare, and such
    # a case would tend to support setf rather than setaf.)
    color_prompt=yes
else
    color_prompt=
fi
fi

if [ "$color_prompt" = yes ]; then
    PS1='${debian_chroot:+($debian_chroot)}\[\033[01;32m\]\u@\h\[\033[00m\]:\[\033[01;34m\]\w\[\033[00m\]\$ '
else
    PS1='${debian_chroot:+($debian_chroot)}\u@\h:\w\$ '
fi
unset color_prompt force_color_prompt

# If this is an xterm set the title to user@host:dir
case "$TERM" in
xterm*|rxvt*)
    PS1="\[\e]0;${debian_chroot:+($debian_chroot)}\u@\h: \w\a\]$PS1"
    ;;
*)
    ;;
esac

# enable color support of ls and also add handy aliases
if [ -x /usr/bin/dircolors ]; then
    test -r ~/.dircolors && eval "$(dircolors -b ~/.dircolors)" || eval "$(dircolors -b)"
    alias ls='ls --color=auto'
    #alias dir='dir --color=auto'
    #alias vdir='vdir --color=auto'

    alias grep='grep --color=auto'
    alias fgrep='fgrep --color=auto'
    alias egrep='egrep --color=auto'
fi

# colored GCC warnings and errors
#export GCC_COLORS='error=01;31:warning=01;35:note=01;36:caret=01;32:locus=01:quote=01'

# some more ls aliases
alias ll='ls -alF'
alias la='ls -A'
alias l='ls -CF'

# Add an "alert" alias for long running commands. Use like so:
# sleep 10; alert
alias alert='notify-send --urgency=low -i "$([ $? = 0 ] && echo terminal || echo error)" "$(history|tail -n1|sed -e \'s/^s*[0-9]\+\s*//;s/[/&]\s*alert$/\'")"'

```

```
# Alias definitions.
# You may want to put all your additions into a separate file like
# ~/.bash_aliases, instead of adding them here directly.
# See /usr/share/doc/bash-doc/examples in the bash-doc package.
```

```
if [ -f ~/.bash_aliases ]; then
    . ~/.bash_aliases
fi
```

```
# enable programmable completion features (you don't need to enable
# this, if it's already enabled in /etc/bash.bashrc and /etc/profile
# sources /etc/bash.bashrc).
if ! shopt -oq posix; then
    if [ -f /usr/share/bash-completion/bash_completion ]; then
        . /usr/share/bash-completion/bash_completion
    elif [ -f /etc/bash_completion ]; then
        . /etc/bash_completion
    fi
fi
```

```
export NVM_DIR="$HOME/.nvm"
[ -s "$NVM_DIR/nvm.sh" ] && \. "$NVM_DIR/nvm.sh" # This loads nvm
[ -s "$NVM_DIR/bash_completion" ] && \. "$NVM_DIR/bash_completion" # This loads nvm
bash_completion
```

alias describe='ls'

sigmoid@sigmoid-ThinkPad-L460:~\$ describe

alembic	fastapi-env	linux-amd64	PycharmProjects
alembic.ini	game	Maildir	'React tutorial'
alertmanager-0.25.0.linux-amd64	game2	main.py	RPM-GPG-
KEY-mysql-2022			
all_databases_backup.sql	get_helm.sh	minikube-linux-amd64	
sampalfile.txt			
apache-tomcat-9.0.80.tar.gz	helm-v3.10.0-linux-amd64.tar.gz	monitoring	
scraper.tar			
application	ice_breaker	monitoring-stack	secrets
bin	jee-2024-09	Movie-Application-main	showtime.log
'Book Project'	jee-2024-092	Music	showtime.sh
chapter1	jee-2024-093	my.cnf	snap
create.txt	jee-2024-094	mysql-apt-config_0.8.26-1_all.deb	Stop-Watch
custom-values.yaml	jee-2024-095	mysqld.cnf	'tailwind css
tutorial'			
dashboard.tar	jee-2024-096	mysql_pubkey.asc	Templates
database_name_backup.sql	jee-2024-097	netflix-backend	terraform-
aws-vpc-ec2-nginx			
deployments	jee-2024-098	netflix-frontend	TodoList-main
Desktop	jee-2024-099	node_modules	'udo journalctl -u
docker.service'			
docker-desktop	jenkins.deb	online-learning-frontend	
uncompress_research.sh			
docker-desktop-4.18.0.deb	jenkins.io.key	online_learning_platform	
values.yaml			

Documents	jenkins.war	package.json	Videos
Downloads	k8s	package-lock.json	
WeatherAppication-master			
eclipse-workspace	'learning platform'	Pictures	web
ecommerce-frontend	lens_6.5.3_amd64.deb	portfolio-2	
Event	Lens-6.5.3.deb	Public	
Event.zip	Lens.deb	__pycache__	

sigmoid@sigmoid-ThinkPad-L460:~\$

Task 4

sigmoid@sigmoid-ThinkPad-L460:~\$ nano uncompress_research.sh

sigmoid@sigmoid-ThinkPad-L460:~\$ cat uncompress_research.sh

#!/bin/bash

Find the file

file_path=\$(sudo find / -type f -name "Event*.zip*" 2>/dev/null | head -n 1)

Check if the file exists

if [-z "\$file_path"]; then

echo "No file named 'research' found."

exit 1

fi

Get the compression type

file_type=\$(file --mime-type -b "\$file_path")

Decompress based on file type

case "\$file_type" in

"application/gzip")

echo "Gzip file found. Uncompressing..."

gunzip "\$file_path"

;;

"application/x-bzip2")

echo "Bzip2 file found. Uncompressing..."

bzip2 -d "\$file_path"

;;

"application/zip")

echo "Zip file found. Uncompressing..."

unzip "\$file_path"

;;

"application/x-tar")

echo "Tar file found. Uncompressing..."

tar -xvf "\$file_path"

;;

"application/x-xz")

echo "Xz file found. Uncompressing..."

xz -d "\$file_path"

;;

***)**

echo "Unknown file type: \$file_type"


```
exit 1
;;
esac
sigmoid@sigmoid-ThinkPad-L460:~$ chmod +x uncompress_research.sh
sigmoid@sigmoid-ThinkPad-L460:~$ ./uncompress_research.sh
Zip file found. Uncompressing...
Archive: /home/sigmoid/Downloads/Event.zip
replace Event/.classpath? [y]es, [n]o, [A]ll, [N]one, [r]ename: A
  inflating: Event/.classpath
  inflating: Event/.project
  inflating: Event/.settings/.jsdtscope
  inflating: Event/.settings/org.eclipse.core.resources.prefs
  inflating: Event/.settings/org.eclipse.jdt.core.prefs
  inflating: Event/.settings/org.eclipse.wst.common.component
  inflating: Event/.settings/org.eclipse.wst.common.project.facet.core.xml
  inflating: Event/.settings/org.eclipse.wst.jsdt.ui.superType.container
  inflating: Event/.settings/org.eclipse.wst.jsdt.ui.superType.name
  inflating: Event/build/classes/controller/AddToCart.class
  inflating: Event/build/classes/controller/DeleteEnq.class
  inflating: Event/build/classes/controller/DeleteUser.class
  inflating: Event/build/classes/controller/Flow.class
  inflating: Event/build/classes/model/Dproduct.class
  inflating: Event/build/classes/model/EnqList.class
  inflating: Event/build/classes/model/Enquiry.class
  inflating: Event/build/classes/model/Events.class
  inflating: Event/build/classes/model/Ratings.class
  inflating: Event/build/classes/model/User.class
  inflating: Event/build/classes/model/customer.class
  inflating: Event/src/main/java/controller/AddToCart.java
  inflating: Event/src/main/java/controller/DeleteEnq.java
  inflating: Event/src/main/java/controller/DeleteUser.java
  inflating: Event/src/main/java/controller/Flow.java
  inflating: Event/src/main/java/model/customer.java
  inflating: Event/src/main/java/model/Dproduct.java
  inflating: Event/src/main/java/model/EnqList.java
  inflating: Event/src/main/java/model/Enquiry.java
  inflating: Event/src/main/java/model/Events.java
  inflating: Event/src/main/java/model/Ratings.java
  inflating: Event/src/main/java/model/User.java
  inflating: Event/src/main/webapp/about.jsp
  inflating: Event/src/main/webapp/addDelEvent.jsp
  inflating: Event/src/main/webapp/addEventHeader.jsp
  inflating: Event/src/main/webapp/adHeader.jsp
  inflating: Event/src/main/webapp/adHome.jsp
  inflating: Event/src/main/webapp/bookedEvents.jsp
  inflating: Event/src/main/webapp/contact.jsp
  inflating: Event/src/main/webapp/contact1.jsp
  inflating: Event/src/main/webapp/enquiryList.jsp
  inflating: Event/src/main/webapp/eventBooking.jsp
  inflating: Event/src/main/webapp/eventCategories.jsp
  inflating: Event/src/main/webapp/events.jsp
  inflating: Event/src/main/webapp/eventStatus.jsp
```

inflating: Event/src/main/webapp/footer.jsp
inflating: Event/src/main/webapp/forgotPassword.jsp
inflating: Event/src/main/webapp/gallery.jsp
inflating: Event/src/main/webapp/header.jsp
inflating: Event/src/main/webapp/index.jsp
inflating: Event/src/main/webapp/login.jsp
inflating: Event/src/main/webapp/loginHeader.jsp
inflating: Event/src/main/webapp/map.jsp
inflating: Event/src/main/webapp/META-INF/MANIFEST.MF
inflating: Event/src/main/webapp/pdf.jsp
inflating: Event/src/main/webapp/review.css
inflating: Event/src/main/webapp/review.jsp
inflating: Event/src/main/webapp/service.jsp
inflating: Event/src/main/webapp/style.css
inflating: Event/src/main/webapp/ViewClients.jsp
inflating: Event/src/main/webapp/viewEvents.jsp
inflating: Event/src/main/webapp/viewReview.jsp
inflating: Event/src/main/webapp/WEB-INF/lib/mysql-connector-j-8.0.33.jar
inflating: Event/src/main/webapp/WEB-INF/lib/servlet-api.jar
inflating: Event/src/main/webapp/WEB-INF/web.xml
inflating: Event/.git/COMMIT_EDITMSG
inflating: Event/.git/index
inflating: Event/.git/logs/HEAD
inflating: Event/.git/logs/refs/heads/main
inflating: Event/.git/logs/refs/remotes/origin/main
inflating: Event/.git/HEAD
inflating: Event/.git/config
inflating: Event/.git/description
inflating: Event/.git/info/exclude
inflating: Event/.git/hooks/commit-msg.sample
inflating: Event/.git/hooks/pre-applypatch.sample
inflating: Event/.git/hooks/fsmonitor-watchman.sample
inflating: Event/.git/hooks/pre-merge-commit.sample
inflating: Event/.git/hooks/post-update.sample
inflating: Event/.git/hooks/applypatch-msg.sample
inflating: Event/.git/hooks/pre-rebase.sample
inflating: Event/.git/hooks/pre-commit.sample
inflating: Event/.git/hooks/pre-push.sample
inflating: Event/.git/hooks/pre-receive.sample
inflating: Event/.git/hooks/prepare-commit-msg.sample
inflating: Event/.git/hooks/update.sample
inflating: Event/.git/refs/remotes/origin/main
inflating: Event/.git/refs/heads/main
inflating: Event/.git/objects/aa/7c4f76e721979ad8d431538a486fe789e0fb90
inflating: Event/.git/objects/aa/7cf4712fa86970293b7470709d0297df5e5e0a
inflating: Event/.git/objects/33/3b0d2d4873097e4eb38b31b6d8d6f2f44c3013
inflating: Event/.git/objects/92/e2212062fc7a79fd649a9477ae85d4a809bb8d
inflating: Event/.git/objects/48/24b8026319a8fb303971008a7d59a830d58bd6
inflating: Event/.git/objects/f7/8f7f7721d0d04483dade21c03008d7ee8bc276
inflating: Event/.git/objects/6e/f750c67e0ba069cb798ebc794d2cbb3e7f6e
inflating: Event/.git/objects/3c/7f7c7e840314c8733482a6313f98b2006c2201
inflating: Event/.git/objects/3c/a2975df4599e3f076e24b083d00ef3e903be39

inflating: Event/.git/objects/3c/09ecfca79a30dd04094f23e08330e8fdd2b1b0
inflating: Event/.git/objects/3b/d5d0a4803967bc0bf72a7dd66d7e292ed2e586
inflating: Event/.git/objects/05/bd71b6ec2c1982d1e8a5653073281994564ae8
inflating: Event/.git/objects/d8/134fc677262eeae77067eca57924e82d2d57e9
inflating: Event/.git/objects/c7/7590d3e38c457dee42f18ef6d659151e594fcb
inflating: Event/.git/objects/29/13b321f75113692d08f1b7ff224502598545ae
inflating: Event/.git/objects/f0/780b07692eba097225c4cf1ca50256c6e2ee8c
inflating: Event/.git/objects/f0/4c2e90cd300c7cf078570e703f044627747289
inflating: Event/.git/objects/d5/6bbbb9d88b4fce079e2ef33e5221befaf367fa
inflating: Event/.git/objects/72/67538f1aca962dd469b3081bb0f6736eb55706
inflating: Event/.git/objects/b5/66e6f3db4970a41d00187abc8c705d9618f65c
inflating: Event/.git/objects/dc/b7775612f593a77b0e88fd02b68f21f06daabc
inflating: Event/.git/objects/a5/a40aa475403fbda1cadfacfead03a9bd5a1200
inflating: Event/.git/objects/b4/413ee05213903ca6d2e19919cd6814e3e29bc4
inflating: Event/.git/objects/0d/c6571854ac3e56f367873d999963a9f3071e3d
inflating: Event/.git/objects/0d/406106a5064bc7d36ac9c1a1ba88681c0003b2
inflating: Event/.git/objects/f4/2410f8674b32475ff23ae8623ced7db054d8f9
inflating: Event/.git/objects/bf/0dce7ed30d5b4e4ba843f1234438102c10ee3a
inflating: Event/.git/objects/82/afabec4492a2970af47acc771304a58af355c5
inflating: Event/.git/objects/db/6a94ee34a306ac40354a39418a7d4f4bdd3784
inflating: Event/.git/objects/b9/f007142230fccf329e4d90245334a568b53aed
inflating: Event/.git/objects/4a/8d760c9cbfb073112403c82e6d8bcb845d2b30
inflating: Event/.git/objects/4a/12a0822f9e86ce593b8713a46eb1508efe3b0a
inflating: Event/.git/objects/4a/cf876d305bfd51192b1ffa41a6a5c30cb70626
inflating: Event/.git/objects/da/6c40d8188794ce5e10664ae8593ad4b565a249
inflating: Event/.git/objects/67/cf5f8d6401b9478147e76b140cdddb9430fb0e
inflating: Event/.git/objects/1c/904935d0c7b48750953c9301918ce34f74a0d5
inflating: Event/.git/objects/5e/9495128c0376427420c4189993b3853070b702
inflating: Event/.git/objects/5e/bd4fe635788bff4246a72457bbb887fd2dd0c9
inflating: Event/.git/objects/77/282339680ed9f67c30d6030645076d2df12512
inflating: Event/.git/objects/77/df409270a076ec031a47f45776b4deb1098887
inflating: Event/.git/objects/3f/741f59f33bc34c944397480ed996b8b3e50ea0
inflating: Event/.git/objects/9a/e9b3b6eaf92e368d98f6e50125255b34d80ed5
inflating: Event/.git/objects/18/71b23729c1dc1d304ba82faa7322885eb05b96
inflating: Event/.git/objects/71/369eb5be0c5e4bc1c38ce3f307f1a136aeba4d
inflating: Event/.git/objects/71/1ec0ac8e406a225a4b8ee326d802b4533ba62b
inflating: Event/.git/objects/51/3e4ab4c258314837c6b67fc0704ad2dcec78c9
inflating: Event/.git/objects/7d/5bb119d8afd78aafd30c725d3eff5cefa6c860
inflating: Event/.git/objects/bc/8bf7da211030734a9c98ea74f0e890b31f2dca
inflating: Event/.git/objects/4b/89304fbb18a25424e35f1542f3abe51525b2f8
inflating: Event/.git/objects/34/3ca294f9a242200ae9cecb5fcb2975a039eab3
inflating: Event/.git/objects/62/70f7ba3807e97ae111a4b4322de83223810eff
inflating: Event/.git/objects/e4/83a8769e58ac83a62383b38a74828c40ed8f30
inflating: Event/.git/objects/be/5d77dec50609703d77564ce6010bc27a8aaff9
inflating: Event/.git/objects/d4/5cc632e532e48d084e4a66eef3bfde796db64a
inflating: Event/.git/objects/a7/de288b05393b9c64944c7d59ddf6481210e72a
inflating: Event/.git/objects/65/0b3cc7453b8b1187b2f6146ae8adc6c5dcaca7
inflating: Event/.git/objects/b0/7703aa45006d6a5b63af2d2d4b8f513e62d974
inflating: Event/.git/objects/b0/7691b5b46aee6febac6de027686bf0203e30bd
inflating: Event/.git/objects/4c/40c3b9305994c7e09d046ad14201c042194512
inflating: Event/.git/objects/91/e5d18d0f0a62a04ae3c400320c25ccd1bfa4b4
inflating: Event/.git/objects/91/51b0d2c63b715d60b8601c7cdb8fd3d0c522f7

inflating: Event/.git/objects/66/1e6da44b8aee777730d7edbd76867a23f9fbae
inflating: Event/.git/objects/a8/87950f0008480e7a97bff9b24821bce3eef2f5
inflating: Event/.git/objects/a8/7b9fe54af624bed686732401010230c9441b38
inflating: Event/.git/objects/22/3bcd4bc54ad77070f243a0f2ee40958de0c7b
inflating: Event/.git/objects/7c/215825928aab1059d90c596b323a8b66b5e9f9
inflating: Event/.git/objects/b7/a8d82753c3da799886f1b80a4ec52eb540c533
inflating: Event/.git/objects/c3/63d1e28844abeca908230f35759b2000e6d371
inflating: Event/.git/objects/94/9e4bab3f9627f760379214854e89632b013a2a
inflating: Event/.git/objects/2a/65e36d4b1b4c3009d88380e8a492b14bfe03ed
inflating: Event/.git/objects/6d/ad454e86bb1e0aa0b2039098459e06f990b461
inflating: Event/.git/objects/75/b30ad36129430bcc0f7305b7ddab6455981d00
inflating: Event/.git/objects/39/c9380fd9bea5059bec7dce0c830766f38477d8
inflating: Event/.git/objects/e1/7582b6e4b587cc12230ff5826a65d2f2639080
inflating: Event/.git/objects/ae/95e636babbaea9330eb271ef697353d2c60c5d
inflating: Event/.git/objects/78/2905d305fe097588a71c964a103b8a544a35d6
inflating: Event/.git/objects/ca/66583fc6032db3151ec01a976f077b66e48347
inflating: Event/.git/objects/96/09283a0c853b42ae786f41860dc61435670da5
inflating: Event/.git/objects/30/25f2b3630406982b08bff7b482a5444796c44b
inflating: Event/.git/objects/cc/c5331a0be159db6b093ee4112dcc6946864f8
sigmoid@sigmoid-ThinkPad-L460:~\$

Task 5

sigmoid@sigmoid-ThinkPad-L460:~\$ nano linuxFile.txt

sigmoid@sigmoid-ThinkPad-L460:~\$ cat linuxFile.txt

linux commmands

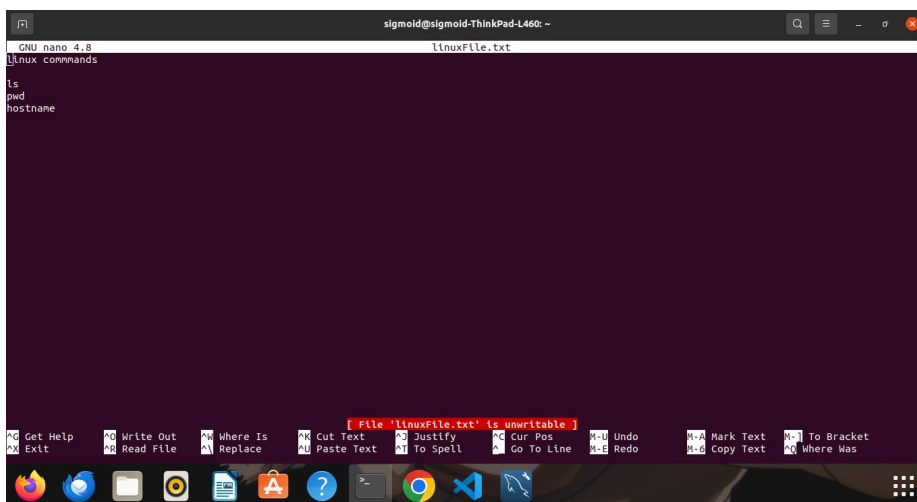
ls

pwd

hostname

sigmoid@sigmoid-ThinkPad-L460:~\$ sudo chmod +i linuxFile.txt

sigmoid@sigmoid-ThinkPad-L460:~\$ nano linuxFile.txt



sigmoid@sigmoid-ThinkPad-L460:~\$ nano linuxFile.txt

sigmoid@sigmoid-ThinkPad-L460:~\$ cat linuxFile.txt

linux commmands

ls
pwd
hostname

```
sigmoid@sigmoid-ThinkPad-L460:~$ nano /home/sigmoid/.bashrc  
sigmoid@sigmoid-ThinkPad-L460:~$ cat /home/sigmoid/.bashrc  
# ~/.bashrc: executed by bash(1) for non-login shells.  
# see /usr/share/doc/bash/examples/startup-files (in the package bash-doc)  
# for examples
```

```
# If not running interactively, don't do anything  
case $- in  
  *i*) ;;  
  *) return;;  
esac
```

```
# don't put duplicate lines or lines starting with space in the history.  
# See bash(1) for more options  
HISTCONTROL=ignoreboth
```

```
# append to the history file, don't overwrite it  
shopt -s histappend
```

```
# for setting history length see HISTSIZE and HISTFILESIZE in bash(1)  
HISTSIZE=1000  
HISTFILESIZE=2000
```

```
# check the window size after each command and, if necessary,  
# update the values of LINES and COLUMNS.  
shopt -s checkwinsize
```

```
# If set, the pattern "*" used in a pathname expansion context will  
# match all files and zero or more directories and subdirectories.  
#shopt -s globstar
```

```
# make less more friendly for non-text input files, see lesspipe(1)  
[ -x /usr/bin/lesspipe ] && eval "$(SHELL=/bin/sh lesspipe)"
```

```
# set variable identifying the chroot you work in (used in the prompt below)  
if [ -z "${debian_chroot:-}" ] && [ -r /etc/debian_chroot ]; then  
  debian_chroot=$(cat /etc/debian_chroot)  
fi
```

```
# set a fancy prompt (non-color, unless we know we "want" color)  
case "$TERM" in  
  xterm-color|*-256color) color_prompt=yes;;  
esac
```

```
# uncomment for a colored prompt, if the terminal has the capability; turned  
# off by default to not distract the user: the focus in a terminal window
```

```

# should be on the output of commands, not on the prompt
#force_color_prompt=yes

if [ -n "$force_color_prompt" ]; then
    if [ -x /usr/bin/tput ] && tput setaf 1 >&/dev/null; then
        # We have color support; assume it's compliant with Ecma-48
        # (ISO/IEC-6429). (Lack of such support is extremely rare, and such
        # a case would tend to support setf rather than setaf.)
        color_prompt=yes
    else
        color_prompt=
    fi
fi

if [ "$color_prompt" = yes ]; then
    PS1='${debian_chroot:+($debian_chroot)}\[\033[01;32m\]\u@\h\[\033[00m\]:\[\033[01;34m\]\w\[\033[00m\]\$ '
else
    PS1='${debian_chroot:+($debian_chroot)}\u@\h:\w\$ '
fi
unset color_prompt force_color_prompt

# If this is an xterm set the title to user@host:dir
case "$TERM" in
xterm*|rxvt*)
    PS1="\[\e]0;${debian_chroot:+($debian_chroot)}\u@\h: \w\a\]$PS1"
    ;;
*)
    ;;
esac

# enable color support of ls and also add handy aliases
if [ -x /usr/bin/dircolors ]; then
    test -r ~/.dircolors && eval "$(dircolors -b ~/.dircolors)" || eval "$(dircolors -b)"
    alias ls='ls --color=auto'
    #alias dir='dir --color=auto'
    #alias vdir='vdir --color=auto'

    alias grep='grep --color=auto'
    alias fgrep='fgrep --color=auto'
    alias egrep='egrep --color=auto'
fi

# colored GCC warnings and errors
#export GCC_COLORS='error=01;31:warning=01;35:note=01;36:caret=01;32:locus=01:quote=01'

# some more ls aliases
alias ll='ls -lF'
alias la='ls -A'
alias l='ls -CF'

# Add an "alert" alias for long running commands. Use like so:

```

```
# sleep 10; alert
alias alert='notify-send --urgency=low -i "$([ $? = 0 ] && echo terminal || echo error)" "$(history|tail -n1|sed -e \"s/^\s*[0-9]\+\s*//;s/[:&]\s*alert$/\"")'"
```

```
# Alias definitions.
```

```
# You may want to put all your additions into a separate file like
```

```
# ~/.bash_aliases, instead of adding them here directly.
```

```
# See /usr/share/doc/bash-doc/examples in the bash-doc package.
```

```
if [ -f ~/.bash_aliases ]; then
```

```
    . ~/.bash_aliases
```

```
fi
```

```
# enable programmable completion features (you don't need to enable
```

```
# this, if it's already enabled in /etc/bash.bashrc and /etc/profile
```

```
# sources /etc/bash.bashrc).
```

```
if ! shopt -oq posix; then
```

```
    if [ -f /usr/share/bash-completion/bash_completion ]; then
```

```
        . /usr/share/bash-completion/bash_completion
```

```
    elif [ -f /etc/bash_completion ]; then
```

```
        . /etc/bash_completion
```

```
    fi
```

```
fi
```

```
export NVM_DIR="$HOME/.nvm"
```

```
[ -s "$NVM_DIR/nvm.sh" ] && \. "$NVM_DIR/nvm.sh" # This loads nvm
```

```
[ -s "$NVM_DIR/bash_completion" ] && \. "$NVM_DIR/bash_completion" # This loads nvm
bash_completion
```

```
alias describe='ls'
```

```
alias touch='touch && sudo chattr +i'
```

```
sigmoid@sigmoid-ThinkPad-L460:~$ source /home/sigmoid/.bashrc
```

```
sigmoid@sigmoid-ThinkPad-L460:~$ lsattr linuxFile.txt
```

```
----i-----e----- linuxFile.txt
```

```
sigmoid@sigmoid-ThinkPad-L460:~$ sudo chattr -i linuxFile.txt
```

```
sigmoid@sigmoid-ThinkPad-L460:~$ nano linuxFile.txt
```

```
sigmoid@sigmoid-ThinkPad-L460:~$ cat linuxFile.txt
```

```
linux commmands
```

```
ls
```

```
pwd
```

```
hostname
```

```
ls -ltr
```

```
sigmoid@sigmoid-ThinkPad-L460:~$
```

Task 6

sigmoid@sigmoid-ThinkPad-L460:~\$ sudo nano /usr/local/bin/showtime.sh

sigmoid@sigmoid-ThinkPad-L460:~\$ sudo cat /usr/local/bin/showtime.sh

#!/bin/bash

LOGFILE="/home/sigmoid/showtime.log"

PIDFILE="/var/run/showtime.pid"

```
start() {
    echo "Starting showtime service..."
    if [ -f "$PIDFILE" ]; then
        echo "Service is already running."
        exit 1
    fi
    (
        while true; do
            date >> "$LOGFILE"
            sleep 60
        done
    ) &
    echo $! > "$PIDFILE"
    echo "Service started."
}

stop() {
    echo "Stopping showtime service..."
    if [ -f "$PIDFILE" ]; then
        kill "$(cat "$PIDFILE")" && rm -f "$PIDFILE"
        echo "Service stopped."
    else
        echo "Service is not running."
    fi
}

status() {
    if [ -f "$PIDFILE" ]; then
        echo "Service is running (PID: $(cat "$PIDFILE"))."
    else
        echo "Service is not running."
    fi
}

case "$1" in
    start) start ;;
    stop) stop ;;
    status) status ;;
    *) echo "Usage: $0 {start|stop|status}" ;;
esac
```

sigmoid@sigmoid-ThinkPad-L460:~\$ sudo chmod +x /usr/local/bin/showtime.sh

sigmoid@sigmoid-ThinkPad-L460:~\$ sudo nano /etc/systemd/system/showtime.service

sigmoid@sigmoid-ThinkPad-L460:~\$ sudo cat /etc/systemd/system/showtime.service


```
[Unit]
Description=Showtime Service
After=network.target
```

```
[Service]
ExecStart=/usr/local/bin/showtime.sh start
ExecStop=/usr/local/bin/showtime.sh stop
ExecReload=/usr/local/bin/showtime.sh status
Type=forking
PIDFile=/var/run/showtime.pid
```

```
[Install]
WantedBy=multi-user.target
```

```
sigmoid@sigmoid-ThinkPad-L460:~$ sudo systemctl daemon-reload
sigmoid@sigmoid-ThinkPad-L460:~$ sudo systemctl enable showtime
sigmoid@sigmoid-ThinkPad-L460:~$ sudo systemctl start showtime
sigmoid@sigmoid-ThinkPad-L460:~$ sudo systemctl status showtime
```

```
● showtime.service - Showtime Service
   Loaded: loaded (/etc/systemd/system/showtime.service; enabled; vendor preset: enabled)
   Active: active (running) since Fri 2024-08-30 01:06:26 IST; 8min ago
     Main PID: 812 (showtime.sh)
        Tasks: 2 (limit: 9274)
       Memory: 964.0K
      CGroup: /system.slice/showtime.service
              └─ 812 /bin/bash /usr/local/bin/showtime.sh start
                 5245 sleep 60
```

```
Aug 30 01:06:26 sigmoid-ThinkPad-L460 systemd[1]: Starting Showtime Service...
Aug 30 01:06:26 sigmoid-ThinkPad-L460 showtime.sh[805]: Starting showtime service...
Aug 30 01:06:26 sigmoid-ThinkPad-L460 showtime.sh[805]: Service started.
Aug 30 01:06:26 sigmoid-ThinkPad-L460 systemd[1]: Started Showtime Service.
Aug 30 01:13:59 sigmoid-ThinkPad-L460 systemd[1]: /etc/systemd/system/showtime.service:10:
PIDFile= references a path below legacy directory /var/run>
Aug 30 01:14:08 sigmoid-ThinkPad-L460 systemd[1]: /etc/systemd/system/showtime.service:10:
PIDFile= references a path below legacy directory /var/run>
```

```
sigmoid@sigmoid-ThinkPad-L460:~$ sudo service showtime start
sigmoid@sigmoid-ThinkPad-L460:~$ cat /home/sigmoid/showtime.log
```

```
Thursday 30 Aug 2024 06:47:03 PM IST
Thursday 30 Aug 2024 06:48:03 PM IST
Thursday 30 Aug 2024 06:49:03 PM IST
Thursday 30 Aug 2024 06:54:18 PM IST
Thursday 30 Aug 2024 06:55:18 PM IST
Thursday 30 Aug 2024 06:56:18 PM IST
Thursday 30 Aug 2024 06:57:31 PM IST
Thursday 30 Aug 2024 06:58:57 PM IST
Thursday 30 Aug 2024 06:59:58 PM IST
Thursday 30 Aug 2024 07:00:58 PM IST
Thursday 30 Aug 2024 07:01:58 PM IST
Thursday 30 Aug 2024 07:02:58 PM IST
Thursday 30 Aug 2024 07:03:58 PM IST
```

Thursday 30 Aug 2024 07:04:58 PM IST
Thursday 30 Aug 2024 07:05:58 PM IST
Thursday 30 Aug 2024 07:06:58 PM IST
Thursday 30 Aug 2024 07:07:58 PM IST
Thursday 30 Aug 2024 07:08:58 PM IST
Thursday 30 Aug 2024 07:09:58 PM IST
Thursday 30 Aug 2024 07:10:58 PM IST
Thursday 30 Aug 2024 07:11:58 PM IST
Thursday 30 Aug 2024 07:12:58 PM IST
Thursday 30 Aug 2024 07:13:58 PM IST
Thursday 30 Aug 2024 07:14:58 PM IST
Thursday 30 Aug 2024 07:15:58 PM IST
Thursday 30 Aug 2024 07:30:58 PM IST
Thursday 30 Aug 2024 07:30:58 PM IST
Thursday 30 Aug 2024 07:18:58 PM IST
Thursday 30 Aug 2024 07:19:58 PM IST
Thursday 30 Aug 2024 07:20:58 PM IST
Thursday 30 Aug 2024 07:21:58 PM IST
Thursday 30 Aug 2024 07:22:58 PM IST
Thursday 30 Aug 2024 07:23:58 PM IST
Thursday 30 Aug 2024 07:24:58 PM IST
Thursday 30 Aug 2024 07:25:58 PM IST
Thursday 30 Aug 2024 07:26:58 PM IST
Thursday 30 Aug 2024 07:27:58 PM IST
Thursday 30 Aug 2024 07:28:58 PM IST
Thursday 30 Aug 2024 07:29:58 PM IST
Thursday 30 Aug 2024 07:30:58 PM IST
Thursday 30 Aug 2024 07:31:58 PM IST
Thursday 30 Aug 2024 07:32:58 PM IST
Thursday 30 Aug 2024 07:33:58 PM IST
Thursday 30 Aug 2024 07:34:58 PM IST
Thursday 30 Aug 2024 07:35:58 PM IST
Thursday 30 Aug 2024 07:36:58 PM IST
Thursday 30 Aug 2024 07:37:58 PM IST
Thursday 30 Aug 2024 07:38:58 PM IST
Thursday 30 Aug 2024 07:39:58 PM IST
Thursday 30 Aug 2024 07:40:58 PM IST
Thursday 30 Aug 2024 07:41:58 PM IST
Thursday 30 Aug 2024 07:42:58 PM IST
Thursday 30 Aug 2024 07:43:58 PM IST
Thursday 30 Aug 2024 07:44:58 PM IST
Thursday 30 Aug 2024 07:45:58 PM IST
Thursday 30 Aug 2024 07:46:58 PM IST
Thursday 30 Aug 2024 07:47:58 PM IST
Thursday 30 Aug 2024 07:48:58 PM IST
Thursday 30 Aug 2024 07:49:58 PM IST
Thursday 30 Aug 2024 07:50:58 PM IST
Thursday 30 Aug 2024 07:51:58 PM IST
Thursday 30 Aug 2024 07:52:58 PM IST
Thursday 30 Aug 2024 07:53:58 PM IST
Thursday 30 Aug 2024 07:54:58 PM IST
Thursday 30 Aug 2024 07:55:58 PM IST

Thursday 30 Aug 2024 07:56:58 PM IST
Thursday 30 Aug 2024 07:57:58 PM IST
Thursday 30 Aug 2024 07:58:58 PM IST
Thursday 30 Aug 2024 07:59:58 PM IST
Thursday 30 Aug 2024 08:00:58 PM IST
Thursday 30 Aug 2024 08:01:58 PM IST
Thursday 30 Aug 2024 08:02:58 PM IST
Thursday 30 Aug 2024 08:03:58 PM IST
Friday 30 Aug 2024 01:06:26 AM IST
Friday 30 Aug 2024 01:07:26 AM IST
Friday 30 Aug 2024 01:08:26 AM IST
Friday 30 Aug 2024 01:09:27 AM IST
Friday 30 Aug 2024 01:10:27 AM IST
Friday 30 Aug 2024 01:11:27 AM IST
Friday 30 Aug 2024 01:12:27 AM IST
Friday 30 Aug 2024 01:13:27 AM IST
Friday 30 Aug 2024 01:14:27 AM IST

sigmoid@sigmoid-ThinkPad-L460:~\$ tail -f /home/sigmoid/showtime.log

Friday 30 Aug 2024 01:07:26 AM IST
Friday 30 Aug 2024 01:08:26 AM IST
Friday 30 Aug 2024 01:09:27 AM IST
Friday 30 Aug 2024 01:10:27 AM IST
Friday 30 Aug 2024 01:11:27 AM IST
Friday 30 Aug 2024 01:12:27 AM IST
Friday 30 Aug 2024 01:13:27 AM IST
Friday 30 Aug 2024 01:14:27 AM IST
Friday 30 Aug 2024 01:15:27 AM IST
Friday 30 Aug 2024 01:30:27 AM IST

^C

sigmoid@sigmoid-ThinkPad-L460:~\$ sudo systemctl stop showtime

sigmoid@sigmoid-ThinkPad-L460:~\$ sudo systemctl status showtime

● showtime.service - Showtime Service

Loaded: loaded (/etc/systemd/system/showtime.service; enabled; vendor preset: enabled)

Active: inactive (dead) since Fri 2024-01-30 01:30:14 IST; 10s ago

Process: 5410 ExecStop=/usr/local/bin/showtime.sh stop (code=exited, status=0/SUCCESS)

Main PID: 812 (code=killed, signal=TERM)

Aug 30 01:06:26 sigmoid-ThinkPad-L460 showtime.sh[805]: Starting showtime service...

Aug 30 01:06:26 sigmoid-ThinkPad-L460 showtime.sh[805]: Service started.

Aug 30 01:06:26 sigmoid-ThinkPad-L460 systemd[1]: Started Showtime Service.

Aug 30 01:13:59 sigmoid-ThinkPad-L460 systemd[1]: /etc/systemd/system/showtime.service:10:
PIDFile= references a path below legacy directory /var/run>

Aug 30 01:14:08 sigmoid-ThinkPad-L460 systemd[1]: /etc/systemd/system/showtime.service:10:
PIDFile= references a path below legacy directory /var/run>

Aug 30 01:30:14 sigmoid-ThinkPad-L460 systemd[1]: Stopping Showtime Service...

Aug 30 01:30:14 sigmoid-ThinkPad-L460 showtime.sh[5410]: Stopping showtime service...

Aug 30 01:30:14 sigmoid-ThinkPad-L460 showtime.sh[5410]: Service stopped.

Aug 30 01:30:14 sigmoid-ThinkPad-L460 systemd[1]: showtime.service: Succeeded.

Aug 30 01:30:14 sigmoid-ThinkPad-L460 systemd[1]: Stopped Showtime Service.

sigmoid@sigmoid-ThinkPad-L460:~\$ cat /var/run/showtime.pid

cat: /var/run/showtime.pid: No such file or directory