

TUGAS SHELL LINUX

“Disusun dalam rangka memenuhi salah satu tugas kelompok pada mata kuliah Sistem Operasi
Oleh Dosen Candrasena Setiadi, ST., M.MT”



Disusun oleh:

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JURUSAN TEKNOLOGI INFORMASI

PRODI D-IV TEKNIK INFORMATIKA

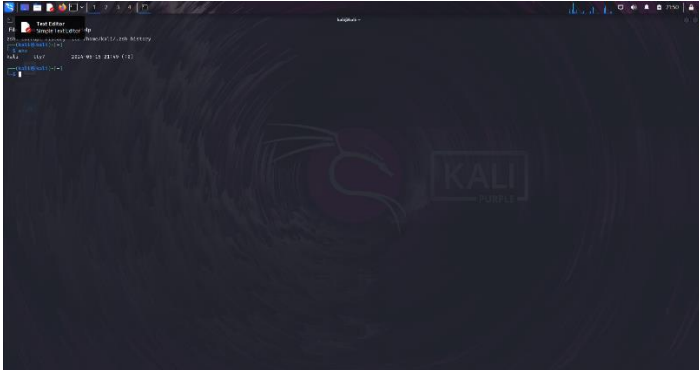
POLITEKNIK NEGERI MALANG

2024

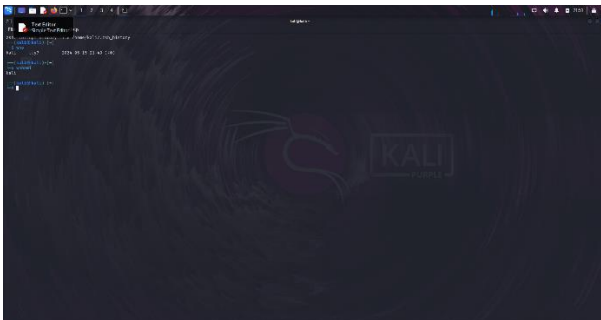
Pemrograman bash shell pada system operasi linux

\$ Lakukan perintah berikut: \$

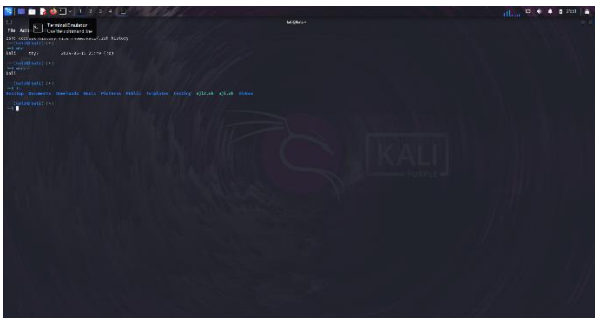
- **WHO**



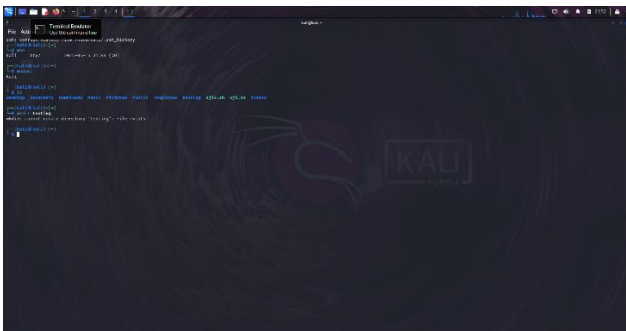
- **WHOAMI**



- **LS**



- **MKDIR TESTING**



- SUDO SU

```
(kali㉿kali)-[~/testing]
$ sudo su
```

- MKDIR TESTING

```
(kali㉿kali)-[~]
$ mkdir testing
mkdir: cannot create directory 'testing': File exists
```

- CD TESTING

```
(kali㉿kali)-[~]
$ cd testing
```

- TOUCH INDEX.JS

```
(root㉿kali)-[/home/kali/testing]
# touch index.js
```

- LS

```
(root㉿kali)-[/home/kali/testing]
# ls
index.js
```

- CD ..

```
(root㉿kali)-[/home/kali/testing]
# cd ..

(root㉿kali)-[/home/kali]
#
```

- LS

```
(root㉿kali)-[/home/kali]
# ls
Desktop  Documents  Downloads  Music  Pictures  Public  Templates  testing  uji2.sh  uji.sh  Videos
```

- CLEAR

```
(root㉿kali)-[/home/kali]
#
```

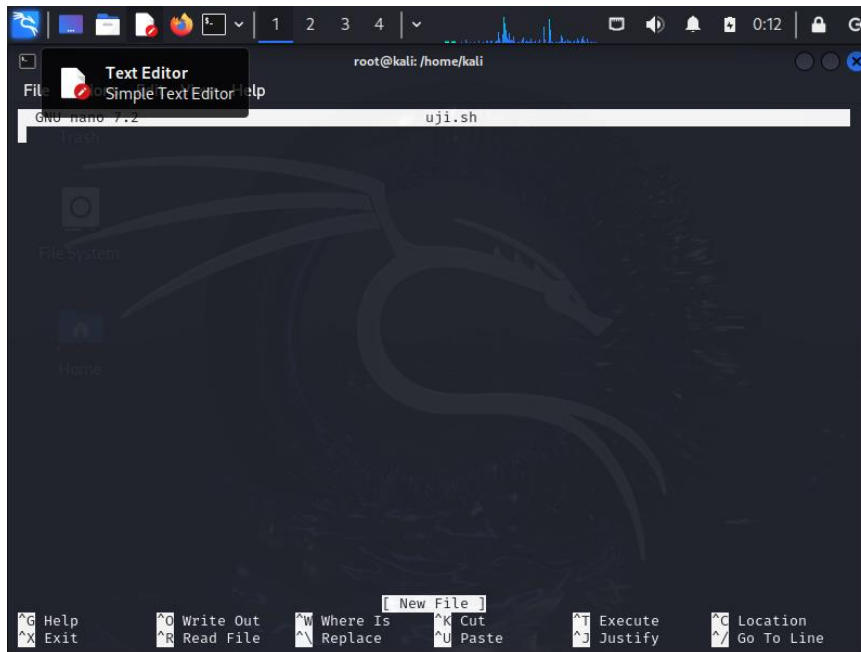
- RM -RF TESTING*

```
(root㉿kali)-[/home/kali]
# rm -rf testing*

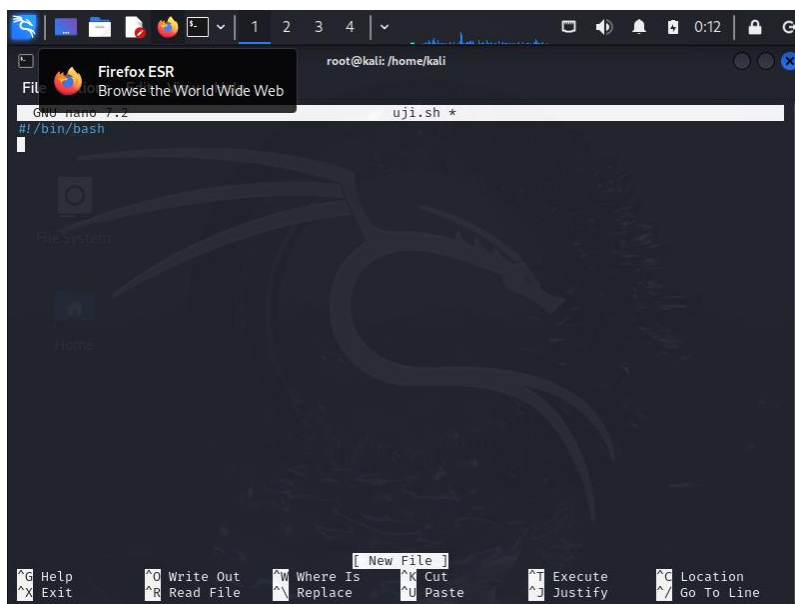
(root㉿kali)-[/home/kali]
#
```

\$ Langkah pemrograman shell: \$

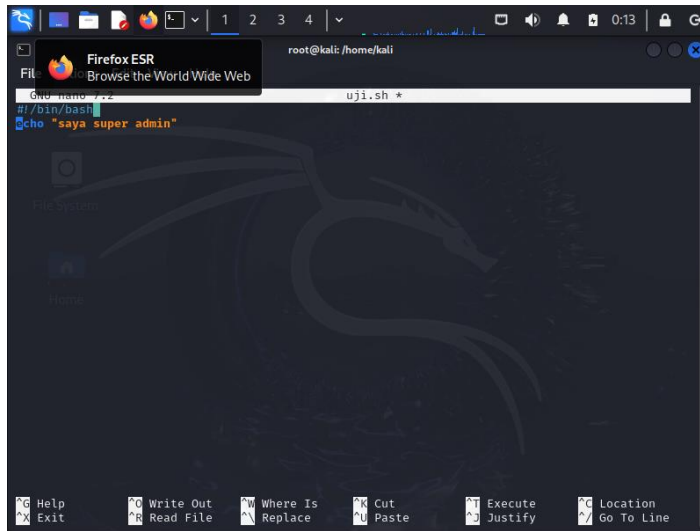
- **nano uji.sh**



- **#!/bin/bash**



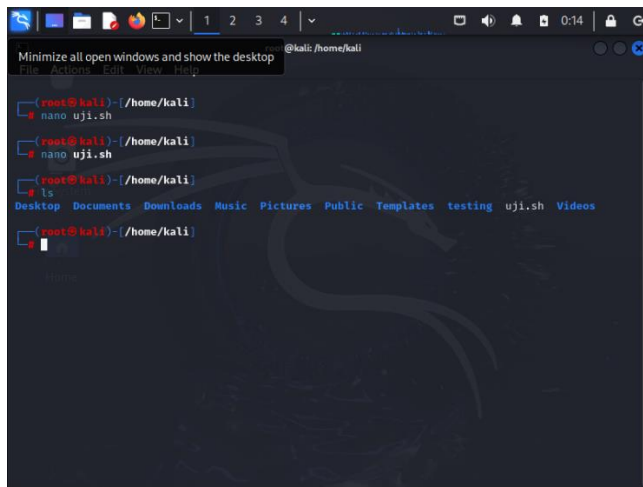
- echo “saya super admin”



A screenshot of a Kali Linux desktop environment. A terminal window is open, showing the command `echo "saya super admin"` being executed. The output of the command is visible on the next line. The terminal window has a title bar that says "root@kali: /home/kali". The desktop background is the Kali Linux logo. There are icons for the system menu, home, and desktop in the top left corner. The top right corner shows the time as 0:13 and the battery status.

```
root@kali: /home/kali
# nano uji.sh
# /bin/bash
echo "saya super admin"
```

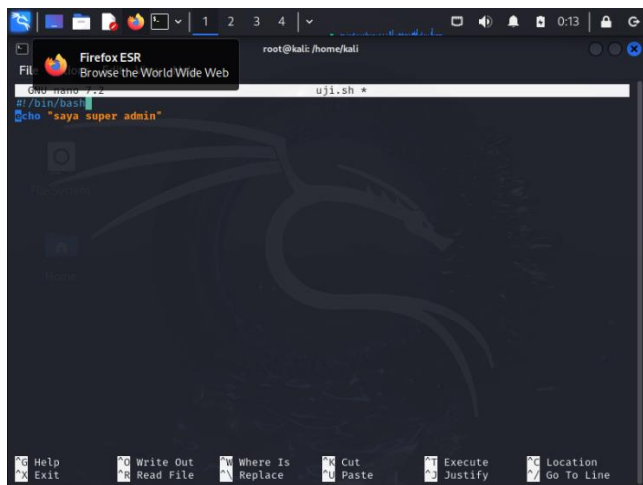
- ^X



A screenshot of a Kali Linux desktop environment. A terminal window is open, showing the command `^X` being executed. The output of the command is visible on the next line. The terminal window has a title bar that says "root@kali: /home/kali". The desktop background is the Kali Linux logo. There are icons for the system menu, home, and desktop in the top left corner. The top right corner shows the time as 0:14 and the battery status.

```
root@kali: /home/kali
# nano uji.sh
# /bin/bash
^X
```

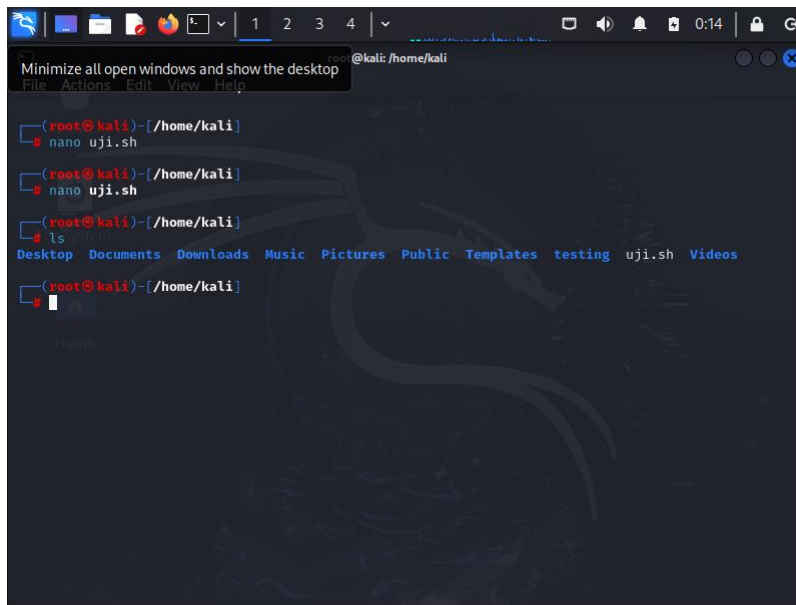
- Y



A screenshot of a Kali Linux desktop environment. A terminal window is open, showing the command `Y` being executed. The output of the command is visible on the next line. The terminal window has a title bar that says "root@kali: /home/kali". The desktop background is the Kali Linux logo. There are icons for the system menu, home, and desktop in the top left corner. The top right corner shows the time as 0:13 and the battery status.

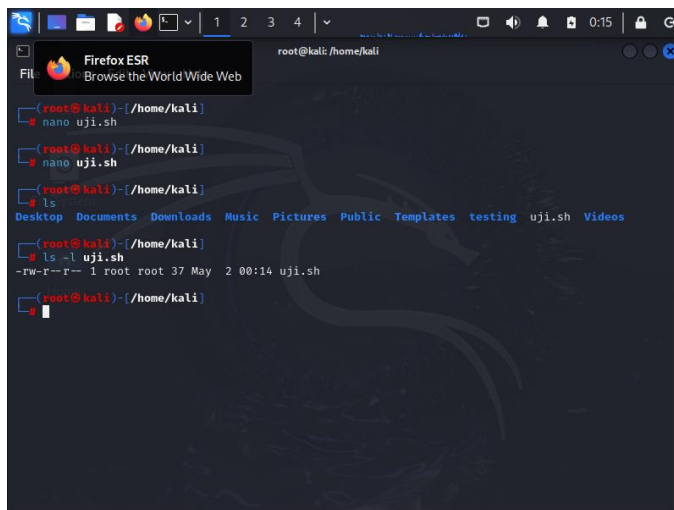
```
root@kali: /home/kali
# nano uji.sh
# /bin/bash
Y
```

- **Ls**



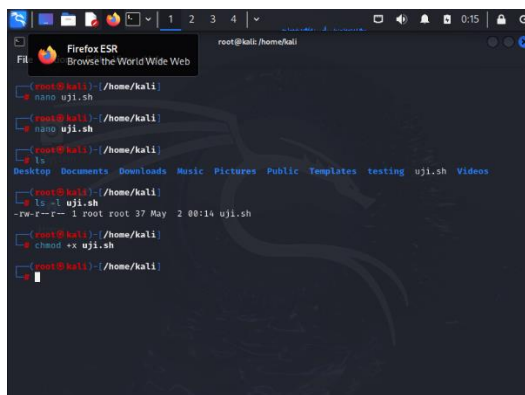
A terminal window titled "root@kali: /home/kali" with a menu bar (File, Actions, Edit, View, Help) and a toolbar. The prompt is "(root@kali)-[/home/kali]". The user enters "nano uji.sh" twice. Then, the user enters "ls", which displays a directory listing: Desktop, Documents, Downloads, Music, Pictures, Public, Templates, testing, uji.sh, and Videos. The prompt returns to "(root@kali)-[/home/kali]".

- **ls -l uji.sh**



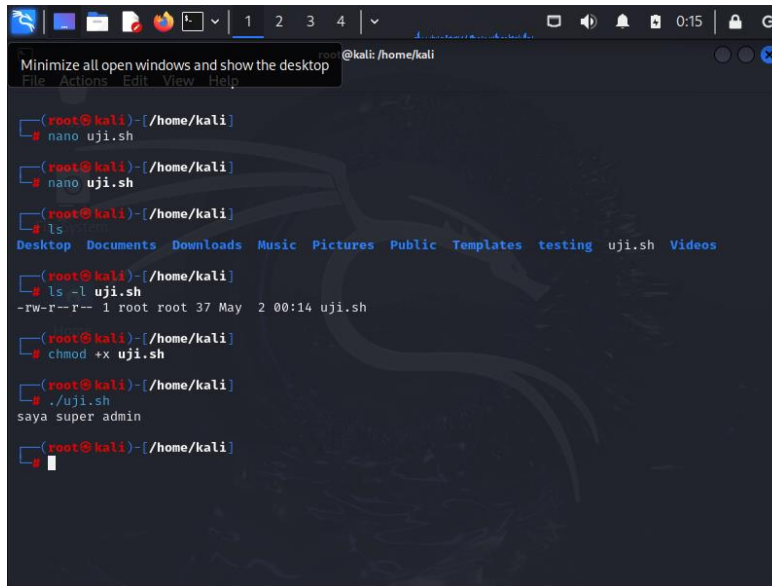
A terminal window titled "root@kali: /home/kali" with a menu bar (File, Actions, Edit, View, Help) and a toolbar. The prompt is "(root@kali)-[/home/kali]". The user enters "nano uji.sh" twice. Then, the user enters "ls", displaying a directory listing. Next, the user enters "ls -l uji.sh", which displays the file permissions: "-rw-r--r-- 1 root root 37 May 2 00:14 uji.sh". The prompt returns to "(root@kali)-[/home/kali]".

- **chmod +x uji.sh**



A terminal window titled "root@kali: /home/kali" with a menu bar (File, Actions, Edit, View, Help) and a toolbar. The prompt is "(root@kali)-[/home/kali]". The user enters "nano uji.sh" twice. Then, the user enters "ls", displaying a directory listing. Next, the user enters "ls -l uji.sh", displaying the file permissions: "-rw-r--r-- 1 root root 37 May 2 00:14 uji.sh". Finally, the user enters "chmod +x uji.sh". The prompt returns to "(root@kali)-[/home/kali]".

- **./uji.sh**



A terminal window titled "root@kali: /home/kali" with a menu bar (File, Actions, Edit, View, Help) and window controls. The terminal shows the following sequence of commands and output:

```
(root@kali)-[/home/kali]
└─$ nano uji.sh

(root@kali)-[/home/kali]
└─$ nano uji.sh

(root@kali)-[/home/kali]
└─$ ls
Desktop  Documents  Downloads  Music  Pictures  Public  Templates  testing  uji.sh  Videos

(root@kali)-[/home/kali]
└─$ ls -l uji.sh
-rw-r--r-- 1 root root 37 May  2 00:14 uji.sh

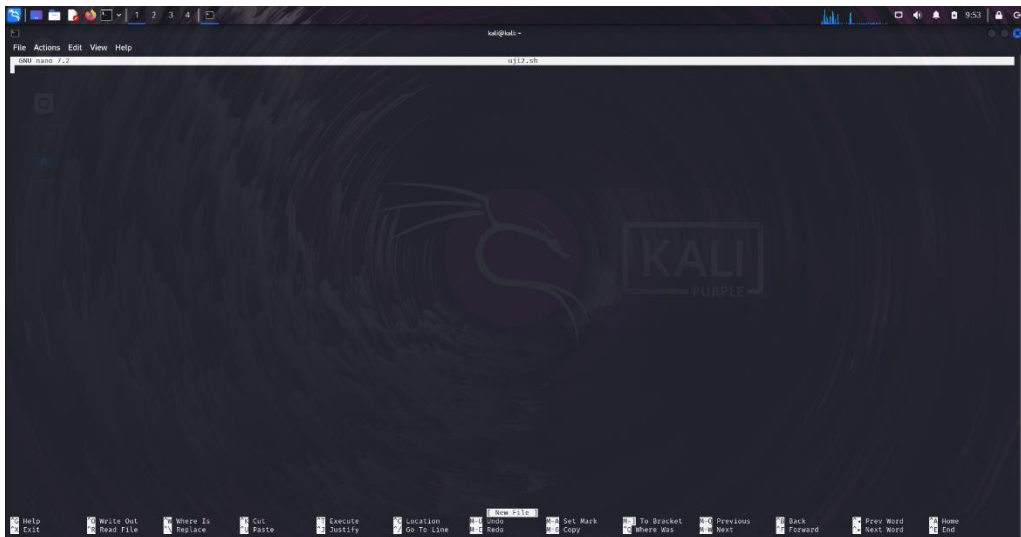
(root@kali)-[/home/kali]
└─$ chmod +x uji.sh

(root@kali)-[/home/kali]
└─$ ./uji.sh
saya super admin

(root@kali)-[/home/kali]
└─$
```

\$ File sederhana \$

- **nano uji2.sh**

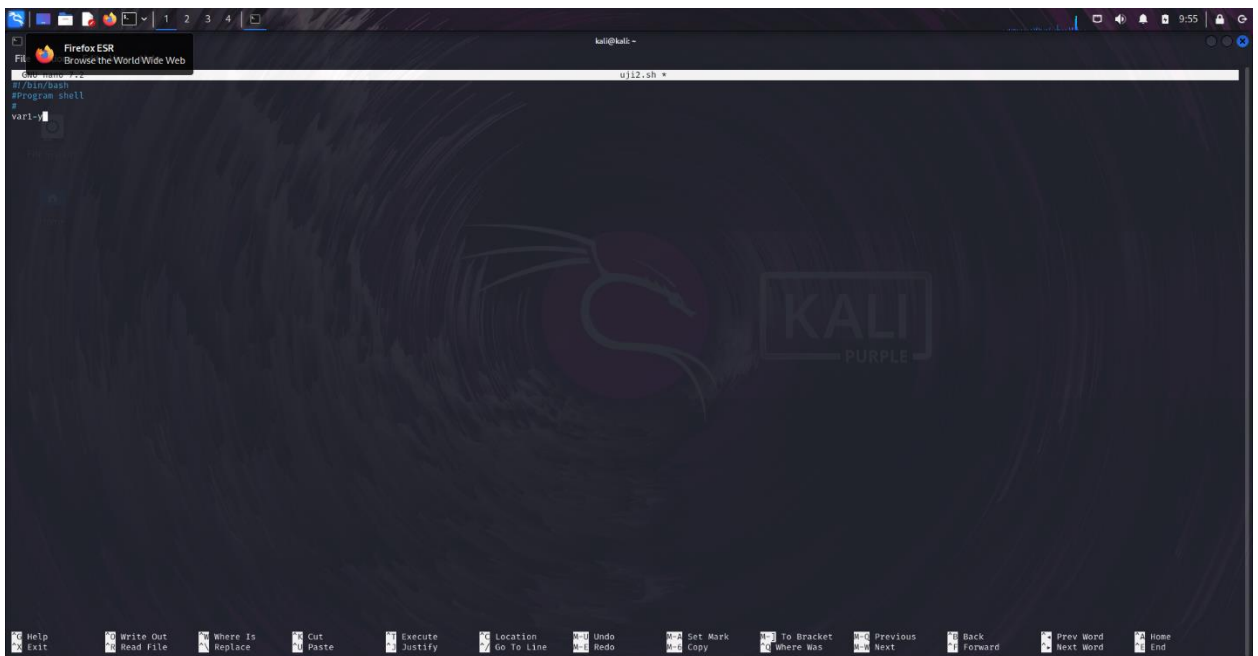


- **#!/bin/bash**

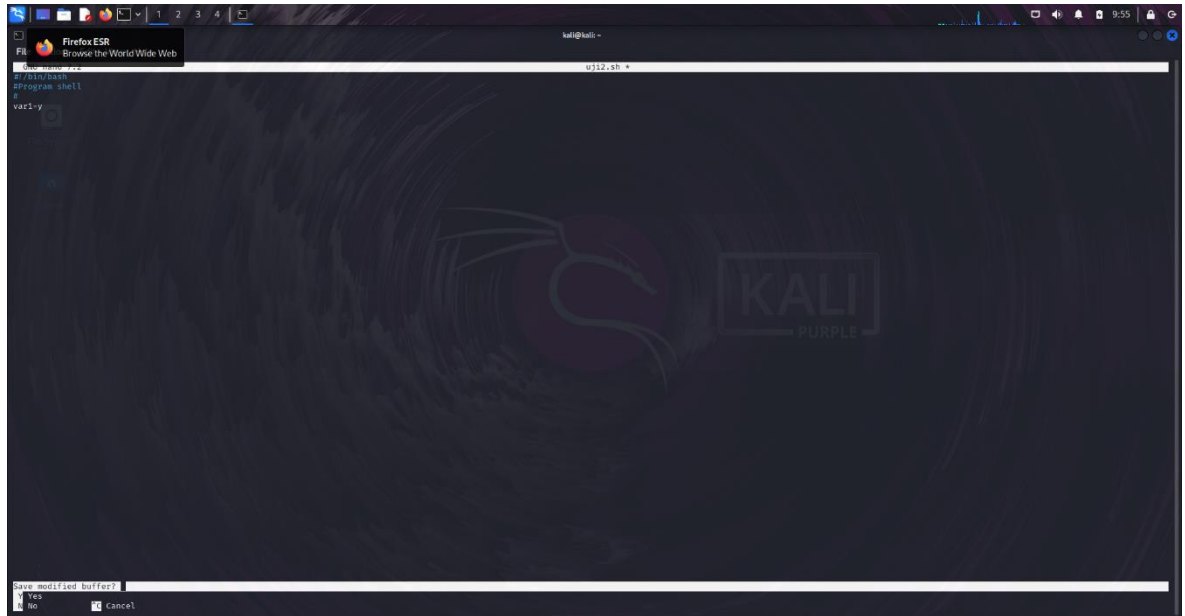
- **#Program shell**

- **#**

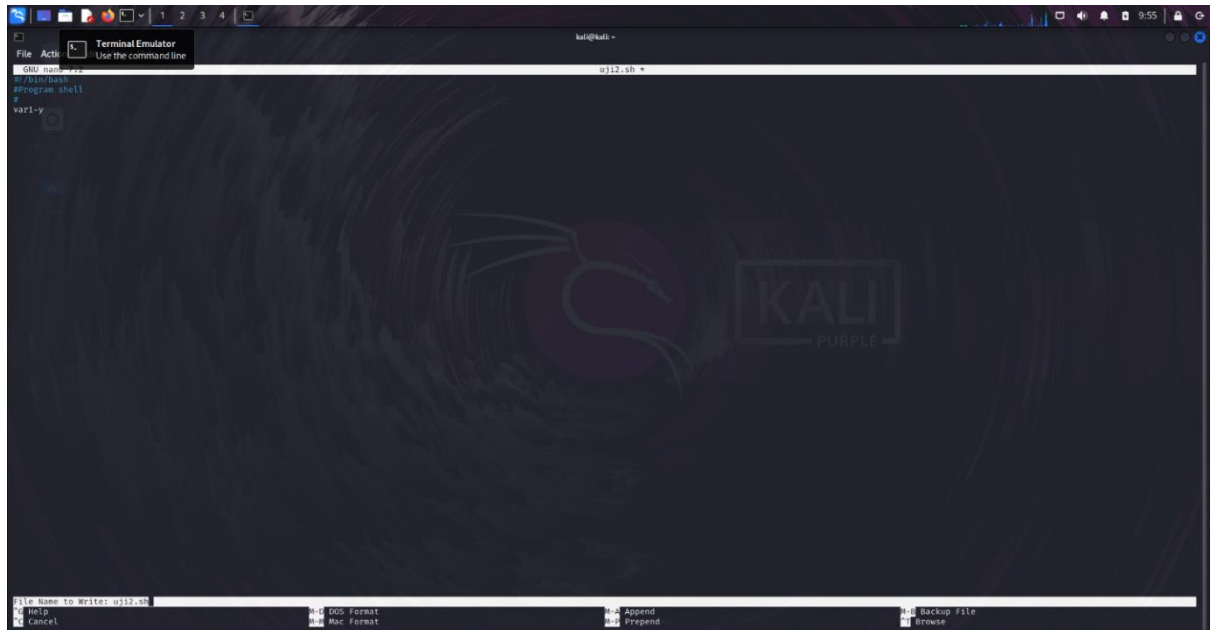
- **var1=**




• ^X



• Y



- [illegible]

- 
- The screenshot shows a Kali Linux terminal window with the following content:
- ```
kali@kali:~$ cat /root/.ssh/authorized_keys
ssh-rsa AAAAB3NzaC1yc2EAAAADAQABAAQDAK...
kali@kali:~$
```
- The terminal window has a title bar that reads "kali@kali: ~" and a menu bar with "File", "Edit", "View", and "Help". The background of the terminal window features a large, stylized Kali Linux logo.

- 
- A screenshot of a Kali Linux desktop environment. The background features a large, stylized purple dragon logo and the text "KALI LINUX PURPLE". In the foreground, a terminal window titled "Terminal Emulator" is open. The terminal shows the following commands and output:
- ```
ch@kali:~/kali$ cat /usr/share/doc/libc6-dev/copyright | grep root  
# Source: glibc.org  
  
--(kali@kali) ~  
└─$ echo $pwd  
  
--(kali@kali) ~  
└─$ find -x -wjl.sh  
  
--(kali@kali) ~  
└─$ ./122.sh  
  
--(kali@kali) ~  
└─$
```

\$ shell interaktif 1 \$

- VPT=VAR1=Y

```
(root@kali)-[/home/kali]
# vpt=var1=y
```

- ECHO \$VPT

```
(root@kali)-[/home/kali]
# echo $vpt
var1=y
```

\$ shell interaktif 2 \$

- V1=2

```
# v1=2
```

- V2='+'

```
(root@kali)-[/home/kali]
# v2='+'
```

- V3=5

```
(root@kali)-[/home/kali]
# v3=5
```

- V4='='

```
(root@kali)-[/home/kali]
# v4='='
```

- V5=7

```
(root@kali)-[/home/kali]
# v5=7
```

- V6=\$V1\$V2\$V3\$V4\$V5

```
(root@kali)-[/home/kali]
# v6=$v1$v2$v3$v4$v5
```

- ECHO V6

```
(root@kali)-[/home/kali]
# echo $v6
2+=7
```

\$ Read string \$

- READ JENIS

```
(root@kali)-[/home/kali]
# read jenis
pria
```

- PRIA

```
(root@kali)-[/home/kali]
# read jenis
pria
```

- ECHO \$JENIS

```
(root@kali)-[/home/kali]
# echo $jenis
pria
```

\$ Penjumlahan aritmatik \$

- NANO ARITMATIK.SH

```
(root@kali)-[/home/kali]
# nano aritmatika.sh
```

- #!/BIN/BASH

```
#!/bin/bash
```

- A=17

```
A=17
```

- B=3

```
B=3
```

- LET RESULT=\$A+\$B;

```
let RESULT = $A+$B;
```

- ECHO "\$RESULT"

```
echo "$RESULT"
```

- **^X**

```

root@kali:~/kali$ cd /home/kali/
root@kali:~/kali$ ./aritmatika.sh
A=17
B=3
let RESULT=$((A+B))
echo $RESULT
20

```

- **Y**

```

# aritmatika.sh
A=17
B=3
let RESULT=$((A+B))
echo $RESULT

```

- **CHMOD +X ARITMATIK.SH**

```

(root@kali)~[/home/kali]
# chmod +x aritmatika.sh

```

- **./ARITMATIK.SH**

```

(root@kali)~[/home/kali]
# ./aritmatika.sh
20

```

\$.js \$

- NANO CODE.JS

```
(root@kali)-[/home/kali]
# nano code.js
```

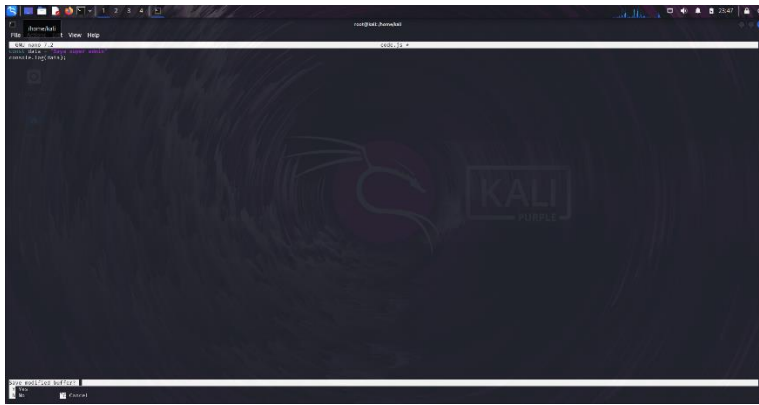
- CONST DATA = "SAYA SUPER ADMIN"

```
GNU nano 7.2
const data = "Saya super admin"
```

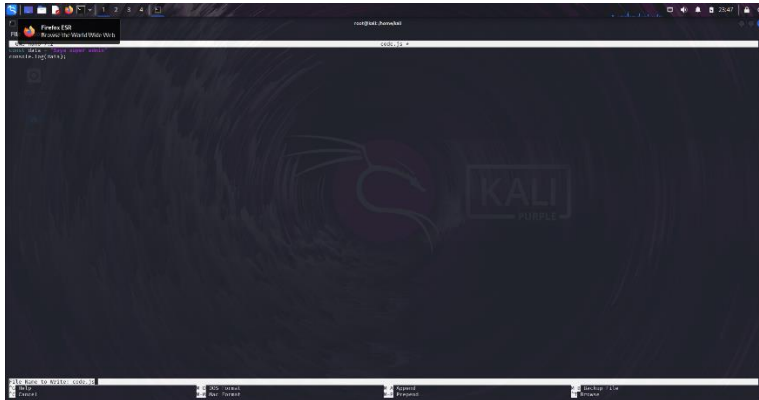
- CONSOLE.LOG(DATA);

```
console.log(data);
```

- ^X



- Y



- CAT CODE.JS

```
(root@kali)-[/home/kali]
# cat code.js
const data = "Saya super admin"
console.log(data);
```

- NODE CODE.JS

```
(root@kali)-[/home/kali]
# node code.js
Saya super admin
```

\$ Install \$

- **APT INSTALL NODEJS**

```
(root@kali)-[/home/kali]
# apt install nodejs
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
E: Unable to locate package nodejs
```

- **APT UPDATE**

```
[root@kali]~# apt update
Get:1 http://kali.cs.nycu.edu.tw/kali kali-rolling InRelease [41.5 kB]
Get:2 http://kali.cs.nycu.edu.tw/kali kali-rolling/main amd64 Packages [19.1 MB]
Get:3 http://kali.cs.nycu.edu.tw/kali kali-rolling/main amd64 Contents (deb) [44.4 MB]
Get:4 http://kali.cs.nycu.edu.tw/kali kali-rolling/contrib amd64 Packages [101 kB]
Get:5 http://kali.cs.nycu.edu.tw/kali kali-rolling/contrib amd64 Contents (deb) [219 kB]
Get:6 http://kali.cs.nycu.edu.tw/kali kali-rolling/non-free amd64 Packages [192 kB]
Get:7 http://kali.cs.nycu.edu.tw/kali kali-rolling/non-free amd64 Contents (deb) [863 kB]
Get:8 http://kali.cs.nycu.edu.tw/kali kali-rolling/non-free-firmware amd64 Packages [33.0 kB]
Get:9 http://kali.cs.nycu.edu.tw/kali kali-rolling/non-free-firmware amd64 Contents (deb) [16.9 kB]
Fetched 64.9 MB in 2min 11s (497 kB/s)
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
825 packages can be upgraded. Run 'apt list --upgradable' to see them.
```

- **APT UPGRADE**

[illegible]

- **NODE CODE.JS**

```
Processing triggers for ca-certificates-java (20240118) ...
done.
Setting up openjdk-21-jre:amd64 (21.0.2+13-2) ...
Setting up burpsuite (2024.3.1.3-0kali1) ...
Setting up kali-tools-top10 (2024.2.3) ...
Setting up kali-linux-default (2024.2.3) ...
Processing triggers for ca-certificates (20240203) ...
Updating certificates in /etc/ssl/certs ...
0 added, 0 removed; done.
Running hooks in /etc/ca-certificates/update.d ...
done.
Processing triggers for libc-bin (2.37-15) ...
Processing triggers for libc-bin (2.37-15) ...
Processing udmapap-sys. This may take some time ... done.
Running mktexlsr /var/lib/texmf ... done.
Building format(s) --all.
This may take some time ... done.
Processing triggers for dbus (1.14-10-4) ...
Processing triggers for ca-certificates-java (20240118) ...
done.

root@kali:~/home/kali
```

\$ World wide web and get http https (wget) \$

- **WGET**

https://drive.google.com/file/d/1kQwK1fjfbBkC4WQKhOmv4IiJ3b22i3D_/view?usp=drive_link

<http://192.168.73.195/File-SisOp.zip>

```
--2024-05-16 01:09:48-- https://drive.google.com/file/d/1kQwK1fjfbBkC4WQKhOmv4IiJ3b22i3D_/view?usp=drive_link
Resolving drive.google.com (drive.google.com)... 74.125.24.101, 74.125.24.100, 74.125.24.102, ...
Connecting to drive.google.com (drive.google.com)|74.125.24.101|:443 ... connected.
HTTP request sent, awaiting response... 401 Unauthorized

Username/Password Authentication Failed.
zsh: no such file or directory: http://192.168.73.195/File-SisOp.zip
```

- **SUDO APT INSTALL WGET**

```
(root@kali) ~/home/kali
# sudo apt install wget
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
wget is already the newest version (1.21.4-1+b1).
The following packages were automatically installed and are no longer required:
  libboost1.83-dev libopenblas-dev libopenblas-pthread-dev libopenblas0 libpython3-all-dev libpython3.12-dev libpython3.12-stdlib libstemmer0d libxmlb2
  libxslt1.1 libzstd-dev python3-anyjson python3-beniget python3-gast python3-pyatspi python3-pydp2 python3-pyppeteer python3-pyrsistent python3-pythran python3.12-dev xtl-dev zenity zenity-common
Use 'sudo apt autoremove' to remove them.
0 upgraded, 0 newly installed, 0 to remove and 4 not upgraded.
```

\$ Condition shell pada linux \$

- **#!/BIN/BASH**

TMER=10

WHILE [\$TMER -GT 0]

DO

ECHO "... \$TMER"

TMER=\$((TMER -1))

SLEEP 10S

```
#!/bin/bash

tmr=24

while [ $tmr -gt 0 ]
do
    echo "timer ticker is $tmr"
    tmr=$((tmr -1))
    sleep 1s
done
```

- **DONE**

```
(root@kali) ~/home/kali
# ./timer.sh
t ticker is 24
t ticker is 23
t ticker is 22
t ticker is 21
t ticker is 20
timer ticker is 19
timer ticker is 18
timer ticker is 17
timer ticker is 16
timer ticker is 15
timer ticker is 14
timer ticker is 13
timer ticker is 12
timer ticker is 11
timer ticker is 10
timer ticker is 9
timer ticker is 8
timer ticker is 7
timer ticker is 6
timer ticker is 5
timer ticker is 4
timer ticker is 3
timer ticker is 2
timer ticker is 1
```


- Code

```
#!/bin/bash

tmer=24

while [ $tmer -gt 0 ]
do
    echo "timer ticker is $tmer"
    tmer=$((tmer -1))
    sleep 1s
done
```

\$ Pemrograman condition shell \$

- CLEAR
ECHO "STOK BARANG HARI INI";
ECHO ".....";
ECHO "1. BERAS";
ECHO "2. GULA";
ECHO "3. GARAM";
ECHO "4.EXIT";
READ -P *PILIH BARANG KELUAR [1-4] : * PIL;

```
echo "stok barang hari ini"
echo "....."
echo "1. beras"
echo "2. gula"
echo "3. garam"
echo "4. micin"
echo "5. exit"
read -p "pilih barang keluar [1-5] : " pil
```

- IF [\$PIL -EQ 1];
THEN
ECHO " BANYAK BARANG = *;
READ JUM
LET BAYAR=JUM*10000;

```
if [ $pil -eq 1 ]
then
echo "banyak barang = "
read jum
let bayar=jum*10000
echo "total bayar = $bayar"
```

- ELIF [\$PIL -EQ 4];
THEN
EXIT 0

```
elif [ $pil -eq 5 ]
then
exit 0
```

- ELSE
ECHO "BARANG TIDAK TERSEDIA"
EXIT 1

```
else
echo "barang tidak tersedia"
exit 1
fi
```

- FI
ECHO "HARGA BAYAR = RP. \$BAYAR"
ECHO "TERIMAKASIH ATAS KUNJUNGAN ANDA"
ECHO " KANTIN TI"

```
echo "harga bayar = rp. $bayar"
echo "terimakasih atas kunjungan anda"
echo "kantin ti"
```

- NANO KASIR.SH
- LS -L KASIR.SH
- CHMOD +X KASIR.SH
- LS -L KASIR.SH

```
(root@kali)-[/home/kali]
└─$ nano kasir.sh

(root@kali)-[/home/kali]
└─$ ls -l kasir.sh
-rw-r--r-- 1 root root 789 May 16 01:49 kasir.sh

(root@kali)-[/home/kali]
└─$ chmod +x kasir.sh

(root@kali)-[/home/kali]
└─$ ls -l kasir.sh
-rwxr-xr-x 1 root root 789 May 16 01:49 kasir.sh
```

- **./KASIR.SH**

```

root@kali:~/home/kali
$ ./kasir.sh
stok barang hari ini
.....
1. beras
2. gula
3. garam
4. micin
5. exit
pilih barang keluar [1-5] : 4
you selected micin
banyak Barang =
total bayar = 50000
harga bayar = rp. 50000
terimakasih atas kunjungan anda
antini ti

```

- **Code**

```

echo "stok barang hari ini"
echo "....."
echo "1. beras"
echo "2. gula"
echo "3. garam"
echo "4. micin"
echo "5. exit"
read -p "pilih barang keluar [1-5] : " pil

if [ $pil -eq 1 ]
then
echo "you selected beras"
echo "banyak barang = "
read jum
let bayar=jum*10000
echo "total bayar = $bayar"

elif [ $pil -eq 2 ]
then
echo "you selected gula"
echo "banyak barang = "
read jum
let bayar=jum*5000
echo "total bayar = $bayar"

elif [ $pil -eq 3 ]
then
echo "you selected garam"
echo "banyak barang = "
read jum
let bayar=jum*15000

```

```
        echo "total bayar = $bayar"

elif [ $pil -eq 4 ]
    then
        echo "you selected micin"
        echo "banyak barang = "
        read jum
        let bayar=jum*25000
        echo "total bayar = $bayar"

elif [ $pil -eq 5 ]
    then
exit 0

else
echo "barang tidak tersedia"
exit 1

fi
echo "harga bayar = rp. $bayar"
echo "terimakasih atas kunjungan anda"
echo "kantin ti"
```