

1-

```
Terminal
maha@maha-Precision-7510:~$ nano mycase.sh
maha@maha-Precision-7510:~$ chmod +x mycase.sh
maha@maha-Precision-7510:~$ ./mycase.sh
Enter your char : V
Upper Case
maha@maha-Precision-7510:~$ ./mycase.sh
Enter your char : &
Nothing
maha@maha-Precision-7510:~$
```

```
GNU nano 8.1
shopt -s extglob
read -p "Enter your char : " your_ch
case "$your_ch" in
[A-Z]) echo "Upper Case"
;;
[a-z]) echo "Lower Case"
;;
[0-9]) echo "Number"
;;
*)
echo "Nothing"
;;
esac
```

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```
Terminal
maha@maha-Precision-7510:~$ nano mycase2.sh
maha@maha-Precision-7510:~$ chmod +x mycase2.sh
maha@maha-Precision-7510:~$ ./mycase2.sh
Enter your string: HI
Upper Case
maha@maha-Precision-7510:~$ ./mycase2.sh
Enter your string: 999k
Mix
maha@maha-Precision-7510:~$
```

```
GNU nano 8.1
read -p "Enter your string: " your_st

if [[ "$your_st" =~ ^[A-Z]+$ ]]; then
    echo "Upper Case"
elif [[ "$your_st" =~ ^[a-z]+$ ]]; then
    echo "Lower Case"
elif [[ "$your_st" =~ ^[0-9]+$ ]]; then
    echo "Number"
elif [[ "$your_st" =~ ^[A-Za-z0-9]+$ ]]; then
    echo "Mix"
else
    echo "Nothing"
fi
```

```
Terminal
maha@maha-Precision-7510:~$ nano mychmod.sh
maha@maha-Precision-7510:~$ chmod +x mychmod.sh
maha@maha-Precision-7510:~$ ./mychmod
bash: ./mychmod: No such file or directory
maha@maha-Precision-7510:~$ ./mychmod.sh
done
maha@maha-Precision-7510:~$
```

```
GNU nano 8.1
var="$HOME"
for i in "$var"/*;
do
chmod +x "$i"
done
echo "done"
```

```
maha@maha-Precision-7510:~$ nano mybackup.sh
maha@maha-Precision-7510:~$ chmod +x mybackup.sh
maha@maha-Precision-7510:~$ ./mybackup.sh
done
maha@maha-Precision-7510:~$
```

```
GNU nano 8.1
var="$HOME"
backup_dir="$HOME/backup_dir"
mkdir -p "$backup_dir"

for i in "$var"/*;
do
if [[ -f "$i" ]];
then
cp "$i" "$backup_dir"
fi
done
echo "done"
```

```
Terminal
maha@maha-Precision-7510:~$ nano mymail.sh
maha@maha-Precision-7510:~$ chmod +x mymail.sh
maha@maha-Precision-7510:~$ ./mymil.sh
bash: ./mymil.sh: No such file or directory
maha@maha-Precision-7510:~$ ./mymail.sh
done email has been sent
maha@maha-Precision-7510:~$ mail
"/var/mail/maha": 3 messages 3 new
>N  1 maha      Mon Feb 10 21:42  17/556  Get responsene
  N  2 maha      Mon Feb 10 21:45  17/556  Get responsene
  N  3 maha      Tue Feb 11 14:52  17/556  Get responsene
?
Return-Path: <maha@maha-Precision-7510>
X-Original-To: maha
Delivered-To: maha@maha-Precision-7510
Received: by maha-Precision-7510 (Postfix, from userid 1000)
        id B72B2D001B1; Mon, 10 Feb 2025 21:42:03 +0200 (EET)
Subject: Get responsene
To: maha@maha-Precision-7510
User-Agent: mail (GNU Mailutils 3.17)
Date: Mon, 10 Feb 2025 21:42:03 +0200
Message-Id: <20250210194203.B72B2D001B1@maha-Precision-7510>
From: maha <maha@maha-Precision-7510>

Dear CEO,
I hope this you are doing well.
we would like to invite you to our product launch.
Best redards.
Maha
?
[1]+  Stopped                  mail
maha@maha-Precision-7510:~$
```

```
GNU nano 8.1
ear CEO,
Files: this you are doing well.
we would like to invite you to our product launch.
Best redards.
Maha
```

```
GNU nano 8.1
mail_temp="mtemplate"
for i in $(cut -d: -f1 /etc/passwd);
do
mail -s "Get responsene" "$i" < "$mail_temp"
done
echo "done email has been sent"
```

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```
Terminal
GNU nano 8.1      chkmail.sh *
mfileE="/var/mail/$USER"

while true
do
  if [[ -f "$mfileE" ]]
  then
    if find "$mfileE" -mmin -0.166 2>/dev/null
    then
      echo "New mail received!"
    fi
  else
    echo " No mail file found!"
  fi

  sleep 10
done

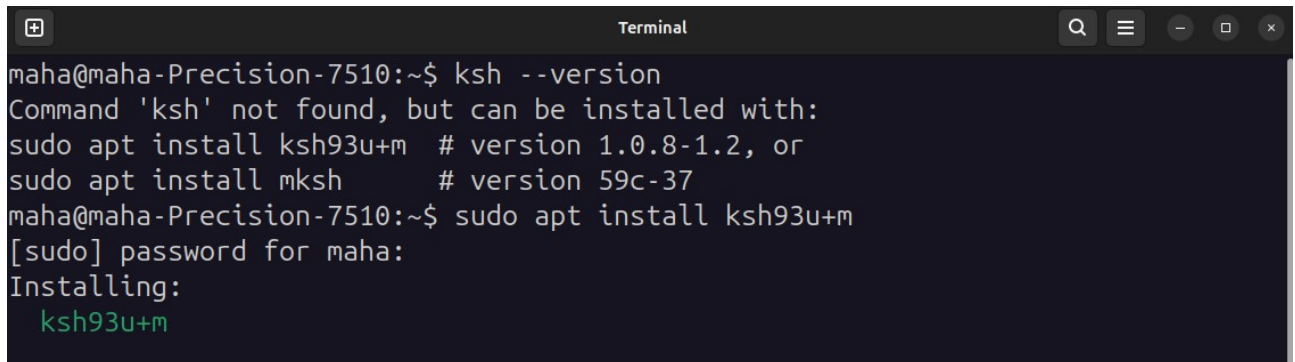
^G Help      ^O Write Out ^F Where Is  ^K Cut       ^T Execute   ^C Location
^X Exit      ^R Read File ^\ Replace   ^U Paste     ^J Justify   ^/ Go To Line
```



```
^Cmaha@maha-Precision-7510:~$ nano chkmail.sh
maha@maha-Precision-7510:~$ ./chkmail.sh
New mail received!

New mail received!
```

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```
maha@maha-Precision-7510:~$ ksh --version
Command 'ksh' not found, but can be installed with:
sudo apt install ksh93u+m # version 1.0.8-1.2, or
sudo apt install mksh      # version 59c-37
maha@maha-Precision-7510:~$ sudo apt install ksh93u+m
[sudo] password for maha:
Installing:
  ksh93u+m
```

```
maha@maha-Precision-7510:~$ nano test.sh
maha@maha-Precision-7510:~$ chmod +x test.sh
maha@maha-Precision-7510:~$ ksh test.sh
1
maha@maha-Precision-7510:~$
```

```
Terminal
GNU nano 8.1 test.sh *
#!/bin/ksh
typeset -i n1
typeset -i n2
n1=1
n2=1
while test $n1 -eq $n2
do
    n2=$((n2+1))
    echo $n1
    if [ $n1 -gt $n2 ]
    then
        break
    else
        continue
    fi
    n1=$((n1+1))
    echo $n2
done
```

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```
Terminal
GNU nano 8.1 menu.sh *
#!/bin/ba h
while true
do
    select choice in "ls" "ls -a" "exit"
do
    break
done

case $choice in
    "ls")
        ls
        ;;
    "ls -a")
        ls -a
        ;;
    "exit")
        echo "Exiting..."
        exit 0
        ;;
    *)
        echo "Invalid choice."
        ;;
esac
done
```



```
maha@maha-Precision-7510:~$ nano menu.sh
maha@maha-Precision-7510:~$ chmod +x menu.sh
maha@maha-Precision-7510:~$ ./menu.sh
1) ls
2) ls -a
3) exit
#? 2
.
..
'1 sudo apt update sudo.txt'
awk_script.awk
backup_dir
.bash_history
.cache
chkmail.sh
.config
Desktop
Documents
Downloads
file1
file2
.git
.gitconfig
.gnupg
greet.sh
index.html
.local
menu.sh
mtemplate
Music
mybackup.sh
mycase2.sh
mycase.sh
mycd.sh
mychmod.sh
mycp.sh
myinfo.sh
my-lab-repo
mys.sh
mymail.sh
mytest.sh
name.txt
nohup.out
Pictures
.pki
Public
README.md
s1.sh
s2.sh
sed_script.sed
.shell.pre-oh-my-zsh
snap
.ssh
.sudo_as_admin_successful
Templates
test.sh
.var
Videos
.vscode
.zcompdump
.zcompdump-maha-Precision-7510-5.9
.zcompdump-maha-Precision-7510-5.9.zwc
1) ls
2) ls -a
3) exit
#? 3
Exiting...
maha@maha-Precision-7510:~$
```

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```
GNU nano 8.1
myarr.sh *
#!/bin/bash

echo "Enter the number of elements in the array:"
read n

if [[ ! "$n" =~ ^[0-9]+$ ]]; then
    echo "Invalid input. Please enter a positive integer."
    exit 1
fi

my_array=()

echo "Enter the elements of the array:"
for i in $(seq 1 $n); do
    read element
    my_array+=("$element")
done

echo "The array elements are:"
echo "${my_array[@]}"
```

```
maha@maha-Precision-7510:~$ nano myarr.sh
maha@maha-Precision-7510:~$ chmod +x myarr.sh
maha@maha-Precision-7510:~$ ./myarr.sh
Enter the number of elements in the array:
5

The array elements are:
5 22 66 30 78
maha@maha-Precision-7510:~$
```

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```
GNU nano 8.1 myavg.sh *
#!/bin/bash

declare -a numbers=()
sum=0
count=0

echo "Enter your numbers:"

while read num; do
    if [[ "$num" =~ ^-?[0-9]+(\.[0-9]+)?$ ]]; then
        numbers+=("$num")
        sum=$(bc <<< "$sum + $num")
        count=$((count + 1))
    else
        echo "Invalid input: $num. Ignoring."
    fi
done

if [[ $count -eq 0 ]]; then
    echo "No numbers entered. Cannot calculate average."
else
    average=$(bc <<< "scale=2; $sum / $count")
    echo "The average of the numbers is: $average"
fi
```

```
maha@maha-Precision-7510:~$ nano myavg.sh
maha@maha-Precision-7510:~$ chmod +x myavg.sh
maha@maha-Precision-7510:~$ ./myavg.sh
Enter your numbers:
5
66
4
8
The average of the numbers is: 20.75
maha@maha-Precision-7510:~$
```

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```
GNU nano 8.1 func.sh *

mysq() {
    if [[ $# -eq 1 ]]
    then
        if [[ "$1" =~ ^-?[0-9]+(\.[0-9]+)?$ ]]
        then
            result=$(bc <<< "$1 * $1")
            echo "$result"
        else
            echo "Invalid input. Argument must be a number." >&2
            return 1
        fi
    else
        echo "mysq function requires exactly one argument." >&2
        return 1
    fi
}

square_of_5=$(mysq 5)
square_of_2_5=$(mysq 2.5)
echo "Square of 5: $square_of_5"
echo "Square of 2.5: $square_of_2_5"
echo "Square of 10: $(mysq 10)"
if mysq 7
then
    echo "mysq succeeded"
else
    echo "mysq failed"
fi
```

```
maha@maha-Precision-7510:~$ nano func.sh
maha@maha-Precision-7510:~$ ./func.sh
Square of 5: 25
Square of 2.5: 6.2
Square of 10: 100
49
mysql succeeded
maha@maha-Precision-7510:~$
```