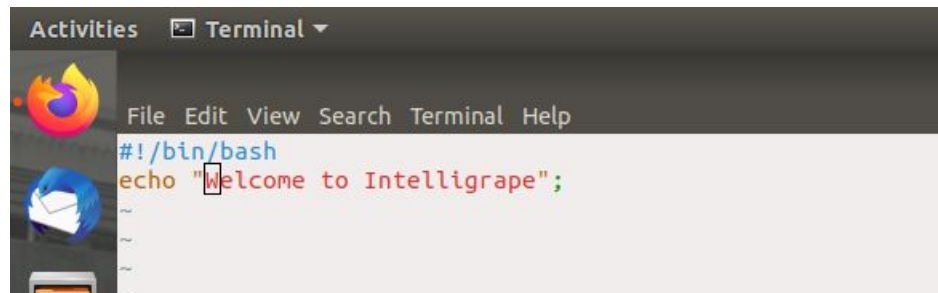
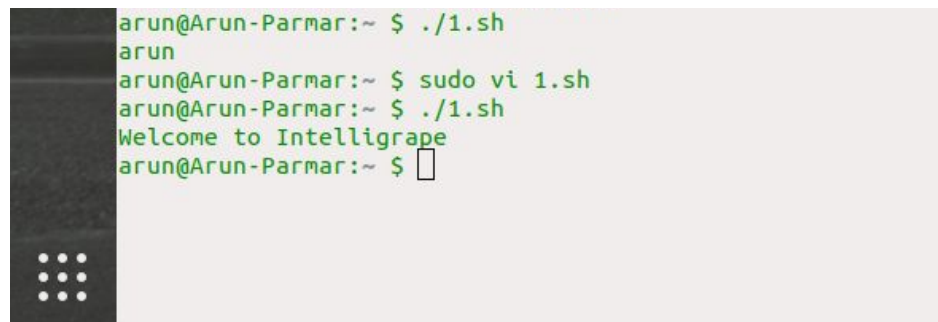


1. (output to terminal)Write a script to print:
  - a. "Welcome to Intelligrape"

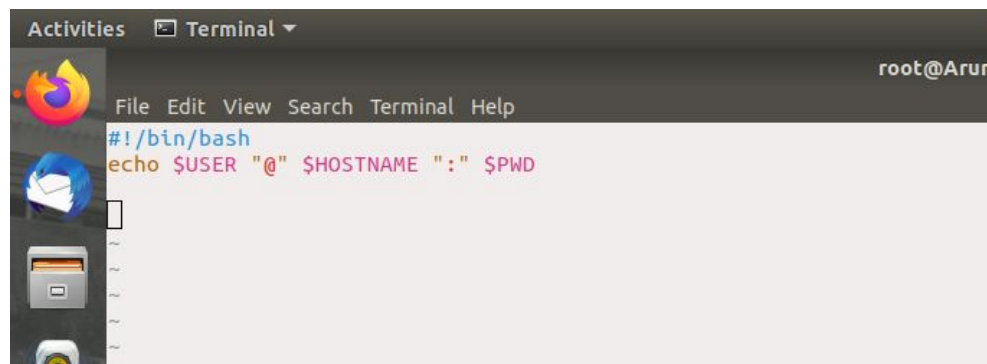


```
Activities Terminal
File Edit View Search Terminal Help
#!/bin/bash
echo "Welcome to Intelligrape";
```

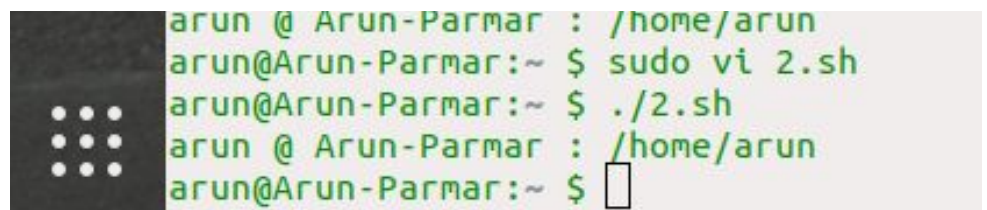


```
arun@Arun-Parmar:~ $ ./1.sh
arun
arun@Arun-Parmar:~ $ sudo vi 1.sh
arun@Arun-Parmar:~ $ ./1.sh
Welcome to Intelligrape
arun@Arun-Parmar:~ $
```

- b. <username>@<hostname>:<your present working directory>



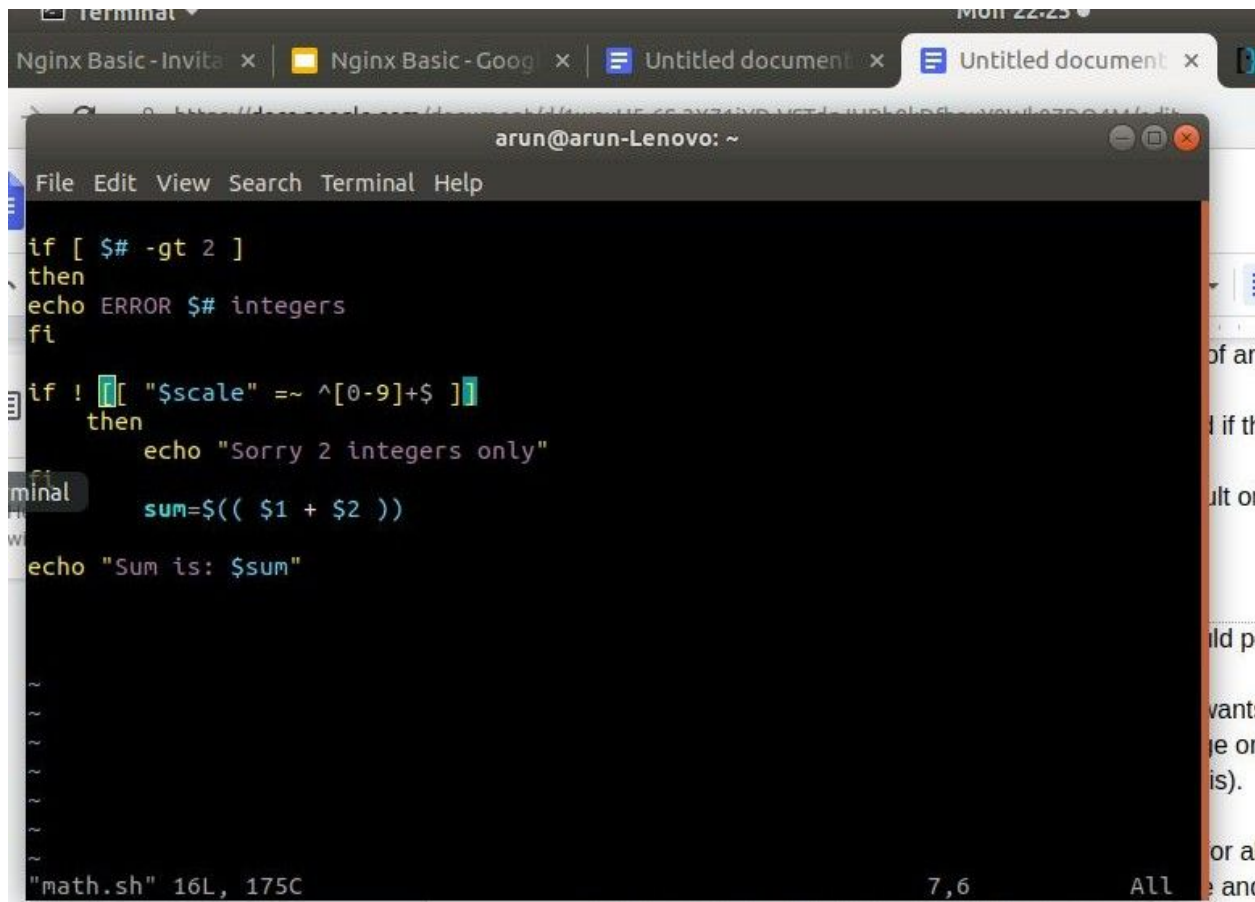
```
Activities Terminal
File Edit View Search Terminal Help
#!/bin/bash
echo $USER "@" $HOSTNAME ":" $PWD
```



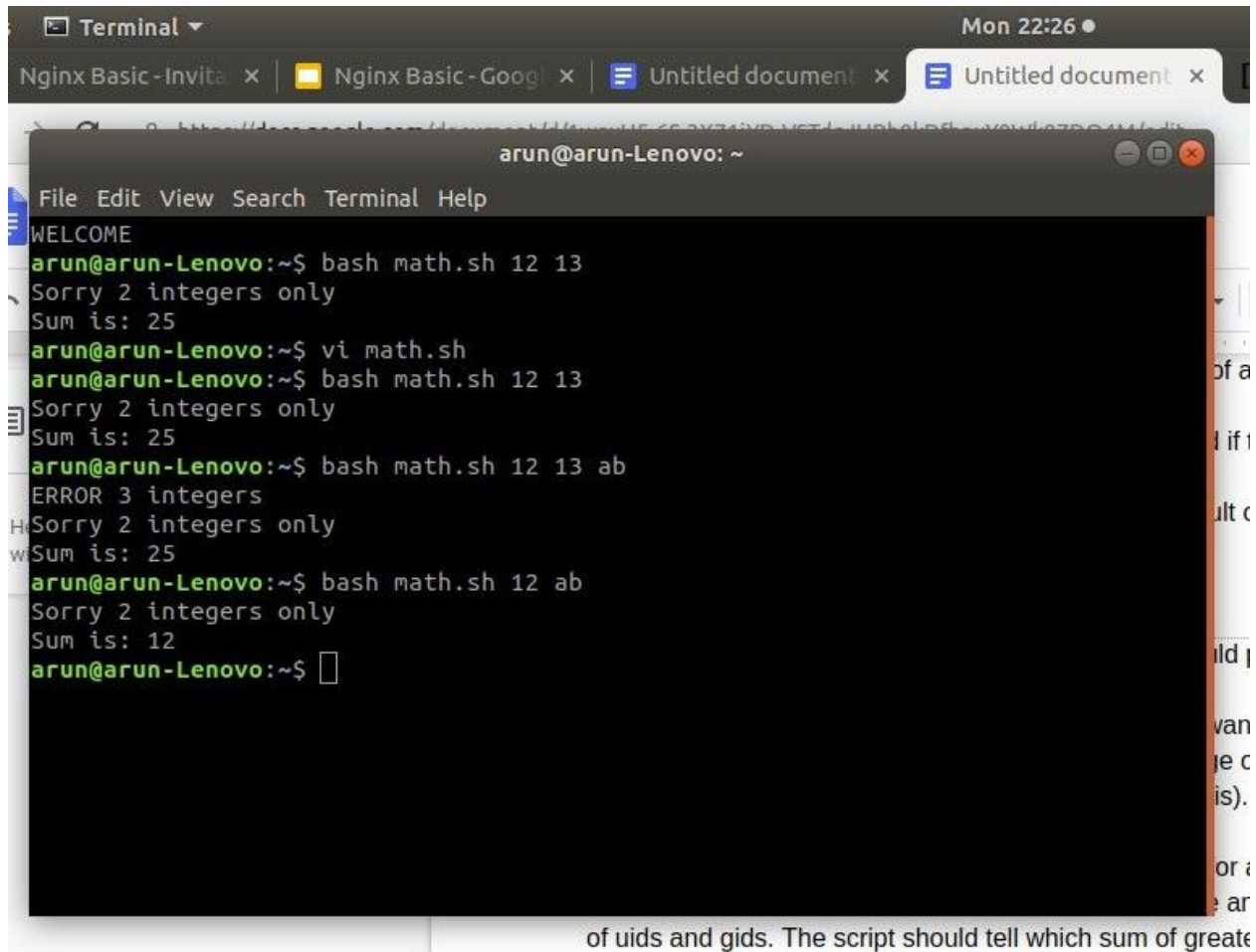
```
arun @ Arun-Parmar : /home/arun
arun@Arun-Parmar:~ $ sudo vi 2.sh
arun@Arun-Parmar:~ $ ./2.sh
arun @ Arun-Parmar : /home/arun
arun@Arun-Parmar:~ $
```

- 2 (arguments)Write a script
  - a. which takes in two arguments and print those arguments.
  - b. which checks the number of arguments passed and if the number is greater than two print ERROR message along with printing the number of arguments.
3. Continue with the above script

- check the two arguments are only integer values and if these are not integers print the proper error on terminal and also log it into a file.
- perform addition on the two arguments and print result on screen. Use function for this.



```
arun@arun-Lenovo: ~  
File Edit View Search Terminal Help  
if [ $# -gt 2 ]  
then  
echo ERROR $# integers  
fi  
  
if ! [[ "$scale" =~ ^[0-9]+$ ]]  
then  
echo "Sorry 2 integers only"  
fi  
  
sum=$(( $1 + $2 ))  
  
echo "Sum is: $sum"  
  
~  
~  
~  
~  
~  
~  
"math.sh" 16L, 175C 7,6 All
```



```
arun@arun-Lenovo: ~  
WELCOME  
arun@arun-Lenovo:~$ bash math.sh 12 13  
Sorry 2 integers only  
Sum is: 25  
arun@arun-Lenovo:~$ vi math.sh  
arun@arun-Lenovo:~$ bash math.sh 12 13  
Sorry 2 integers only  
Sum is: 25  
arun@arun-Lenovo:~$ bash math.sh 12 13 ab  
ERROR 3 integers  
Sorry 2 integers only  
Sum is: 25  
arun@arun-Lenovo:~$ bash math.sh 12 ab  
Sorry 2 integers only  
Sum is: 12  
arun@arun-Lenovo:~$
```

of uids and gids. The script should tell which sum of greater

4. Create a calculator using the above script which would perform addition, subtraction, division and multiplication.
  - a. the script should ask user which operation the user wants to perform: +, -, \*, /
  - b. if user enters other than "+, -, \*, /", print proper message on terminal and keeps on asking for correct input (use while loop to accomplish this).
  - c. Use case statement instead of if.

```
Activities  Terminal  Thu 11:54
Terminal
File Edit View Search Terminal Tabs Help
Terminal
#!/bin/bash
clear num=0
i="y"
while [ $i = "y" ]
do
    echo " Please Enter first number"
    read n1
    echo " Please Enter second number"
    read n2
    echo "1. Addition"
    echo "2. Subtraction"
    echo "3. Multiplication"
    echo "4. Division"
    echo "Enter your choice"
    read ch
    case $ch in
        1)num=`expr $n1 + $n2`
            echo "Sum = $num;;"
        2)num=`expr $n1 - $n2`
            echo "Subtraction = $num;;"
        3)num=`expr $n1 \* $n2`
            echo "Multiply = $num;;"
        4)num=`expr $n1 / $n2`
            echo "Division = $num;;"
        *)echo "Invalid choice";;
    esac
    echo "Do u want to continue ?"
    read i
    if [ $i != "y" ]
    then
        exit 0
    fi
done
~
```

```
Activities  Terminal  Thu 11:55
Terminal
File Edit View Search Terminal Tabs Help
Terminal
arun@Arun-Parmar:~ $ ./calculator.sh
Usage: clear [options]

Options:
  -T TERM      use this instead of $TERM
  -V           print curses-version
  -x           do not try to clear scrollbar
Please Enter first number
22
Please Enter second number
11
1. Addition
2. Subtraction
3. Multiplication
4. Division
Enter your choice
6
Invalid choice
Do u want to continue ?
y
Please Enter first number
22
Please Enter second number
11
1. Addition
2. Subtraction
3. Multiplication
4. Division
Enter your choice
1
Sum =33
Do u want to continue ?
w
arun@Arun-Parmar:~ $
```

5. Write proper help documentation and print it with -h for above script.
  - To be discussed with mentor
6. Create a script which takes input of "/etc/passwd" file and find out and print the sum of uids and gids. The script should tell which sum of greater.

```
Activities Terminal Wed 00:00
root@arun-Lenovo: /home/arun

File Edit View Search Terminal Help

while IFS=: read -r f1 f2 f3 f4 f5 f6 f7
do
res=$(echo $f3 + $f4 | bc)
echo "Username is $f1, user id is $f3 and group id is $f4 and sum is $res!"
done < /etc/passwd
echo max $res
```

```
Activities Terminal Wed 00:01
root@arun-Lenovo: /home/arun

File Edit View Search Terminal Help

Username is news, user id is 9 and group id is 9 and sum is 18!
Username is uucp, user id is 10 and group id is 10 and sum is 20!
Username is proxy, user id is 13 and group id is 13 and sum is 26!
Username is www-data, user id is 33 and group id is 33 and sum is 66!
Username is backup, user id is 34 and group id is 34 and sum is 68!
Username is llist, user id is 38 and group id is 38 and sum is 76!
Username is irc, user id is 39 and group id is 39 and sum is 78!
Username is gnats, user id is 41 and group id is 41 and sum is 82!
Username is nobody, user id is 65534 and group id is 65534 and sum is 131068!
Username is systemd-network, user id is 100 and group id is 102 and sum is 202!
Username is systemd-resolve, user id is 101 and group id is 103 and sum is 204!
Username is syslog, user id is 102 and group id is 106 and sum is 208!
Username is messagebus, user id is 103 and group id is 107 and sum is 210!
Username is _apt, user id is 104 and group id is 65534 and sum is 65638!
Username is uuidd, user id is 105 and group id is 111 and sum is 216!
Username is avahi-autoipd, user id is 106 and group id is 112 and sum is 218!
Username is usbmux, user id is 107 and group id is 46 and sum is 153!
Username is dnsmasq, user id is 108 and group id is 65534 and sum is 65642!
Username is rtkit, user id is 109 and group id is 114 and sum is 223!
Username is cups-pk-helper, user id is 110 and group id is 116 and sum is 226!
Username is speech-dispatcher, user id is 111 and group id is 29 and sum is 140!
Username is whoopsie, user id is 112 and group id is 117 and sum is 229!
Username is kernoops, user id is 113 and group id is 65534 and sum is 65647!
Username is saned, user id is 114 and group id is 119 and sum is 233!
Username is pulse, user id is 115 and group id is 120 and sum is 235!
Username is avahi, user id is 116 and group id is 122 and sum is 238!
Username is colord, user id is 117 and group id is 123 and sum is 240!
Username is hplip, user id is 118 and group id is 7 and sum is 125!
Username is geoclue, user id is 119 and group id is 124 and sum is 243!
Username is gnome-initial-setup, user id is 120 and group id is 65534 and sum is 65654!
Username is gdm, user id is 121 and group id is 125 and sum is 246!
Username is arun, user id is 1000 and group id is 1000 and sum is 2000!
Username is sshd, user id is 122 and group id is 65534 and sum is 65656!
Username is statd, user id is 123 and group id is 65534 and sum is 65657!
Username is tester, user id is 1003 and group id is 1003 and sum is 2006!
Username is mysql, user id is 124 and group id is 127 and sum is 251!
...
max 251
root@arun-Lenovo: /home/arun#
```

7. A directory contains files and sub-directories. Move files to destination1 and directories to destination2

```
Activities Terminal Wed 00:18
root@arun-Lenovo: /home/assign

File Edit View Search Terminal Help

mv *.dir /home/destination1

mv *.txt /home/destination2

exit 0
```

```

root@arun-Lenovo:/home# cd ./assign
root@arun-Lenovo:/home/assign# vi move.sh
root@arun-Lenovo:/home/assign# bash move.sh
root@arun-Lenovo:/home/assign# vi move.sh
root@arun-Lenovo:/home/assign# bash move.sh
mv: cannot stat '*.dir': No such file or directory
mv: cannot stat '*.txt': No such file or directory
root@arun-Lenovo:/home/assign# cd ...
bash: cd: ...: No such file or directory
root@arun-Lenovo:/home/assign# cd ..
root@arun-Lenovo:/home# cd ./home/destination1
bash: cd: ./home/destination1: No such file or directory
root@arun-Lenovo:/home# cd ./destination1
root@arun-Lenovo:/home/destination1# ls
assign1.dir  assign2.dir
root@arun-Lenovo:/home/destination1# cd ..
root@arun-Lenovo:/home# cd ./home/destination2
bash: cd: ./home/destination2: No such file or directory
root@arun-Lenovo:/home# cd ./destination2
root@arun-Lenovo:/home/destination2# ls
file1.txt  file2.txt
root@arun-Lenovo:/home/destination2#

```

8. Create a script which take three arguments, append first argument to every line in a file and second argument to the end of every line of the same file.

```

Activities  Terminal  Wed 01:43
root@arun-Lenovo: ~
File Edit View Search Terminal Help
sed -i "s/^/$1/; s/$/$2/" $3
~
~

```

```

root@arun-Lenovo:~# rm append.txt
root@arun-Lenovo:~# cat > append.txt
this
file
is
here
for
editing
^C
root@arun-Lenovo:~# vi append.sh
root@arun-Lenovo:~# bash append.sh jai hind append.txt
root@arun-Lenovo:~# cat append.txt
jaithishind
jaifilehind
jaishind
jaiherehind
jaifor hind
jaieditinghind
root@arun-Lenovo:~#

```

9. Make a list of files in /usr/bin that have the letter "a" as the second character. Put the result in a temporary file.

```

Activities  Terminal  Wed 02:09
root@arun-Lenovo: ~
File Edit View Search Terminal Help
for i in `ls /usr/bin`
do
    j=`echo $i | head -c 2 | tail -c 1`
    if [ "$j" == "a" ]
    then
        echo $i >> /tmp/abc
    fi
done
~
~

```

```

letter.sh: line 4: [: missing `]`
root@arun-Lenovo:~# vi letter.sh
root@arun-Lenovo:~# bash letter.sh
root@arun-Lenovo:~# cat /tmp/abc
aa-enabled
aa-exec
aafllp
aalib-config
banner
baobab
base32
base64
basename
bashbug
caca-config

```



10. List all files in your home directory and print name and size in a table format.

[illegible]