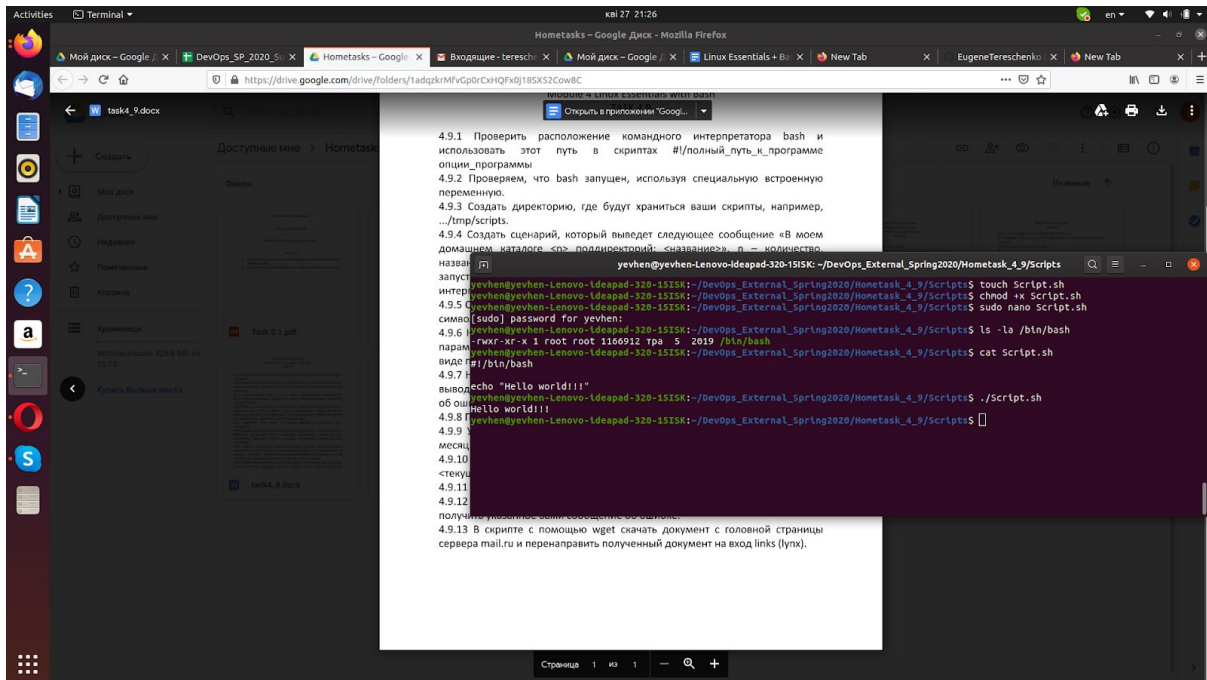


Linux Essentials + Bash

Bash text processing

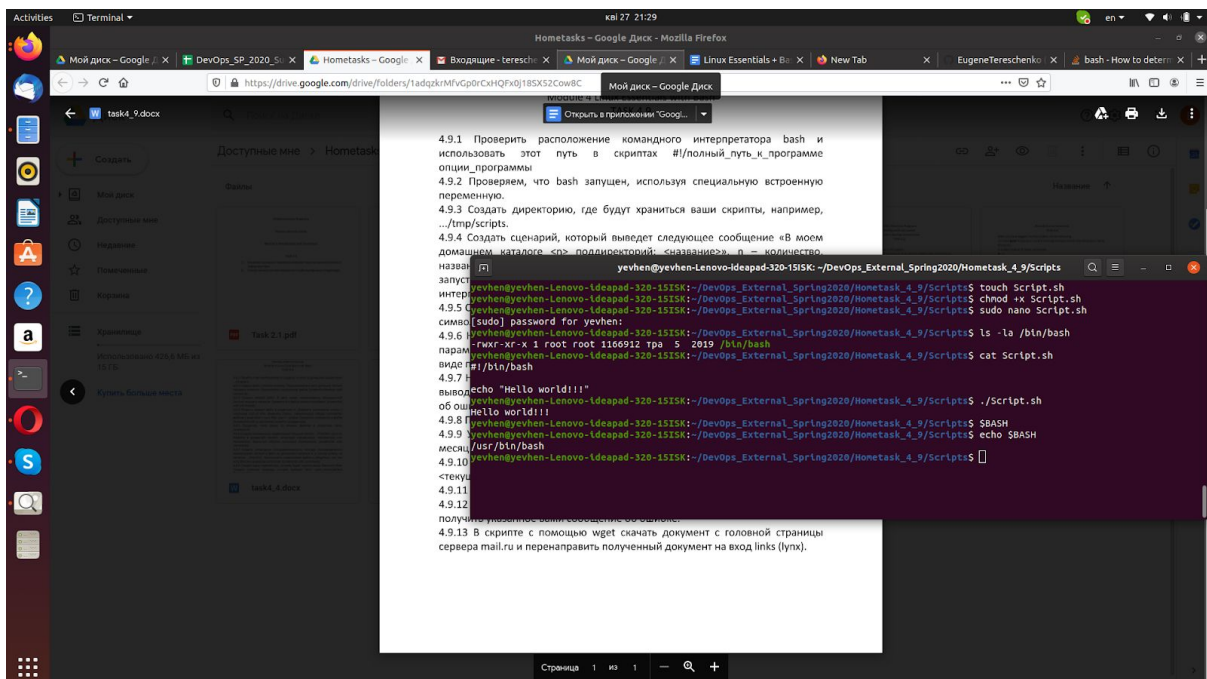
1. Check bash path to dir and used this path into bash script.



The screenshot shows a Linux desktop with a terminal window and a web browser. The terminal window displays the following commands and output:

```
yevhen@yevhen-Lenovo-Ideapad-320-15ISK: ~/DevOps_External_Spring2020/Hometask_4_9/scripts$ touch Script.sh
yevhen@yevhen-Lenovo-Ideapad-320-15ISK: ~/DevOps_External_Spring2020/Hometask_4_9/scripts$ chmod +x Script.sh
yevhen@yevhen-Lenovo-Ideapad-320-15ISK: ~/DevOps_External_Spring2020/Hometask_4_9/scripts$ sudo nano Script.sh
[sudo] password for yevhen:
yevhen@yevhen-Lenovo-Ideapad-320-15ISK: ~/DevOps_External_Spring2020/Hometask_4_9/scripts$ ls -la /bin/bash
lrwxrwxrwx 1 root root 1160912 Apr 5 2019 /bin/bash
yevhen@yevhen-Lenovo-Ideapad-320-15ISK: ~/DevOps_External_Spring2020/Hometask_4_9/scripts$ cat Script.sh
#!/bin/bash
echo "Hello world!!!"
yevhen@yevhen-Lenovo-Ideapad-320-15ISK: ~/DevOps_External_Spring2020/Hometask_4_9/scripts$ ./Script.sh
Hello world!!!
yevhen@yevhen-Lenovo-Ideapad-320-15ISK: ~/DevOps_External_Spring2020/Hometask_4_9/scripts$
```

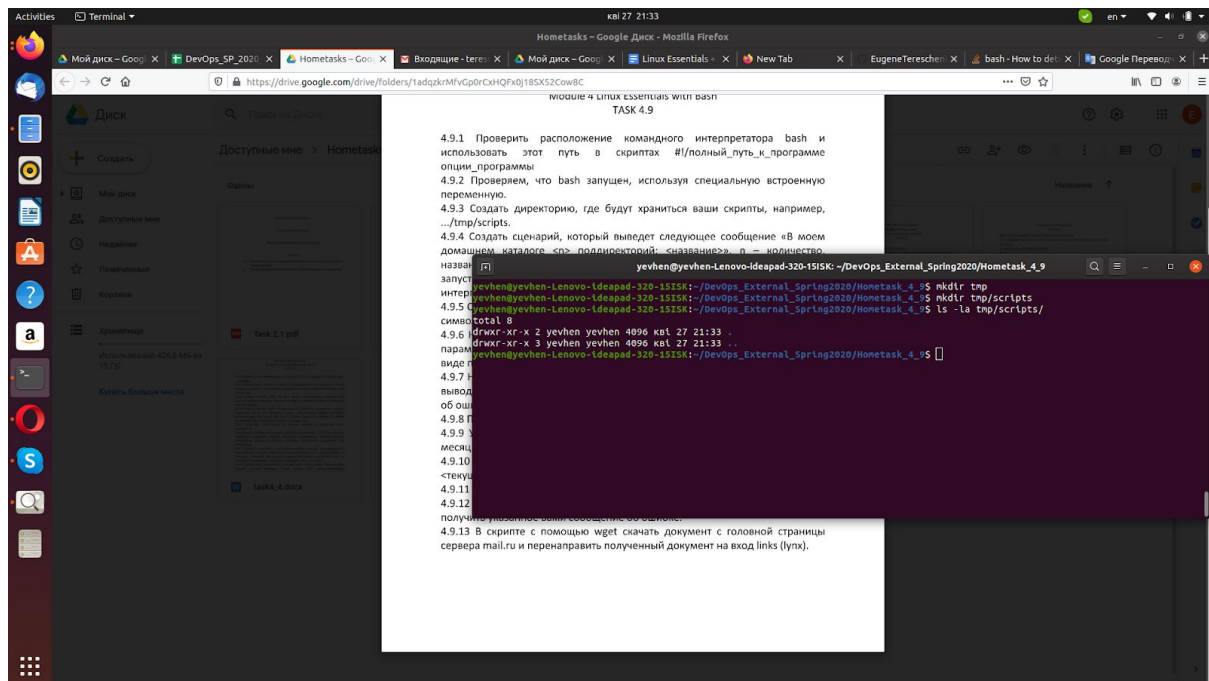
2. Check bash runner as bash variable



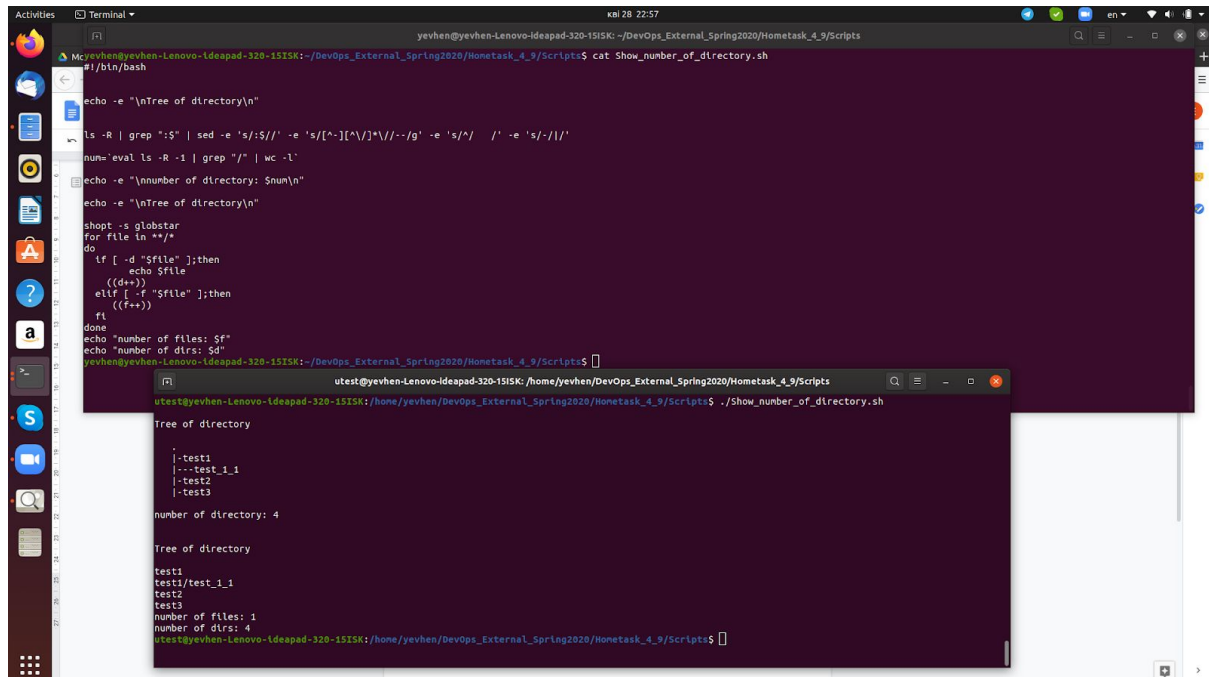
The screenshot shows a Linux desktop with a terminal window and a web browser. The terminal window displays the following commands and output:

```
yevhen@yevhen-Lenovo-Ideapad-320-15ISK: ~/DevOps_External_Spring2020/Hometask_4_9/scripts$ touch Script.sh
yevhen@yevhen-Lenovo-Ideapad-320-15ISK: ~/DevOps_External_Spring2020/Hometask_4_9/scripts$ chmod +x Script.sh
yevhen@yevhen-Lenovo-Ideapad-320-15ISK: ~/DevOps_External_Spring2020/Hometask_4_9/scripts$ sudo nano Script.sh
[sudo] password for yevhen:
yevhen@yevhen-Lenovo-Ideapad-320-15ISK: ~/DevOps_External_Spring2020/Hometask_4_9/scripts$ ls -la /bin/bash
lrwxrwxrwx 1 root root 1160912 Apr 5 2019 /bin/bash
yevhen@yevhen-Lenovo-Ideapad-320-15ISK: ~/DevOps_External_Spring2020/Hometask_4_9/scripts$ cat Script.sh
#!/bin/bash
echo "Hello world!!!"
yevhen@yevhen-Lenovo-Ideapad-320-15ISK: ~/DevOps_External_Spring2020/Hometask_4_9/scripts$ ./Script.sh
Hello world!!!
yevhen@yevhen-Lenovo-Ideapad-320-15ISK: ~/DevOps_External_Spring2020/Hometask_4_9/scripts$ $BASH
/usr/bin/bash
yevhen@yevhen-Lenovo-Ideapad-320-15ISK: ~/DevOps_External_Spring2020/Hometask_4_9/scripts$ echo $BASH
/usr/bin/bash
yevhen@yevhen-Lenovo-Ideapad-320-15ISK: ~/DevOps_External_Spring2020/Hometask_4_9/scripts$
```

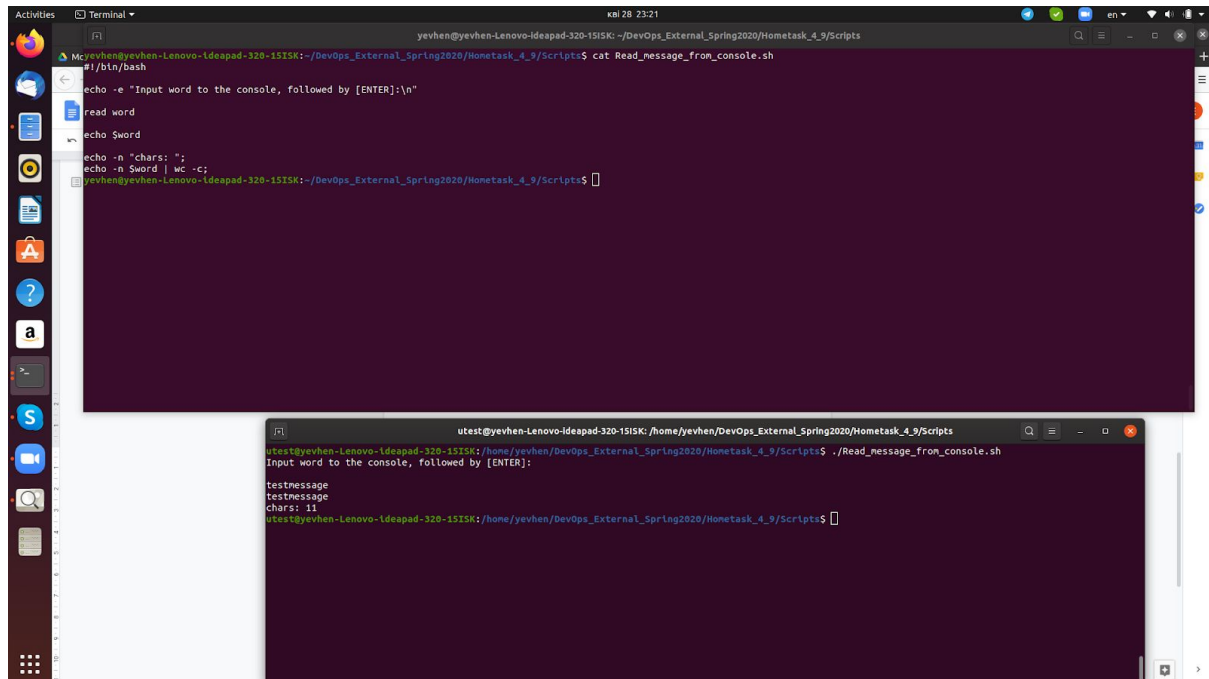
3. Create the directory .../tmp/scripts to kept the scripts.



4. Create script for show number of directory.



5. Create script which read message from console and sent to output numbers of characters in message.



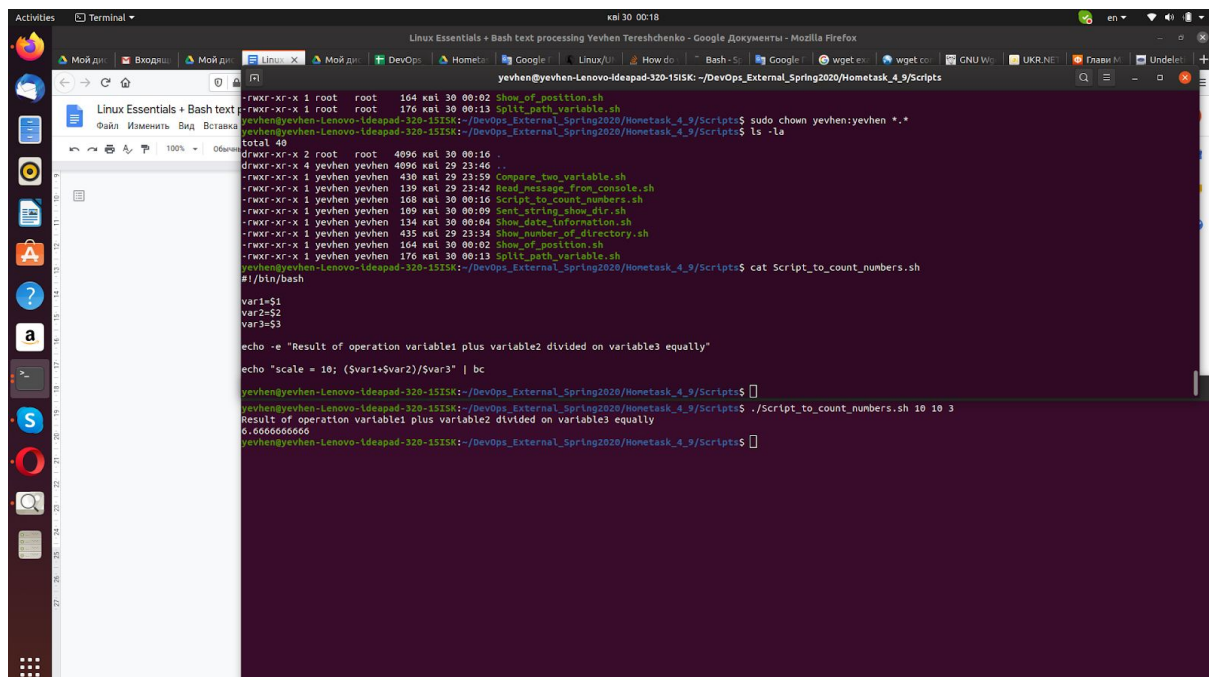
The first terminal window shows the creation of a script named `Read_message_from_console.sh`. The script contains the following code:

```
#!/bin/bash
echo -e "Input word to the console, followed by [ENTER]:\n"
read word
echo $word
echo -n "chars: ";
echo -n $word | wc -c;
yevhen@yevhen-Lenovo-Ideapad-320-15ISK:~/DevOps_External_Spring2020/Hometask_4_9/Scripts$
```

The second terminal window shows the execution of the script. It prompts the user to input a word, and the user enters `testmessage`. The script then outputs the word and the number of characters (11).

```
testmessage
testmessage
chars: 11
yevhen@yevhen-Lenovo-Ideapad-320-15ISK:~/home/yevhen/DevOps_External_Spring2020/Hometask_4_9/Scripts$
```

6. Write script that take three variables and counting that arithmetic operation $(var1+var2)/var3$



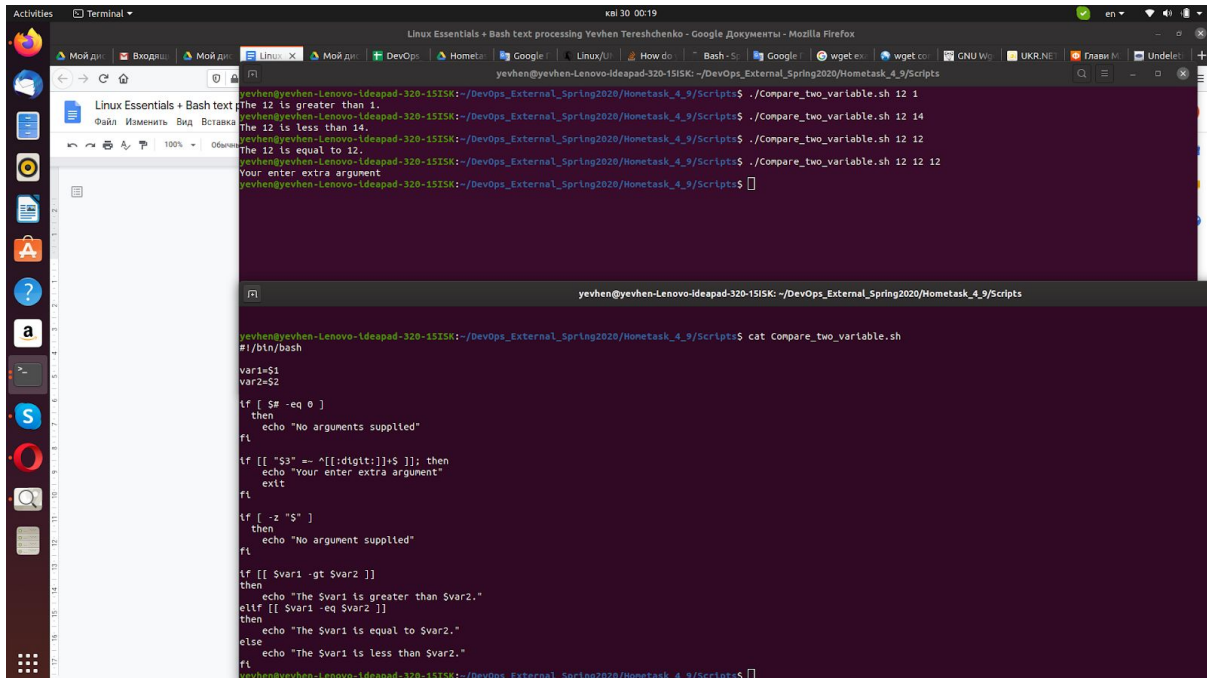
The terminal window shows the execution of a script named `Script_to_count_numbers.sh`. The script contains the following code:

```
#!/bin/bash
var1=$1
var2=$2
var3=$3
echo -e "Result of operation variable1 plus variable2 divided on variable3 equally"
echo "scale = 10; ($var1+$var2)/$var3" | bc
```

The user runs the script with three arguments: `10`, `10`, and `3`. The output is:

```
Result of operation variable1 plus variable2 divided on variable3 equally
6.6666666666
yevhen@yevhen-Lenovo-Ideapad-320-15ISK:~/DevOps_External_Spring2020/Hometask_4_9/Scripts$
```

7. Write script that takes two parameters and prints a larger argument



```
yevhen@yevhen-Lenovo-Ideapad-320-15ISK: ~/DevOps_External_Spring2020/Hometask_4_9/Scripts$ ./Compare_two_variable.sh 12 1
The 12 is greater than 1.
yevhen@yevhen-Lenovo-Ideapad-320-15ISK: ~/DevOps_External_Spring2020/Hometask_4_9/Scripts$ ./Compare_two_variable.sh 12 14
The 12 is less than 14.
yevhen@yevhen-Lenovo-Ideapad-320-15ISK: ~/DevOps_External_Spring2020/Hometask_4_9/Scripts$ ./Compare_two_variable.sh 12 12
The 12 is equal to 12.
yevhen@yevhen-Lenovo-Ideapad-320-15ISK: ~/DevOps_External_Spring2020/Hometask_4_9/Scripts$ ./Compare_two_variable.sh 12 12 12
Your enter extra argument
yevhen@yevhen-Lenovo-Ideapad-320-15ISK: ~/DevOps_External_Spring2020/Hometask_4_9/Scripts$
```

```
yevhen@yevhen-Lenovo-Ideapad-320-15ISK: ~/DevOps_External_Spring2020/Hometask_4_9/Scripts$ cat Compare_two_variable.sh
#!/bin/bash
var1=$1
var2=$2

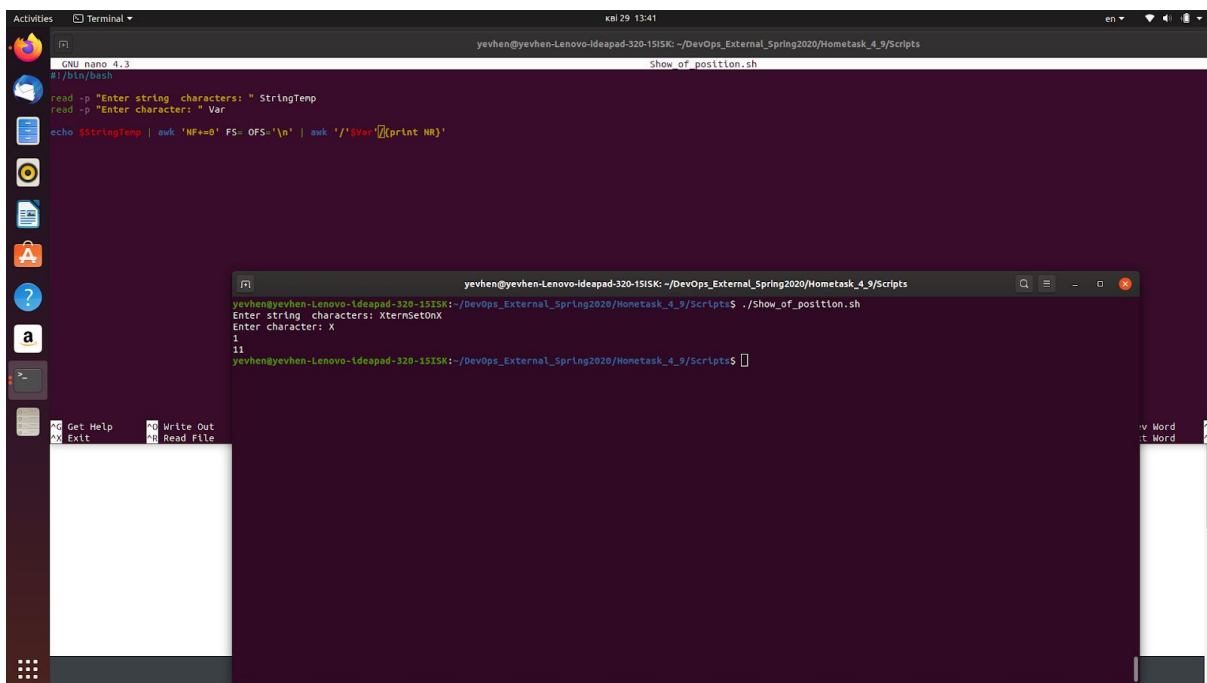
if [ $# -eq 0 ]
then
echo "No arguments supplied"
fi

if [[ "$3" =~ ^[[:digit:]]+$ ]]; then
echo "Your enter extra argument"
exit
fi

if [ -z "$3" ]
then
echo "No argument supplied"
fi

if [[ $var1 -gt $var2 ]]
then
echo "The $var1 is greater than $var2."
elif [[ $var1 -eq $var2 ]]
then
echo "The $var1 is equal to $var2."
else
echo "The $var1 is less than $var2."
fi
yevhen@yevhen-Lenovo-Ideapad-320-15ISK: ~/DevOps_External_Spring2020/Hometask_4_9/Scripts$
```

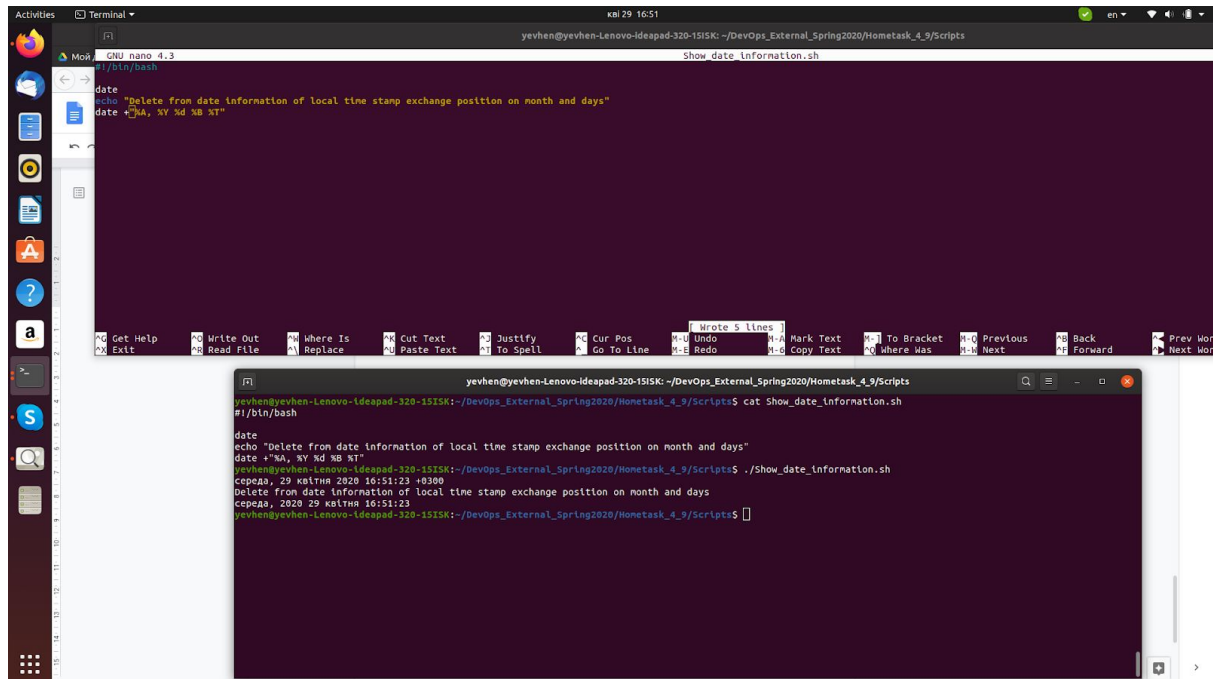
8. Check the position of characters in String



```
yevhen@yevhen-Lenovo-Ideapad-320-15ISK: ~/DevOps_External_Spring2020/Hometask_4_9/Scripts$ ./Show_of_position.sh
Enter string characters: XternsetonX
Enter character: X
11
yevhen@yevhen-Lenovo-Ideapad-320-15ISK: ~/DevOps_External_Spring2020/Hometask_4_9/Scripts$
```

```
yevhen@yevhen-Lenovo-Ideapad-320-15ISK: ~/DevOps_External_Spring2020/Hometask_4_9/Scripts$ cat Show_of_position.sh
#!/bin/bash
read -p "Enter string characters: " StringTemp
read -p "Enter character: " Var
echo $StringTemp | awk 'NF==0 {FS="\\n"} {awk "/'$Var'/{print NR}}'
```

9. Delete from date information of local time stamp exchange position on month and days



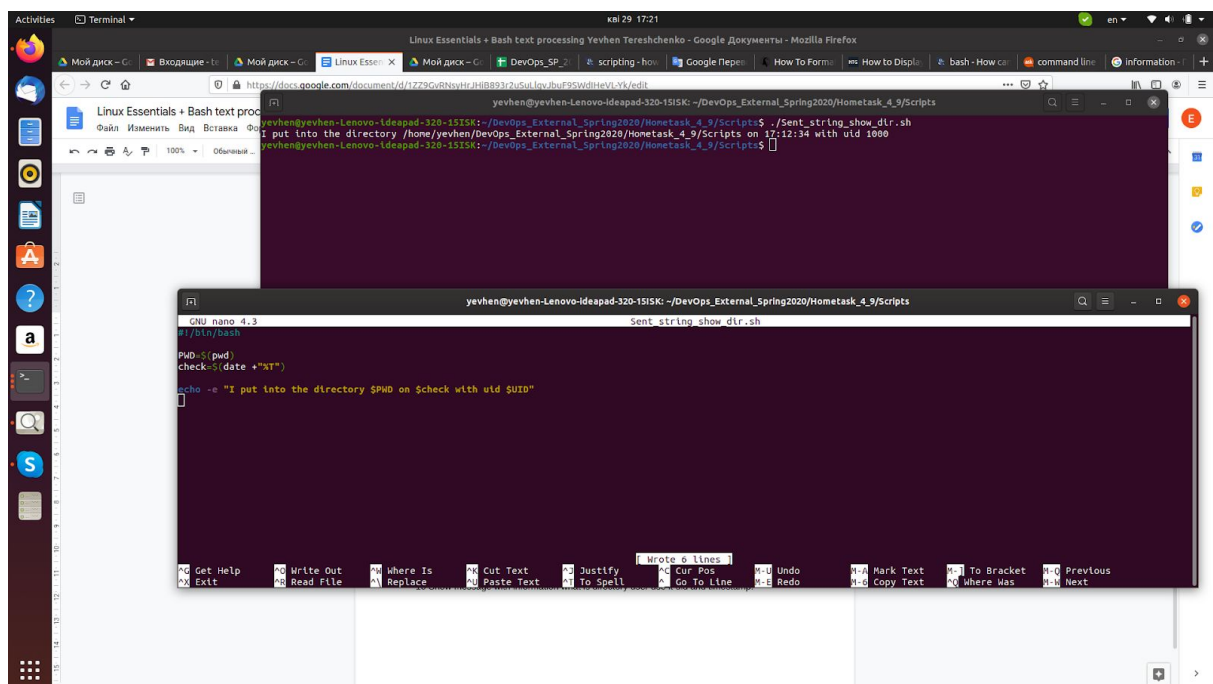
The screenshot shows a terminal window with the following content:

```
#!/bin/bash
date
echo "Delete from date information of local time stamp exchange position on month and days"
date +%H:%M:%S
```

The user runs the script `show_date_information.sh` and the output is:

```
date
2020 29 квітня 2020 16:51:23 +0300
Delete from date information of local time stamp exchange position on month and days
2020 29 квітня 16:51:23
```

10 Show message with information what is directory user use it uid and timestamp.



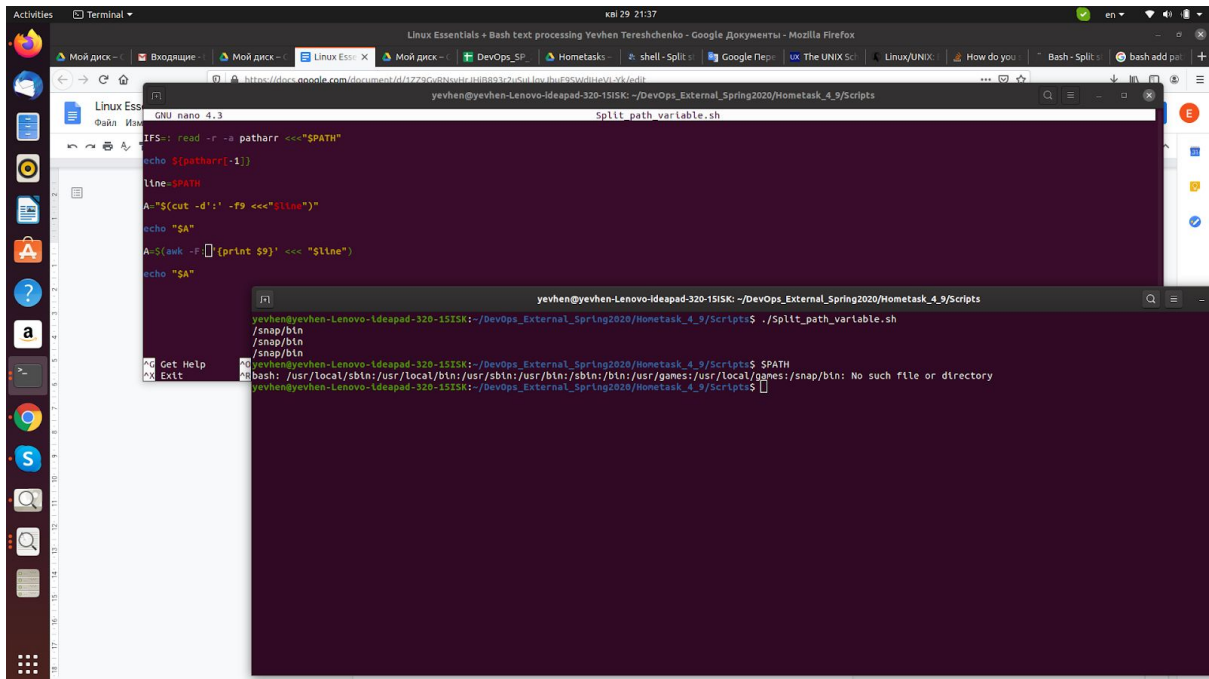
The screenshot shows a terminal window with the following content:

```
#!/bin/bash
PWD=$(pwd)
check=$(date +%H:%M:%S)
echo -e "I put into the directory $PWD on $check with uid $UID"
```

The user runs the script `sent_string_show_dir.sh` and the output is:

```
I put into the directory /home/yevhen/DevOps_External_Spring2020/Hometask_4_9/Scripts on 17:12:34 with uid 1000
```


11. Show in three ways last catalog from variable \$PATH



```
#!/bin/bash

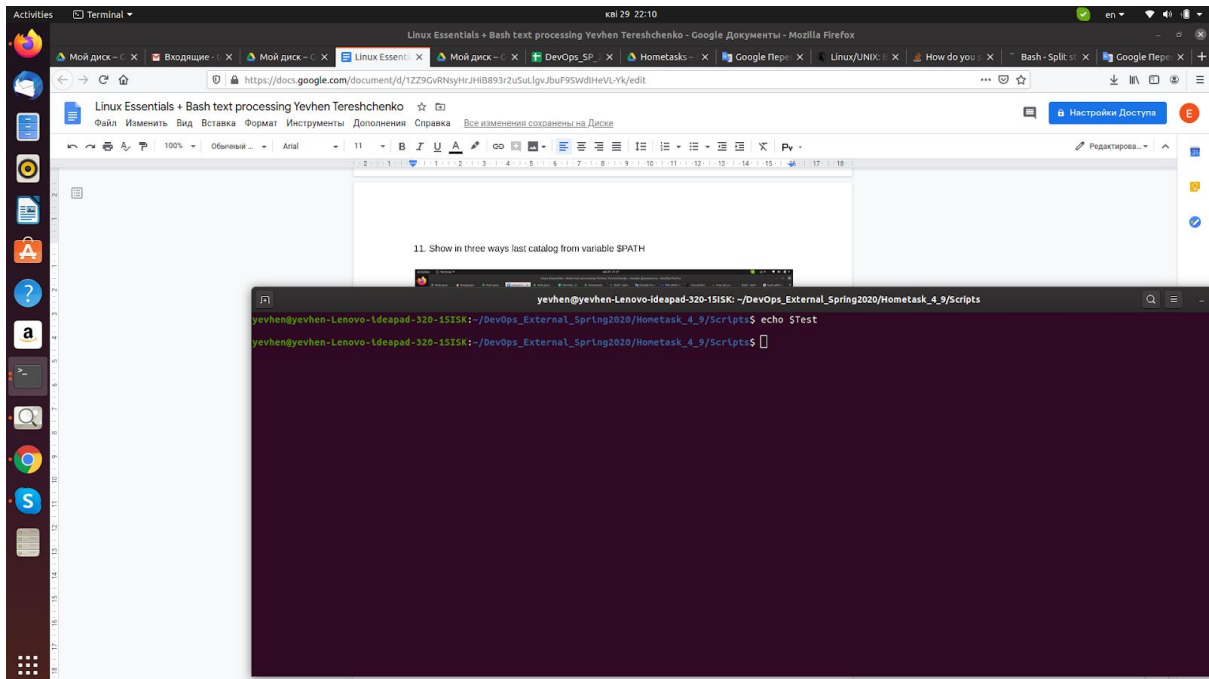
IFS=: read -r -a patharr << "$PATH"
echo ${patharr[-1]}

line=$PATH
A=$(cut -d ':' -f9 << "$line")
echo "$A"

A=$(awk -F ':' '{print $9}' << "$line")
echo "$A"
```

The terminal output shows the execution of the script `Split_path_variable.sh`. The first command `echo ${patharr[-1]}` outputs `/snap/bin`. The second command `echo "$A"` also outputs `/snap/bin`. The third command `echo "$A"` outputs `/snap/bin`.

12. Try to show the value of variable not declare before



```
yevhen@yevhen-Lenovo-Ideapad-320-15ISK: ~/DevOps_External_Spring2020/Hometask_4_9/Scripts
yevhen@yevhen-Lenovo-Ideapad-320-15ISK:~/DevOps_External_Spring2020/Hometask_4_9/Scripts$ echo $Test
yevhen@yevhen-Lenovo-Ideapad-320-15ISK:~/DevOps_External_Spring2020/Hometask_4_9/Scripts$
```

The terminal output shows the execution of the command `echo $Test`. The output is an empty string, indicating that the variable `$Test` has not been declared.

13. In script with wget download the document and open it with lynx

