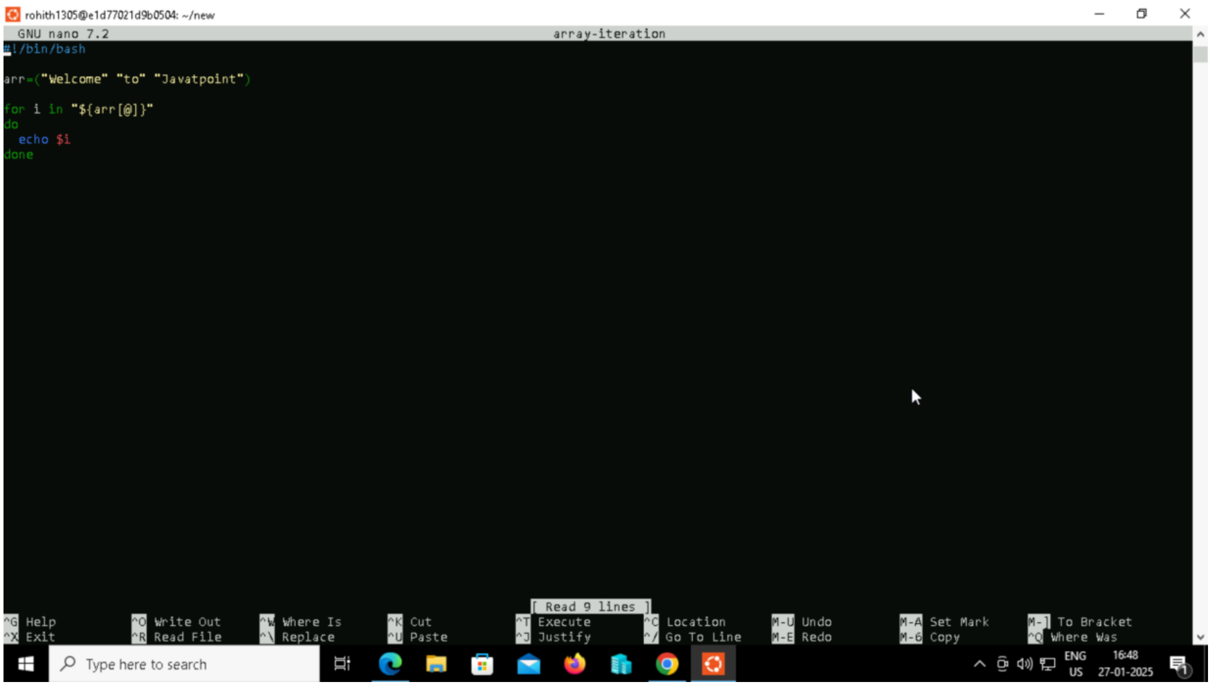
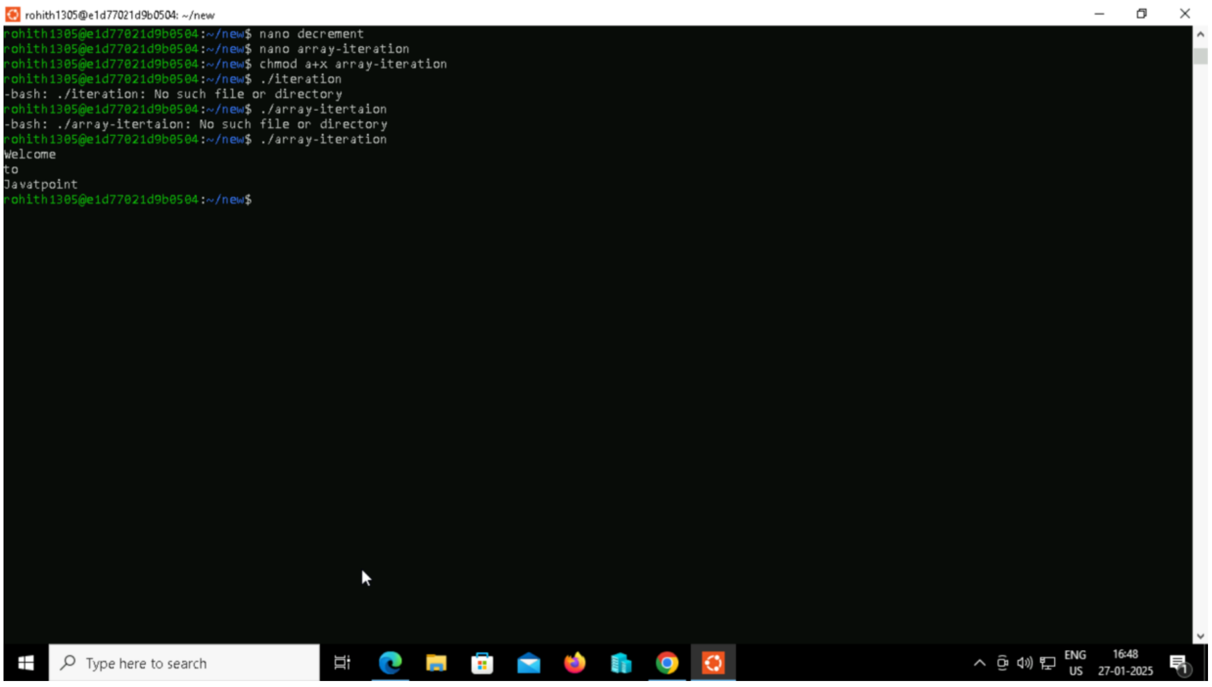
Array-iteration:



rohith1305@e1d77021d9b0504: ~/new

```
  GNU nano 7.2                                   array-iteration
#!/bin/bash

arr=("Welcome" "to" "Javatpoint")

for i in "${arr[@]}"
do
  echo $i
done
```

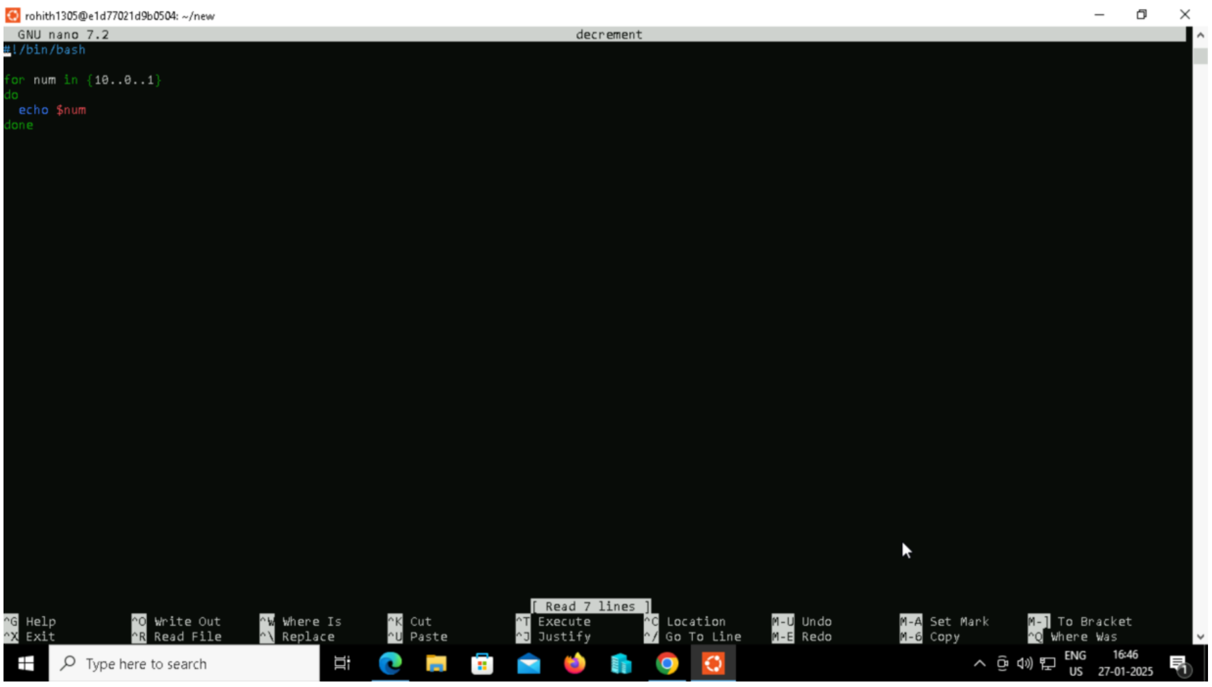
```
                                   [ Read 9 lines ]
^G Help        ^O Write Out   ^W Where Is    ^K Cut         ^T Execute     ^C Location    M-U Undo       M-A Set Mark   M-] To Bracket
^X Exit        ^R Read File   ^\ Replace     ^U Paste       ^J Justify     ^/ Go To Line  M-E Redo       M-6 Copy       ^Q Where Was
```



rohith1305@e1d77021d9b0504: ~/new

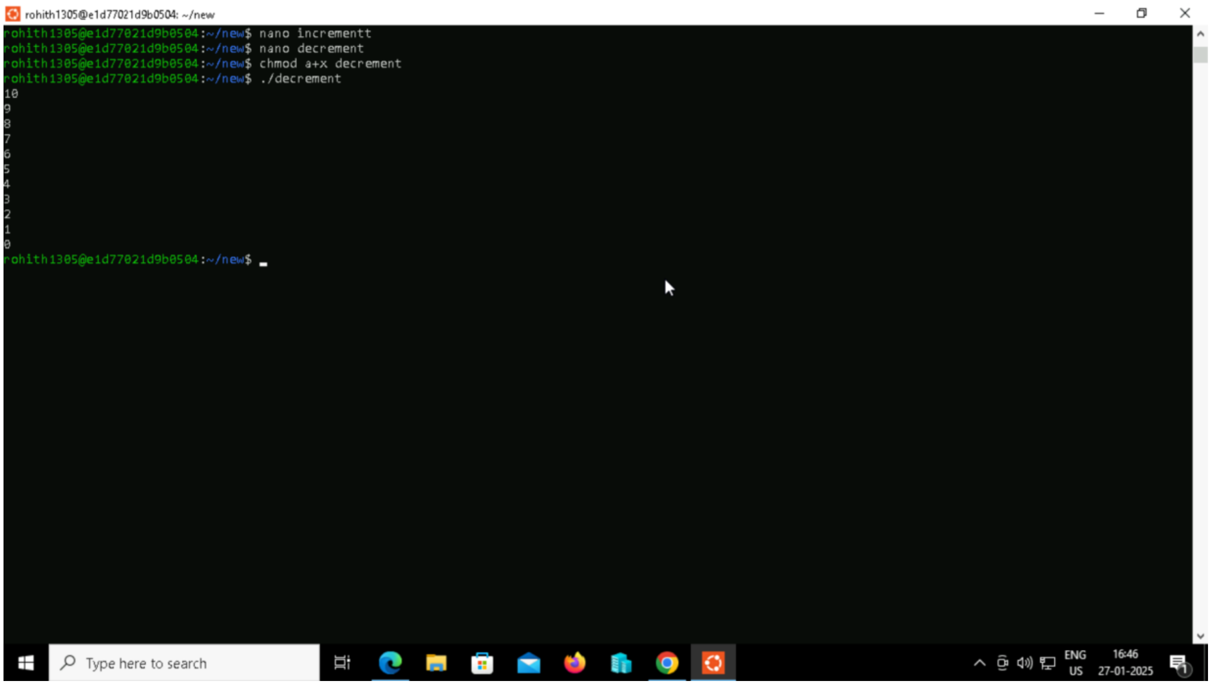
```
rohith1305@e1d77021d9b0504:~/new$ nano decrement
rohith1305@e1d77021d9b0504:~/new$ nano array-iteration
rohith1305@e1d77021d9b0504:~/new$ chmod a+x array-iteration
rohith1305@e1d77021d9b0504:~/new$ ./iteration
-bash: ./iteration: No such file or directory
rohith1305@e1d77021d9b0504:~/new$ ./array-itertaion
-bash: ./array-itertaion: No such file or directory
rohith1305@e1d77021d9b0504:~/new$ ./array-iteration
Welcome
to
Javatpoint
rohith1305@e1d77021d9b0504:~/new$
```

Decrement using for:



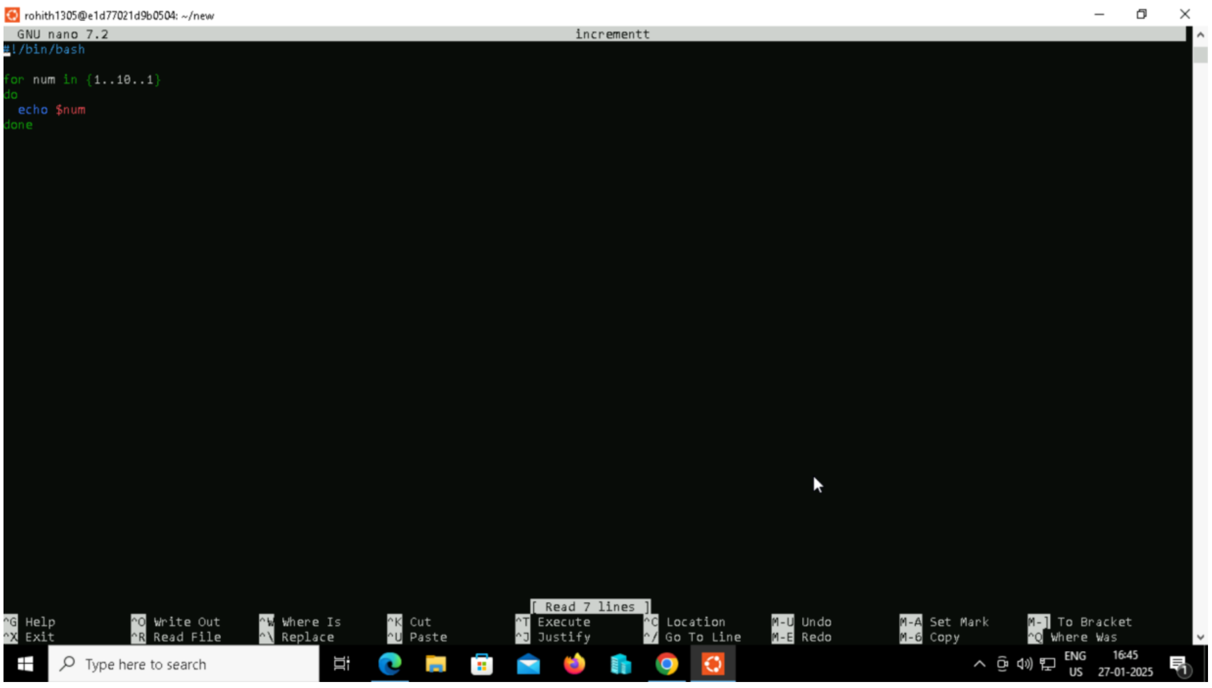
```
GNU nano 7.2                          decrement
#!/bin/bash

for num in {10..0..1}
do
  echo $num
done
```

```
[ Read 7 lines ]
^G Help      ^O Write Out  ^W Where Is  ^K Cut    ^T Execute  ^C Location    M-U Undo  M-A Set Mark  M-] To Bracket
^X Exit      ^R Read File  ^\ Replace   ^U Paste  ^J Justify  ^/ Go To Line  M-E Redo  M-6 Copy      ^Q Where Was
```

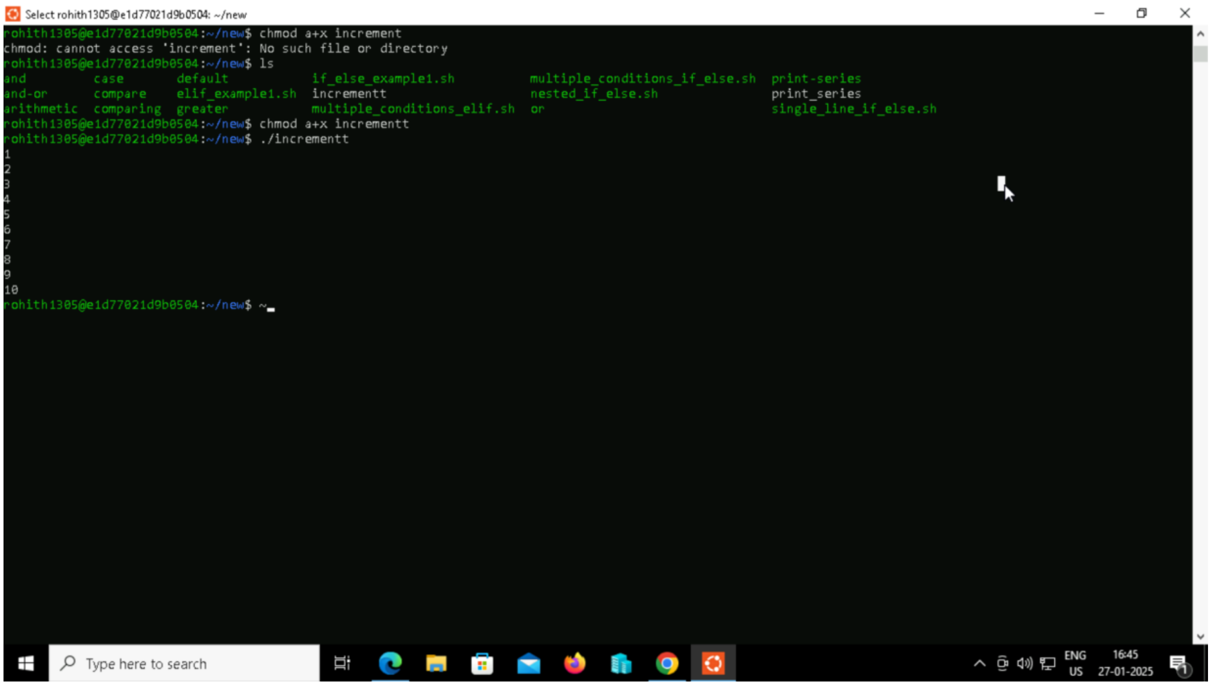


```
rohith1305@e1d77021d9b0504:~/new$ nano incrementt
rohith1305@e1d77021d9b0504:~/new$ nano decrement
rohith1305@e1d77021d9b0504:~/new$ chmod a+x decrement
rohith1305@e1d77021d9b0504:~/new$ ./decrement
10
9
8
7
6
5
4
3
2
1
0
rohith1305@e1d77021d9b0504:~/new$
```

Increment using for:

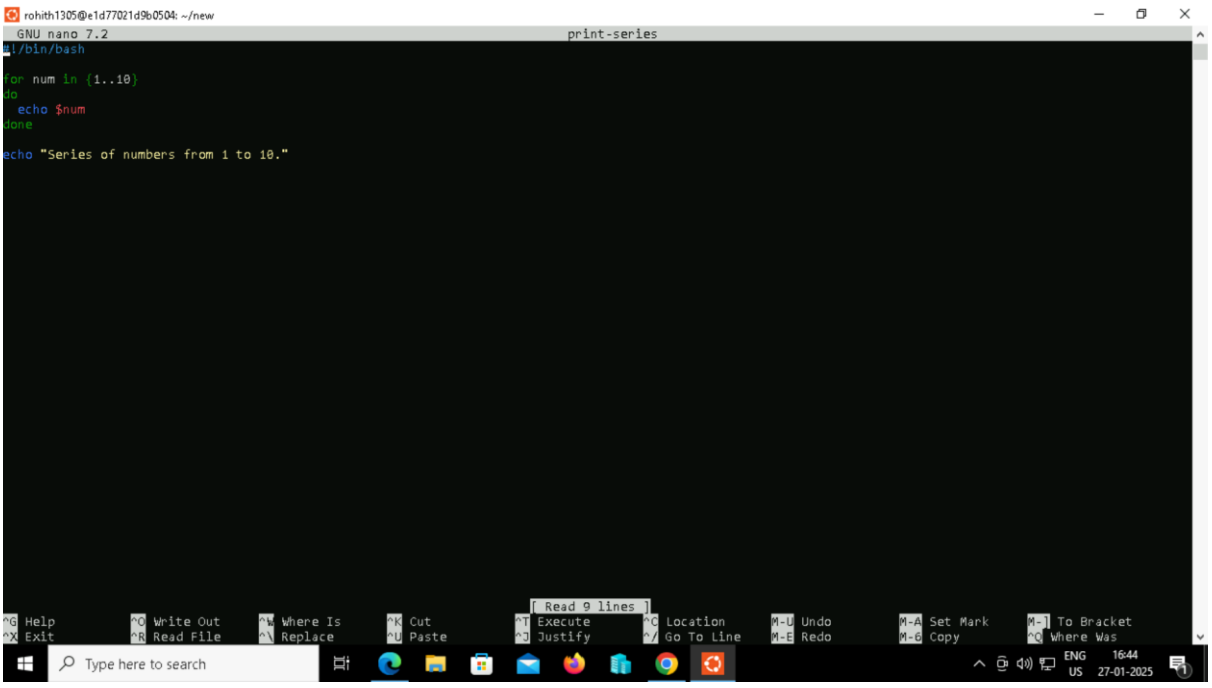


```
rohith1305@e1d77021d9b0504: ~/new
  GNU nano 7.2                                        incrementt
#!/bin/bash

for num in {1..10..1}
do
  echo $num
done

                                                  [ Read 7 lines ]
^G Help       ^O Write Out   ^W Where Is    ^K Cut         ^T Execute     ^C Location    M-U Undo       M-A Set Mark   M-] To Bracket
^X Exit       ^R Read File   ^\ Replace     ^U Paste       ^J Justify     ^/ Go To Line  M-E Redo       M-6 Copy       ^Q Where Was
```

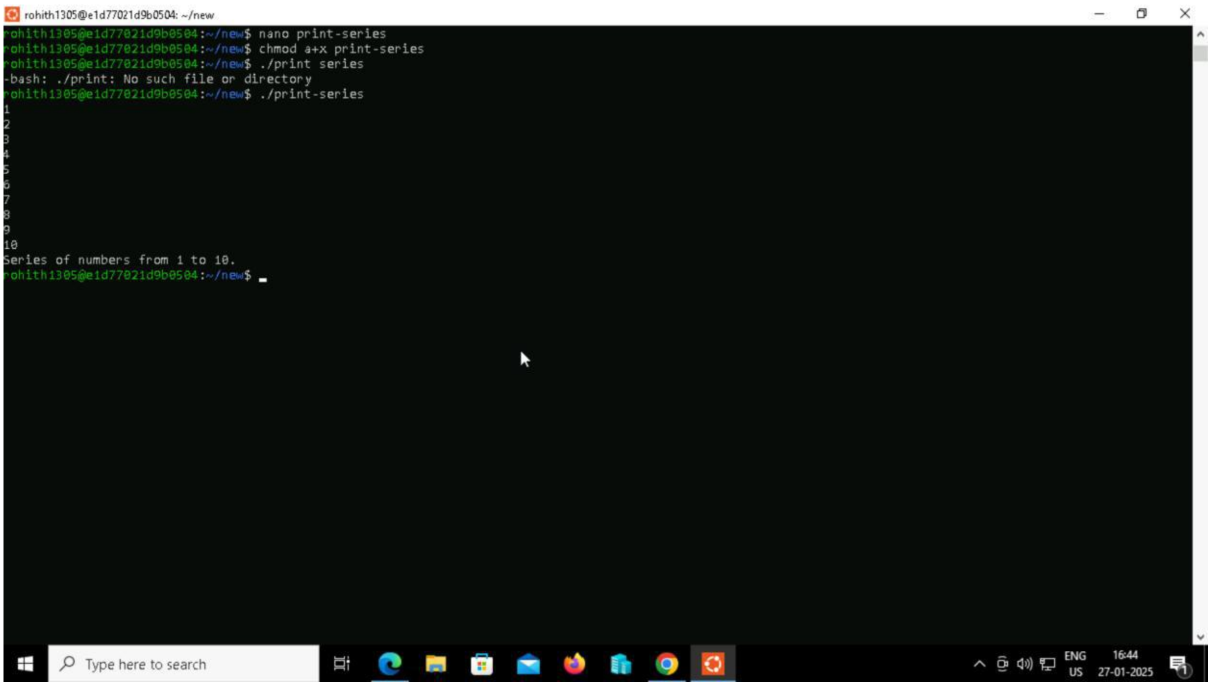


```
Select rohith1305@e1d77021d9b0504: ~/new
rohith1305@e1d77021d9b0504:~/new$ chmod a+x increment
chmod: cannot access 'increment': No such file or directory
rohith1305@e1d77021d9b0504:~/new$ ls
and         case       default           if_else_example1.sh          multiple_conditions_if_else.sh  print-series
and-or      compare    elif_example1.sh  incrementt                   nested_if_else.sh               print_series
arithmetic  comparing  greater           multiple_conditions_elif.sh  or                              single_line_if_else.sh
rohith1305@e1d77021d9b0504:~/new$ chmod a+x incrementt
rohith1305@e1d77021d9b0504:~/new$ ./incrementt
1
2
3
4
5
6
7
8
9
10
rohith1305@e1d77021d9b0504:~/new$ ~
```

Print series using for:

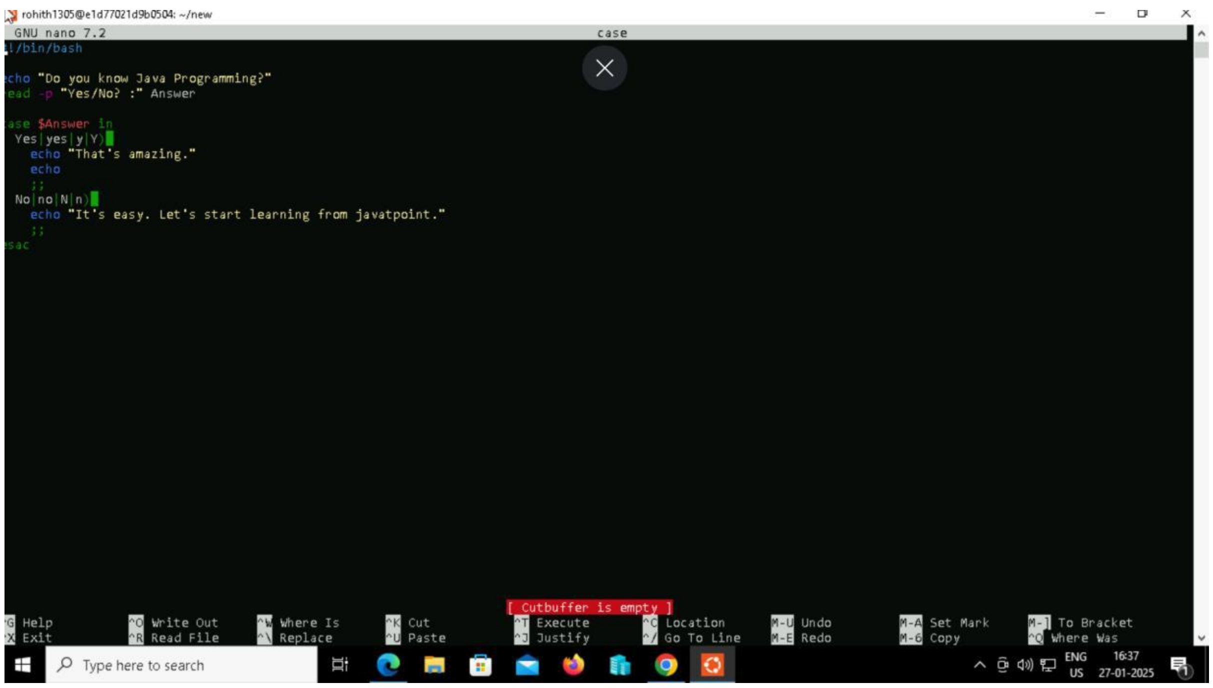


```
#!/bin/bash

for num in {1..10}
do
  echo $num
done

echo "Series of numbers from 1 to 10."
```

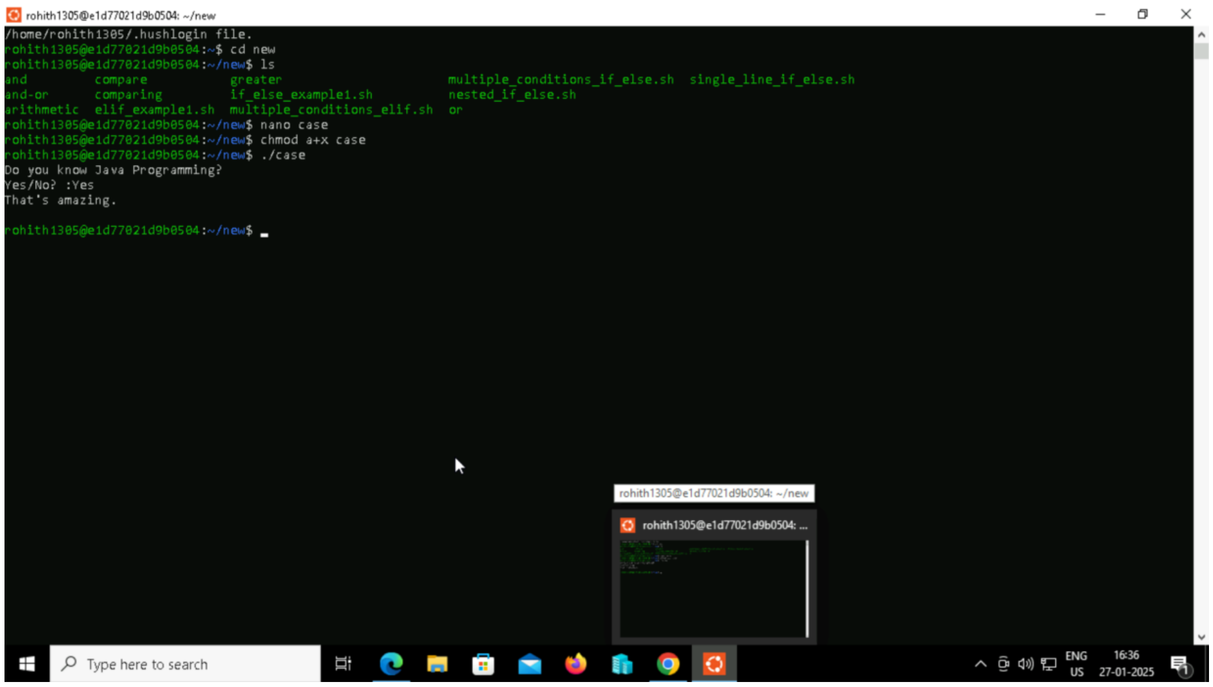


```
rohith1305@e1d77021d9b0504:~/new$ nano print-series
rohith1305@e1d77021d9b0504:~/new$ chmod a+x print-series
rohith1305@e1d77021d9b0504:~/new$ ./print series
-bash: ./print: No such file or directory
rohith1305@e1d77021d9b0504:~/new$ ./print-series
1
2
3
4
5
6
7
8
9
10
Series of numbers from 1 to 10.
rohith1305@e1d77021d9b0504:~/new$
```

Using case statement:



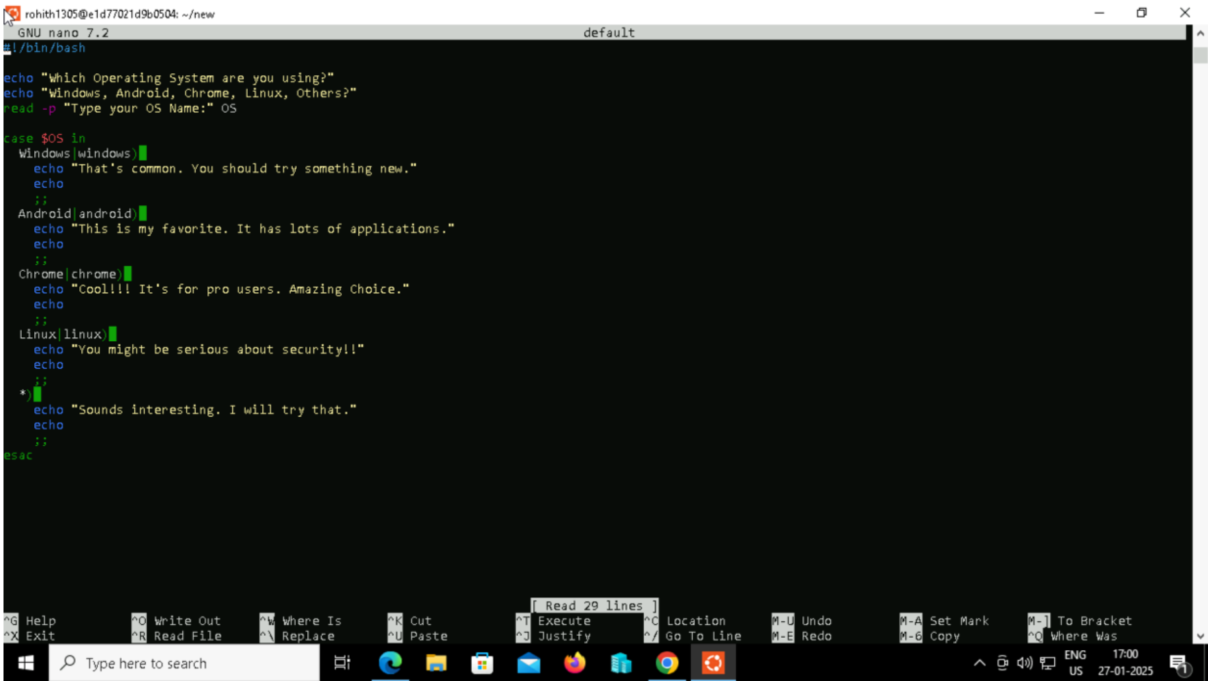
```
rohith1305@e1d77021d9b0504: ~/new
GNU nano 7.2                                              case
!/bin/bash

cho "Do you know Java Programming?"
ead -p "Yes/No? :" Answer

ase $Answer in
 Yes|yes|y|Y)
   echo "That's amazing."
   echo
   ;;
 No|no|N|n)
   echo "It's easy. Let's start learning from javatpoint."
   ;;
sac
```



```
rohith1305@e1d77021d9b0504: ~/new
/home/rohith1305/.hushlogin file.
rohith1305@e1d77021d9b0504:~$ cd new
rohith1305@e1d77021d9b0504:~/new$ ls
and        compare        greater                      multiple_conditions_if_else.sh  single_line_if_else.sh
and-or     comparing      if_else_example1.sh          nested_if_else.sh
arithmetic elif_example1.sh  multiple_conditions_elif.sh  or
rohith1305@e1d77021d9b0504:~/new$ nano case
rohith1305@e1d77021d9b0504:~/new$ chmod a+x case
rohith1305@e1d77021d9b0504:~/new$ ./case
Do you know Java Programming?
Yes/No? :Yes
That's amazing.

rohith1305@e1d77021d9b0504:~/new$ _
```

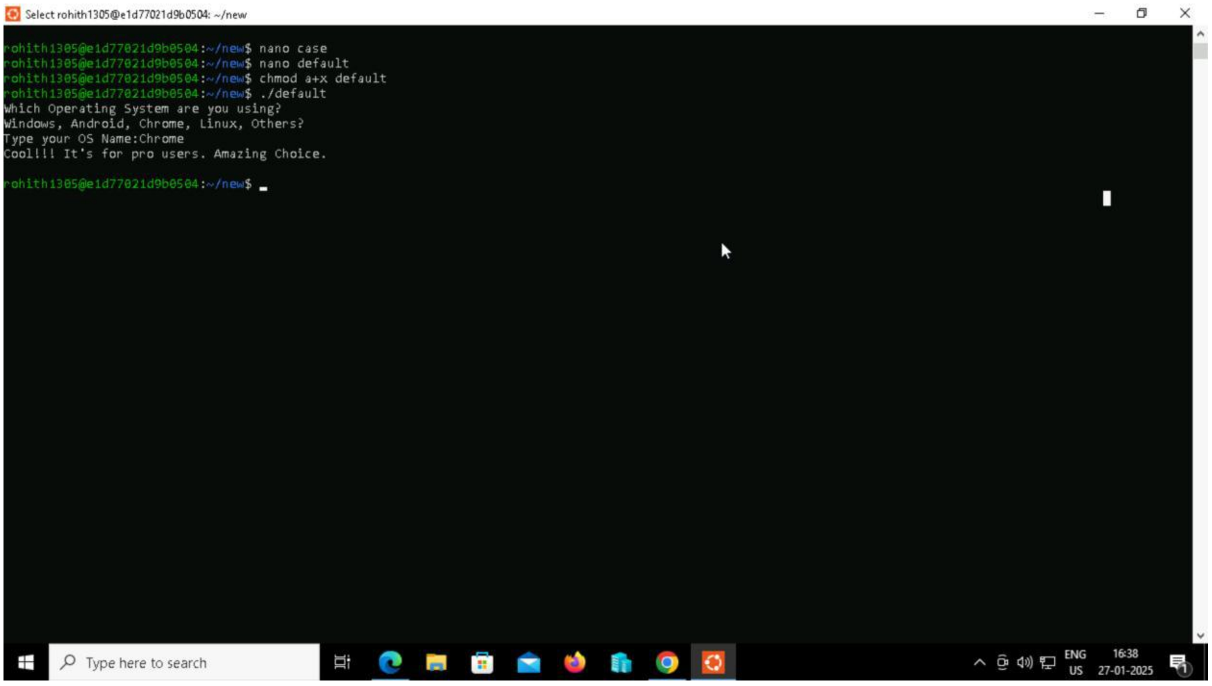
rohith1305@e1d77021d9b0504: ~/new
rohith1305@e1d77021d9b0504: ...
Type here to search
ENG
US
16:36
27-01-2025

Default case statement:



rohith1305@e1d77021d9b0504: ~/new

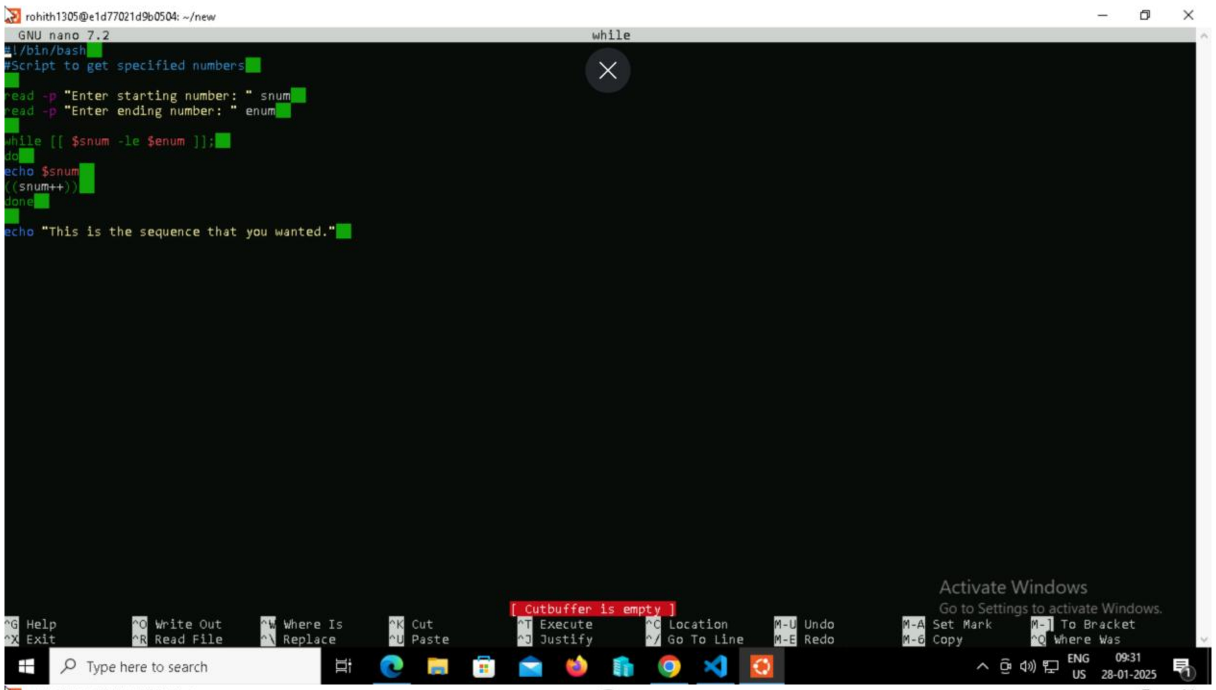
```
  GNU nano 7.2                                          default
#!/bin/bash

echo "Which Operating System are you using?"
echo "Windows, Android, Chrome, Linux, Others?"
read -p "Type your OS Name:" OS

case $OS in
  Windows|windows)
    echo "That's common. You should try something new."
    echo
    ;;
  Android|android)
    echo "This is my favorite. It has lots of applications."
    echo
    ;;
  Chrome|chrome)
    echo "Cool!!! It's for pro users. Amazing Choice."
    echo
    ;;
  Linux|linux)
    echo "You might be serious about security!!"
    echo
    ;;
  *)
    echo "Sounds interesting. I will try that."
    echo
    ;;
esac

                                      [ Read 29 lines ]
^G Help        ^O Write Out   ^W Where Is    ^K Cut         ^T Execute     ^C Location    M-U Undo       M-A Set Mark   M-] To Bracket
^X Exit        ^R Read File   ^\ Replace     ^U Paste       ^J Justify     ^/ Go To Line  M-E Redo       M-6 Copy       ^Q Where Was
```



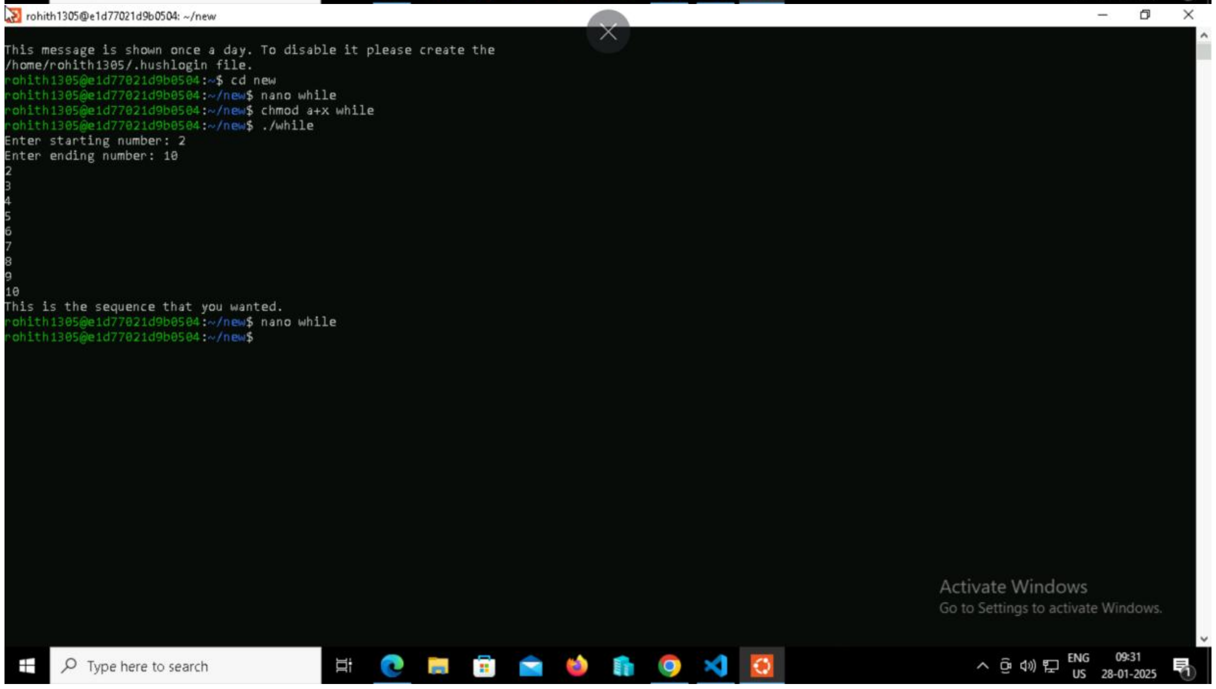
Select rohith1305@e1d77021d9b0504: ~/new

```
rohith1305@e1d77021d9b0504:~/new$ nano case
rohith1305@e1d77021d9b0504:~/new$ nano default
rohith1305@e1d77021d9b0504:~/new$ chmod a+x default
rohith1305@e1d77021d9b0504:~/new$ ./default
Which Operating System are you using?
Windows, Android, Chrome, Linux, Others?
Type your OS Name:Chrome
Cool!!! It's for pro users. Amazing Choice.

rohith1305@e1d77021d9b0504:~/new$ 
```

While loop:



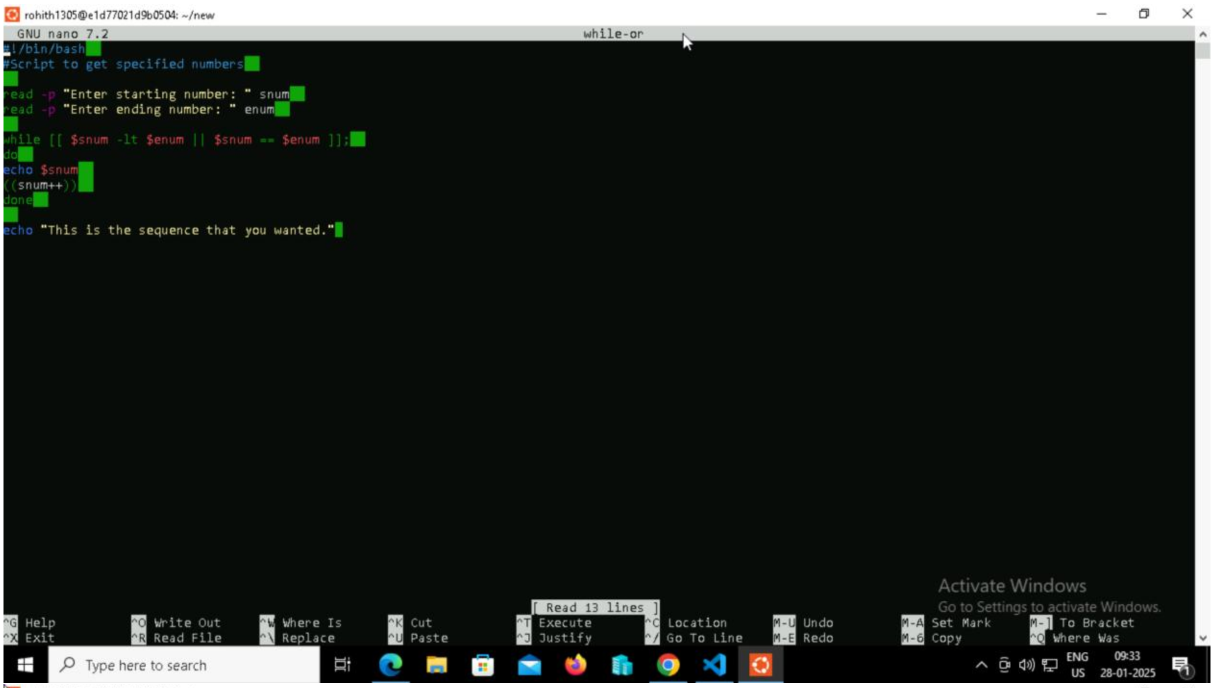
```
#!/bin/bash
#Script to get specified numbers

read -p "Enter starting number: " snum
read -p "Enter ending number: " enum

while [[ $snum -le $enum ]];
do
echo $snum
((snum++))
done

echo "This is the sequence that you wanted."
```



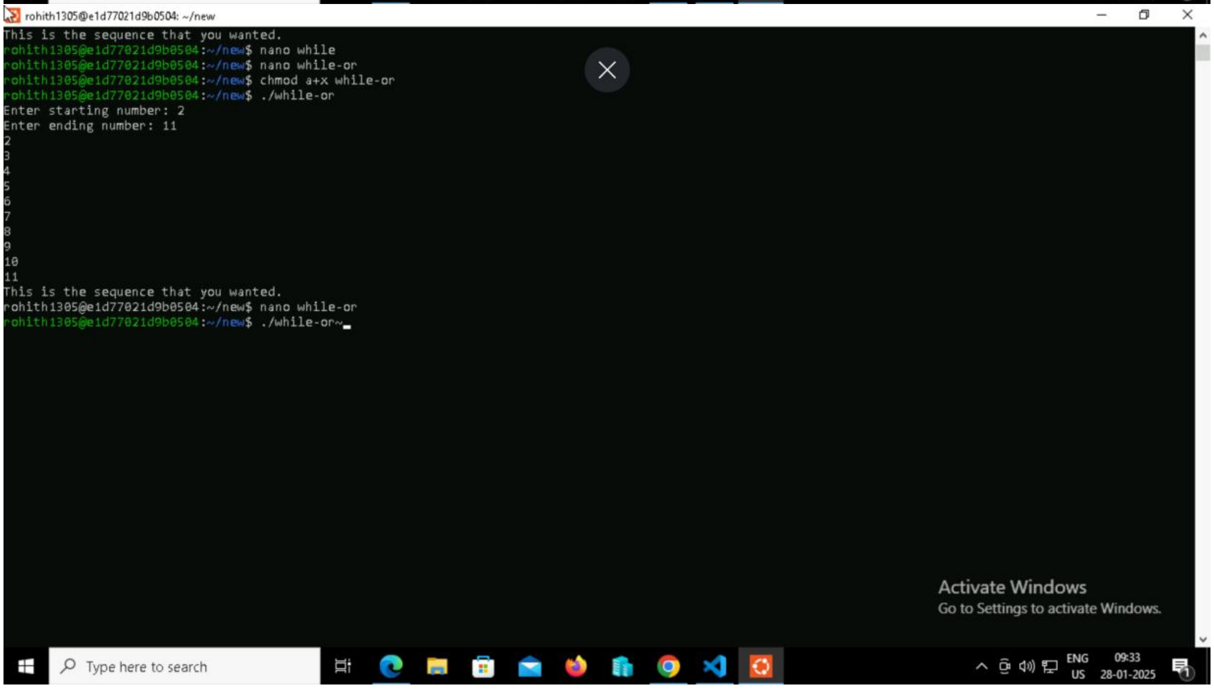
```
This message is shown once a day. To disable it please create the
/home/rohith1305/.hushlogin file.
rohith1305@e1d77021d9b0504:~$ cd new
rohith1305@e1d77021d9b0504:~/new$ nano while
rohith1305@e1d77021d9b0504:~/new$ chmod a+x while
rohith1305@e1d77021d9b0504:~/new$ ./while
Enter starting number: 2
Enter ending number: 10
2
3
4
5
6
7
8
9
10
This is the sequence that you wanted.
rohith1305@e1d77021d9b0504:~/new$ nano while
rohith1305@e1d77021d9b0504:~/new$
```

rohith1305@e1d77021d9b0504: ~/new
Activate Windows
Go to Settings to activate Windows.
Type here to search
ENG US 09:31 28-01-2025

While and OR:

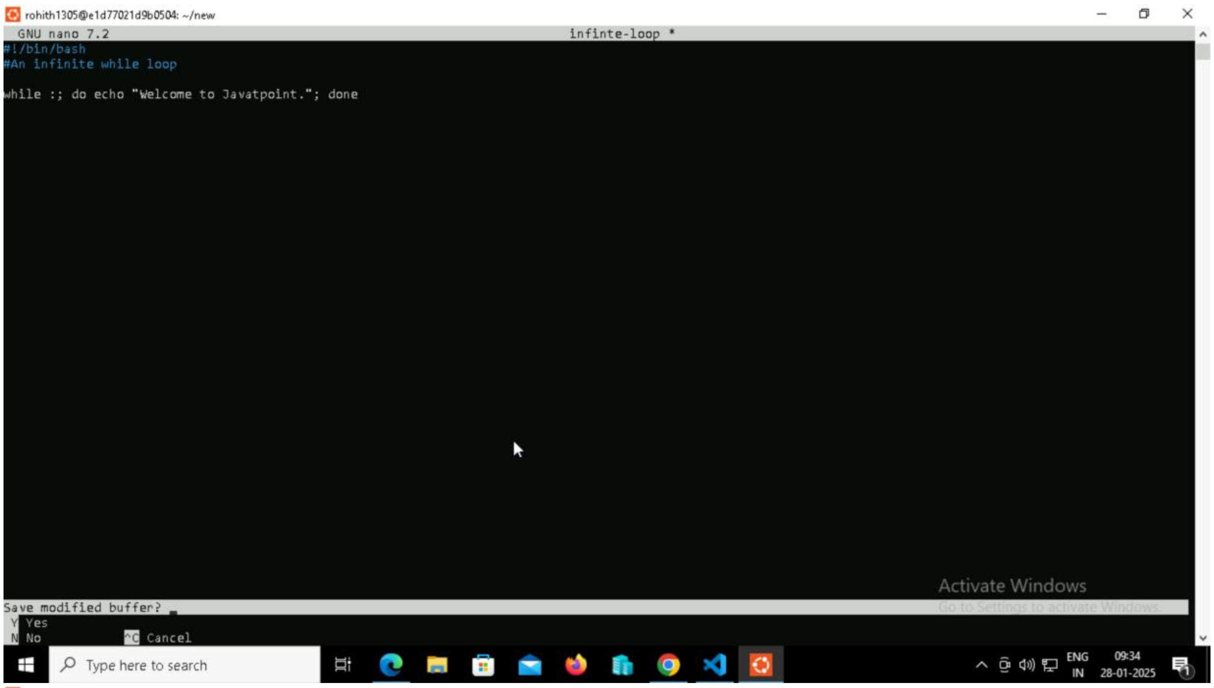


```
rohith1305@e1d77021d9b0504: ~/new
  GNU nano 7.2                                    while-or
#!/bin/bash
#Script to get specified numbers

read -p "Enter starting number: " snum
read -p "Enter ending number: " enum

while [[ $snum -lt $enum || $snum == $enum ]];
do
echo $snum
((snum++))
done

echo "This is the sequence that you wanted."

                                            [ Read 13 lines ]
^G Help      ^O Write Out  ^W Where Is  ^K Cut    ^T Execute  ^C Location   M-U Undo  M-A Set Mark  M-] To Bracket
^X Exit      ^R Read File  ^\ Replace   ^U Paste  ^J Justify  ^/ Go To Line M-E Redo  M-6 Copy      ^Q Where Was
```



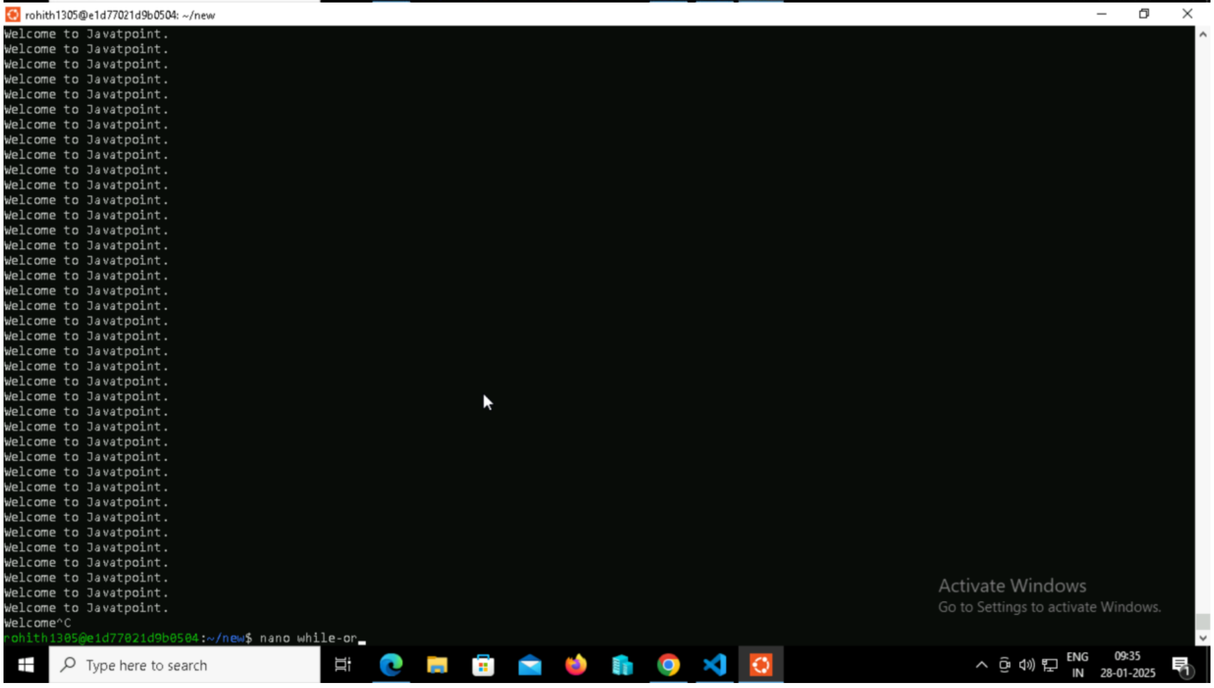
```
rohith1305@e1d77021d9b0504: ~/new
This is the sequence that you wanted.
rohith1305@e1d77021d9b0504:~/new$ nano while
rohith1305@e1d77021d9b0504:~/new$ nano while-or
rohith1305@e1d77021d9b0504:~/new$ chmod a+x while-or
rohith1305@e1d77021d9b0504:~/new$ ./while-or
Enter starting number: 2
Enter ending number: 11
2
3
4
5
6
7
8
9
10
11
This is the sequence that you wanted.
rohith1305@e1d77021d9b0504:~/new$ nano while-or
rohith1305@e1d77021d9b0504:~/new$ ./while-or~
```

Infinite loop using while:



rohith1305@e1d77021d9b0504: ~/new

```
  GNU nano 7.2                                  infinte-loop *
#!/bin/bash
#An infinite while loop

while :; do echo "Welcome to Javatpoint."; done









Save modified buffer?
 Y Yes
 N No           ^C Cancel
```



rohith1305@e1d77021d9b0504: ~/new

```
Welcome to Javatpoint.
Welcome to Javatpoint.
Welcome to Javatpoint.
Welcome to Javatpoint.
Welcome to Javatpoint.
Welcome to Javatpoint.
Welcome to Javatpoint.
Welcome to Javatpoint.
Welcome to Javatpoint.
Welcome to Javatpoint.
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Welcome to Javatpoint.
Welcome to Javatpoint.
Welcome to Javatpoint.
Welcome to Javatpoint.
Welcome to Javatpoint.
Welcome to Javatpoint.
Welcome to Javatpoint.
Welcome to Javatpoint.
Welcome^C
rohith1305@e1d77021d9b0504:~/new$ nano while-or
```
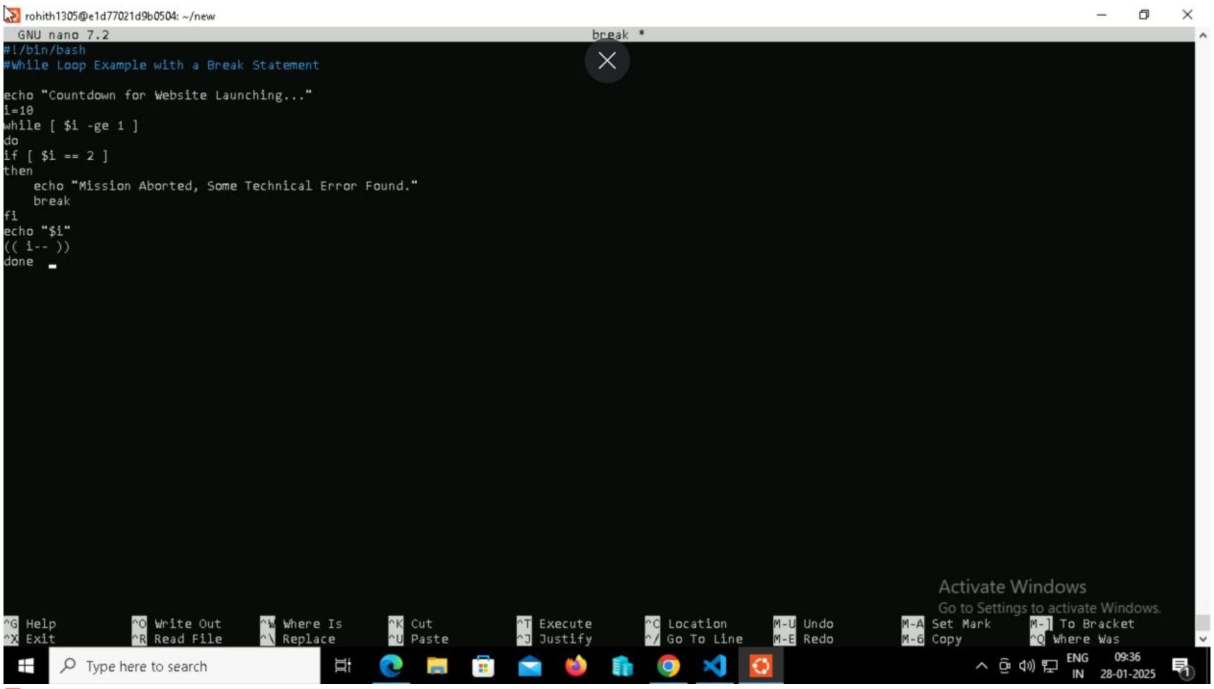
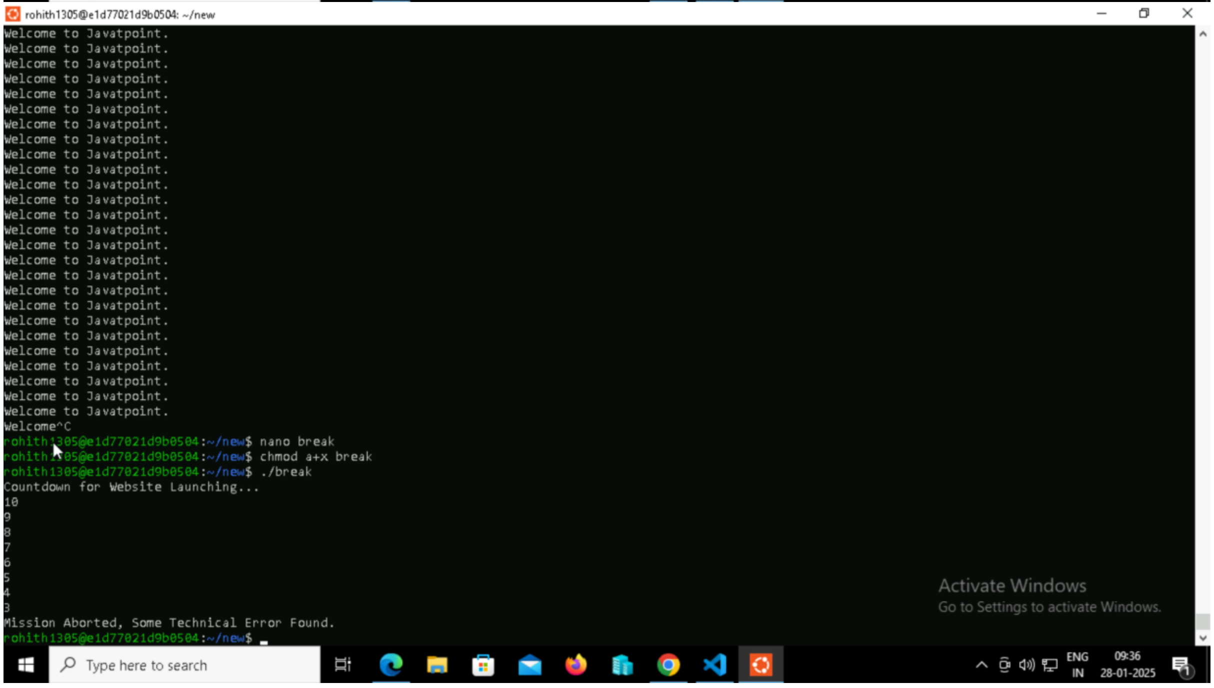

Break using while:



```
rohith1305@e1d77021d9b0504: ~/new
  GNU nano 7.2                                                              break *
#!/bin/bash
#While Loop Example with a Break Statement

echo "Countdown for Website Launching..."
i=10
while [ $i -ge 1 ]
do
if [ $i == 2 ]
then
    echo "Mission Aborted, Some Technical Error Found."
    break
fi
echo "$i"
(( i-- ))
done

^G Help        ^O Write Out   ^W Where Is    ^K Cut         ^T Execute     ^C Location    M-U Undo      M-A Set Mark   M-] To Bracket
^X Exit        ^R Read File   ^\ Replace     ^U Paste       ^J Justify     ^/ Go To Line  M-E Redo      M-6 Copy       ^Q Where Was
```



```
rohith1305@e1d77021d9b0504: ~/new
Welcome to Javatpoint.
Welcome to Javatpoint.
Welcome to Javatpoint.
Welcome to Javatpoint.
Welcome to Javatpoint.
Welcome to Javatpoint.
Welcome to Javatpoint.
Welcome to Javatpoint.
Welcome to Javatpoint.
Welcome to Javatpoint.
Welcome to Javatpoint.
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Welcome to Javatpoint.
Welcome to Javatpoint.
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Welcome to Javatpoint.
Welcome to Javatpoint.
Welcome to Javatpoint.
Welcome to Javatpoint.
Welcome to Javatpoint.
Welcome to Javatpoint.
Welcome to Javatpoint.
Welcome to Javatpoint.
Welcome^C
rohith1305@e1d77021d9b0504:~/new$ nano break
rohith1305@e1d77021d9b0504:~/new$ chmod a+x break
rohith1305@e1d77021d9b0504:~/new$ ./break
Countdown for Website Launching...
10
9
8
7
6
5
4
3
Mission Aborted, Some Technical Error Found.
rohith1305@e1d77021d9b0504:~/new$
```
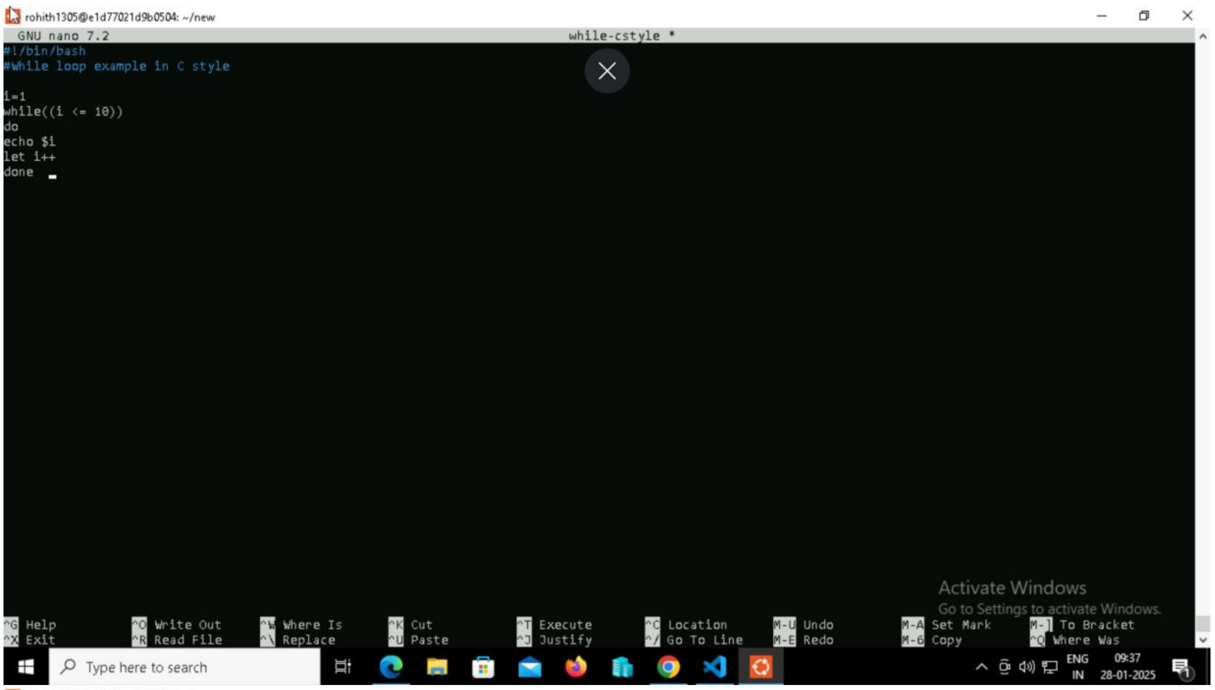
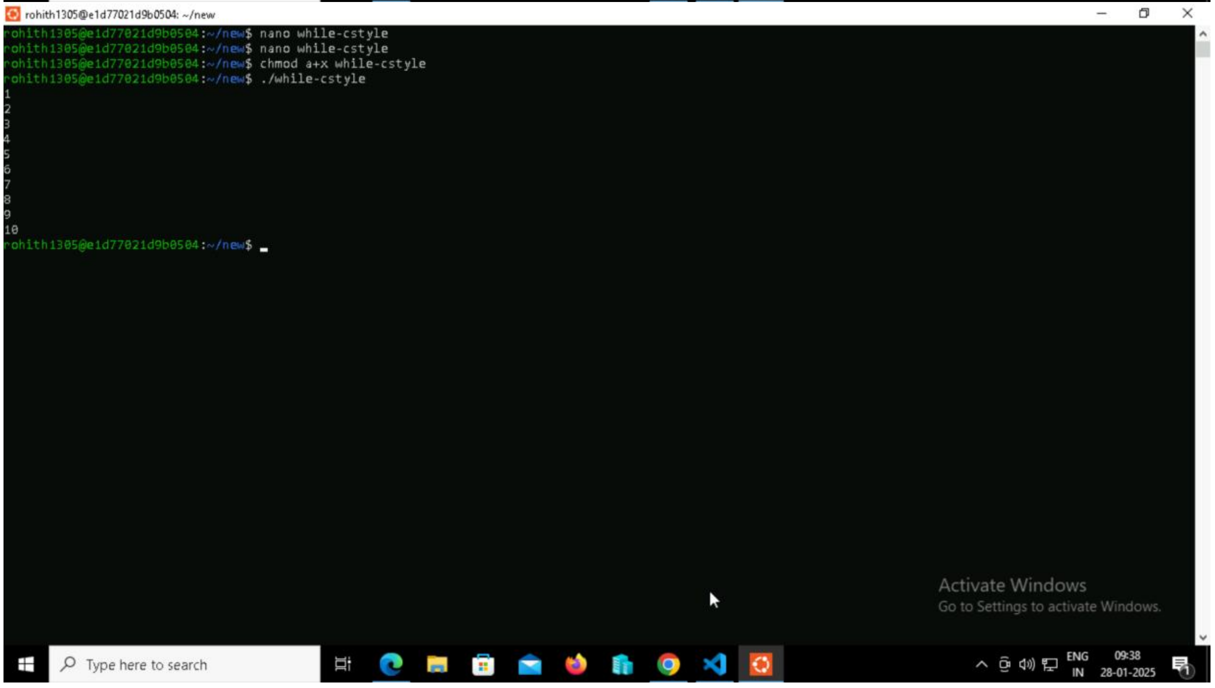

While using arithmetic symobl(( )):



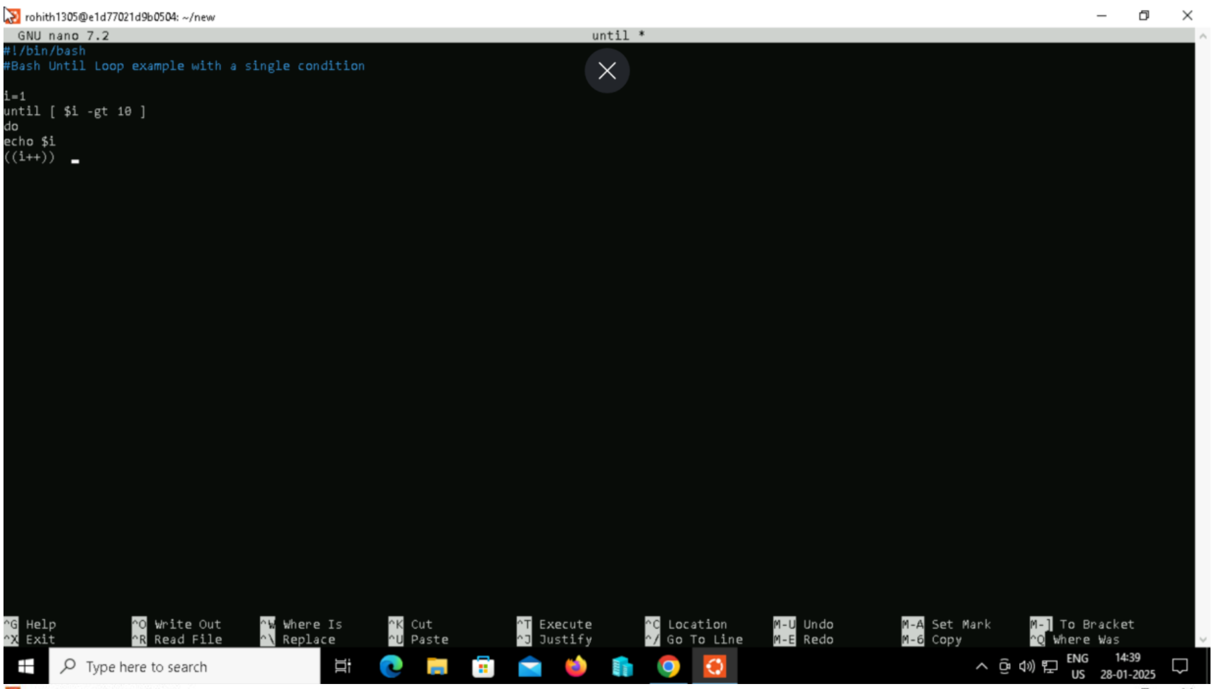
```
rohith1305@e1d77021d9b0504: ~/new
  GNU nano 7.2                                    while-cstyle *
#!/bin/bash
#While loop example in C style

i=1
while((i <= 10))
do
echo $i
let i++
done
```

```
^G Help       ^O Write Out  ^W Where Is   ^K Cut        ^T Execute    ^C Location   M-U Undo      M-A Set Mark  M-] To Bracket
^X Exit       ^R Read File  ^\ Replace    ^U Paste      ^J Justify    ^/ Go To Line M-E Redo      M-6 Copy      ^Q Where Was
```

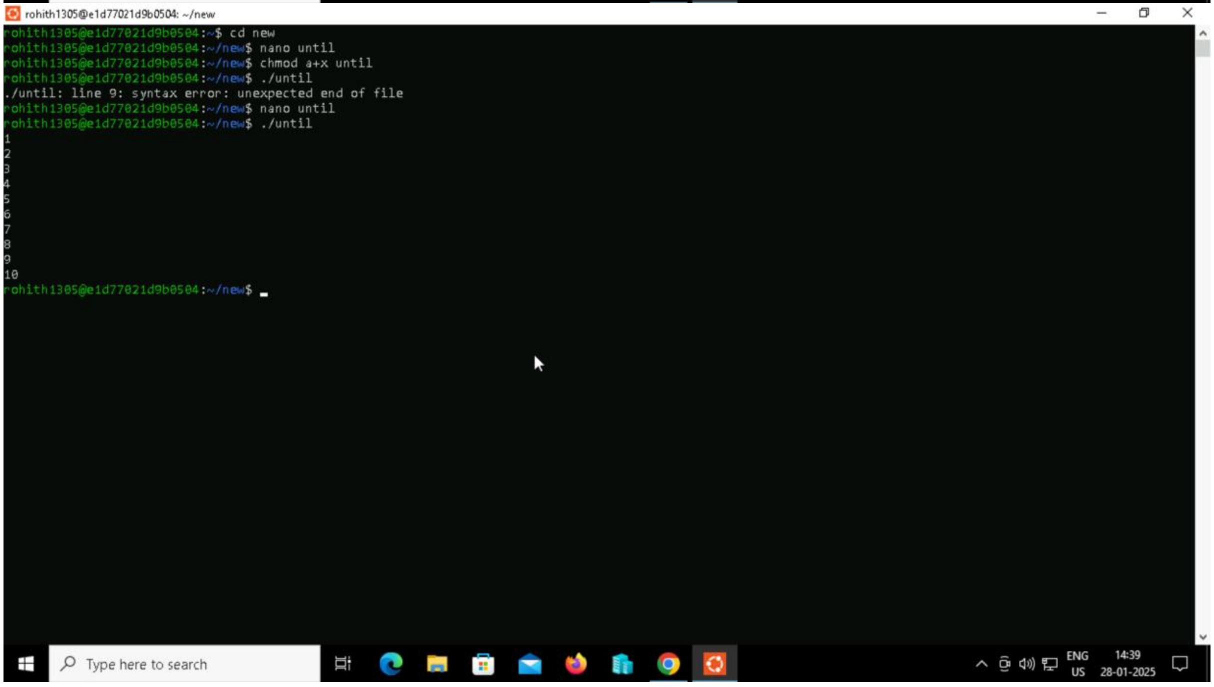


```
rohith1305@e1d77021d9b0504: ~/new
rohith1305@e1d77021d9b0504:~/new$ nano while-cstyle
rohith1305@e1d77021d9b0504:~/new$ nano while-cstyle
rohith1305@e1d77021d9b0504:~/new$ chmod a+x while-cstyle
rohith1305@e1d77021d9b0504:~/new$ ./while-cstyle
1
2
3
4
5
6
7
8
9
10
rohith1305@e1d77021d9b0504:~/new$
```

Print series of number using until:

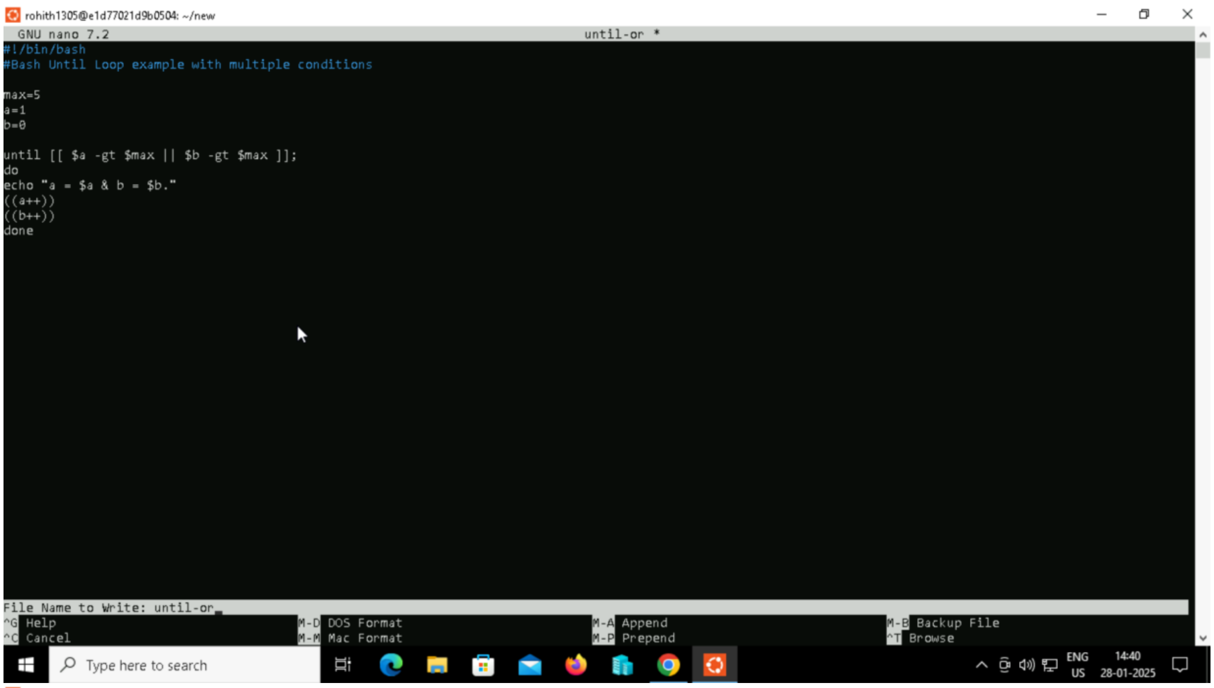


```
#!/bin/bash
#Bash Until Loop example with a single condition

i=1
until [ $i -gt 10 ]
do
echo $i
((i++))
```



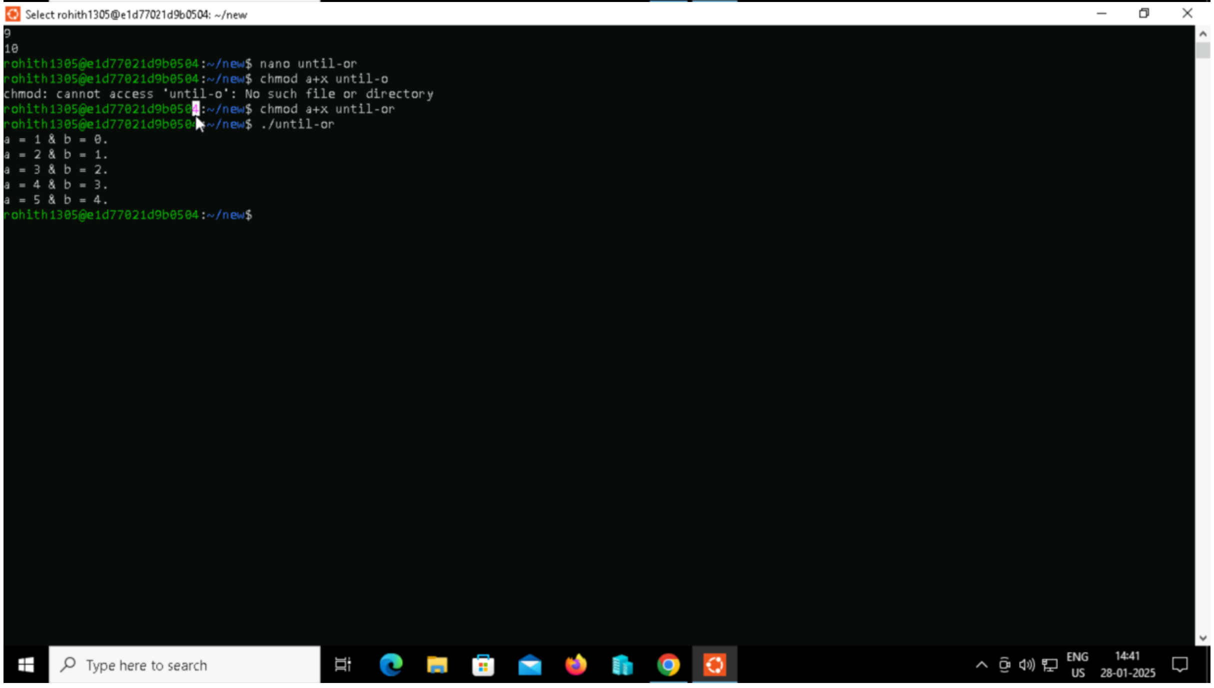
```
rohith1305@e1d77021d9b0504:~$ cd new
rohith1305@e1d77021d9b0504:~/new$ nano until
rohith1305@e1d77021d9b0504:~/new$ chmod a+x until
rohith1305@e1d77021d9b0504:~/new$ ./until
./until: line 9: syntax error: unexpected end of file
rohith1305@e1d77021d9b0504:~/new$ nano until
rohith1305@e1d77021d9b0504:~/new$ ./until
1
2
3
4
5
6
7
8
9
10
rohith1305@e1d77021d9b0504:~/new$
```

Using multiple conditions:



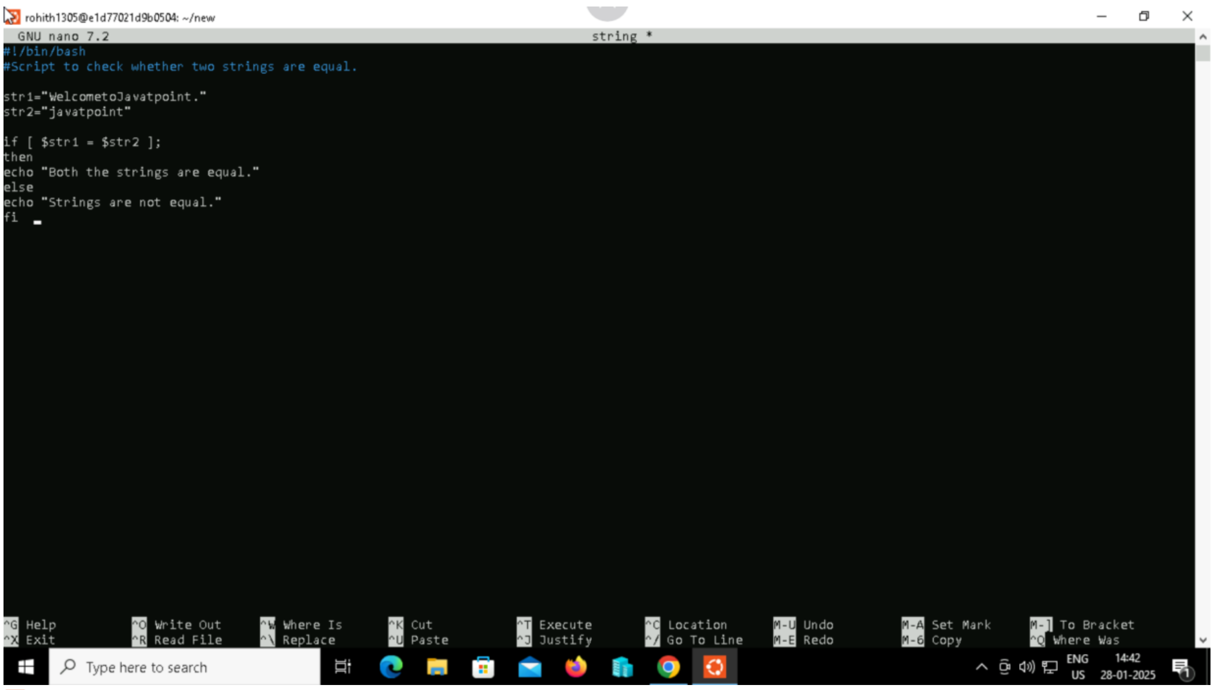
```
GNU nano 7.2                                        until-or *
#!/bin/bash
#Bash Until Loop example with multiple conditions

max=5
a=1
b=0

until [[ $a -gt $max || $b -gt $max ]];
do
echo "a = $a & b = $b."
((a++))
((b++))
done
```

```
File Name to Write: until-or
^G Help          M-D DOS Format      M-A Append       M-B Backup File
^C Cancel        M-M Mac Format      M-P Prepend      ^T  Browse
```

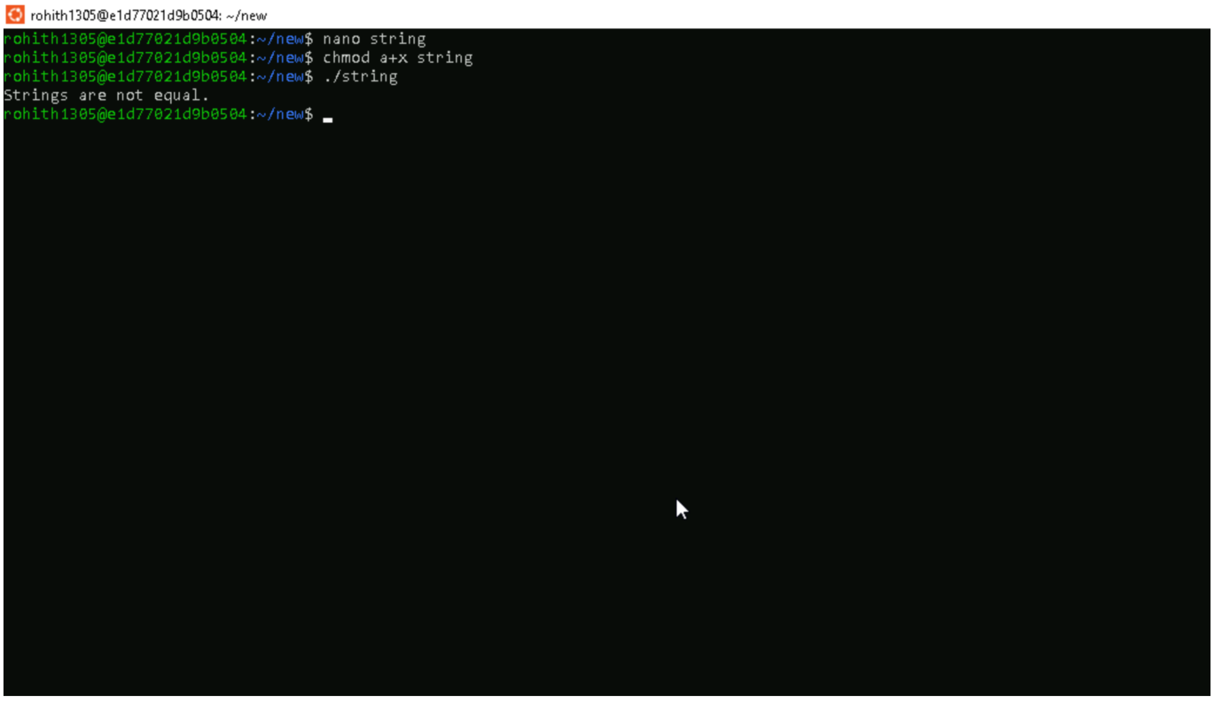


```
9
10
rohith1305@e1d77021d9b0504:~/new$ nano until-or
rohith1305@e1d77021d9b0504:~/new$ chmod a+x until-o
chmod: cannot access 'until-o': No such file or directory
rohith1305@e1d77021d9b0504:~/new$ chmod a+x until-or
rohith1305@e1d77021d9b0504:~/new$ ./until-or
a = 1 & b = 0.
a = 2 & b = 1.
a = 3 & b = 2.
a = 4 & b = 3.
a = 5 & b = 4.
rohith1305@e1d77021d9b0504:~/new$
```

Comparing two strings:

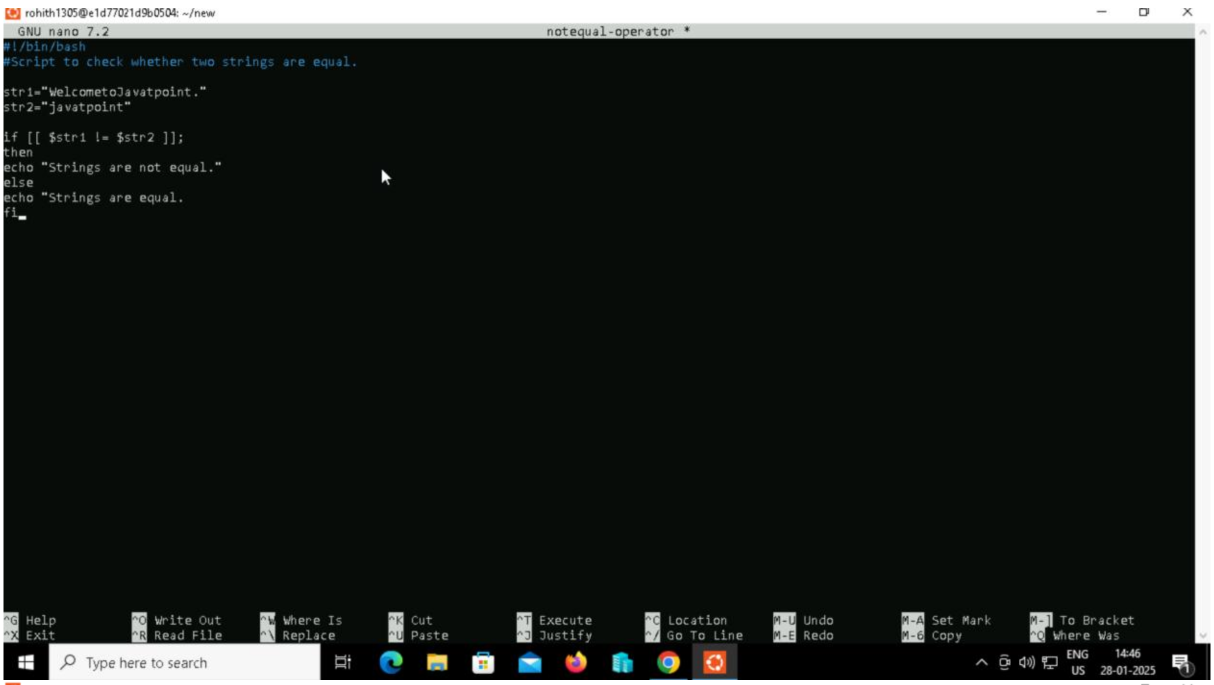


```
#!/bin/bash
#Script to check whether two strings are equal.

str1="WelcometoJavatpoint."
str2="javatpoint"

if [ $str1 = $str2 ];
then
echo "Both the strings are equal."
else
echo "Strings are not equal."
fi
```

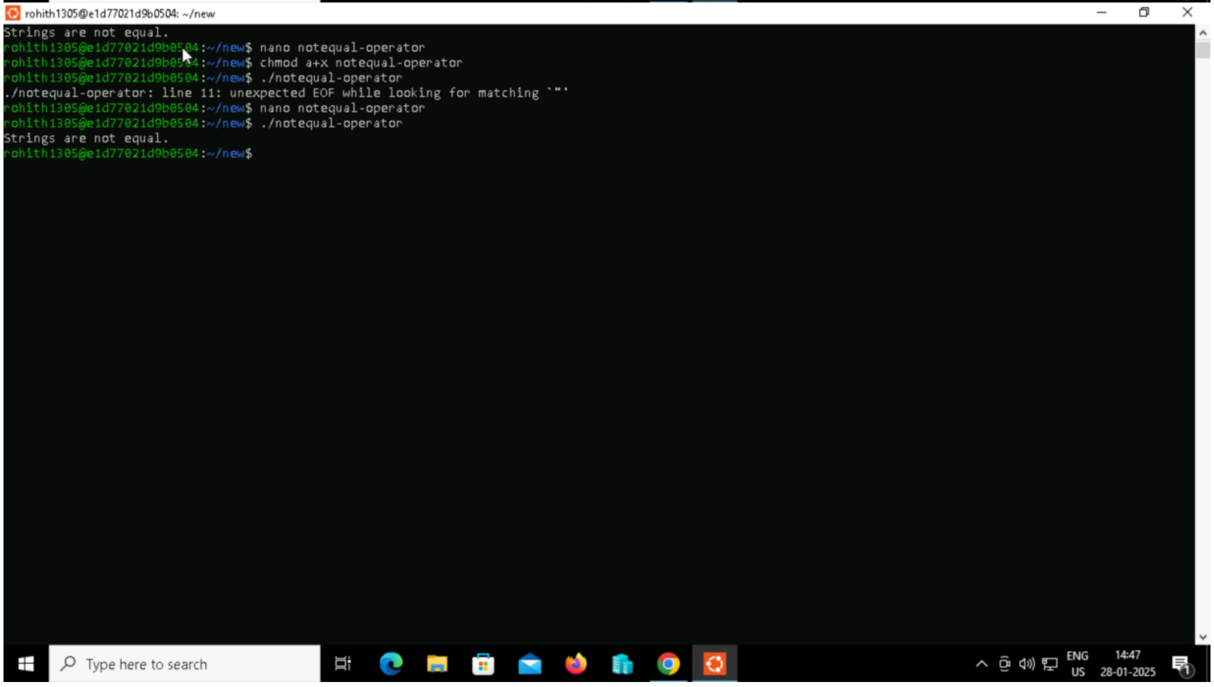


```
rohith1305@e1d77021d9b0504:~/new$ nano string
rohith1305@e1d77021d9b0504:~/new$ chmod a+x string
rohith1305@e1d77021d9b0504:~/new$ ./string
Strings are not equal.
rohith1305@e1d77021d9b0504:~/new$
```

Comparing strings using not equal operator:

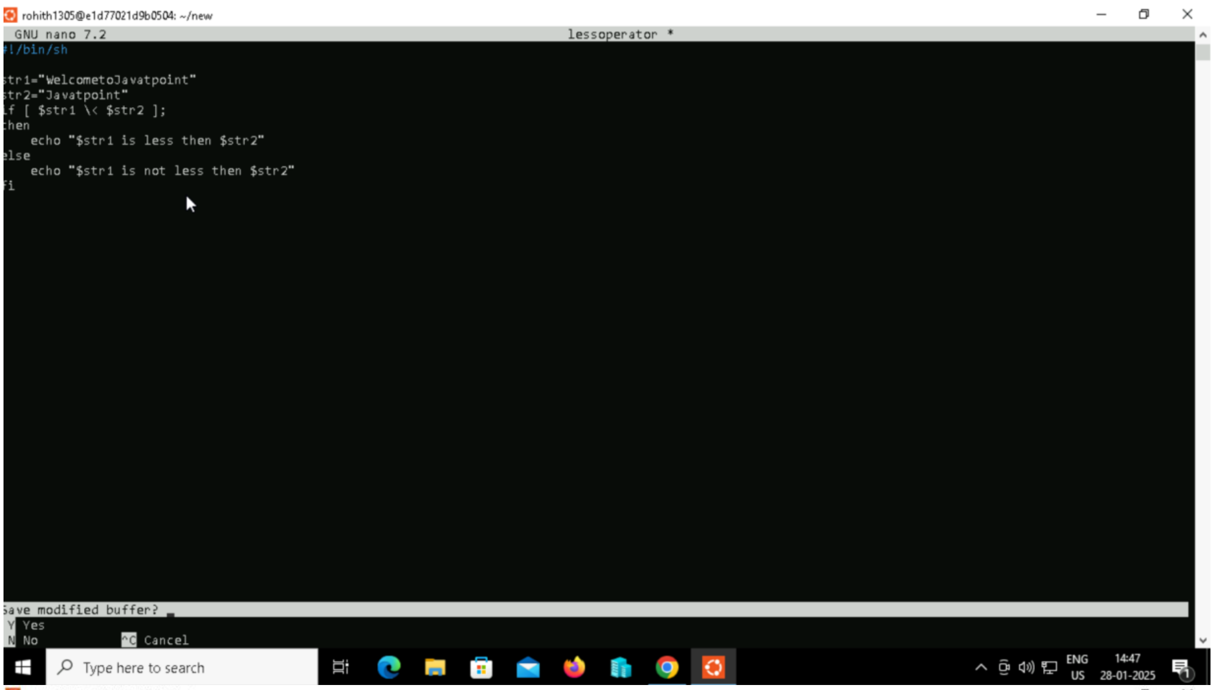


```
GNU nano 7.2                          notequal-operator *
#!/bin/bash
#Script to check whether two strings are equal.

str1="WelcometoJavatpoint."
str2="javatpoint"

if [[ $str1 != $str2 ]];
then
echo "Strings are not equal."
else
echo "Strings are equal.
fi
```



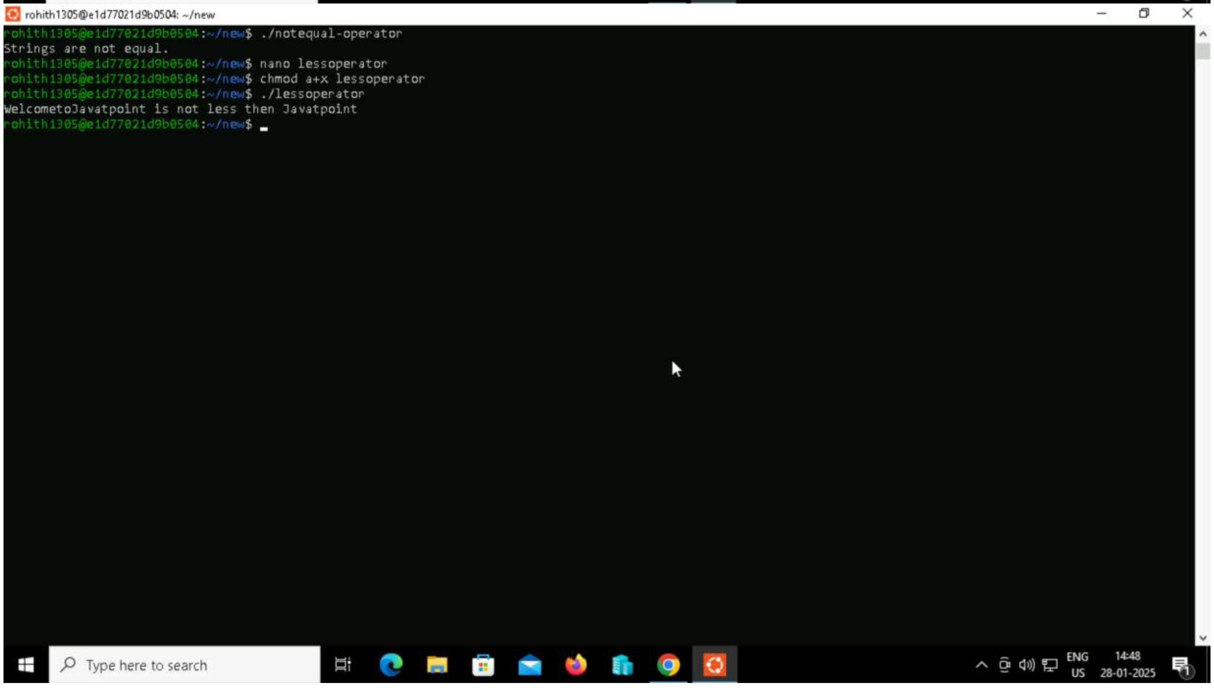
```
Strings are not equal.
rohith1305@e1d77021d9b0504:~/new$ nano notequal-operator
rohith1305@e1d77021d9b0504:~/new$ chmod a+x notequal-operator
rohith1305@e1d77021d9b0504:~/new$ ./notequal-operator
./notequal-operator: line 11: unexpected EOF while looking for matching `"'
rohith1305@e1d77021d9b0504:~/new$ nano notequal-operator
rohith1305@e1d77021d9b0504:~/new$ ./notequal-operator
Strings are not equal.
rohith1305@e1d77021d9b0504:~/new$
```

Finding largest string:



rohith1305@e1d77021d9b0504: ~/new

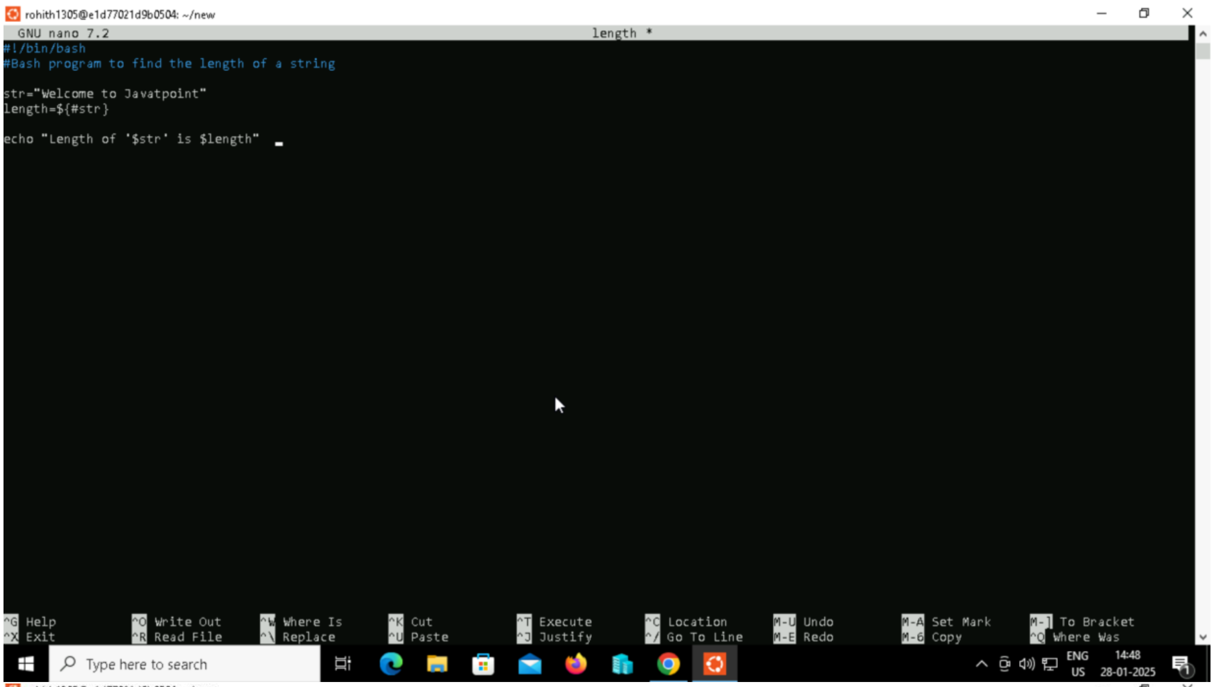
```
 GNU nano 7.2                                          lessoperator *
#!/bin/sh

str1="WelcometoJavatpoint"
str2="Javatpoint"
if [ $str1 \< $str2 ];
then
    echo "$str1 is less then $str2"
else
    echo "$str1 is not less then $str2"
fi

Save modified buffer?
 Y Yes
 N No           ^C Cancel
```



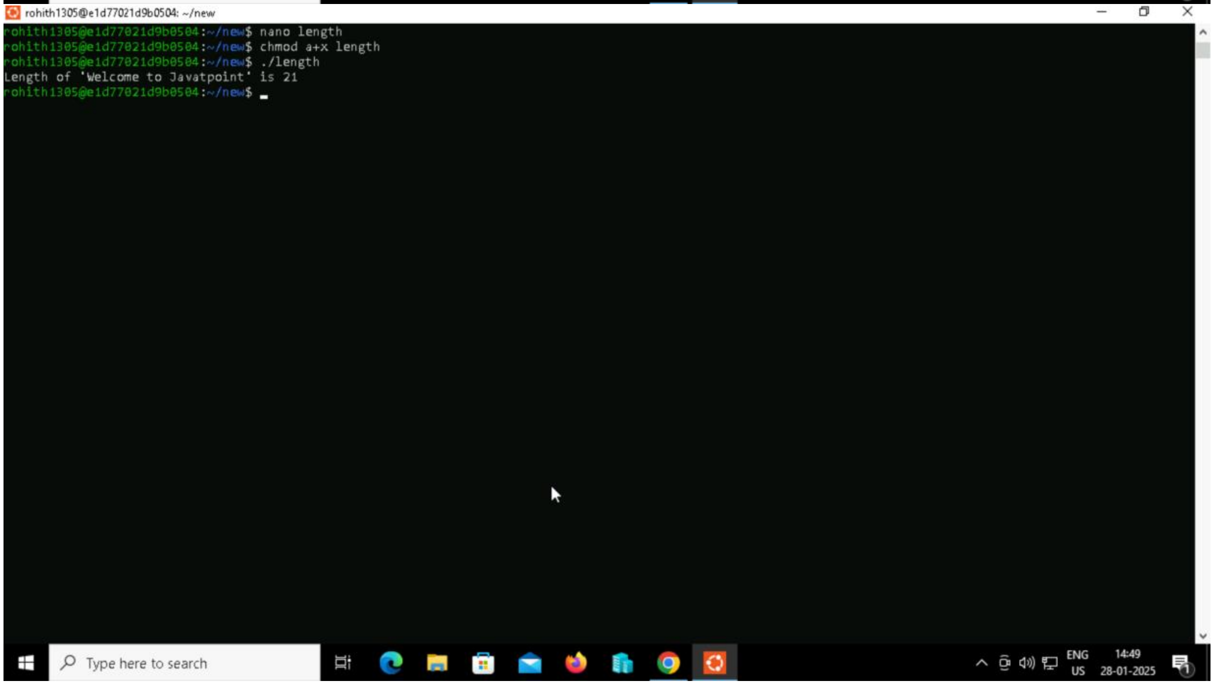
rohith1305@e1d77021d9b0504: ~/new

```
rohith1305@e1d77021d9b0504:~/new$ ./notequal-operator
Strings are not equal.
rohith1305@e1d77021d9b0504:~/new$ nano lessoperator
rohith1305@e1d77021d9b0504:~/new$ chmod a+x lessoperator
rohith1305@e1d77021d9b0504:~/new$ ./lessoperator
WelcometoJavatpoint is not less then Javatpoint
rohith1305@e1d77021d9b0504:~/new$ _
```

Finding length of string:

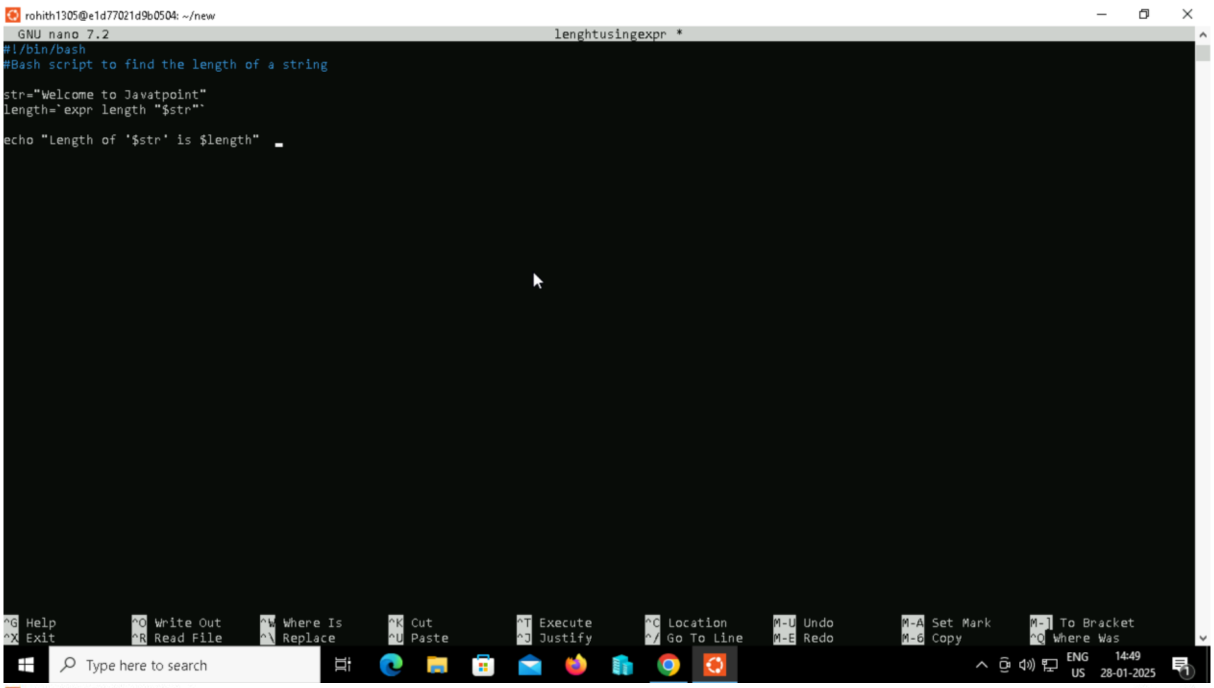


```
#!/bin/bash
#Bash program to find the length of a string

str="Welcome to Javatpoint"
length=${#str}

echo "Length of '$str' is $length"
```

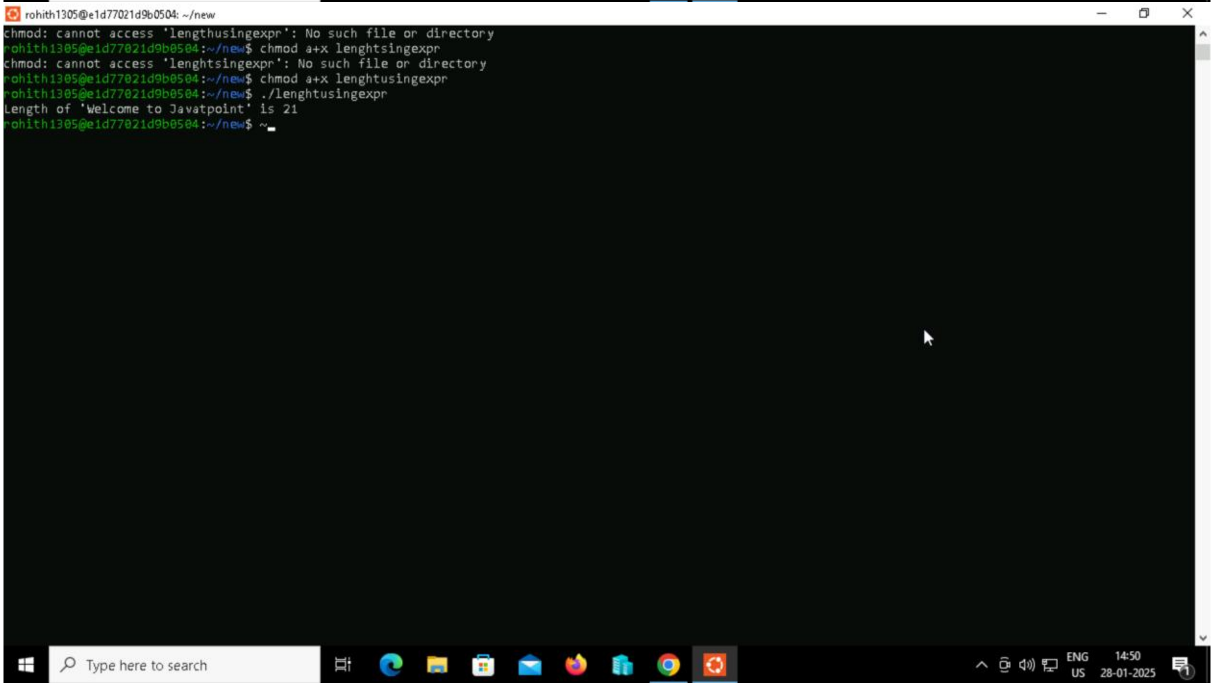


```
rohith1305@e1d77021d9b0504:~/new$ nano length
rohith1305@e1d77021d9b0504:~/new$ chmod a+x length
rohith1305@e1d77021d9b0504:~/new$ ./length
Length of 'Welcome to Javatpoint' is 21
rohith1305@e1d77021d9b0504:~/new$
```

Finding length of string using expr operator:

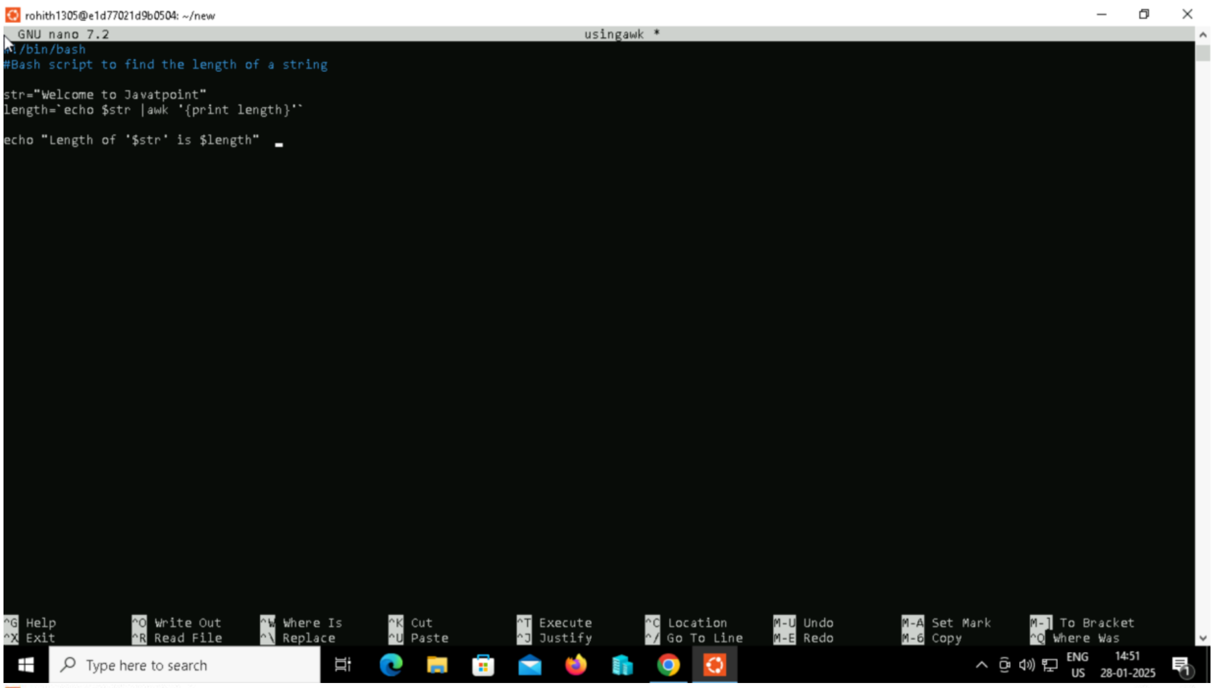


```
#!/bin/bash
#Bash script to find the length of a string

str="Welcome to Javatpoint"
length=`expr length "$str"`

echo "Length of '$str' is $length"
```

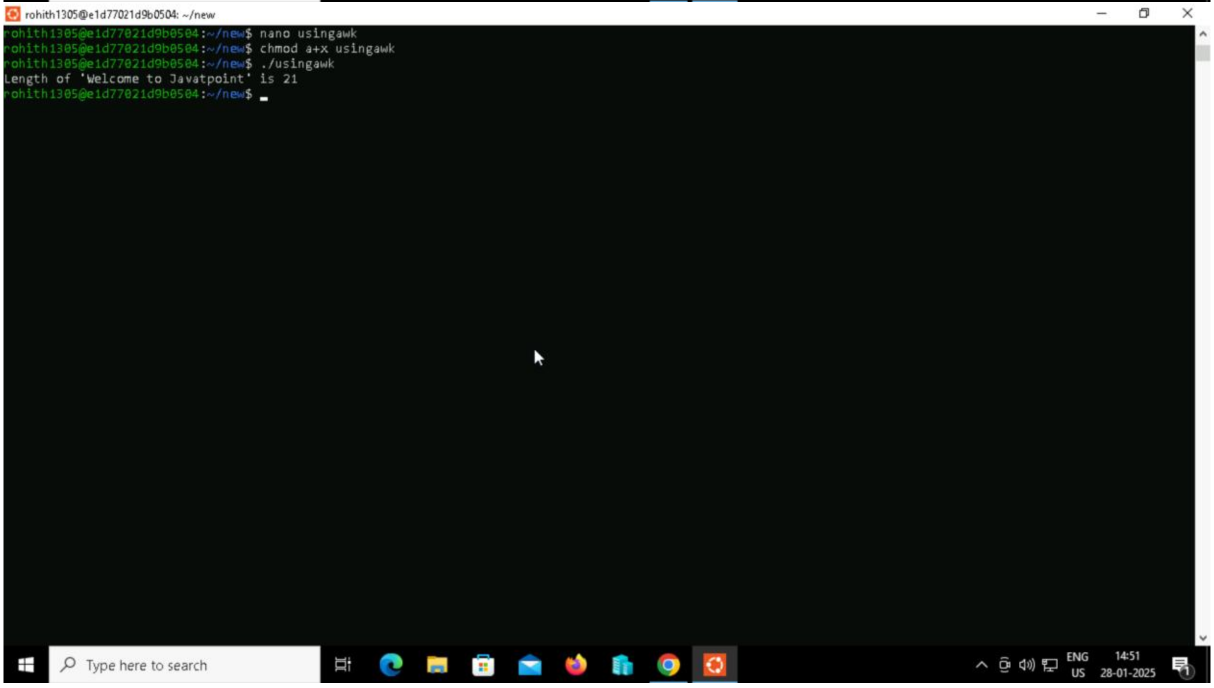


```
chmod: cannot access 'lengthusingexpr': No such file or directory
rohith1305@e1d77021d9b0504:~/new$ chmod a+x lenghtsingexpr
chmod: cannot access 'lenghtsingexpr': No such file or directory
rohith1305@e1d77021d9b0504:~/new$ chmod a+x lenghtusingexpr
rohith1305@e1d77021d9b0504:~/new$ ./lenghtusingexpr
Length of 'Welcome to Javatpoint' is 21
rohith1305@e1d77021d9b0504:~/new$ ~
```

Finding length of string using awk:

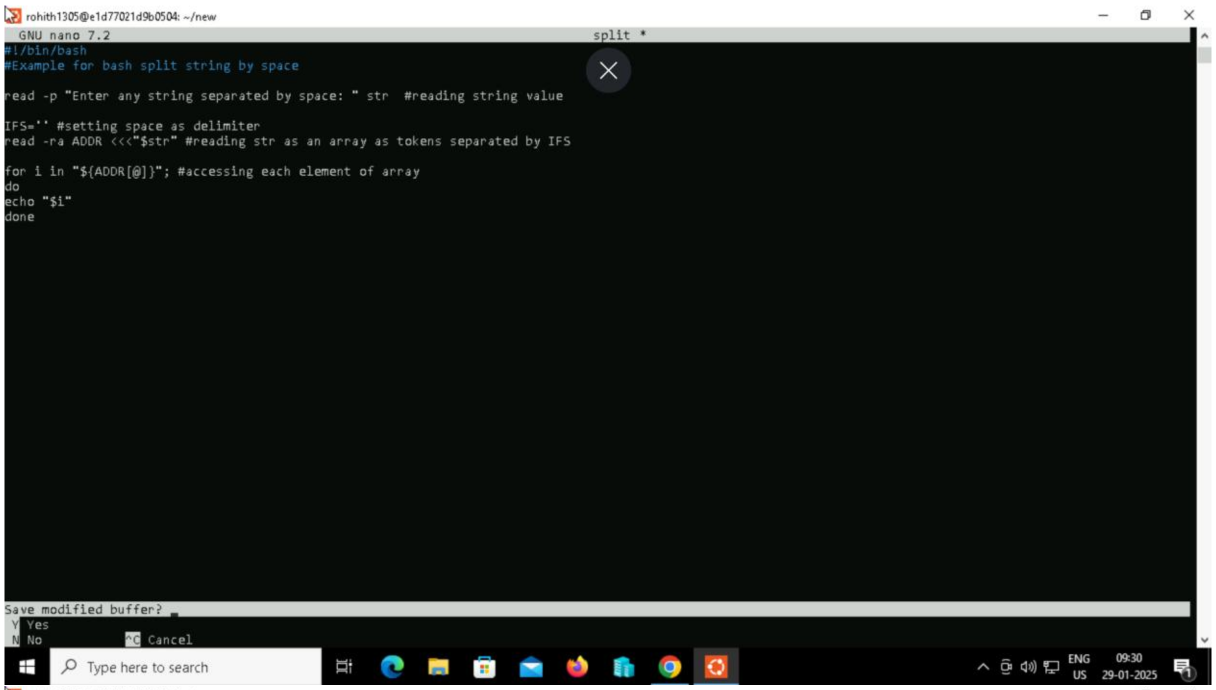


```
#!/bin/bash
#Bash script to find the length of a string

str="Welcome to Javatpoint"
length=`echo $str |awk '{print length}'`

echo "Length of '$str' is $length"
```

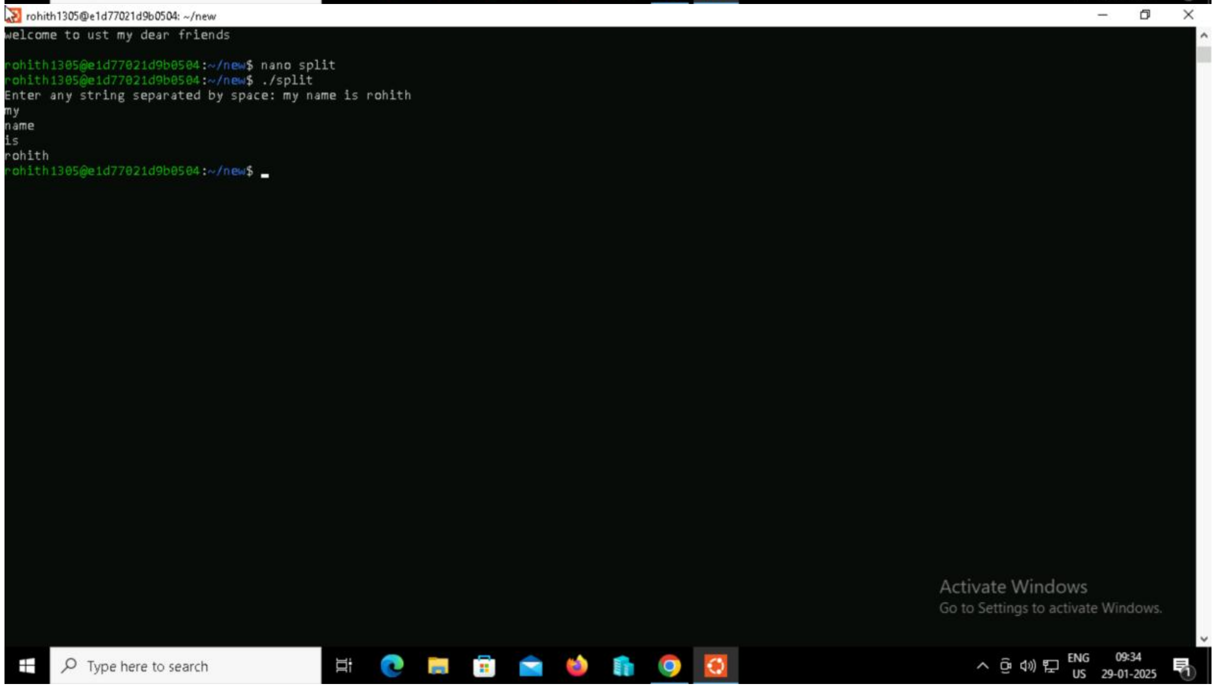


```
rohith1305@e1d77021d9b0504:~/new$ nano usingawk
rohith1305@e1d77021d9b0504:~/new$ chmod a+x usingawk
rohith1305@e1d77021d9b0504:~/new$ ./usingawk
Length of 'Welcome to Javatpoint' is 21
rohith1305@e1d77021d9b0504:~/new$
```

String split:

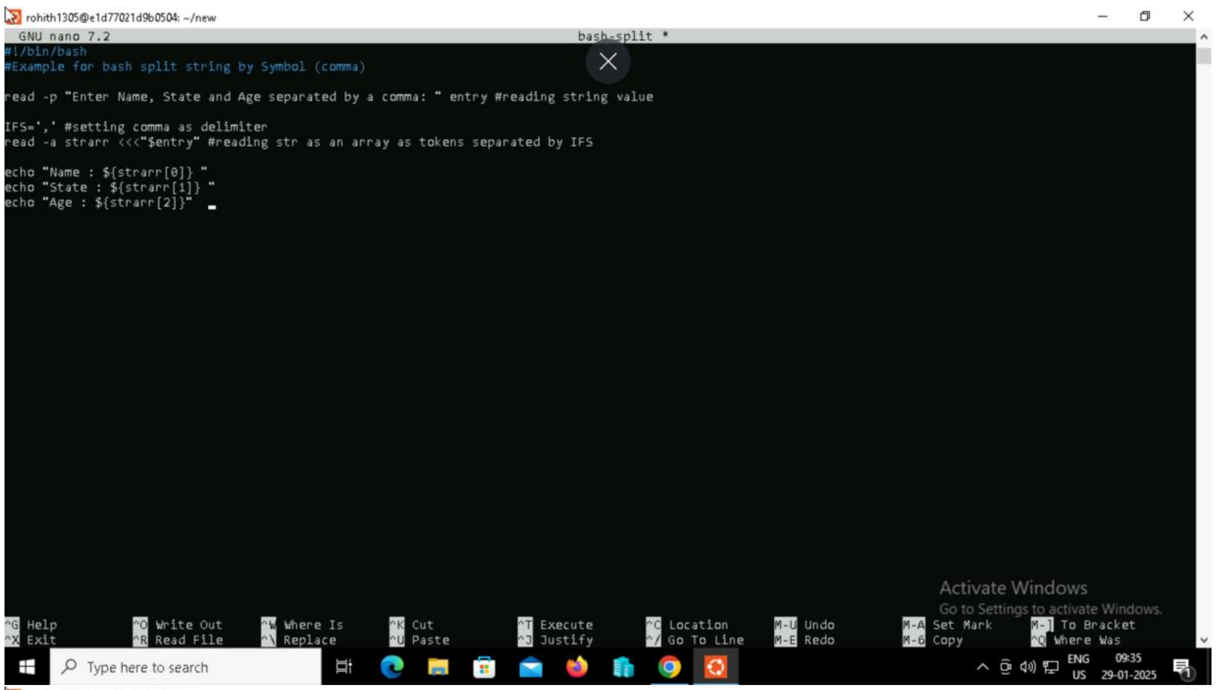


```
rohith1305@e1d77021d9b0504: ~/new
  GNU nano 7.2                                          split *
#!/bin/bash
#Example for bash split string by space

read -p "Enter any string separated by space: " str  #reading string value

IFS='' #setting space as delimiter
read -ra ADDR <<<"$str" #reading str as an array as tokens separated by IFS

for i in "${ADDR[@]}"; #accessing each element of array
do
echo "$i"
done

Save modified buffer?
 Y Yes
 N No           ^C Cancel
```

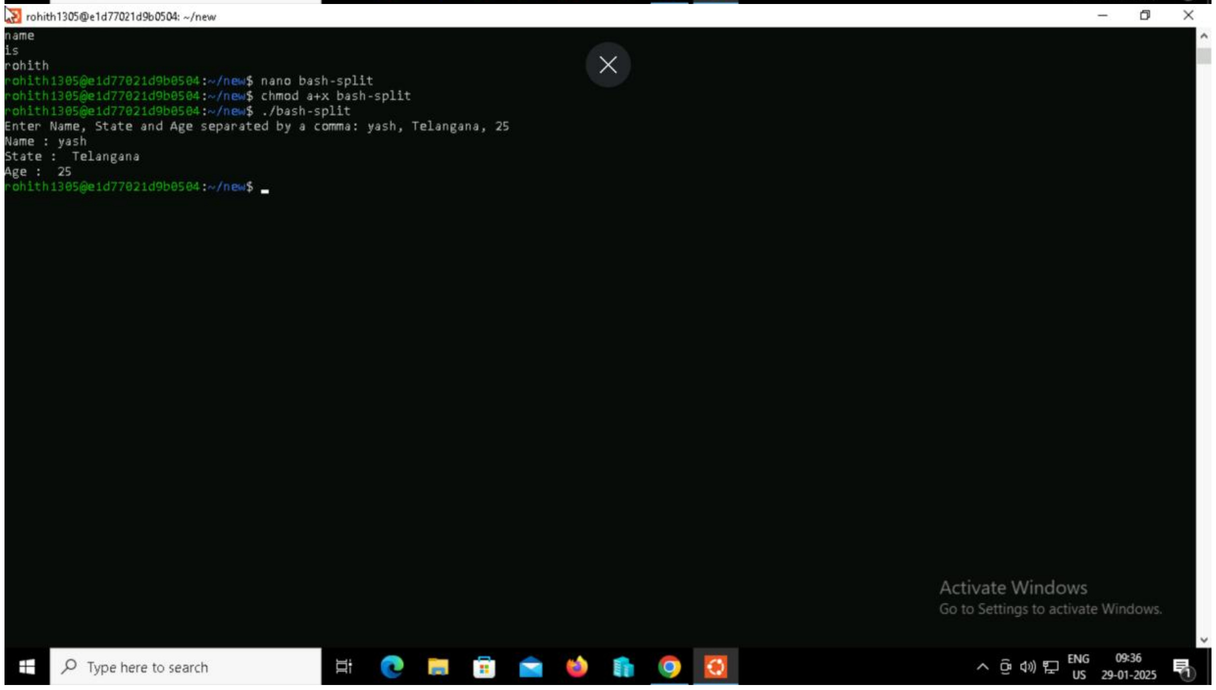


```
rohith1305@e1d77021d9b0504: ~/new
welcome to ust my dear friends

rohith1305@e1d77021d9b0504:~/new$ nano split
rohith1305@e1d77021d9b0504:~/new$ ./split
Enter any string separated by space: my name is rohith
my
name
is
rohith
rohith1305@e1d77021d9b0504:~/new$
```

Split using arr:



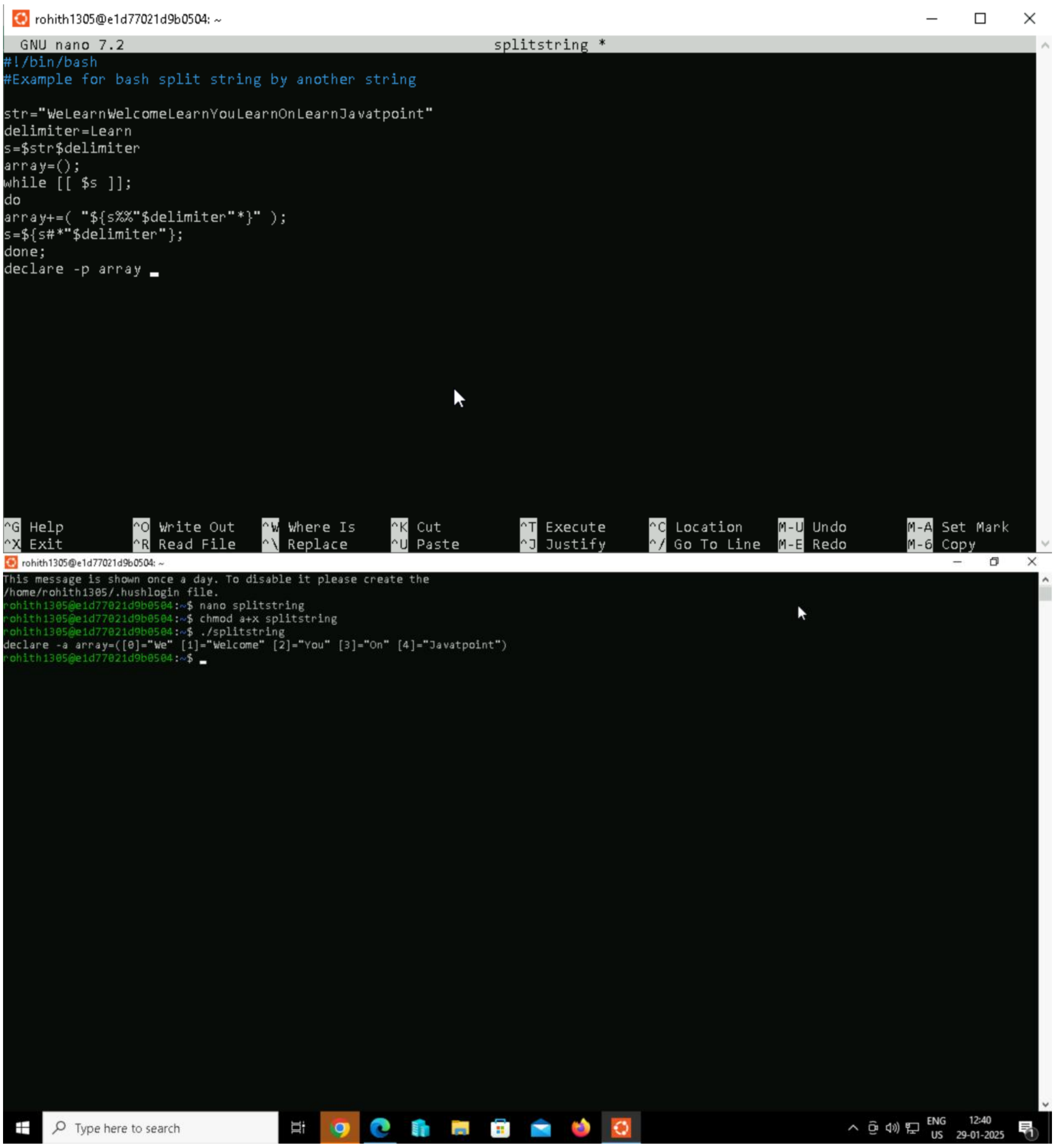
```
  GNU nano 7.2                                    bash-split *
#!/bin/bash
#Example for bash split string by Symbol (comma)

read -p "Enter Name, State and Age separated by a comma: " entry #reading string value

IFS=',' #setting comma as delimiter
read -a strarr <<<"$entry" #reading str as an array as tokens separated by IFS

echo "Name : ${strarr[0]} "
echo "State : ${strarr[1]} "
echo "Age : ${strarr[2]}"
```



```
name
is
rohith
rohith1305@e1d77021d9b0504:~/new$ nano bash-split
rohith1305@e1d77021d9b0504:~/new$ chmod a+x bash-split
rohith1305@e1d77021d9b0504:~/new$ ./bash-split
Enter Name, State and Age separated by a comma: yash, Telangana, 25
Name : yash
State :  Telangana
Age :  25
rohith1305@e1d77021d9b0504:~/new$
```

\

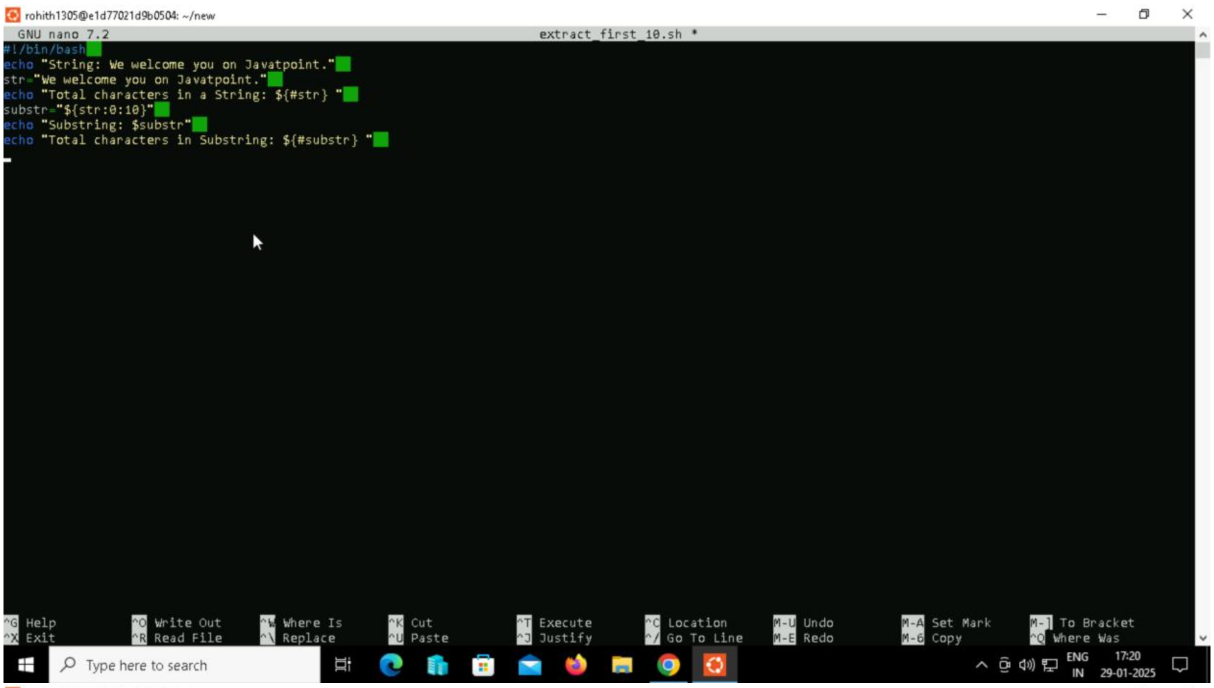
Split using loop:



```
rohith1305@e1d77021d9b0504: ~
  GNU nano 7.2                         splitstring *
#!/bin/bash
#Example for bash split string by another string

str="WeLearnWelcomeLearnYouLearnOnLearnJavatpoint"
delimiter=Learn
s=$str$delimiter
array=();
while [[ $s ]];
do
array+=( "${s%%"$delimiter"*}" );
s=${s#*"$delimiter"};
done;
declare -p array
```

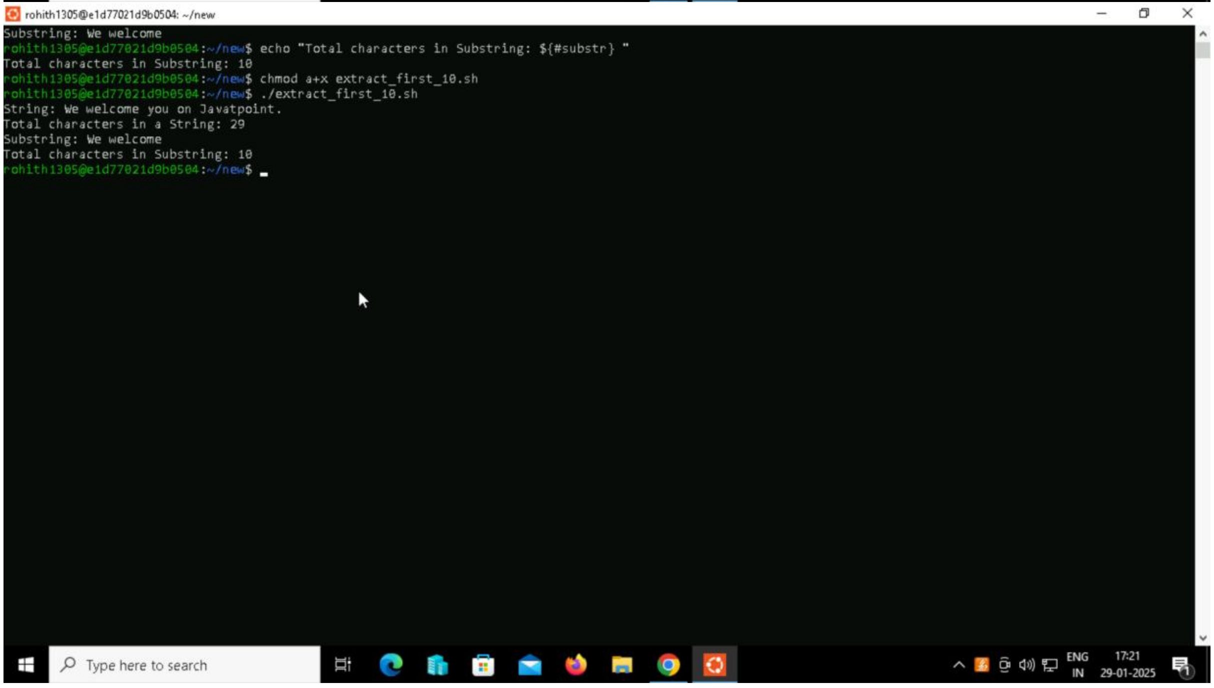
```
This message is shown once a day. To disable it please create the
/home/rohith1305/.hushlogin file.
rohith1305@e1d77021d9b0504:~$ nano splitstring
rohith1305@e1d77021d9b0504:~$ chmod a+x splitstring
rohith1305@e1d77021d9b0504:~$ ./splitstring
declare -a array=([0]="We" [1]="Welcome" [2]="You" [3]="On" [4]="Javatpoint")
rohith1305@e1d77021d9b0504:~$
```

Extract string:



rohith1305@e1d77021d9b0504: ~/new

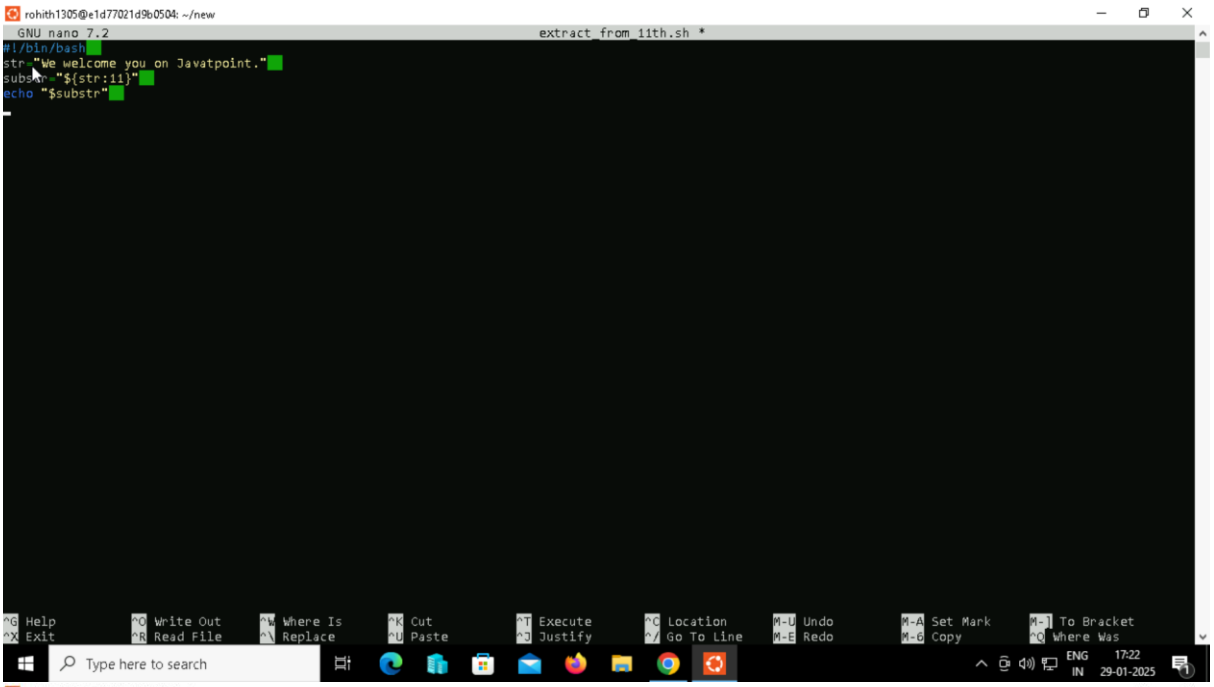
```
  GNU nano 7.2                                        extract_first_10.sh *
#!/bin/bash
echo "String: We welcome you on Javatpoint."
str="We welcome you on Javatpoint."
echo "Total characters in a String: ${#str} "
substr="${str:0:10}"
echo "Substring: $substr"
echo "Total characters in Substring: ${#substr} "

^G Help        ^O Write Out   ^W Where Is    ^K Cut         ^T Execute     ^C Location    M-U Undo       M-A Set Mark   M-] To Bracket
^X Exit        ^R Read File   ^\ Replace     ^U Paste       ^J Justify     ^/ Go To Line  M-E Redo       M-6 Copy       ^Q Where Was
```



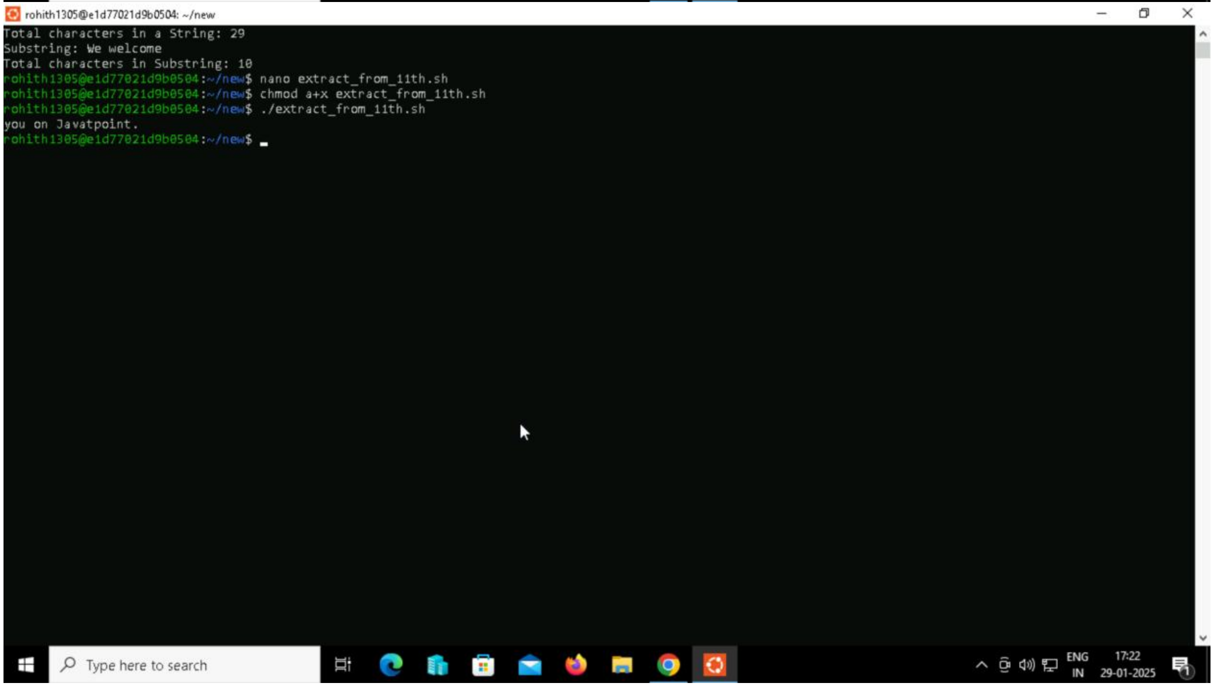
rohith1305@e1d77021d9b0504: ~/new

```
Substring: We welcome
rohith1305@e1d77021d9b0504:~/new$ echo "Total characters in Substring: ${#substr} "
Total characters in Substring: 10
rohith1305@e1d77021d9b0504:~/new$ chmod a+x extract_first_10.sh
rohith1305@e1d77021d9b0504:~/new$ ./extract_first_10.sh
String: We welcome you on Javatpoint.
Total characters in a String: 29
Substring: We welcome
Total characters in Substring: 10
rohith1305@e1d77021d9b0504:~/new$ 
```

Extract certain position:

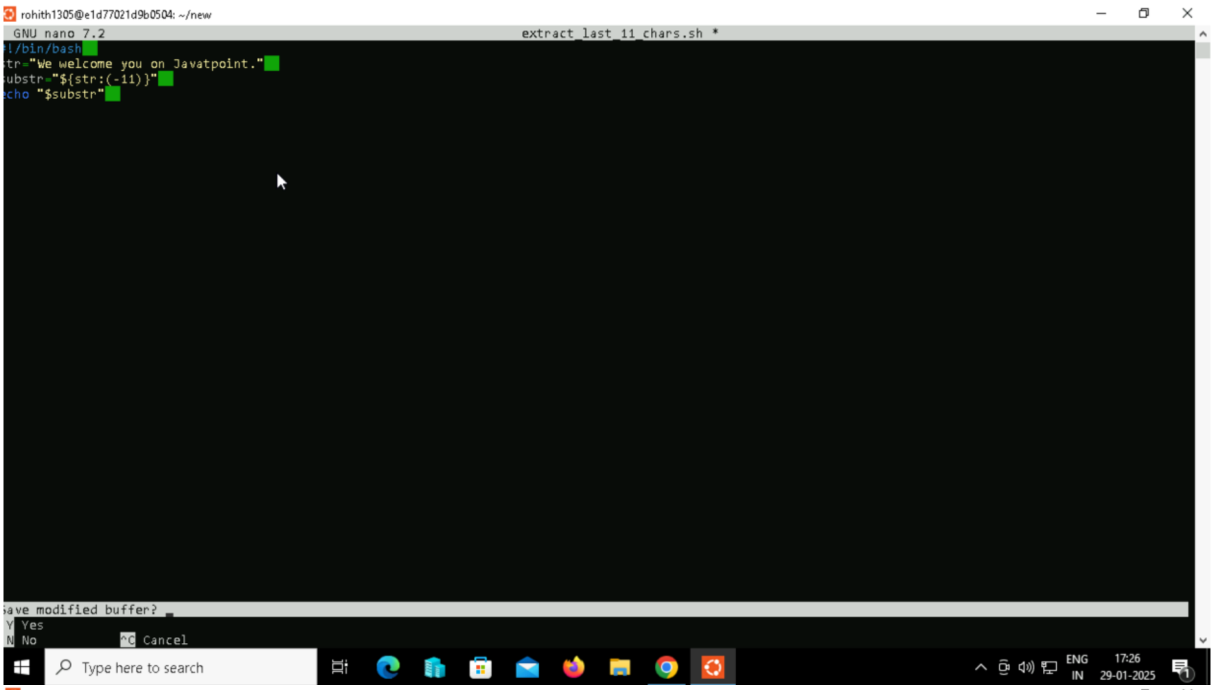


```
rohith1305@e1d77021d9b0504: ~/new
  GNU nano 7.2                                   extract_from_11th.sh *
#!/bin/bash
str="We welcome you on Javatpoint."
substr="${str:11}"
echo "$substr"
```



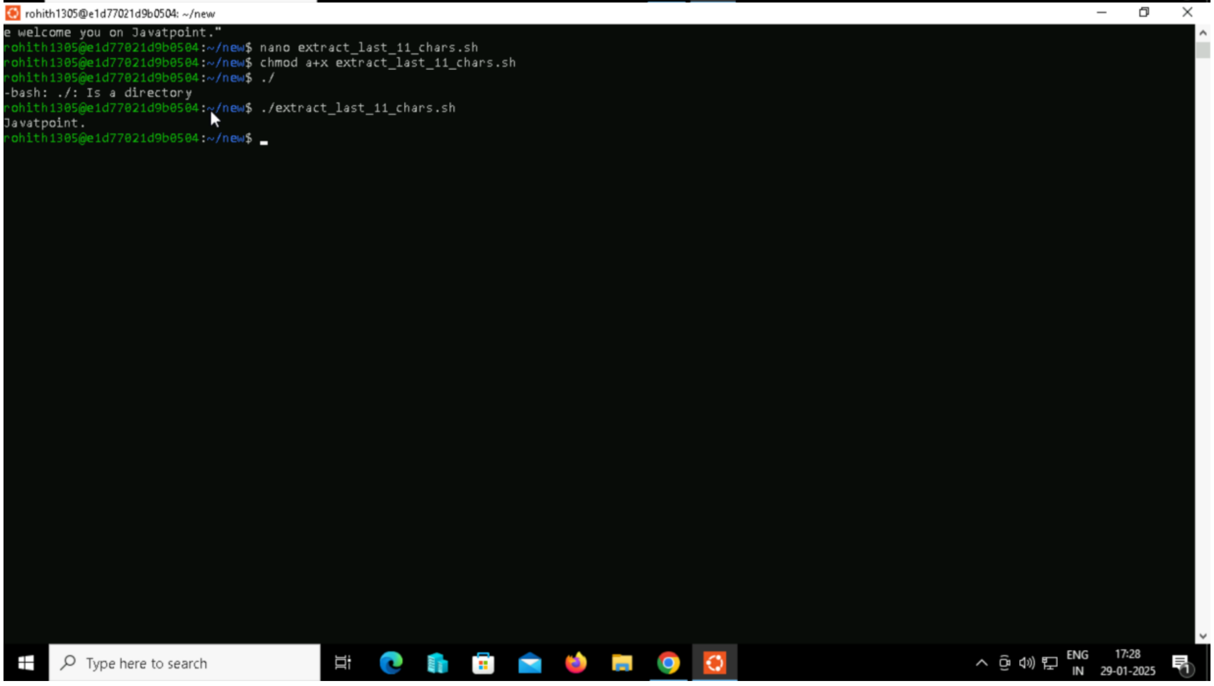
```
rohith1305@e1d77021d9b0504: ~/new
Total characters in a String: 29
Substring: We welcome
Total characters in Substring: 10
rohith1305@e1d77021d9b0504:~/new$ nano extract_from_11th.sh
rohith1305@e1d77021d9b0504:~/new$ chmod a+x extract_from_11th.sh
rohith1305@e1d77021d9b0504:~/new$ ./extract_from_11th.sh
you on Javatpoint.
rohith1305@e1d77021d9b0504:~/new$
```

Extract last position:



rohith1305@e1d77021d9b0504: ~/new

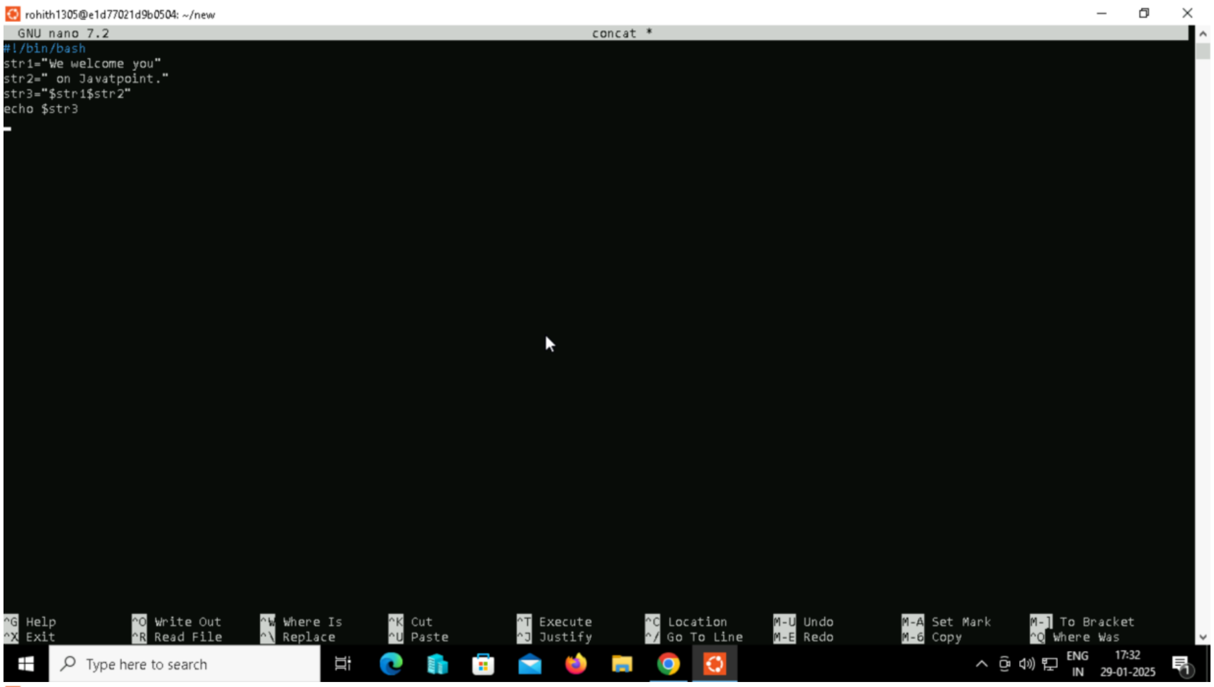
```
 GNU nano 7.2                                                       extract_last_11_chars.sh *
!/bin/bash
tr="We welcome you on Javatpoint."
ubstr="${str:(-11)}"
cho "$substr"




ave modified buffer? _
Y Yes
N No            ^C Cancel
```



rohith1305@e1d77021d9b0504: ~/new

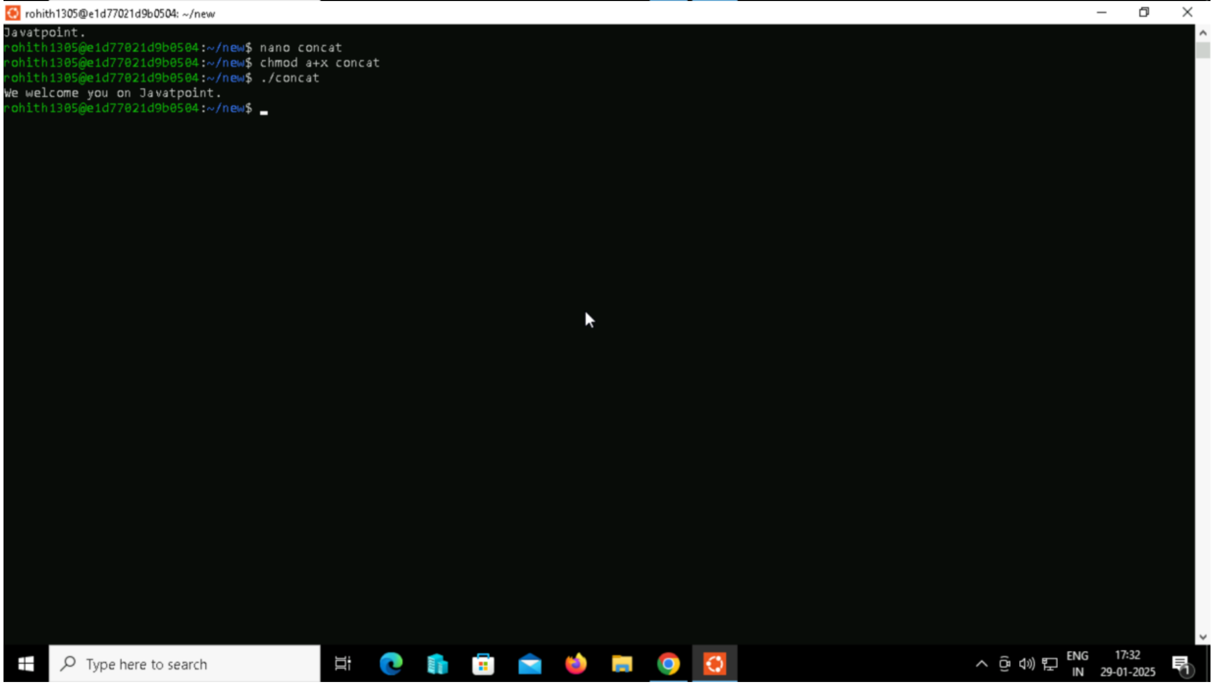
```
e welcome you on Javatpoint."
rohith1305@e1d77021d9b0504:~/new$ nano extract_last_11_chars.sh
rohith1305@e1d77021d9b0504:~/new$ chmod a+x extract_last_11_chars.sh
rohith1305@e1d77021d9b0504:~/new$ ./
-bash: ./: Is a directory
rohith1305@e1d77021d9b0504:~/new$ ./extract_last_11_chars.sh
Javatpoint.
rohith1305@e1d77021d9b0504:~/new$ _
```

Concat string:



rohith1305@e1d77021d9b0504: ~/new

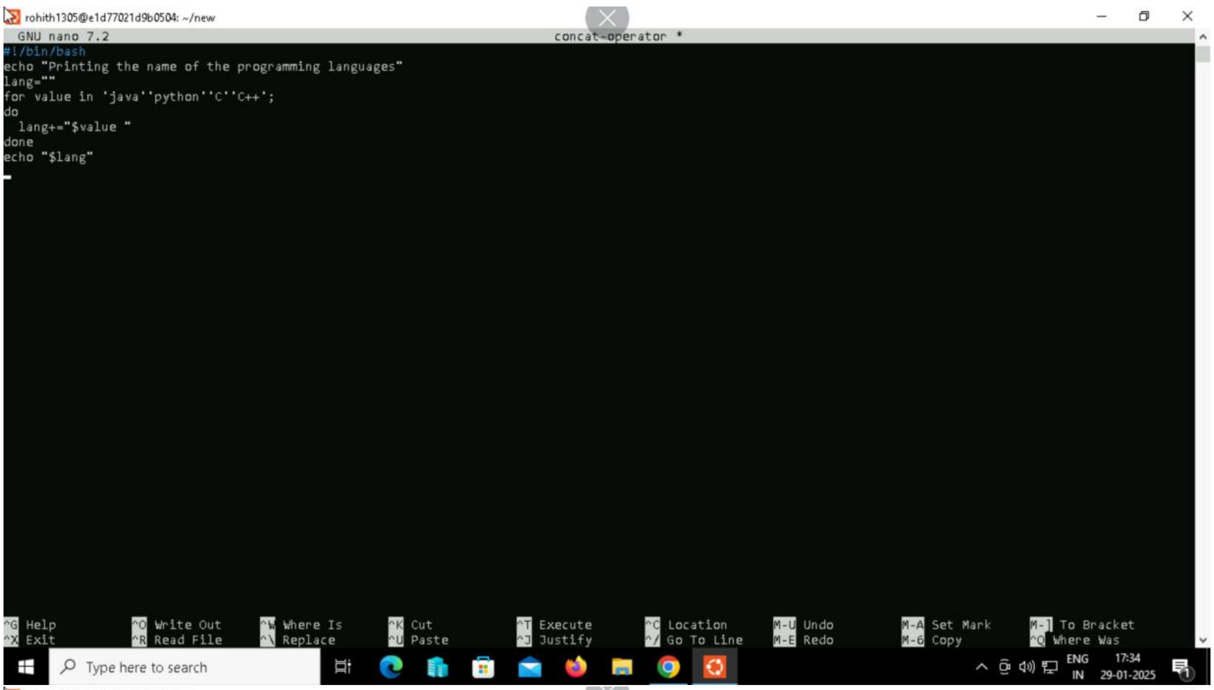
```
  GNU nano 7.2                                     concat *
#!/bin/bash
str1="We welcome you"
str2=" on Javatpoint."
str3="$str1$str2"
echo $str3

^G Help      ^O Write Out  ^W Where Is   ^K Cut      ^T Execute   ^C Location   M-U Undo   M-A Set Mark  M-] To Bracket
^X Exit      ^R Read File  ^\ Replace    ^U Paste    ^J Justify   ^/ Go To Line M-E Redo   M-6 Copy      ^Q Where Was
```



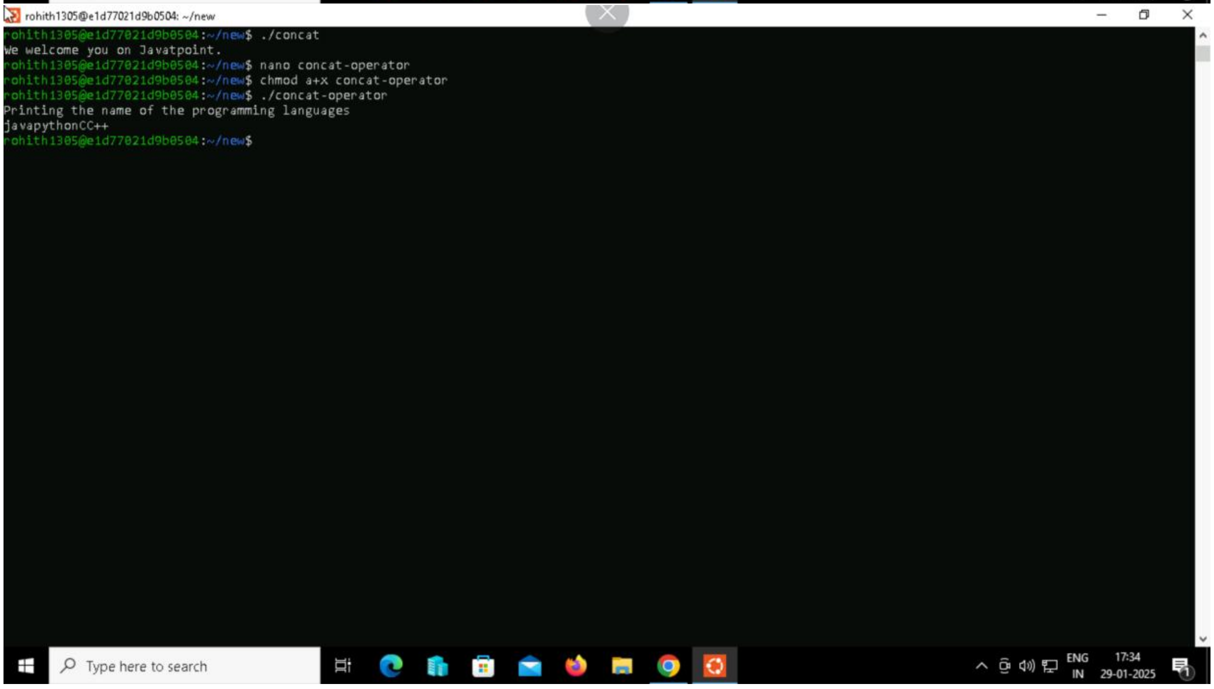
rohith1305@e1d77021d9b0504: ~/new

```
Javatpoint.
rohith1305@e1d77021d9b0504:~/new$ nano concat
rohith1305@e1d77021d9b0504:~/new$ chmod a+x concat
rohith1305@e1d77021d9b0504:~/new$ ./concat
We welcome you on Javatpoint.
rohith1305@e1d77021d9b0504:~/new$ _
```

Concat string using operator:

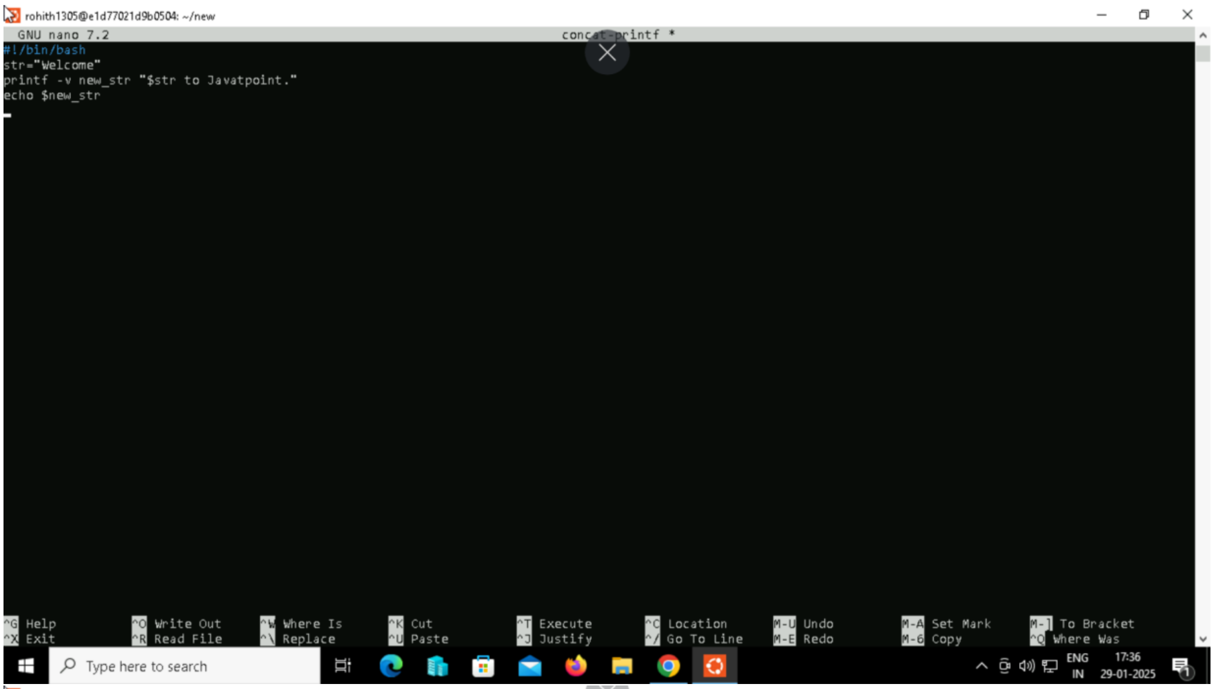


```
#!/bin/bash
echo "Printing the name of the programming languages"
lang=""
for value in 'java''python''C''C++';
do
  lang+="$value "
done
echo "$lang"
```

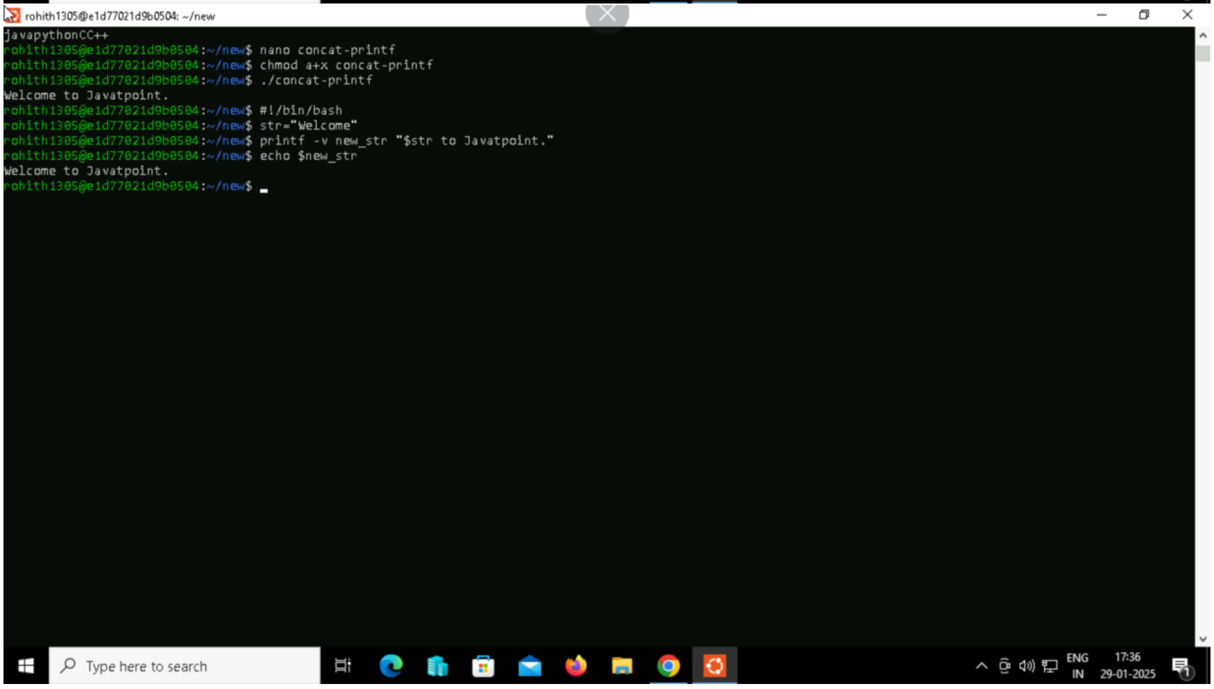


```
rohith1305@e1d77021d9b0504:~/new$ ./concat
We welcome you on Javatpoint.
rohith1305@e1d77021d9b0504:~/new$ nano concat-operator
rohith1305@e1d77021d9b0504:~/new$ chmod a+x concat-operator
rohith1305@e1d77021d9b0504:~/new$ ./concat-operator
Printing the name of the programming languages
javapythonCC++
rohith1305@e1d77021d9b0504:~/new$
```

Concat string using printf:

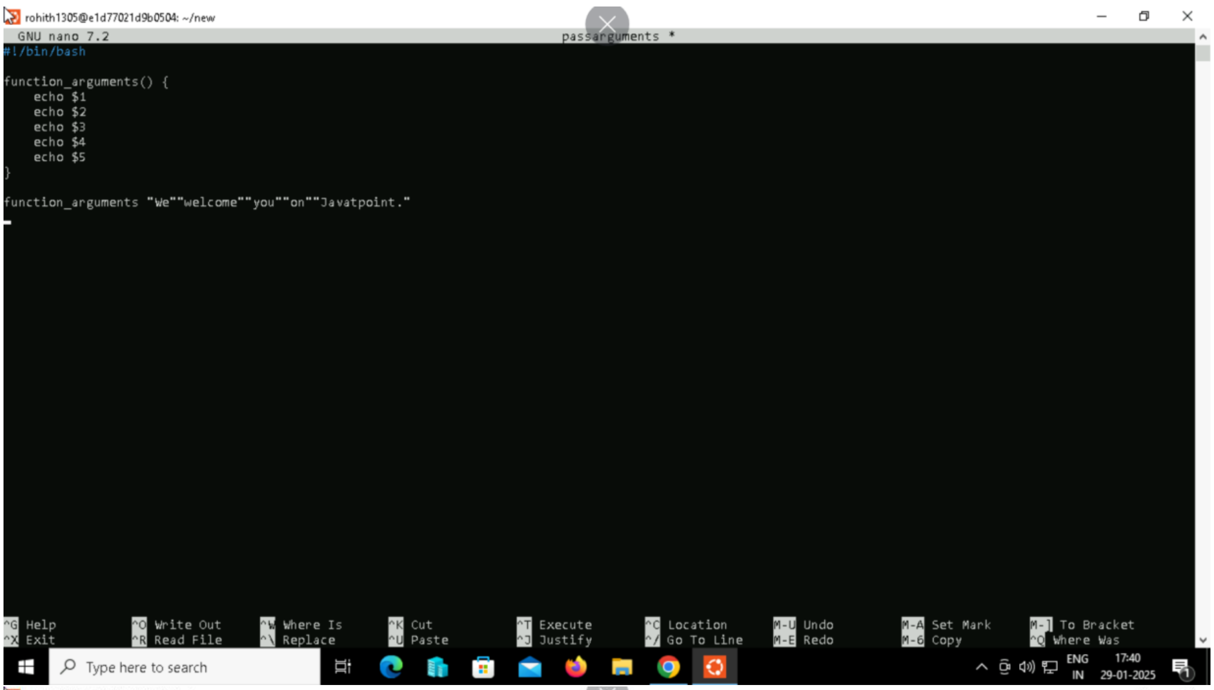


```
rohith1305@e1d77021d9b0504: ~/new
  GNU nano 7.2                                          concat-printf *
#!/bin/bash
str="Welcome"
printf -v new_str "$str to Javatpoint."
echo $new_str

^G Help        ^O Write Out   ^W Where Is    ^K Cut         ^T Execute     ^C Location    M-U Undo       M-A Set Mark   M-] To Bracket
^X Exit        ^R Read File   ^\ Replace     ^U Paste       ^J Justify     ^/ Go To Line  M-E Redo       M-6 Copy       ^Q Where Was
```

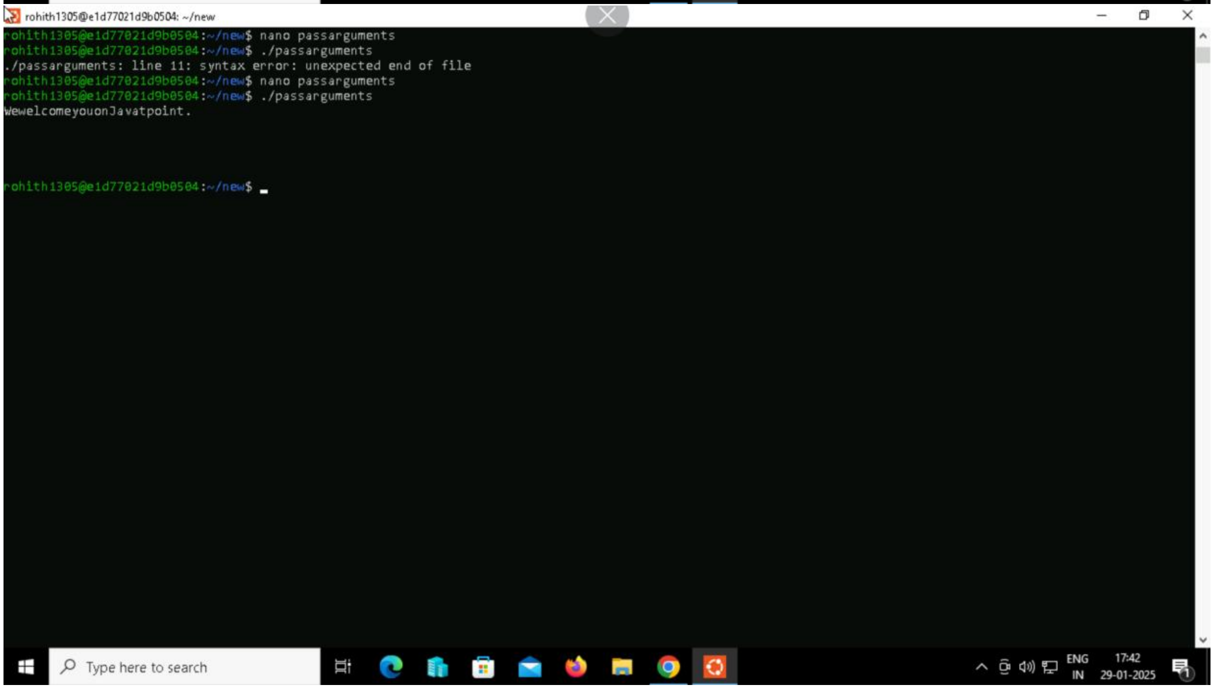


```
rohith1305@e1d77021d9b0504: ~/new
javapythonCC++
rohith1305@e1d77021d9b0504:~/new$ nano concat-printf
rohith1305@e1d77021d9b0504:~/new$ chmod a+x concat-printf
rohith1305@e1d77021d9b0504:~/new$ ./concat-printf
Welcome to Javatpoint.
rohith1305@e1d77021d9b0504:~/new$ #!/bin/bash
rohith1305@e1d77021d9b0504:~/new$ str="Welcome"
rohith1305@e1d77021d9b0504:~/new$ printf -v new_str "$str to Javatpoint."
rohith1305@e1d77021d9b0504:~/new$ echo $new_str
Welcome to Javatpoint.
rohith1305@e1d77021d9b0504:~/new$
```

Function pass arguments:

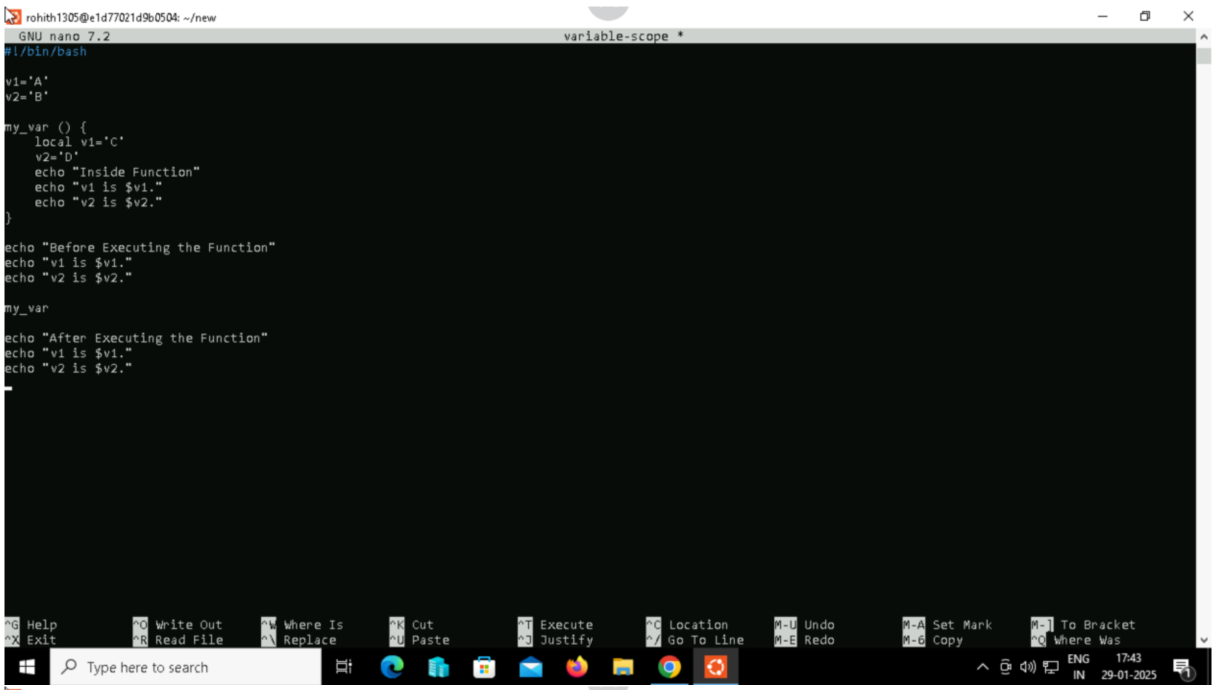


```
GNU nano 7.2                                   passarguments *
#!/bin/bash

function_arguments() {
    echo $1
    echo $2
    echo $3
    echo $4
    echo $5
}

function_arguments "We""welcome""you""on""Javatpoint."
```

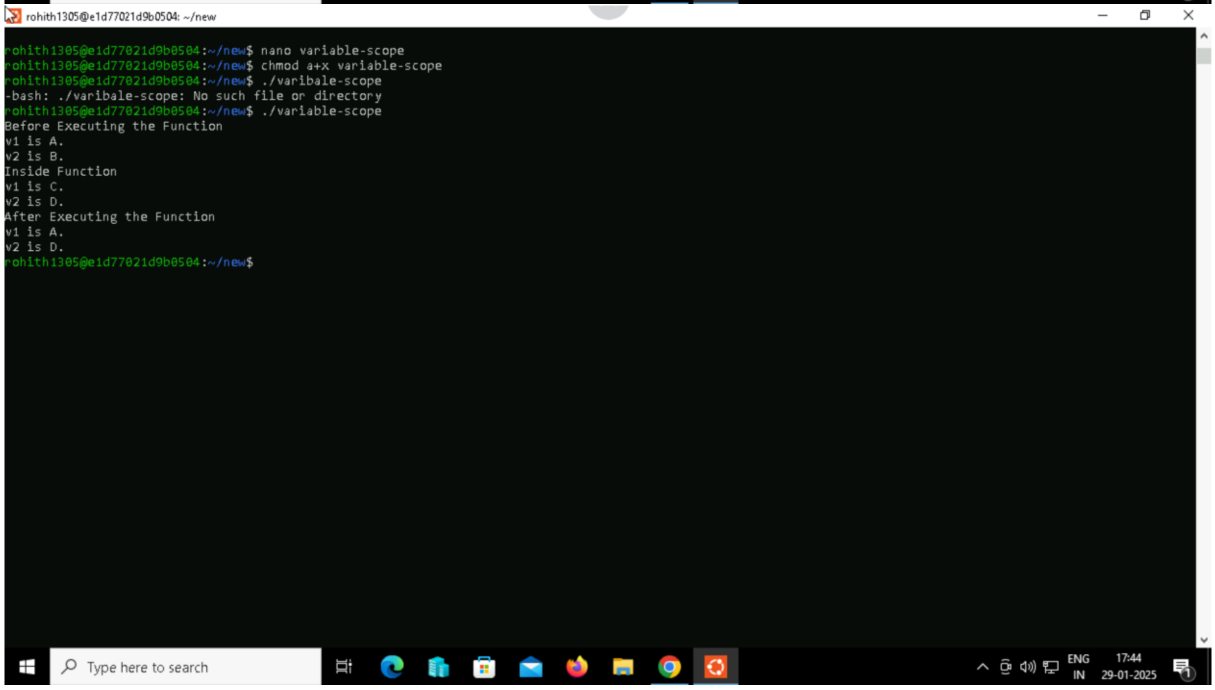


```
rohith1305@e1d77021d9b0504:~/new$ nano passarguments
rohith1305@e1d77021d9b0504:~/new$ ./passarguments
./passarguments: line 11: syntax error: unexpected end of file
rohith1305@e1d77021d9b0504:~/new$ nano passarguments
rohith1305@e1d77021d9b0504:~/new$ ./passarguments
WewelcomeyouonJavatpoint.



rohith1305@e1d77021d9b0504:~/new$ 
```

Variable-scope:

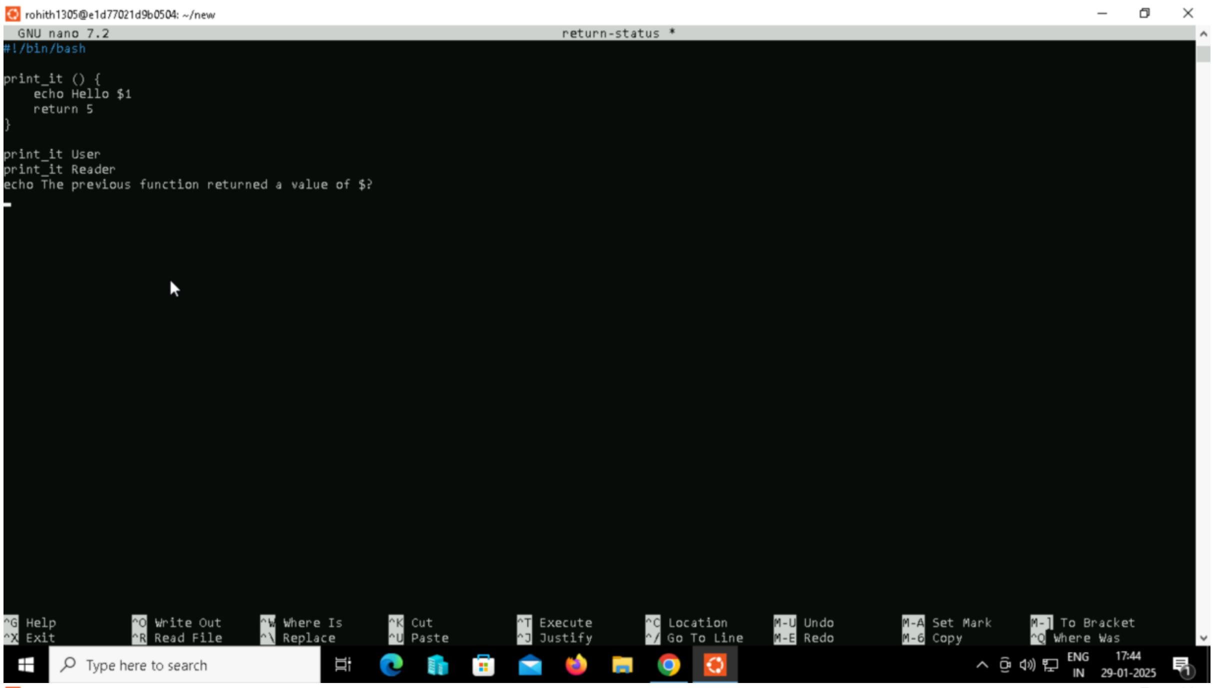


```
#!/bin/bash

v1='A'
v2='B'

my_var () {
    local v1='C'
    v2='D'
    echo "Inside Function"
    echo "v1 is $v1."
    echo "v2 is $v2."
}

echo "Before Executing the Function"
echo "v1 is $v1."
echo "v2 is $v2."

my_var

echo "After Executing the Function"
echo "v1 is $v1."
echo "v2 is $v2."
```

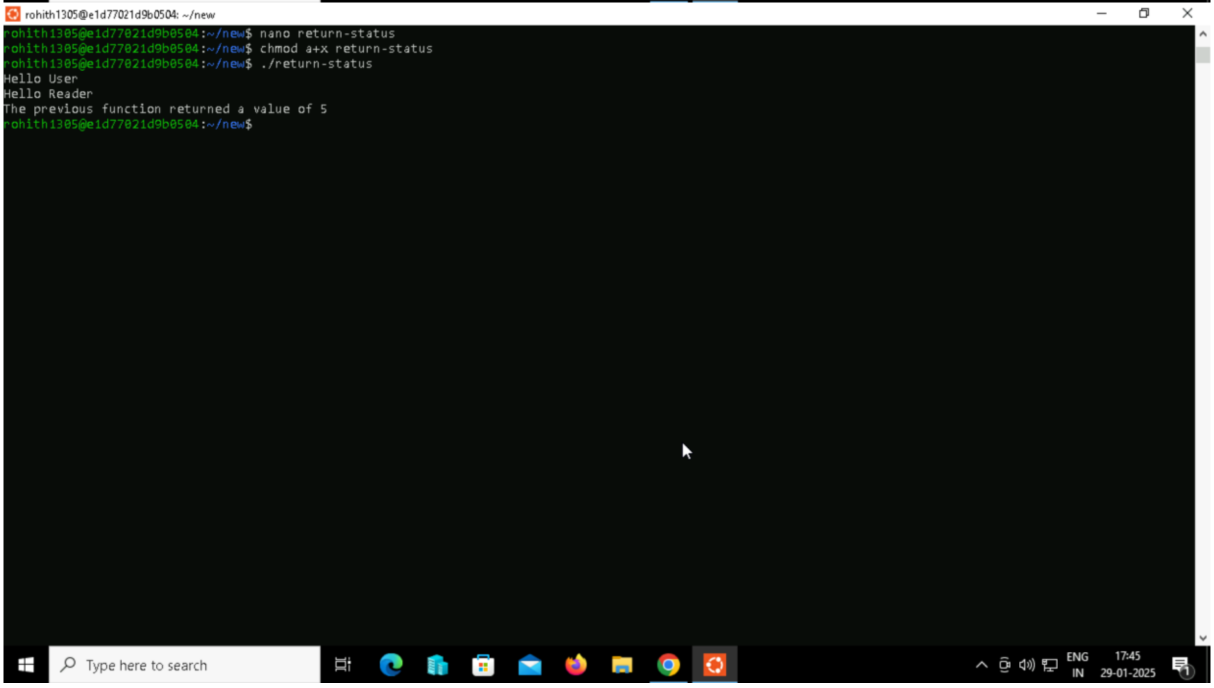


```
rohith1305@e1d77021d9b0504:~/new$ nano variable-scope
rohith1305@e1d77021d9b0504:~/new$ chmod a+x variable-scope
rohith1305@e1d77021d9b0504:~/new$ ./varibale-scope
-bash: ./varibale-scope: No such file or directory
rohith1305@e1d77021d9b0504:~/new$ ./variable-scope
Before Executing the Function
v1 is A.
v2 is B.
Inside Function
v1 is C.
v2 is D.
After Executing the Function
v1 is A.
v2 is D.
rohith1305@e1d77021d9b0504:~/new$
```

Function return status:



```
rohith1305@e1d77021d9b0504: ~/new
GNU nano 7.2                         return-status *
#!/bin/bash

print_it () {
    echo Hello $1
    return 5
}

print_it User
print_it Reader
echo The previous function returned a value of $?
```



```
rohith1305@e1d77021d9b0504:~/new$ nano return-status
rohith1305@e1d77021d9b0504:~/new$ chmod a+x return-status
rohith1305@e1d77021d9b0504:~/new$ ./return-status
Hello User
Hello Reader
The previous function returned a value of 5
rohith1305@e1d77021d9b0504:~/new$
```