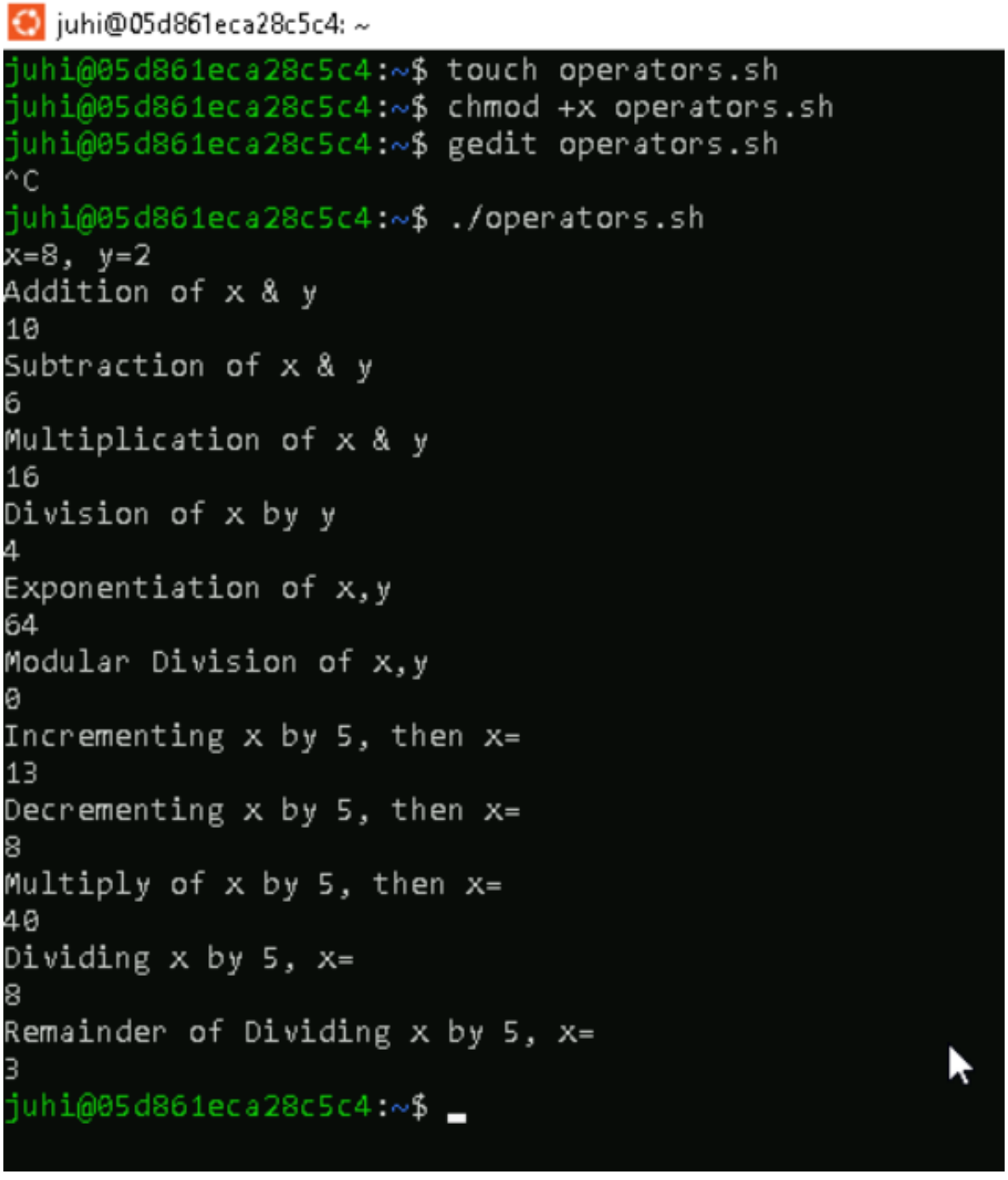
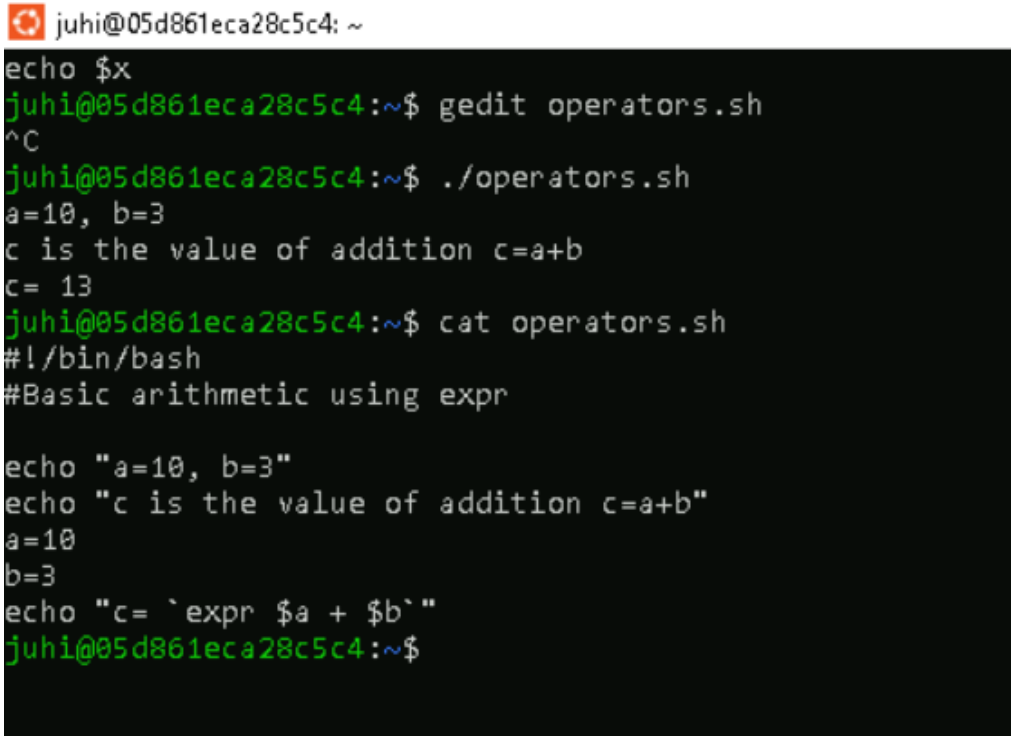
BASH PROGRAMS

1. ARITHMETIC OPERATORS



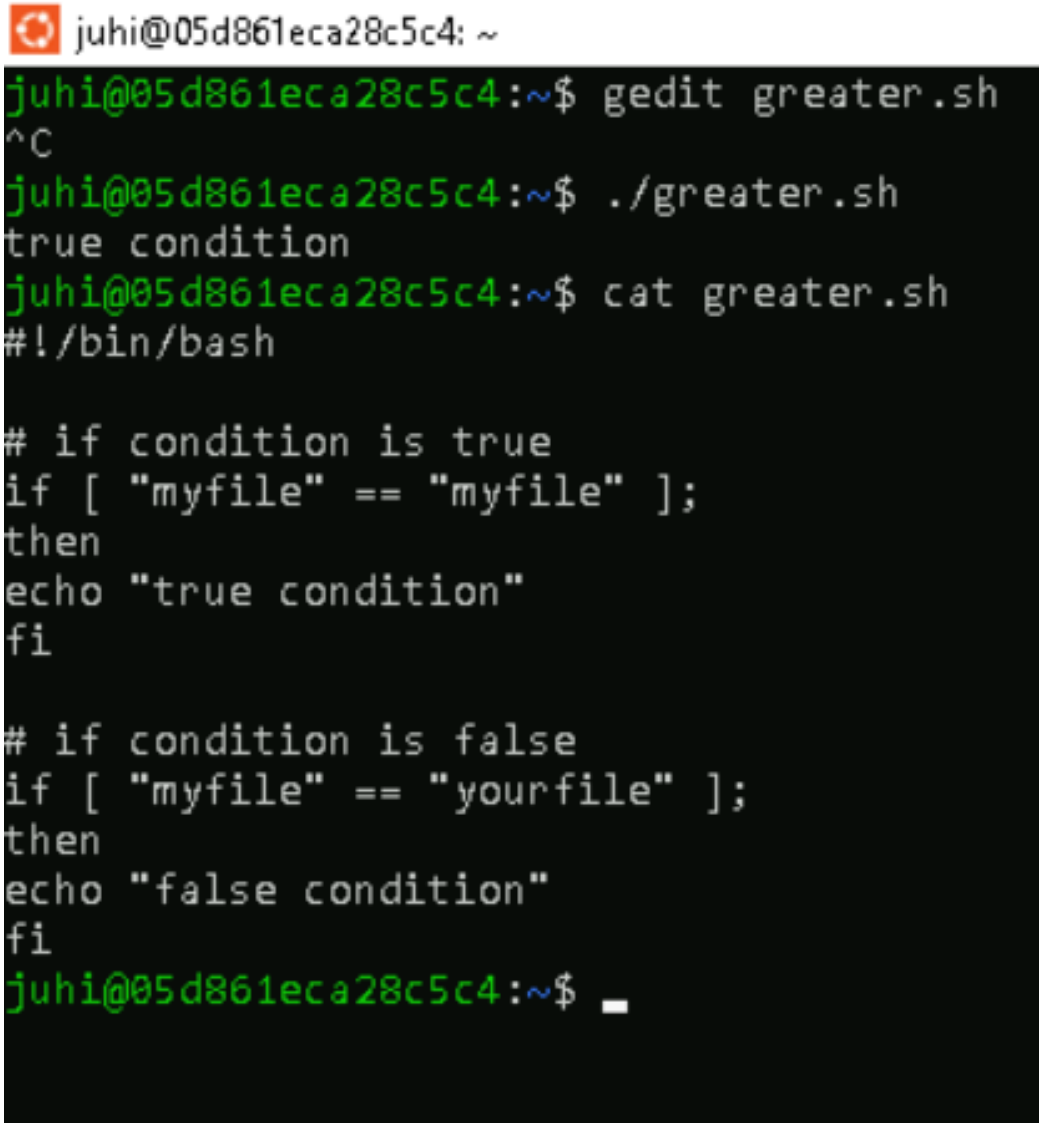
```
juhi@05d861eca28c5c4:~$ cat operators.sh
#!/bin/bash

x=8
y=2
echo "x=8, y=2"
echo "Addition of x & y"
echo $(( $x + $y ))
echo "Subtraction of x & y"
echo $(( $x - $y ))
echo "Multiplication of x & y"
echo $(( $x * $y ))
echo "Division of x by y"
echo $(( $x / $y ))
echo "Exponentiation of x,y"
echo $(( $x ** $y ))
echo "Modular Division of x,y"
echo $(( $x % $y ))
echo "Incrementing x by 5, then x= "
(( x += 5 ))
echo $x
echo "Decrementing x by 5, then x= "
(( x -= 5 ))
echo $x
echo "Multiply of x by 5, then x="
(( x *= 5 ))
echo $x
echo "Dividing x by 5, x= "
(( x /= 5 ))
echo $x
echo "Remainder of Dividing x by 5, x="
(( x %= 5 ))
echo $x
juhi@05d861eca28c5c4:~$
```

2. **BASH SCRIPT PROGRAM USING BACKTICK AND EXPR:**

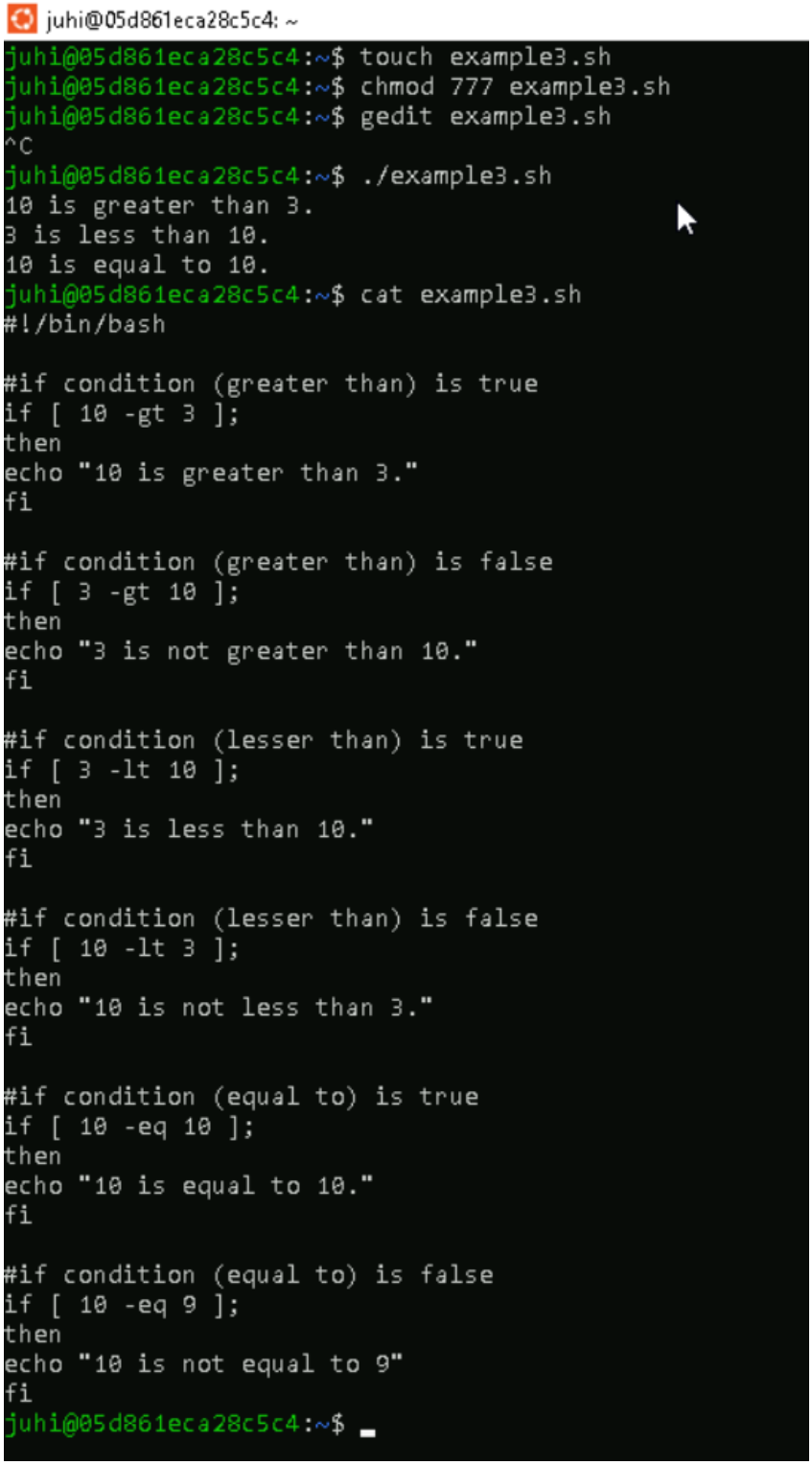


3. **CHECK IF THE VALUE IS GREATER THAN 125**

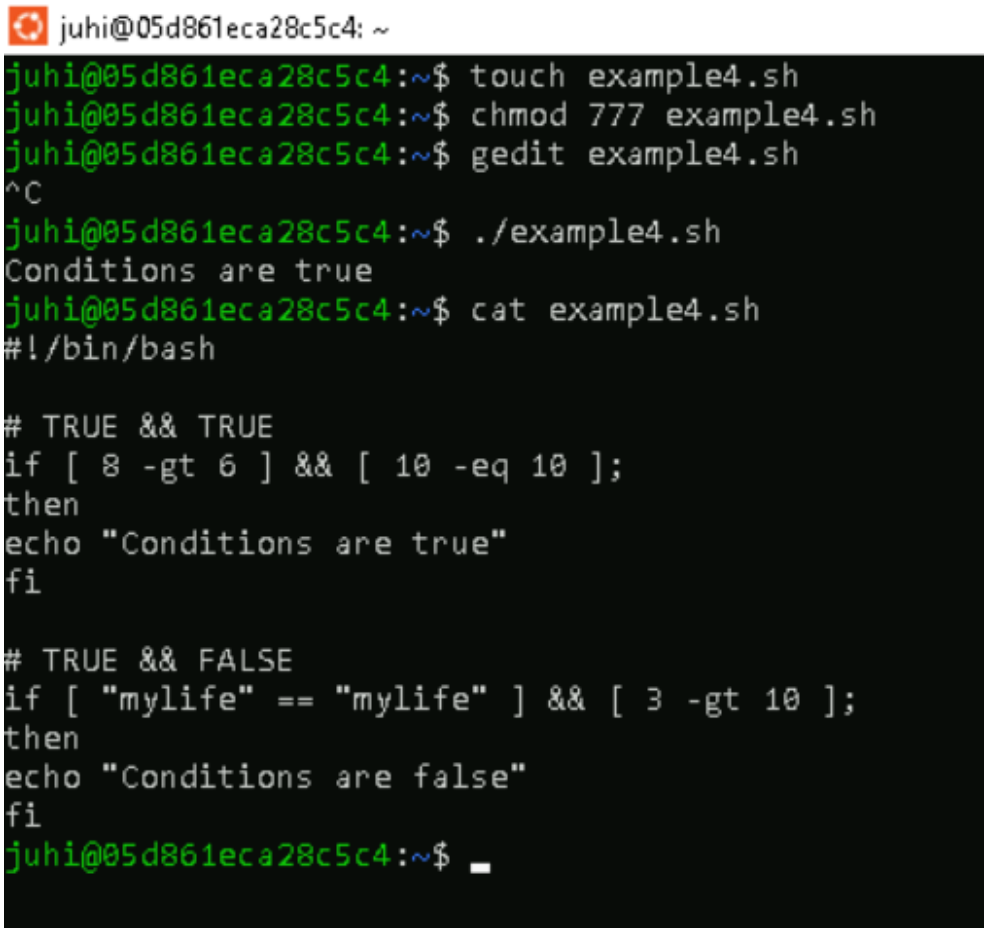
4. **IF STATEMENT WITH A SIMPLE SCENARIO OF COMPARING TWO STRINGS:**



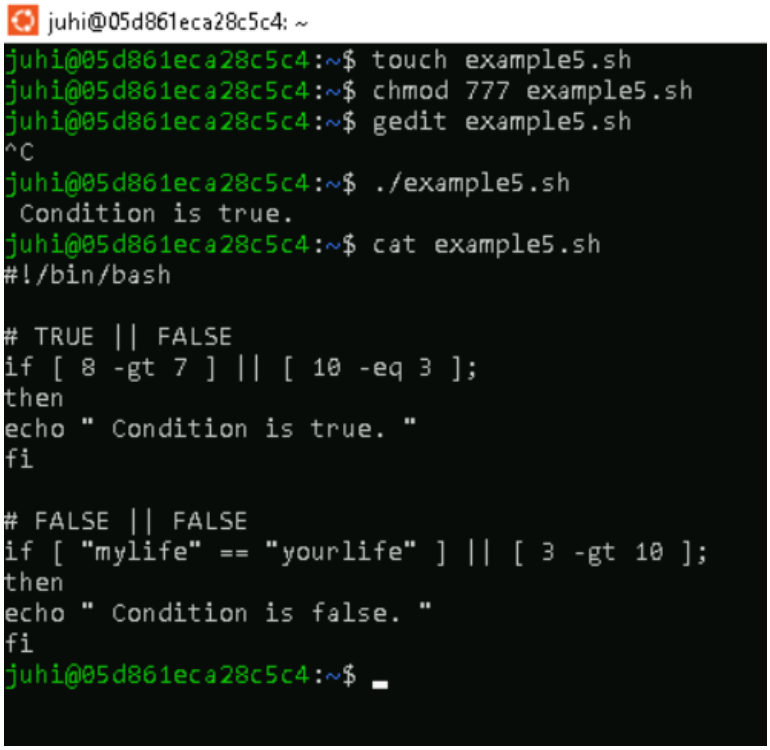
5. **COMPARE NUMBERS BY USING THE IF STATEMENT:**



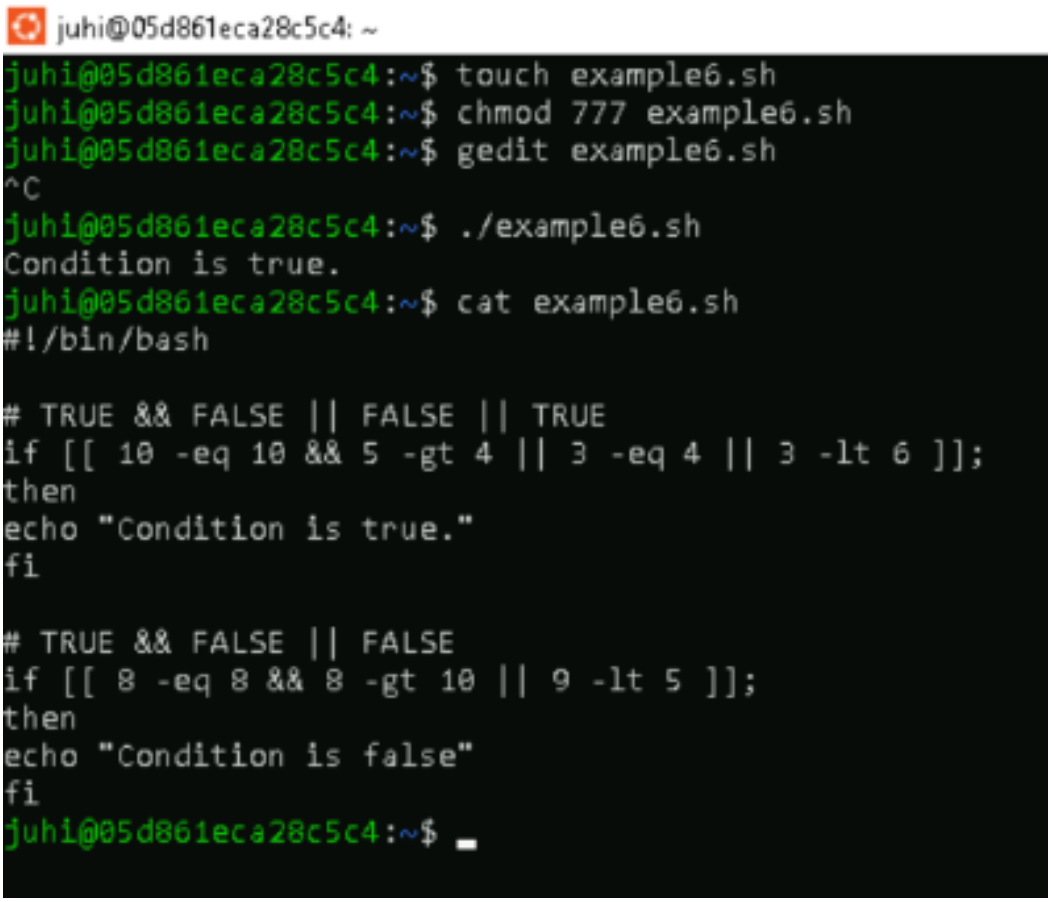
6. AND OPERATOR TO INCLUDE MULTIPLE CONDITIONS IN THE IF EXPRESSION



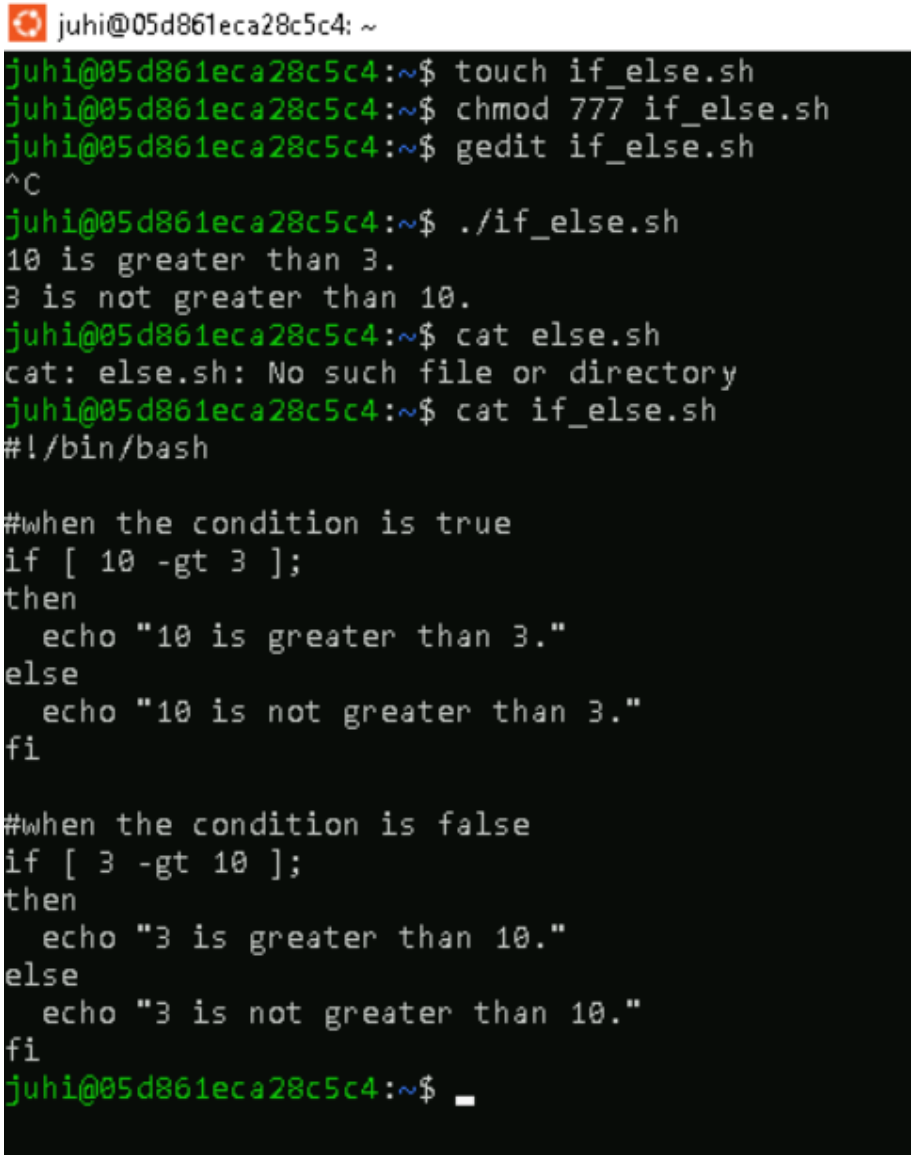
7. **USE OR OPERATOR TO INCLUDE MULTIPLE CONDITIONS IN THE IF EXPRESSION:**



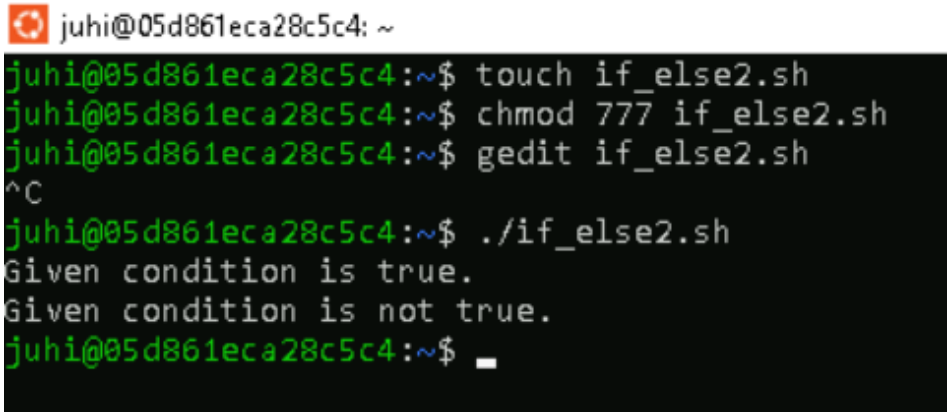
8. **USE AND AND OR TO INCLUDE MULTIPLE CONDITIONS IN THE IF EXPRESSION**



9. IF-ELSE STATEMENT



10. MULTIPLE CONDITIONS WITH THE IF-ELSE STATEMENT



Open if_else2.sh

```
#!/bin/bash

# When condition is true
# TRUE && FALSE || FALSE || TRUE
if [[ 10 -gt 9 && 10 == 9 || 2 -lt 1 || 25 -gt 20 ]];
then
  echo "Given condition is true."
else
  echo "Given condition is false."
fi

# When condition is false
#TRUE && FALSE || FALSE || TRUE
if [[ 10 -gt 9 && 10 == 8 || 3 -gt 4 || 8 -gt 8 ]];
then
  echo "Given condition is true."
else
  echo "Given condition is not true."
fi
```

11. IF ELSE STATEMENT IN SINGLE LINE:

```
juhi@05d861eca28c5c4:~$ touch ifelse-single.sh
juhi@05d861eca28c5c4:~$ chmod +x if
if-else          ifElse_single.sh  if_else.sh       if_else2.sh       ifelse-single.sh
juhi@05d861eca28c5c4:~$ chmod +x ifelse-single.sh
juhi@05d861eca28c5c4:~$ gedit ifelse-single.sh
juhi@05d861eca28c5c4:~$ ./ifelse-single.sh
Enter a value:23
The value you typed is greater than 9.
juhi@05d861eca28c5c4:~$
```

Open ifelse-single.sh Save

```
#!/bin/bash

read -p "Enter a value:" value
if [ $value -gt 9 ]; then echo "The value you typed is greater than 9."; else echo "The value
you typed is not greater than 9."; fi
```

12. NESTED IF ELSE:

juhi@05d861eca28c5c4: ~

```
juhi@05d861eca28c5c4:~$ touch NestedIF_else.sh
juhi@05d861eca28c5c4:~$ chmod 777 NestedIF_else.sh
juhi@05d861eca28c5c4:~$ gedit NestedIF_else.sh
^C
juhi@05d861eca28c5c4:~$ ./NestedIF_else.sh
Enter a value:123
The value you typed is greater than 9.
juhi@05d861eca28c5c4:~$
```

Open NestedIF_else.sh

```
#!/bin/bash

read -p "Enter a value:" value
if [ $value -gt 9 ];
then
  if [ $value -lt 11 ];
  then
     echo "$value>9, $value<11"
  else
    echo "The value you typed is greater than 9."
  fi
else echo "The value you typed is not greater than 9."
fi
```

13. ELIF STATEMENT:

```
juhi@05d861eca28c5c4:~$ touch elif.sh
juhi@05d861eca28c5c4:~$ chmod +x elif.sh
juhi@05d861eca28c5c4:~$ gedit elif.sh
juhi@05d861eca28c5c4:~$ ./elif.sh
Enter a number of quantity:45
Eligible for 5% discount
juhi@05d861eca28c5c4:~$
```

Open elif.sh

```
#!/bin/bash

read -p "Enter a number of quantity:" num

if [ $num -gt 100 ];
then
echo "Eligible for 10% discount"
elif [ $num -lt 100 ];
then
echo "Eligible for 5% discount"
else
echo "Lucky Draw Winner"
echo "Eligible to get the item for free"
fi
```

14. MULTIPLE CONDITIONS WITH ELIF STATEMENT:

```
juhi@05d861eca28c5c4:~$ touch multi-elif.sh
juhi@05d861eca28c5c4:~$ chmod +x multi-elif.sh
juhi@05d861eca28c5c4:~$ gedit multi-elif.sh
juhi@05d861eca28c5c4:~$ ./multi-elif.sh
Enter a number of quantity:65
No discount
juhi@05d861eca28c5c4:~$
```

Open *multi-elif.sh ~ Save

```
#!/bin/bash

read -p "Enter a number of quantity:" num

if [ $num -gt 200 ];
then
echo "Eligible for 20% discount"

elif [[ $num == 200 || $num == 100 ]];
then
echo "Lucky Draw Winner"
echo "Eligible to get the item for free"

elif [[ $num -gt 100 && $num -lt 200 ]];
then
echo "Eligible for 10% discount"

elif [ $num -lt 100 ];
then
echo "No discount"
fi
```