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Bash Assignment

1)

ubuntu@77d2e6b99e1b5c6: ~/bash_exercise/bash_if

```
#!/bin/bash
read -p "Enter number: " number
if [ $number -gt 125 ]
then
        echo "Value is greater than 125"
fi
~
```

```
ubuntu@77d2e6b99e1b5c6:~/bash_exercise/bash_if$ ls
ubuntu@77d2e6b99e1b5c6:~/bash_exercise/bash_if$ vi example1.sh
ubuntu@77d2e6b99e1b5c6:~/bash_exercise/bash_if$ chmod u+x example1.sh
ubuntu@77d2e6b99e1b5c6:~/bash_exercise/bash_if$ ./example1.sh
Enter number: 20
ubuntu@77d2e6b99e1b5c6:~/bash_exercise/bash_if$ vi example1.sh
ubuntu@77d2e6b99e1b5c6:~/bash_exercise/bash_if$ ./example1.sh
Enter number: 660
Value is greater than 125
ubuntu@77d2e6b99e1b5c6:~/bash_exercise/bash_if$
```

2)

ubuntu@77d2e6b99e1b5c6: ~/bash_exercise/bash_if

```
#!/bin/bash
read myfile
if [ $myfile == "myfile" ];
then
        echo "true condition"
fi
if [ $myfile == "yourfile" ];
then
        echo "false condition"
fi
```

ubuntu@77d2e6b99e1b5c6: ~/bash_exercise/bash_if

```
ubuntu@77d2e6b99e1b5c6:~/bash_exercise/bash_if$ ./example2.sh
yourfile
false condition
ubuntu@77d2e6b99e1b5c6:~/bash_exercise/bash_if$
```

3)

ubuntu@77d2e6b99e1b5c6: ~/bash_exercise/bash_if

```
#!/bin/bash

if [ 10 -gt 3 ];
then
echo "10 is greater than 3."
fi
if [ 3 -gt 10 ];
then
echo "3 is not greater than 10."
fi
if [ 3 -lt 10 ];
then
echo "3 is less than 10."
fi
if [ 10 -lt 3 ];
then
echo "10 is not less than 3."
fi
if [ 10 -eq 10 ];
then
echo "10 is equal to 10."
fi
if [ 10 -eq 9 ];
then
echo "10 is not equal to 9"
fi
```

```
ubuntu@77d2e6b99e1b5c6:~/bash_exercise/bash_if$ nano example3.sh
ubuntu@77d2e6b99e1b5c6:~/bash_exercise/bash_if$ chmod u+x example3.sh
ubuntu@77d2e6b99e1b5c6:~/bash_exercise/bash_if$ ./example3.sh
10 is greater than 3.
3 is less than 10.
10 is equal to 10.
ubuntu@77d2e6b99e1b5c6:~/bash_exercise/bash_if$
```

4)

ubuntu@77d2e6b99e1b5c6: ~/bash_exercise/bash_if

```
#!/bin/bash


if [ 8 -gt 6 ] && [ 10 -eq 10 ];
then
echo "Conditions are true"
fi


if [ "mylife" == "mylife" ] && [ 3 -gt 10 ];
then
echo "Conditions are false"
fi
```

```
ubuntu@77d2e6b99e1b5c6:~/bash_exercise/bash_if$ vi example4.sh
ubuntu@77d2e6b99e1b5c6:~/bash_exercise/bash_if$ chmod u+x example4.sh
ubuntu@77d2e6b99e1b5c6:~/bash_exercise/bash_if$ ./example4.sh
Conditions are true
ubuntu@77d2e6b99e1b5c6:~/bash_exercise/bash_if$
```

5)

ubuntu@77d2e6b99e1b5c6: ~/bash_exercise/bash_if

```
#!/bin/bash


if [ 8 -gt 7 ] || [ 10 -eq 3 ];
then
echo " Condition is true. "
fi


if [ "mylife" == "yourlife" ] || [ 3 -gt 10 ];
then
echo " Condition is false. "
fi
```

```
ubuntu@77d2e6b99e1b5c6:~/bash_exercise/bash_if$ ./example5.sh
 Condition is true.
ubuntu@77d2e6b99e1b5c6:~/bash_exercise/bash_if$
```

6)

ubuntu@77d2e6b99e1b5c6: ~/bash_exercise/bash_if

```
#!/bin/bash


if [[ 10 -eq 10 && 5 -gt 4 || 3 -eq 4 || 3 -lt 6 ]];
then
echo "Condition is true."
fi


if [[ 8 -eq 8 && 8 -gt 10 || 9 -lt 5 ]];
then
echo "Condition is false"
fi
```

```
ubuntu@77d2e6b99e1b5c6:~/bash_exercise/bash_if$ ./example6.sh
Condition is true.
```

7)

ubuntu@77d2e6b99e1b5c6: ~/bash_exercise/bash_if

```
#!/bin/bash
#Nested if statement

if [ $1 -gt 50 ]
then
  echo "Number is greater than 50."

  if (( $1 % 2 == 0 ))
  then
    echo "and it is an even number."
  fi
fi
```

8)

```
ubuntu@77d2e6b99e1b5c6: ~/bash_exercise/bash_if_else
#!/bin/bash


if [ 10 -gt 3 ];
then
  echo "10 is greater than 3."
else
  echo "10 is not greater than 3."
fi

if [ 3 -gt 10 ];
then
  echo "3 is greater than 10."
else
  echo "3 is not greater than 10."
fi
~
```

```
ubuntu@77d2e6b99e1b5c6:~/bash_exercise/bash_if_else$ nano example1.sh
ubuntu@77d2e6b99e1b5c6:~/bash_exercise/bash_if_else$ vi example1.sh
ubuntu@77d2e6b99e1b5c6:~/bash_exercise/bash_if_else$ chmod a+x example1.sh
ubuntu@77d2e6b99e1b5c6:~/bash_exercise/bash_if_else$ ./example1.sh
10 is greater than 3.
3 is not greater than 10.
ubuntu@77d2e6b99e1b5c6:~/bash_exercise/bash_if_else$
```

9)

```
ubuntu@77d2e6b99e1b5c6: ~/bash_exercise/bash_if_else
#!/bin/bash
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
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
~
~
~
~
~
```

```
ubuntu@77d2e6b99e1b5c6:~/bash_exercise/bash_if_else$ vi example1.sh
ubuntu@77d2e6b99e1b5c6:~/bash_exercise/bash_if_else$ nano example2.sh
ubuntu@77d2e6b99e1b5c6:~/bash_exercise/bash_if_else$ chmod a+x example2.sh
ubuntu@77d2e6b99e1b5c6:~/bash_exercise/bash_if_else$ ./example2.sh
Given condition is true.
Given condition is not true.
ubuntu@77d2e6b99e1b5c6:~/bash_exercise/bash_if_else$
```

10)

```
ubuntu@77d2e6b99e1b5c6: ~/bash_exercise/bash_if_else
#!/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
~
~
```

```
ubuntu@77d2e6b99e1b5c6:~/bash_exercise/bash_if_else$ vi example2.sh
ubuntu@77d2e6b99e1b5c6:~/bash_exercise/bash_if_else$ nano example3.sh
ubuntu@77d2e6b99e1b5c6:~/bash_exercise/bash_if_else$ chmod a+x example3.sh
ubuntu@77d2e6b99e1b5c6:~/bash_exercise/bash_if_else$ ./example3.sh
Enter a value:30
The value you typed is greater than 9.
```

11)

```
ubuntu@77d2e6b99e1b5c6: ~/bash_exercise/bash_if_else
#!/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
```

```
ubuntu@77d2e6b99e1b5c6:~/bash_exercise/bash_if_else$ ./example4.sh
Enter a value:50
The value you typed is greater than 9.
ubuntu@77d2e6b99e1b5c6:~/bash_exercise/bash_if_else$ ./example4.sh
Enter a value:10
10>9, 10<11
```

12)

```
ubuntu@77d2e6b99e1b5c6: ~/bash_exercise
#!/bin/bash
x=8
y=2
echo "x=8, y=2"
echo "Addition of x & y"
echo $(( $x + $y))
echo "Subraction of x & y"
echo $(( $x - $y))
echo "Multiplication of x & y"
echo $(( $x * $y ))
echo "Divison of x by y"
echo $(( $x / $y ))
echo "Exponentiation 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 "Dividing x by 5, x= "
(( x /= 5 ))
echo $x
echo "Remainder of dividing x by 5, x="
(( x %= 5))
echo $
```

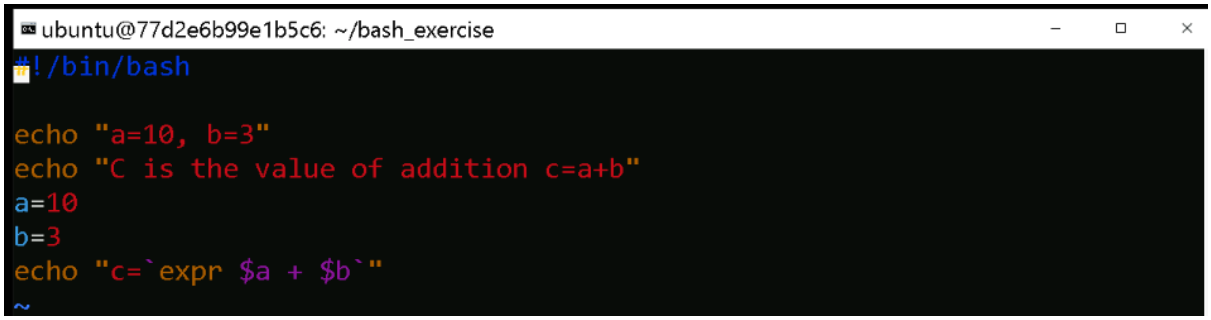
```
ubuntu@77d2e6b99e1b5c6:~/bash_exercise$ chmod u+x calculator.sh
ubuntu@77d2e6b99e1b5c6:~/bash_exercise$ ./calculator.sh
x=8, y=2
Addition of x & y
10
Subraction of x & y
6
Multiplication of x & y
16
Divison of x by y
4
Exponentiation of x,y
64
Incrementing x by 5, then x=
13
Decrementing x by 5, then x=
65
Dividing x by 5, x=
13
Remainder of dividing x by 5, x=
3
ubuntu@77d2e6b99e1b5c6:~/bash_exercise$
```

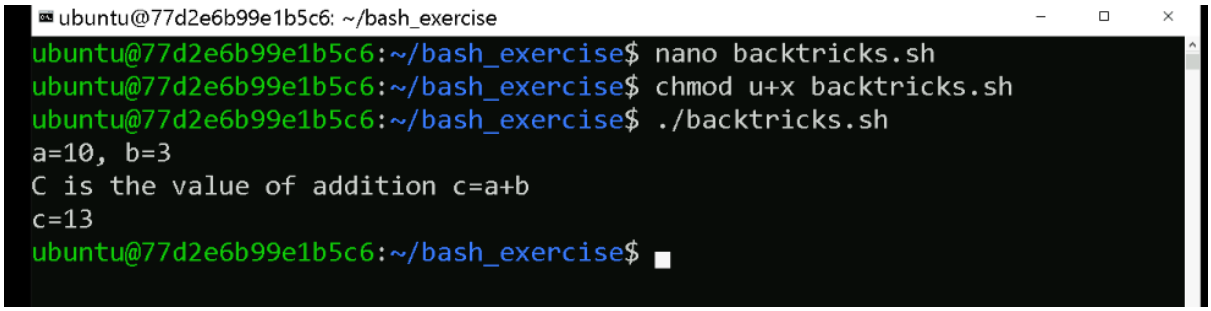
13)

```
#!/bin/bash
#
x=10
y=6
z=0
echo "Addition"
let "z=$((x+y))"
echo "z=$z"
echo "Subraction"
let "z=$((x-y))"
echo "z=$z"
echo "Multiplication"
let "z=$((x*y))"
echo "z=$z"
echo "Divison"
let "z=$(( x/y ))"
echo "z=$z"
echo "Modular Division"
let "z=$((x%y))"
echo "z=$z"
let "x+=5"
echo "Incrementing x by 5, then x="
echo $x
let "x*=5"
echo "Decrementing x by 5, then x="
echo $x
let "x/=5"
echo "Dividing x by 5, x= "
echo $x
let "x%=5"
echo "Remainder of Dividing x by 5, x="
echo $
```

```
ubuntu@77d2e6b99e1b5c6:~/bash_exercise$ chmod u+x calculator2.sh
ubuntu@77d2e6b99e1b5c6:~/bash_exercise$ ./calculator2.sh
Addition
z=16
Subraction
z=4
Multiplication
z=60
Divison
z=1
Modular Division
z=4
Incrementing x by 5, then x=
15
Decrementing x by 5, then x=
75
Dividing x by 5, x=
15
Remainder of Dividing x by 5, x=
0
```

14) Backtricks


ubuntu@77d2e6b99e1b5c6: ~/bash_exercise
#!/bin/bash
echo "a=10, b=3"
echo "C is the value of addition c=a+b"
a=10
b=3
echo "c=`expr $a + $b`"
~


ubuntu@77d2e6b99e1b5c6: ~/bash_exercise
ubuntu@77d2e6b99e1b5c6:~/bash_exercise$ nano backtricks.sh
ubuntu@77d2e6b99e1b5c6:~/bash_exercise$ chmod u+x backtricks.sh
ubuntu@77d2e6b99e1b5c6:~/bash_exercise$ ./backtricks.sh
a=10, b=3
C is the value of addition c=a+b
c=13
ubuntu@77d2e6b99e1b5c6:~/bash_exercise$