



OS ASSIGNMENT 01

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TASK 01:

Find whether a year is leap or not.

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

read -p "Enter the year: " year

if (( (year % 4 == 0 && year % 100 != 0) || (year % 400 == 0) )); then
    echo "Leap year."
else
    echo "Not a Leap year"
fi
```

```
(kali@kali)-[~/Documents]
$ bash hello.sh
Enter the year: 2004
Leap year.

(kali@kali)-[~/Documents]
$ bash hello.sh
Enter the year: 2005
Not a Leap year
```

TASK 02:

Factorial finder

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

read -p "Enter a number that is non-zero and not negative: " number

factorial=1

if ((number <= 0))
then
    echo "Factorial is not defined for non-positive numbers."
else
    for ((i = 1; i <= number; i++))
    do
        factorial=$((factorial * i))
    done
    echo $factorial
fi
```

```
(kali@kali)-[~/Documents]
$ bash hello.sh
Enter a number that is non-zero and not negative: 4
24
```

TASK 03:

Swap two numbers

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

echo "Before swapping:"
echo "First integer: $1"
echo "Second integer: $2"

temp=$1
num1=$2
num2=$temp

echo "After swapping:"
echo "First integer: $num1"
echo "Second integer: $num2"
```

```
(kali㉿kali)-[~/Documents]
$ bash hello.sh 1 2
Before swapping:
First integer: 1
Second integer: 2
After swapping:
First integer: 2
Second integer: 1
```

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