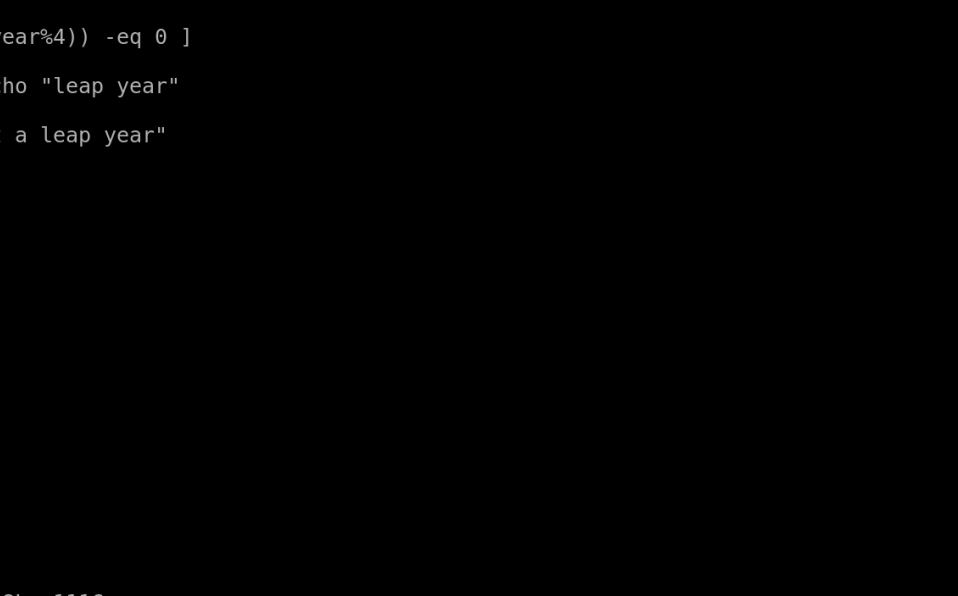


**Date : 07.02.2025**

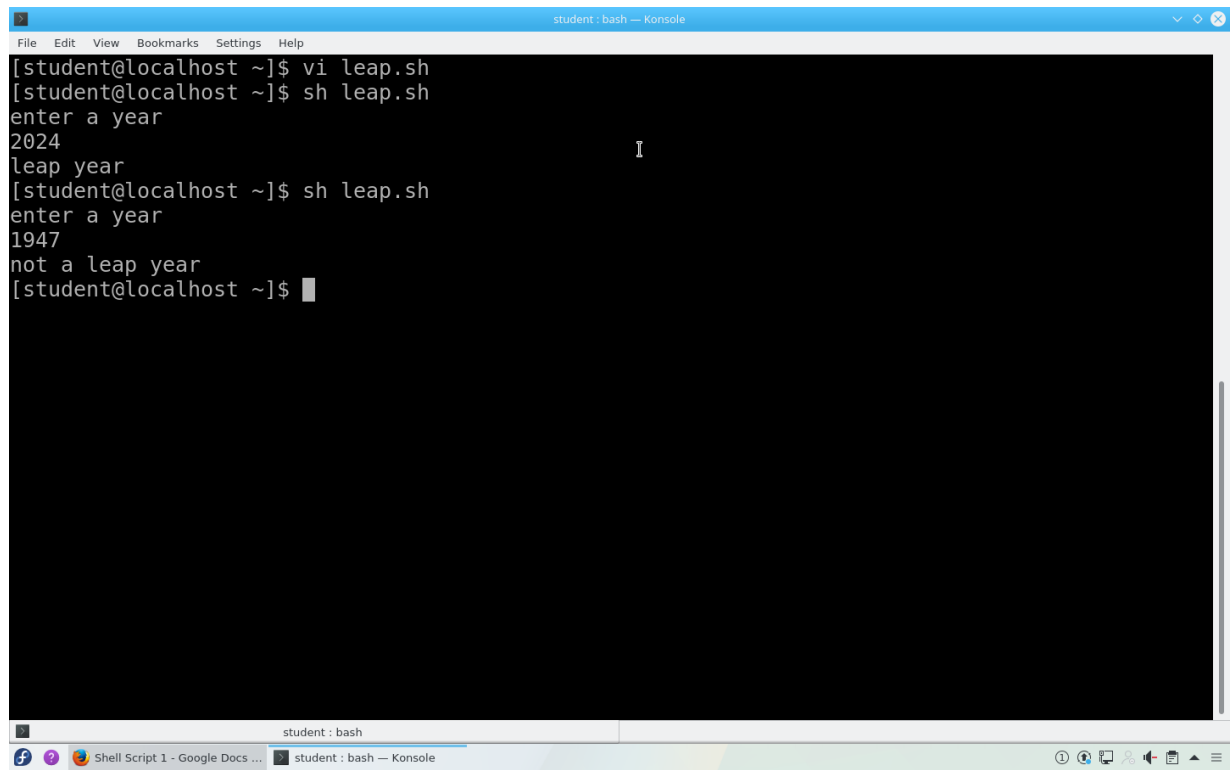
**Name : VISHWAK S**



```
echo "enter a year"
read year
if [ $((year%4)) -eq 0 ]
then
    echo "leap year"
else
    echo "not a leap year"
fi
```

The screenshot shows a terminal window with a dark background. The text is white. The script prompts the user to enter a year, reads the input, and checks if it is divisible by 4. If yes, it prints "leap year", otherwise "not a leap year". The prompt "leap.sh" 8L, 111C is visible at the bottom left of the terminal area.

## Output:



```
[student@localhost ~]$ vi leap.sh
[student@localhost ~]$ sh leap.sh
enter a year
2024
leap year
[student@localhost ~]$ sh leap.sh
enter a year
1947
not a leap year
[student@localhost ~]$
```

The screenshot shows a terminal window titled "student : bash --- Konsole". The terminal displays the following sequence of commands and outputs:

- `[student@localhost ~]$ vi leap.sh`
- `[student@localhost ~]$ sh leap.sh`
- enter a year
- 2024
- leap year
- `[student@localhost ~]$ sh leap.sh`
- enter a year
- 1947
- not a leap year
- `[student@localhost ~]$`

The terminal window has a menu bar with "File", "Edit", "View", "Bookmarks", "Settings", and "Help". The bottom status bar shows the current directory as "~" and the shell as "bash".

## Result:

Hence the Shell Script to test given year is leap or not using conditional statement has been executed successfully.

**Ex. No. : 3b**

**Date : 08.02.2025**

**Register No. : 230701385**

**Name : VISHWAK S**

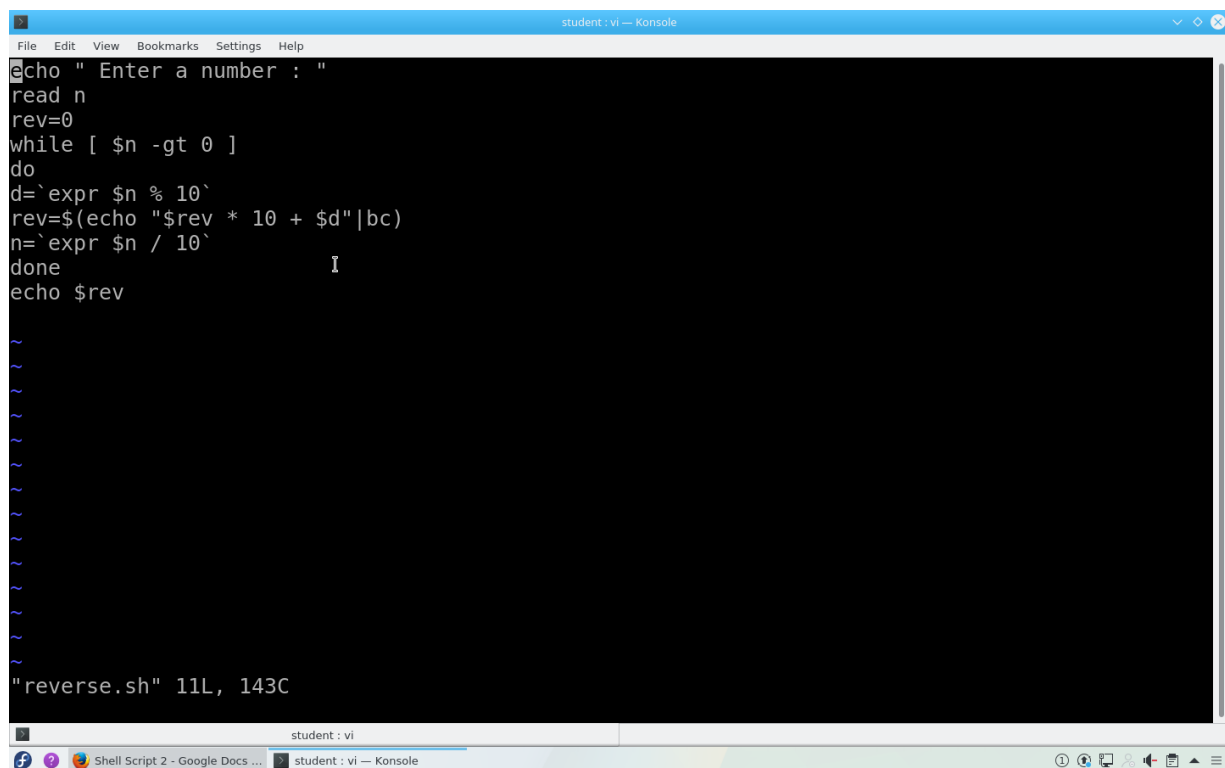
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## **Shell Script - Reverse the Number**

### **Aim:**

To write a Shell script to reverse a given digit using a looping statement.

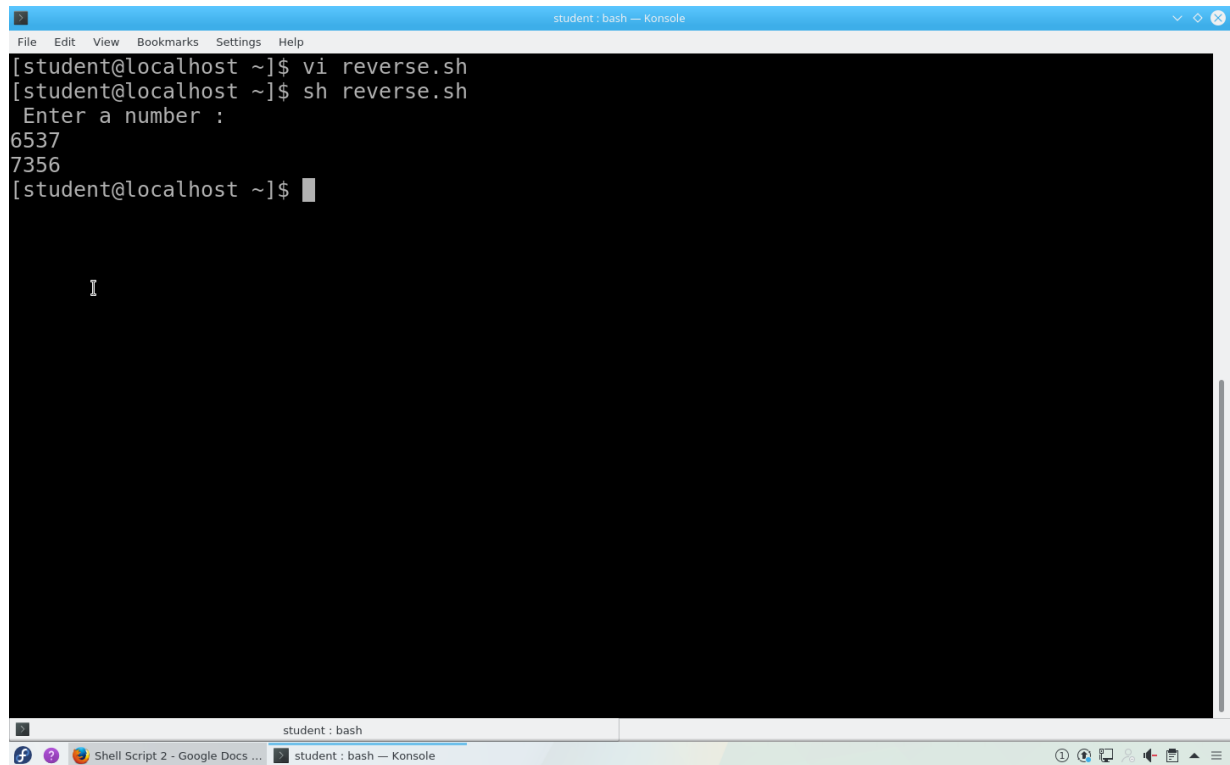
### **Program:**

A screenshot of a terminal window titled "student : vi — Konsole". The window displays a shell script for reversing a number. The script uses a while loop to repeatedly extract the last digit of a number and build the reversed number. The script is as follows:

```
echo " Enter a number : "  
read n  
rev=0  
while [ $n -gt 0 ]  
do  
d=`expr $n % 10`  
rev=$(echo "$rev * 10 + $d"|bc)  
n=`expr $n / 10`  
done  
echo $rev
```

The terminal shows several tilde (~) characters representing input, and the command prompt at the bottom indicates the script is 11 lines long and 143 characters wide: `"reverse.sh" 11L, 143C`. The terminal window is part of a desktop environment with a taskbar at the bottom showing other open applications like "Shell Script 2 - Google Docs ...".

## Output:



```
[student@localhost ~]$ vi reverse.sh
[student@localhost ~]$ sh reverse.sh
Enter a number :
6537
7356
[student@localhost ~]$
```

The screenshot shows a terminal window titled "student : bash -- Konsole". The terminal displays the following commands and output:

- `[student@localhost ~]$ vi reverse.sh`
- `[student@localhost ~]$ sh reverse.sh`
- `Enter a number :`
- `6537`
- `7356`
- `[student@localhost ~]$`

The output shows the number 6537 being entered and 7356 being printed, which is the reverse of 6537. The terminal window has a menu bar with "File", "Edit", "View", "Bookmarks", "Settings", and "Help". The bottom of the window shows a taskbar with icons for a file manager, a web browser, and a terminal window.

## Result:

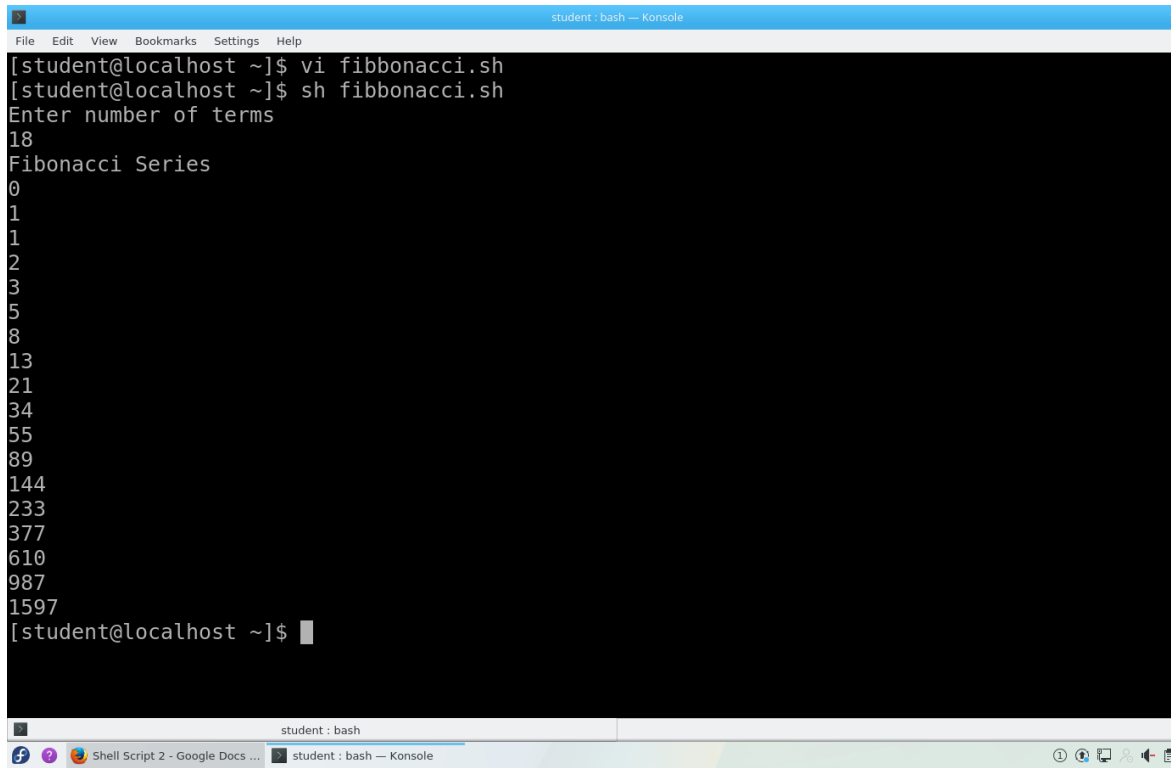
Hence the Shell script to reverse a given digit using a looping statement has been executed successfully.

**Date : 08.02.2025**

**Name : VISHWAK S**

```
echo "Enter number of terms"
read n
a=-1
b=1
echo "Fibonacci Series"
for((i=1;i<=$n;i++))
do
c=$(echo "$a + $b"|bc)
echo $c
a=$b
b=$c
done
```

## Output:



The screenshot shows a terminal window titled "student : bash — Konsole". The user enters the command `vi fibbonacci.sh` to edit the script, followed by `sh fibbonacci.sh` to execute it. The script prompts "Enter number of terms" and the user enters "18". The script then outputs the "Fibonacci Series" with the following values: 0, 1, 1, 2, 3, 5, 8, 13, 21, 34, 55, 89, 144, 233, 377, 610, 987, and 1597. The terminal window has a menu bar with "File", "Edit", "View", "Bookmarks", "Settings", and "Help". The bottom of the window shows a taskbar with icons for a file manager, a help icon, a Google Docs document titled "Shell Script 2 - Google Docs ...", and the terminal window itself.

```
[student@localhost ~]$ vi fibbonacci.sh
[student@localhost ~]$ sh fibbonacci.sh
Enter number of terms
18
Fibonacci Series
0
1
1
2
3
5
8
13
21
34
55
89
144
233
377
610
987
1597
[student@localhost ~]$
```

## Result:

Hence the Shell script to generate a Fibonacci series using for loop has been executed successfully.