

Ex. No.: 3a)**Shell Script – Reverse of Digit****Date:28.01.25****Aim:**

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

Program:

```
echo "Enter a number"
read num
reverse=0
digit=0
while [ $num -gt 0 ]
do
    digit=$((num % 10))
    reverse=$((reverse * 10 + digit))
    num=$((num / 10))
done
echo "$reverse"
```

Sample Input and Output

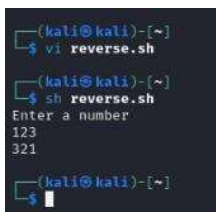
Run the program using the below command

```
[REC@local host~]$sh indhu.sh
```

```
enter number
```

```
123
```

```
321
```



```
(kali㉿kali)-[~]
$ vi reverse.sh
(kali㉿kali)-[~]
$ sh reverse.sh
Enter a number
123
321
(kali㉿kali)-[~]
$
```

Result:

Thus, the reverse a digit program has been successfully executed.

Ex. No.: 3b)

Shell Script – Fibonacci Series

Date:28.01.25

Aim:

To write a Shell script to generate a Fibonacci series using for loop.

Program:

```
echo "Enter a number"
```

```
read n
```

```
a=0
```

```
b=1
```

```
echo "Fibonacci Series"
```

```
echo -n "$a $b "
```

```
i=2
```

```
for i in $(seq 2 $((n-1)))
```

```
do
```

```
    fn=`expr $a + $b`
```

```
    echo -n "$fn "
```

```
    a=$b
```

```
    b=$fn
```

```
done
```

```
echo
```

Sample Input and Output

Run the program using the below command

```
[REC@local host~]$sh indhu.sh
```

```
enter number
```

```
21
```

```
fibonacci series
```

0
1
1
2
3
5
8
13
21
34
55
89
144
233
377

A terminal window screenshot showing the execution of a script. The prompt is (kali@kali)-[~]. The user enters 'vi fibonacci.sh' twice. Then they enter 'sh fibonacci.sh'. The script prompts 'Enter a number' and the user enters '21'. The output is 'Fibonacci Series' followed by the sequence '1 2 3 5 8 13 21 34 55 89 144 233 377 610 987 1597 2584 4181 6765'.

```
(kali@kali)-[~]  
$ vi fibonacci.sh  
$ vi fibonacci.sh  
$ sh fibonacci.sh  
Enter a number  
21  
Fibonacci Series  
1 2 3 5 8 13 21 34 55 89 144 233 377 610 987 1597 2584 4181 6765
```

Result:

Thus, the Fibonacci program has been successfully executed.