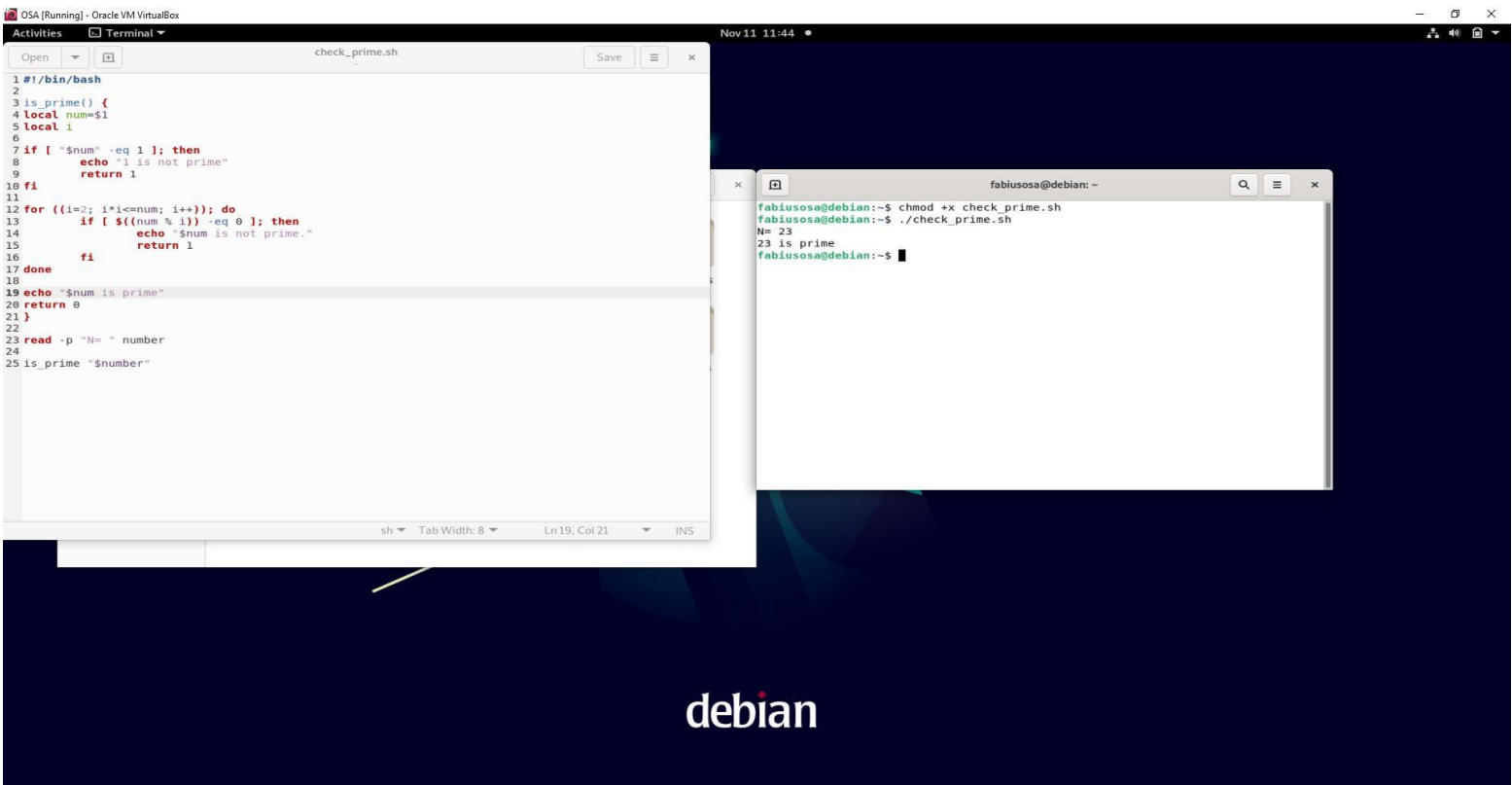


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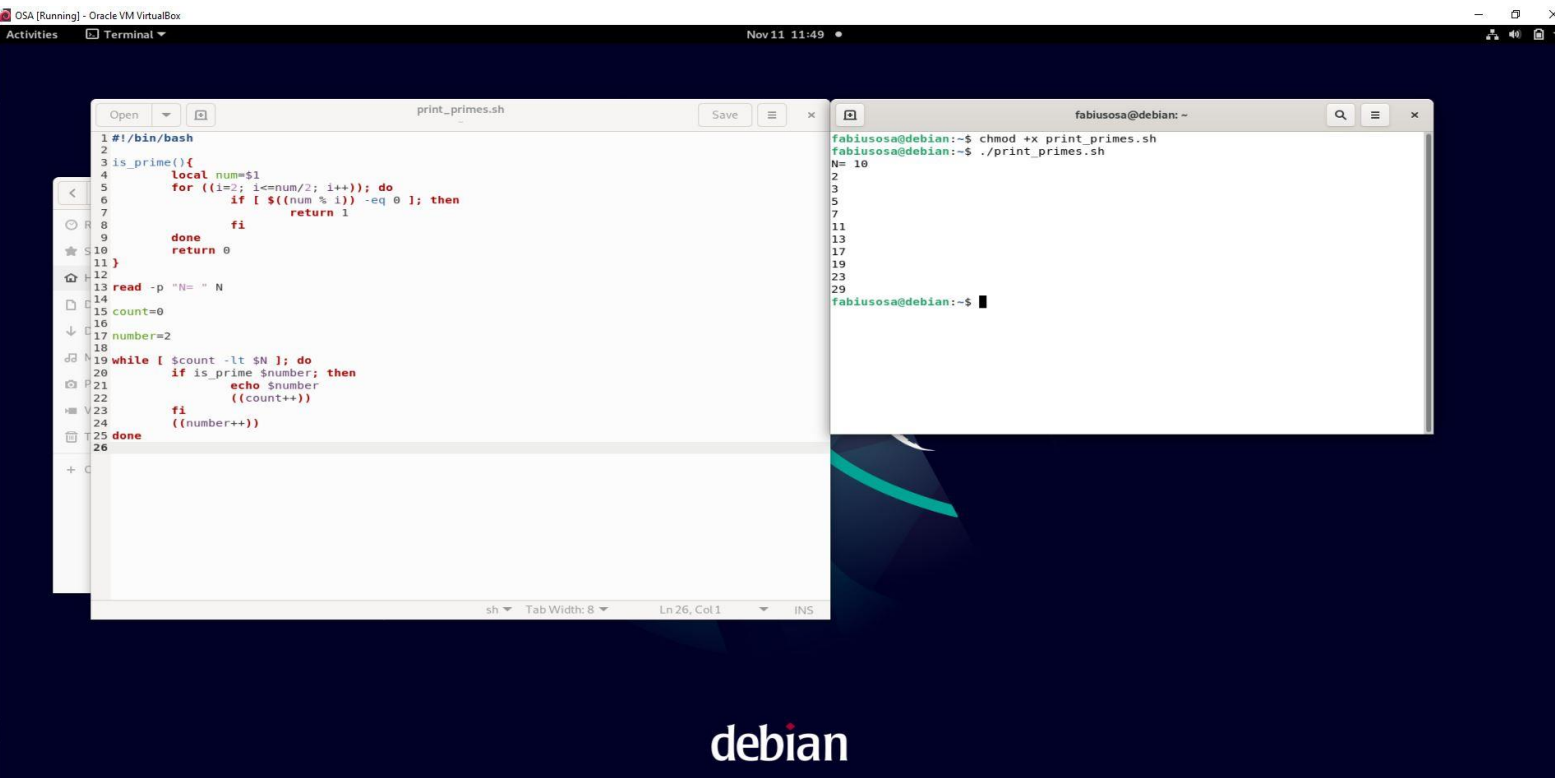
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The screenshot shows a Debian VM desktop with a dark blue background and the 'debian' logo. Two terminal windows are open. The left window, titled 'check_prime.sh', displays the source code of a shell script that checks if a number is prime. The right window, titled 'fabiusosa@debian: ~', shows the user making the script executable with 'chmod +x check_prime.sh' and then running it with './check_prime.sh'. The script prompts for a number (N= 23) and outputs '23 is prime'.

```
1 #!/bin/bash
2
3 is_prime() {
4     local num=$1
5     local i
6
7     if [ "$num" -eq 1 ]; then
8         echo "1 is not prime"
9         return 1
10    fi
11
12    for ((i=2; i<=num; i++)); do
13        if [ $(num % i) -eq 0 ]; then
14            echo "$num is not prime."
15            return 1
16        fi
17    done
18    echo "$num is prime"
19    return 0
20 }
21
22 read -p "N= " number
23
24 is_prime "$number"
```

```
fabiusosa@debian:~$ chmod +x check_prime.sh
fabiusosa@debian:~$ ./check_prime.sh
N= 23
23 is prime
fabiusosa@debian:~$
```



The screenshot shows the same Debian VM desktop. Two terminal windows are open. The left window, titled 'print_primes.sh', displays the source code of a shell script that prints all prime numbers up to a given number N. The right window, titled 'fabiusosa@debian: ~', shows the user making the script executable with 'chmod +x print_primes.sh' and then running it with './print_primes.sh'. The script prompts for a number (N= 10) and outputs the primes 2, 3, 5, and 7.

```
1 #!/bin/bash
2
3 is_prime() {
4     local num=$1
5     for ((i=2; i<=num/2; i++)); do
6         if [ $(num % i) -eq 0 ]; then
7             return 1
8         fi
9     done
10    return 0
11 }
12
13 read -p "N= " N
14 count=0
15 number=2
16
17 while [ $count -lt $N ]; do
18     if is_prime $number; then
19         echo $number
20         ((count++))
21     fi
22     ((number++))
23 done
```

```
fabiusosa@debian:~$ chmod +x print_primes.sh
fabiusosa@debian:~$ ./print_primes.sh
N= 10
2
3
5
7
fabiusosa@debian:~$
```

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```
Open  ▾  fibonacci.sh  Save  ≡  x
1 #!/bin/bash
2
3 print_fibonacci() {
4     local n=$1
5     local a=0
6     local b=1
7
8     for ((i=0; i<n; i++)); do
9         echo -n "$a "
10        local temp=b
11        b=$((a + b))
12        a=temp
13    done
14    echo ""
15 }
16
17 read -p "Fibo(N): " N
18
19 print_fibonacci $N
```

sh ▾ Tab Width: 8 ▾ Ln 19, Col 19 ▾ INS

```
fabiusosa@debian: ~
fabiusosa@debian:~$ chmod +x fibonacci.sh
fabiusosa@debian:~$ ./fibonacci.sh
Fibo(N): 7
0 1 1 2 3 5 8
fabiusosa@debian:~$
```