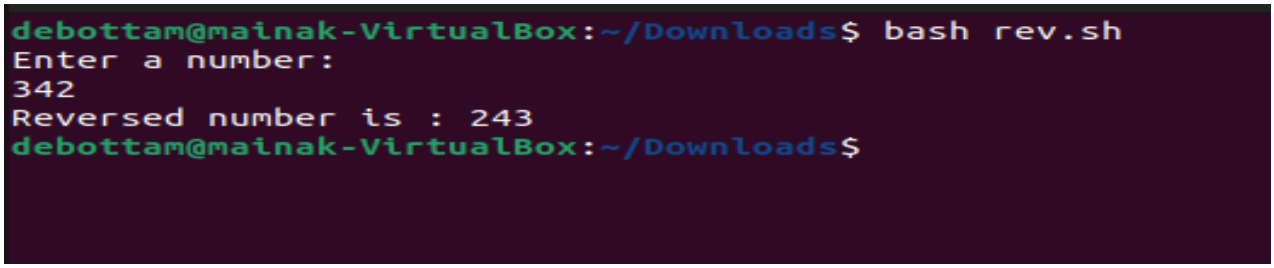
1. **Write a shell script to input a number print a number in reverse order.**

CODE:

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

OUTPUT:



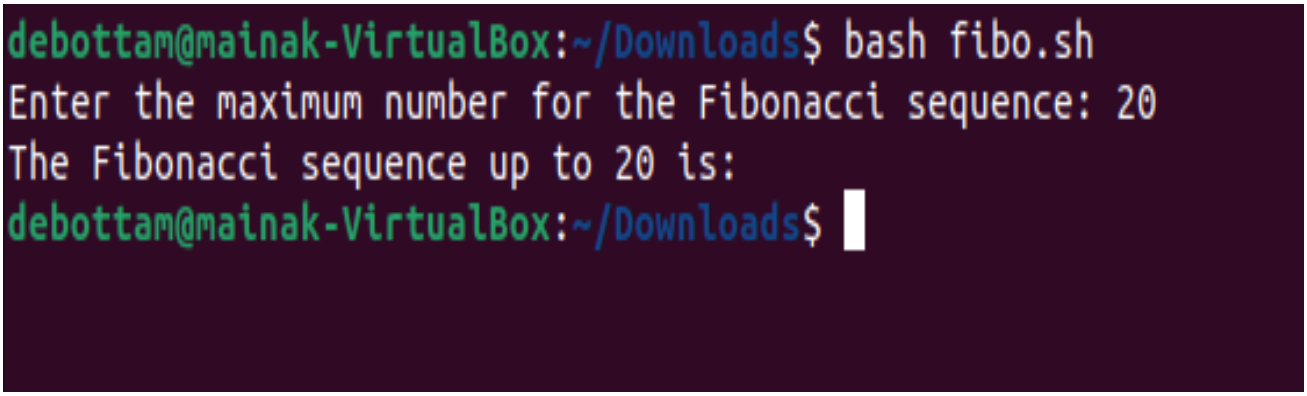
2. **Write a shell script to input a number print Fibonacci series up to that given number. The series starts with 1 1 …..**

CODE:

```
function print_fibonacci() {
        max=$1
        a=1
        b=1
        echo "The Fibonacci sequence up to $max is: "

        while [ $a -le $max ]
        do
                echo -n "$a "
                fn=$((a + b))
                a=$b
                b=$fn
        done
}
read -p "Enter the maximum number for the Fibonacci sequence: " max_number
print_fibonacci $max_number
```

OUTPUT:



3. Write a shell script to input a sentence and print the longest word in it.

CODE:

```
echo "Enter a sentence:"
read sentence

words=($(echo "$sentence" | tr -d '[:punct:]' | tr ' ' '\n'))

longest_word=""
max_length=0

for word in "${words[@]}"; do
        word_length=${#word}
        if [ "$word_length" -gt "$max_length" ]; then
                max_length=$word_length
                longest_word="$word"
        fi
done
echo "Longest word in the sentence: $longest_word"
```

OUTPUT: