

TCL PROGRAMS

Aim:- To perform programming on functions using tcl.

Program :- 26-1. Factorial of given number

```
set i 1;  
set product 1;  
puts "enter no";  
gets stdin x;  
while {$i <= $x} {  
    set product [expr $product * $i];  
    incr i;  
}  
puts "factorial of $x = $product";
```

Program :- 26-2. Sorting & appending list

```
set lst1 {a1 b1 c1 A1}  
puts $lst1  
set lst2 [lsort -ascii $lst1]  
puts $lst2  
set lst3 {5 54 3 22 66 77 31}  
set slst3 [lsort -integer $lst3];  
puts $slst3  
set ralst3 [lsort -integer -decreasing $lst3]  
puts $ralst3
```

Output 26.1

Factorial of a number $3 = 6$

Output 26.2

a1	b1	c1	A1
A1	a1	b1	c1
3	5	22	31
77	66	54	31
		54	22
		66	5
		77	3

Program : 26.3 . Multiplication Table .

```
proc times-table {n} {
    puts "Multiplication table for $n"
    for {set i 1} {$i <= 10} {incr i} {
        set answer [expr $n * $i]
        puts "$n * $i = $answer"
    }
}
```

```
proc run-table {} {
    puts "Enter a number"
    gets stdin n
    times-table $n
}
run-table
```

Program : 26.4 . Concatenate , append & traverse

```
set lst1 {1 2 3}
puts $lst1
set lst2 {4 5 6}
set lst3 [concat $lst1 $lst2]
puts $lst3
lappend lst3 7 8
puts $lst3
foreach val $lst3 {
    puts $val
}
```

Output 26.3

Enter a number

2

Multiplication table for 2

$$2 * 1 = 2$$

$$2 * 2 = 4$$

$$2 * 3 = 6$$

$$2 * 4 = 8$$

$$2 * 5 = 10$$

$$2 * 6 = 12$$

$$2 * 7 = 14$$

$$2 * 8 = 16$$

$$2 * 9 = 18$$

$$2 * 10 = 20$$

Output 26.4

1 2 3

1 2 3 4 5 6

1 2 3 4 5 6 7 8

1

2

3

4

5

6

7

8

Program : 26.5 . time modification.

```
set now [clock seconds]
set filename "tel001.tcl"
set timestamp [file mtime $filename]
puts $timestamp
puts "In: [clock format $timestamp] \n"
```

Program : 26.6 . File copying

```
puts "Enter filename to copy"
gets stdin fn
puts $fn
set bp [open $fn r]
set data [read $bp]
puts "Enter new filename"
gets stdin fn1
set bpi [open $fn1 w+]
puts $bpi $data
close $bpi
puts "File Copied"
```

Output 26.5

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Output 26.6

Enter filename to copy
tcl001.tcl

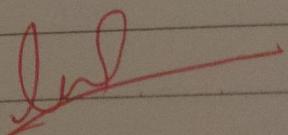
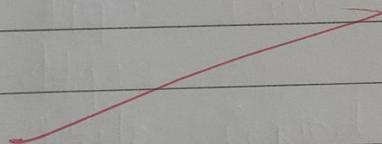
Enter new filename

copytcl001.tcl

Filecopied.

Program : 26.7 . Compare time modification.

```
set now [clock seconds]
set filename "tcl001.tcl"
set timestamp [file mtime $filename]
puts $timestamp
puts "In: [clock format $timestamp] \n"
set now [clock seconds]
set filename1 "tcl002.tcl"
set timestamp1 [file mtime $filename1]
puts $timestamp1
puts "In: [clock format $timestamp1] \n"
if {$timestamp > $timestamp1} {
    puts "$filename1 modified first"
} else {
    puts "$filename modified first"
}
```



Output : 267.

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tcl001.tcl modified first.