

# ITI Summer Training

LAB 2\_TCL



Q1-

```
1 set name1 Samy
2 set name2 Sayed
3 set r [string compare $name1 $name2]
4 if { $r==0 } {
5 puts "they are matched"
6 } else {
7
8 puts "they aren't matched"
9
10 }
```

STDIN

Input for the program ( Optional )

Output:

they aren't matched

```
1 set name1 Samy
2 set name2 Sayed
3 if { $name1 > $name2 } {
4 puts "they are matched"
5 } else {
6
7 puts "they aren't matched"
8
9 }
10 |
```

STDIN

Input for the program ( Optional )

Output:

they aren't matched

Q2-

```
1 set str "DIC Intake 43"
2
3
4 puts [string index $str 1]
5
6
7
```

STDIN

Input for the program ( Optional )

Output:

Q3-

1	set str "DIC Intake 43"	STDIN
2		
3		
4	puts [string range \$str 0 1]	Input for the program ( Opt
5		
6	puts [string length \$str ]	Output:
7		
8		DI
9		13
10		

## Q4-

1	set str "DIC Intake 43"	STDIN
2		
3	set str_list [split \$str]	Input for the program ( Opt
4		
5	puts [lreverse \$str_list]	Output:
6		
7		
8		
9		
10		43 Intake DIC
11		

## Q5-

1	proc ex5 { item1 item2 list_items } {	STDIN
2		
3	set new_list {}	Input for the program ( Optic
4	foreach num \$list_items {	
5	if { \$num == \$item1 } {	Output:
6	lappend new_list \$item2	
7	} else {	
8	lappend new_list \$num	1 2 3 4 7
9	}	
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20	return \$new_list	
21	}	
22		
23	set list_items { 1 2 3 4 5 }	
24	set a 5	
25	set b 7	
26	puts [ex5 \$a \$b \$list_items]	
27		
28		
29		

Q6-

```
1
2
3 ▾ proc ex6 { a b } {
4
5
6   puts "the addition result = [expr $a+$b]"
7   puts "the subtraction result = [expr $a-$b]"
8   puts "the multiplication result = [expr $a*$b]"
9
10  return $a/$b
11 }
12
13 set a 10.0
14 set b 15.0
15
16 puts [ex6 $a $b | ]
```

STDIN

---

Input for the program ( Optional )

---

Output:

the addition result = 25.0  
the subtraction result = -5.0  
the multiplication result = 150.0  
10.0/15.0

Q7-

```
1
2 set lista {0 0 1 1 2 2 3 3}
3 set nes_lists {}
4
5 ▾ for {set i 0} {$i < [llength $lista]} {incr i 2} {
6   lappend nes_lists [ list [lindex $lista $i ] [lindex $lista [expr {$i+1}] ] ]
7 }
8
9
10
11 puts "$nes_lists"
12
13
14 |
15
16
17
```

STDIN

---

Input for the program ( Optional )

---

Output:

{0 0} {1 1} {2 2} {3 3}  
.

Q8-

```

1
2 set file_name1 [open "report.txt" r]
3 set file_name2 [open "Output_File.txt" w]
4 set file_data [read $file_name1]
5
6 set lines [split $file_data \n]
7 foreach line $lines {
8     if {[string match "*setup*" $line] ==1 } {
9         puts $line
10        puts $file_name2 $line
11    }
12 }
13
14 if {[string match "*slack*" $line] ==1 } {
15     puts $line
16     puts $file_name2 $line
17 }
18 }
19 }
20 }
21 close $file_name2

```

library setup time	-0.03	3.62
slack (MET)		1.28
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slack (MET)		1.28
library setup time	-0.03	3.62
slack (MET)		1.28

Q9-

```

≡ ex9.tcl
1  set file_name1 [open "Input_File.txt" r]
2  set file_name2 [open "Output_File111.txt" w]
3  set file_data [read $file_name1]
4  set lines [split $file_data ]
5  set name {}
6  set grade {}
7  set university {}
8  set salary {}
9  foreach line $lines {
10  if {[string match "*Name*" $line] ==1 } {
11      puts $line
12      lappend name $line
13  }
14  }
15  } elseif {[string match "*Grade*" $line] ==1 } {
16      puts $line
17      lappend grade $line
18  }
19  } elseif {[string match "*University*" $line] ==1 } {
20      puts $line
21      lappend university $line
22  }
23  } elseif {[string match "*Current_Salary*" $line] ==1 } {
24      puts $line
25      lappend salary $line
26  }
27  }
28  }
29  }
30  }
31  }
32  }
33  }
34  }
35  }
36

```

```

36
37
38  for {set i 0 } {$i < [llength $name ] } {incr i} {
39  puts $file_name2 "*****"
40  puts $file_name2 "*****"
41  puts $file_name2 [lindex $name $i]
42  puts $file_name2 [lindex $grade $i]
43  puts $file_name2 [lindex $university $i]
44  puts $file_name2 [lindex $salary $i]
45  }
46  close $file_name2

```

```
#####  
#####  
Name:Ahmed  
Grade:A+  
University:AUC  
Current_Salary:1500  
#####  
#####  
Name:Haitm  
Grade:B  
University:Assuit  
Current_Salary:2000  
#####  
#####  
Name:Mohamed  
Grade:B  
University:BUE  
Current_Salary:2000  
#####  
#####  
Name:Moumen  
Grade:C  
University:Cairo  
Current_Salary:1000
```