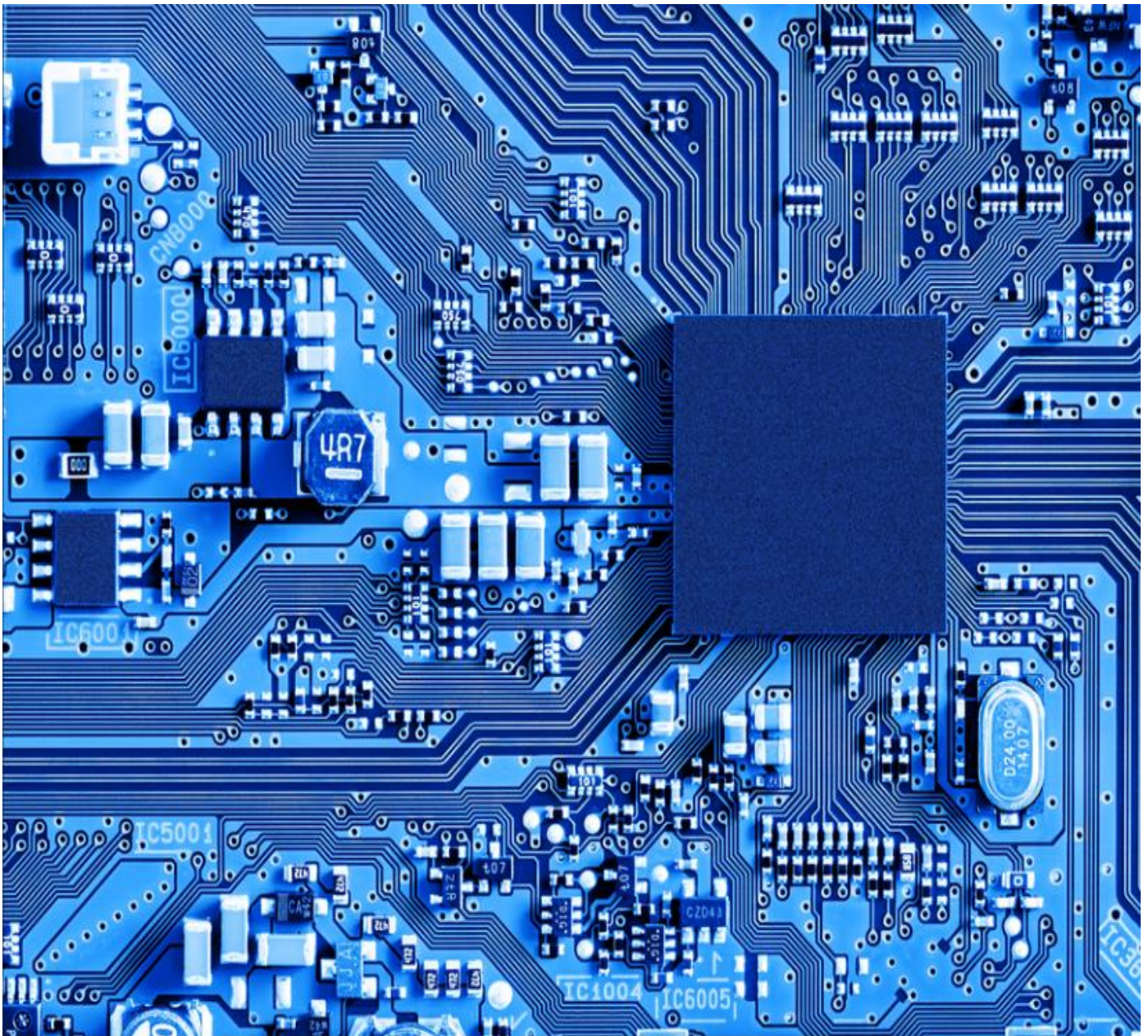


Lab TWO

TCL



Waleed Emad Yahyaa Zakarya

TASK 1

```
set str1 "Samy"
set str2 "Sayed"
set cmp_val [string compar $str1 $str2];
set cmp_val_2 [string match $str1 $str2];
switch $cmp_val {
-1 { puts "$str2 < $str1" }
0 { puts "$str2 = $str1" }
1 { puts "$str2 > $str1" }
}

switch $cmp_val_2 {
0 { puts "$str2 != $str1" }
1 { puts "$str2 = $str1" }
}
```

TASK 2

```
set string "DIC Intake 43";
set list {DIC Intake 43};
puts "String index one : [string index $string 0 ] "
puts "List index one : [lindex $list 0 ]"
```

TASK 3

```
set string "DIC Intake 43";
set list {DIC Intake 43};
puts "String index one : [string range $string 0 1 ] "
puts "List index one : [lrange $list 0 1 ]"
```

TASK 4

```
set str "waleed emad yahya zakarya"
set splited [split $str]
set splited_reversed [lreverse $splited]
puts "$splited_reversed"
set splited_reversed [lreverse $splited_reversed]
puts "$splited_reversed"
```

TASK 5

```
set list {10 20 30 60 70 80 90}

proc replace_element {list_name {old_value 0} {new_value 0} } {
set index [lsearch $list_name $old_value];
set list [linsert $list_name $index $new_value];
set list [lreplace $list_name $index $index $new_value];
}

puts "Old list value: $list";
puts "New list value: [replace_element $list 80 36]";
```

TASK 6

```
proc add_sub_mul_div { a {b 0} } {
puts "a+b=[expr $a+$b]"
puts "a-b=[expr $a-$b]"
puts "a*b=[expr $a*$b]"
return [expr $a/$b]
}
```

```
puts "[add_sub_mul_div 30 6]"; #passing a list is wrong expression
#comment on the same cammand line must be separated by semicolon ;;;;;;;;;;
```

TASK 7

```
set numbers {0 0 1 1 2 2 3 3}

set length [string length $numbers]

set new_list_1 {}
set new_string ""
for {set var 0} {$var < $length} {incr var 1} {
set temp [lindex $numbers $var]
append new_list_1 $temp
if {!($temp == " ")} {
append new_string $temp
}

}

set new_list_2 [split $new_string ]
puts $new_list_1
puts $new_list_2

##Another way may be using lmap (list map into the cosisting lists)
```

TASK 8

```
set report [open "report.txt" r];
set slack_count 0;
set setup_count 0;
set modified_report [open "modified_report.txt" w];
set report_data [read $report]
set lines [split $report_data \n]
foreach line $lines {

if {[regexp {slack} $line c]} {
puts $modified_report $line
incr slack_count;
}
if {[regexp {setup} $line c]} {
puts $modified_report $line
incr setup_count;
}
}

puts "slack count number is $slack_count"
puts "setup count number is $setup_count"
close $modified_report;
```

TASK 9

```
set input_file [open "Input_File.txt" r];
set file_handled [open "File_Handled.txt" w];
set index 1
```

```

set input_file_data [read $input_file];
set input_file_lines [split $input_file_data ];
foreach line $input_file_lines {
if {[regexp {Employee} $line c]} {
puts $file_handled "*****Employee$index*****"
incr index;
}
if {[regexp {Name} $line c]} {
puts $file_handled $line
}
if {[regexp {Grade} $line c]} {
puts $file_handled $line
}
if {[regexp {School} $line c]} {
puts $file_handled $line
}
if {[regexp {University} $line c]} {
puts $file_handled $line
}
if {[regexp {Current_Salary} $line c]} {
puts $file_handled $line
}
}
close $file_handled

set input_file [open "File_Handled.txt" r];
set file_handled [open "File_Handled_2.txt" w];
set index 1

set employee {}
set name {}
set school {}
set grade {}
set university {}
set curr_sall {}

set input_file_data [read $input_file];
set input_file_lines [split $input_file_data ];
#puts $input_file_lines

foreach line $input_file_lines {
if {[regexp {Employee} $line c]} {
lappend employee $line
incr index
}
if {[regexp {Name} $line c]} {
lappend name $line
}
if {[regexp {Grade} $line c]} {
lappend grade $line
}
if {[regexp {School} $line c]} {

```



```

lappend school $line
}
if {[regexp {University} $line c]} {
lappend university $line
}
if {[regexp {Current_Salary} $line c]} {
lappend curr_sall $line
}
}

#You can add and remove any data from the source file by commenting the unwanted line inside for loop

for {set i 0} {$i<$index} {incr i} {
puts $file_handled [lindex $employee $i]
puts $file_handled [lindex $name $i]
puts $file_handled [lindex $grade $i]
puts $file_handled [lindex $curr_sall $i]
#puts $file_handled [lindex $school $i]
#puts $file_handled [lindex $university $i]
}

close $file_handled

```

OUTPUTS

PS E:\VC Design\Digital\NTI Summer camp 2024\scripting\TCL\Lab Two> tclsh Task1.tcl

Sayed < Samy

Sayed != Samy

PS E:\VC Design\Digital\NTI Summer camp 2024\scripting\TCL\Lab Two> tclsh Task2.tcl

String index one : D

List index one : DIC

PS E:\VC Design\Digital\NTI Summer camp 2024\scripting\TCL\Lab Two> tclsh Task3.tcl

String index one : DI

List index one : DIC Intake

PS E:\VC Design\Digital\NTI Summer camp 2024\scripting\TCL\Lab Two> tclsh Task4.tcl

zakarya yahya emad waleed

waleed emad yahya zakarya

PS E:\VC Design\Digital\NTI Summer camp 2024\scripting\TCL\Lab Two> tclsh Task5.tcl

Old list value: 10 20 30 60 70 80 90

New list value: 10 20 30 60 70 36 90

PS E:\VC Design\Digital\NTI Summer camp 2024\scripting\TCL\Lab Two> tclsh Task6.tcl

a+b=36

a-b=24

a*b=180

5

PS E:\VC Design\Digital\NTI Summer camp 2024\scripting\TCL\Lab Two> tclsh Task7.tcl

00112233

00112233

PS E:\VC Design\Digital\NTI Summer camp 2024\scripting\TCL\Lab Two> tclsh Task8.tcl

slack count number is 10

setup count number is 10

PS E:\VC Design\Digital\NTI Summer camp 2024\scripting\TCL\Lab Two> tclsh Task9.tcl

PS E:\VC Design\Digital\NTI Summer camp 2024\scripting\TCL\Lab Two>