

## Lab3.0

Objectives: -

- After completion of this lab activity the student will be able to
  - Define arrays and use arrays functions
  - Familiar with procedures

Steps: -

- 1) Create a tcl script named lab3.0.tcl
- 2) Display on the screen the following message
  - "\*\*\*\* Arrays & Procedures \*\*\*\* "
- 3) Declare an array using **array set** of name **Mohamed** with the following key/value pairs

Key	Value
Waves	70 %
Electronics	85 %
Control	65 %
Comm	78 %

- 4) Declare an array using **array set** of name **Ahmed** with the following key/value pairs

Key	Value
Waves	66 %
Electronics	80 %
Control	88 %
Comm	69 %

- 5) Declare an array using **array set** of name **Mostafa** with the following key/value pairs

Key	Value
Waves	72 %
Electronics	77 %
Control	70 %
Comm	88 %

- 6) Define a procedure of name **“Avg”** that take array as an argument and calculate the average of the elements in the array.
- 7) Use the Avg procedure to calculate the GPA of **Mohamed** and store the result in variable of name **Mohamed\_GPA**
- 8) Display the GPA of Mohamed as the following: -
- Mohamed Accumulative GPA is 77 %
- 9) Repeat step 7 & 8 for Ahmed and Mostafa

**Hint:**

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Use the following command at the beginning of the procedure to be able to use an array defined outside the procedure inside the procedure.

```
procedure {arg} {  
  upvar $arg arr  
  ....  
}
```