**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 \*\*\*\* "

1. 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 % |

1. 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 % |

1. 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 % |

1. Define a procedure of name “Avg” that take array as an argument

and calculate the average of the elements in the array.

1. Use the Avg procedure to calculate the GPA of Mohamed and store the result in variable of name Mohamed\_GPA
2. Display the GPA of Mohamed as the following: -
   * Mohamed Accumulative GPA is 77 %
3. Repeat step 7 & 8 for Ahmed and Mostafa

**Hint:** -  
  
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

….

}