FIT1047

SUPPLEMENTARY WORKSHEET - WEEK 04

MARIE Programming Exercise (Part -2)

1.Using MARIE assembly language, implement a simple loop (using" jump" instruction), to input a number, subtract '1' from it, and display the number. The program should continue subtracting '1' until the number becomes '0'.

2.Write a MARIE assembly language program to input two numbers, compare them and display the larger number in the output screen.

3. Write a MARIE assembly language program to input two numbers, compare them and display the smaller number in the output screen.

4. Using MARIE assembly language, implement an "if-else" statement. [if (test) {codes to execute} else { codes to execute }].

5. Using MARIE assembly language, implement a "do-while" statement. [do {codes to execute} while (test)]

6. Using MARIE assembly language, implement a "for" loop. [for (x =1 to 5) {codes to execute}]

7. Using MARIE assembly language, write a program to implement "multiplication of two numbers" using repetitive addition process [use of do-while loop].

8. Using "JnS and JumpI" instructions, implement a simple subroutine to add two numbers, display the result and return to the main program.

9. A subroutine should only access (i.e. use of) local variables, that are used within the subroutine implementation. Write a program to accept two numbers, copy them to another set of variables that are only used within the subroutine. Then, make “a call” to the subroutine. Add these two numbers, store the result in another variable and return to the main program. Display the result in the main program.
10. Input two numbers, call a subroutine to perform the multiplication, display the result in the calling program. Make repetitive use of subroutine calls.
11. Implement a “nested if” statement. [if (test) {codes to execute} elseif (test) { codes to execute } else { codes to execute }].