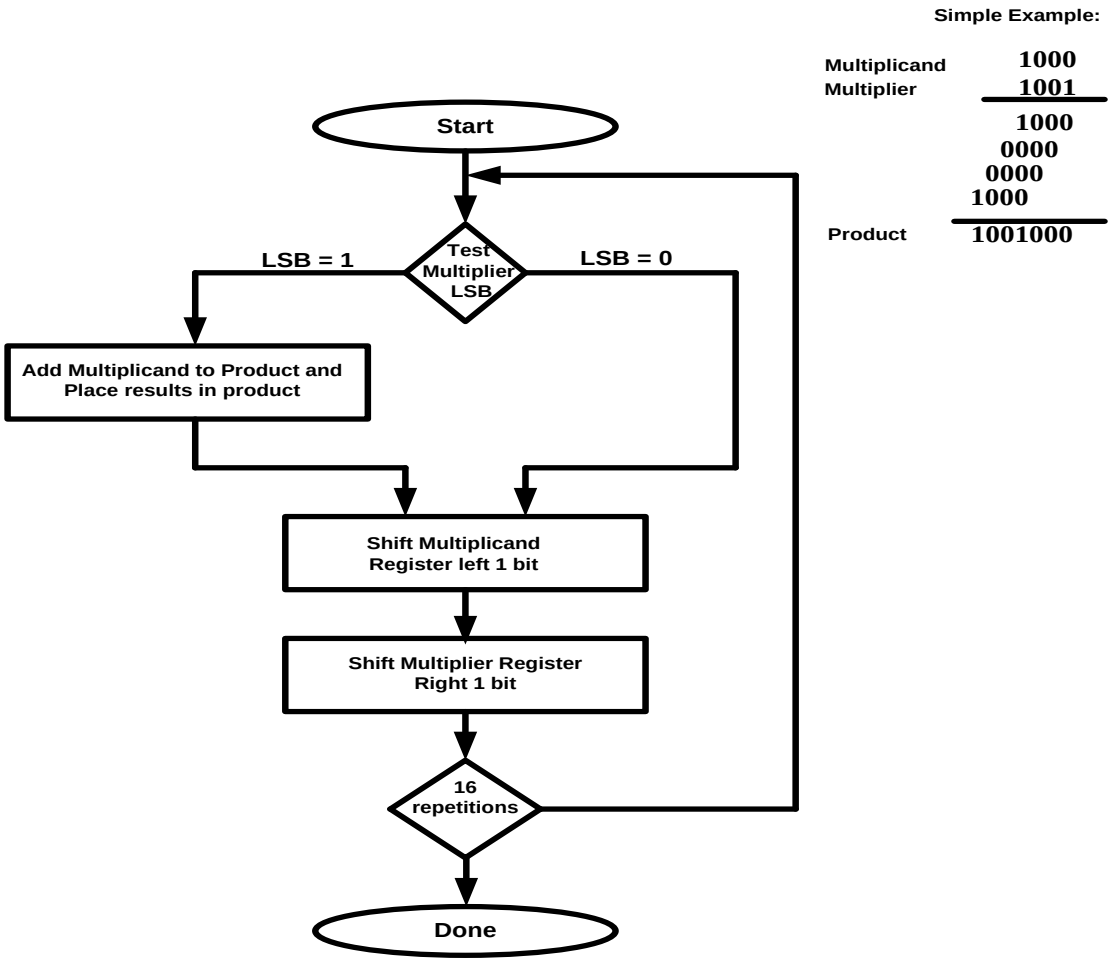
Jordan University of Science and Technology Faculty of Computer and Information Technology		
CPE351	**MICROPROCESSOR** **By Dr. Saleh Abdel-hafeez**	**Due:** **March 1, 2012**

HW #3 : Programming of Data Storage and Bit manipulation for 68K µP

1. You are about to implement an arithmetic unsigned shift multiplier for 68K machine, that multiplies two 8-bits unsigned integers stored in D0 and D1 and places the result in D3. Use a variant of the shift-add algorithm shown in the figure to perform your multiplication. Run your program on several simple test cases to be sure it works. In order to check the multiplier code, multiply $7F_H$ x 02_H, then try $A1_H$ x 12_H.

- Hand in
  1. Code
  2. .L68 file
  3. Simulator screen output results for given three input patterns



Simple Example:

Multiplicand	1000
Multiplier	1001
	1000
	0000
	0000
	1000
Product	1001000