Software Engineering
Assignment-1

1)   Write a menu driven program using COCOMO I with the following sub-models

    (i)   Basic COCOMO

          a) Determine the Effort to develop a Software product.
          b) Determine the Time to develop a Software Product.
          c) Determine the Number of People engaged to develop of a Software product.

    The inputs of your program are the Lines of Code.

    Also determine the type of project : (i) Organic, (ii) Semi-detached and (iii) Embedded.

    (ii)   Intermediate COCOMO

          a) Determine the Effort to develop a Software product.
          b) Determine the Time to develop a Software Product.
          c) Determine the Number of People engaged to develop of a Software product.
          d) The value of EAF

    The inputs of your program are the Lines of Code, and a set of "cost drivers" having values for its 15 attributes.

    Also determine the type of project : (i) Organic, (ii) Semi-detached and (iii) Embedded.

2)   Write a menu driven program using COCOMO II with the following sub-models

    (i)   Application Composition Model

          e) Determine the Object Point to develop a Software product.
          f) Determine the New Object Point to develop a Software product.
          g) Determine the Effort to develop a Software product.
          h) Determine the Total Project Cost if Labour Rate is $1500.

Assume there are 14 screens, 6 reports, 10 components & 90% reuse. Productivity is 25.

Complexity factor ------>	Count	Simple	Average	Complex
Screens	14	1	2	3
Reports	6	2	5	8
Components	10	1	1	10

(ii)   Early Design Stage Model

a) Determine the Effort to develop a Software product.
b) Determine the Number of People engaged to develop a Software product, if duration of development of the software is 5 years.

(iii) Post Architecture Stage Model

a) Determine the Effort to develop a Software product.
b) Determine the Number of People engaged to develop a Software product, if duration of development of the software is 5 years.

EXAMPLE TABLE FOR Cost Driver (Use your own Tabled values as inputs)

COST DRIVER	Very Low	Low	Normal	High	Very High
Cd1				1.15	
Cd2					1.3
Cd3				1.1	
Cd4					1.16
Cd5					1.4
Cd6		0.85			
Cd7		0.7			
Cd8				1.21	
Cd9				0.86	
Cd10				0.9	
Cd11			1		
Cd12			1		
Cd13		0.8			
Cd14			1		
Cd15					0.83
Cd16	0.85				

(Empty table cells are not used for calculations. Assume they are 0 or NULL)