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Team 19 COCOMO Estimate

Laboratory 3: Implementation Planning

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Work Product

COCOMO effort estimate of work project using the intermediate organic model.

Document Revision Information

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Approval Sheet

All group members whose names are listed below approve of the document and contributed fairly.

Morgan, Laura
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Pledge

On my honor, as a student, I have neither given nor received unauthorized aid on this assignment.

Morgan, Laura
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Contents

COCOMO Estimate

Attribute Ratings

	Ratings					
Cost Drivers	Very Low	Low	Nominal	High	Very High	Extra High
Product attributes						
Required software reliability	0.75	0.88	1.00	1.15	**1.40**	
Size of application database		**0.94**	1.00	1.08	1.16	
Complexity of the product	0.70	0.85	**1.00**	1.15	1.30	1.65
Hardware attributes						
Run-time performance constraints			1.00	**1.11**	1.30	1.66
Memory constraints			**1.00**	1.06	1.21	1.56
Volatility of the virtual machine environment		**0.87**	1.00	1.15	1.30	
Required turnabout time		0.87	**1.00**	1.07	1.15	
Personnel attributes						
Analyst capability	1.46	1.19	**1.00**	0.86	0.71	
Applications experience	1.29	1.13	1.00	**0.91**	0.82	
Software engineer capability	1.42	1.17	1.00	**0.86**	0.70	
Virtual machine experience	1.21	1.10	**1.00**	0.90		
Programming language experience	1.14	1.07	1.00	**0.95**		
Project attributes						
Application of software engineering methods	1.24	1.10	1.00	**0.91**	0.82	
Use of software tools	1.24	1.10	1.00	**0.91**	0.83	
Required development schedule	1.23	1.08	1.00	**1.04**	1.10	

Intermediate Organic Estimate Formula

$$E=a_i(KLoC)^{(b_i)}*EAF$$

Organic $a_i = 3.2$
Organic $b_i = 1.04$
EAF (Product of attribute ratings) = .8137
KLoC = .95

Effort Estimate

E=*3.2* (1)$^{(1.02)}$*.813725 = 2.603 man-months