

LAB 3

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1. Estimation of Effort. Basic Model.

The project has an estimated 8450 lines of code and is considered an organic project with a team of less than 20 people, all of whom have significant experience.

KLOC= 8.450

$$E = a(KLOC)^b$$

Project Type	a	b
Organic	3.2	1.05
Semi-detached	3.0	1.12
Embedded	2.8	1.20

$$E = 3.2(8.450)^{1.05}$$

E= 30.08 MAN MONTHS

Intermediate Model.

$$E = (a(KLOC)^b) * EAF$$

COST DRIVERS	VERY LOW	LOW	NOMINAL	HIGH	VERY 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
Hardware Attributes					
Runtime Performance Constraints			1.00	1.11	1.30
Memory Constraints			1.00	1.06	1.21
Volatility of the virtual machine environment		0.87	1.00	1.15	1.30
Required turnabout time		0.94	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

$EAF = .75 \times .94 \times .85 \times 1.11 \times 1.06 \times 1.30 \times 1.15 \times 1.19 \times 1.00 \times 1.00 \times .90 \times .95 \times 1.10 \times 1.00 \times 1.04$

$EAF = 1.226922639$

$EAF = 1.223$

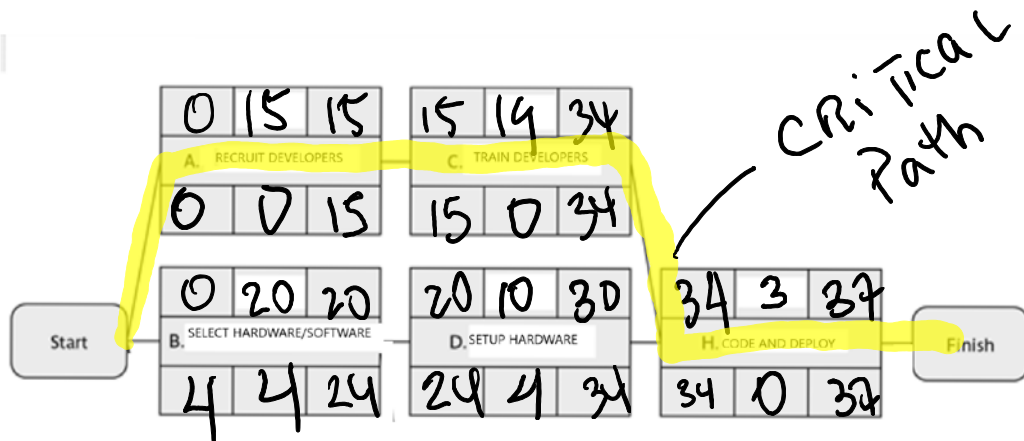
$$E = (a(KLOC)^b) * EAF$$

$$E = (30.08) \times 1.223$$

$E = 36.79 \text{ - or } 37\text{-MAN MONTHS}$

2. Activity Chart.

Earliest start	Duration	Earliest Finish
Activity label, activity description, activity code		
Latest Start	Float	Latest Finish



Risks:

1. Copyright Infringements Lawsuits can occur.
2. Database server failures so always have mirrors.
3. Training can take longer than expected and delay project
4. Always have contingency money for unexpected costs.