CoComo (Constructive Cost Model)

We can classify our software developer project into 3 category.

- Organic
- Semi detached
- Embedded

Mode	Project size	Nature of Project	Innovation	Deadline of the project	Development Environment
Organic	Typically 2-50 KLOC	Small size project, experienced developers in the familiar environment. For example, pay roll, inventory projects etc.	Little	Not tight	Familiar & In house
Semi detached	Typically 50-300 KLOC	Medium size project, Medium size team, Average previous experience on similar project. For example: Utility systems like compilers, database systems, editors etc.	Medium	Medium	Medium
Embedded	Typically over 300 KLOC	Large project, Real time systems, Complex interfaces, Very little previous experience. For example: ATMs, Air Traffic Control etc.	Significant	Tight	Complex Hardware/ customer Interfaces required

b 2	b 1		a 1	a 2
0.38	2.5	Organic	2.4	1.05
0.35	2.5	Semi detached	3.0	1.12
0.32	2.5	Embedded	3.6	1.20

For,

Organic Effort = $2.4(KLOC)^{1.05}$ PM

Semi detached= $3.0(KLOC)$ PM

Embedded =$3.6\ (KLOC)^{1.20}$ PM

Time of development:

Organic= $b1(Effort)^{b2}$ Month

Semi detached= $b1(Effort)^{b2}$ Month

Embedded= $b1(Effort)^{b2}$ Month

**Our Fire Fighter service is an organic type software product has been estimated to be almost 2,000 lines of source code. Our average salary of software engineers be 15,000/- per month.

Now, here we determine the effort required to develop the software product and the nominal development time.

- Effort = $2.4*(2)^{1.05}$ =5 PM
- Nominal development time = $2.5*(5)^{0.38}$ = 5 Months
- Cost required develop the product = 5*15000=75,000/=