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Class: 14

Assignment 1

Software Project	A	B	C	D
Organic	2.4	1.05	2.5	0.38
Semi-Detached	3.0	1.12	2.5	0.35
Embedded	3.6	1.20	2.5	0.32

Suppose that A project was estimated to be 10 KLOC Calculate for each 3 model of development.

- Organic

$$Effort = A\ (K\ loc)^B = 2.4\ (10)^{1.05} = 26.92$$

$$Time = C\ (E)^D = 2.5\ (26.92)^{0.38} = 8.73$$

$$N.Persons = \frac{E}{T} = \frac{26.92}{8.73} = 3.08$$

- Semi-Detached

$$Effort = A\ (K\ loc)^B = 3.0\ (10)^{1.12} = 3.95$$

$$Time = C\ (E)^D = 2.5\ (3.95)^{0.35} = 4.04$$

$$N.Persons = \frac{E}{T} = \frac{3.95}{4.04} = 0.978$$

- Embedded

$$Effort = A\ (K\ loc)^B = 3.6\ (10)^{1.20} = 57.05$$

$$Time = C\ (E)^D = 2.5\ (57.05)^{0.32} = 9.11$$

$$N.Persons = \frac{E}{T} = \frac{57.05}{9.11} = 6.26$$

Software Project	A	B	C	D
Organic	2.4	1.05	2.5	0.38
Semi-Detached	3.0	1.12	2.5	0.35
Embedded	3.6	1.20	2.5	0.32

Suppose that A project was estimated to be 40000 LOC Calculate for each 3 model of development.

LOC = 40 KLOC

- Organic

$$Effort = A\ (K\ loc)^B = 2.4\ (40)^{1.05} = 115.44$$

$$Time = C\ (E)^D = 2.5\ (115.44)^{0.38} = 15.19$$

$$N.Persons = \frac{E}{T} = \frac{115.44}{15.19} = 7.59$$

- Semi-Detached

$$Effort = A\ (K\ loc)^B = 3.0\ (40)^{1.12} = 186.82$$

$$Time = C\ (E)^D = 2.5\ (186.82)^{0.35} = 15.59$$

$$N.Persons = \frac{E}{T} = \frac{186.82}{15.59} = 11.98$$

- Embedded

$$Effort = A\ (K\ loc)^B = 3.6\ (40)^{1.20} = 250.95$$

$$Time = C\ (E)^D = 2.5\ (250.95)^{0.32} = 14.64$$

$$N.Persons = \frac{E}{T} = \frac{250.95}{14.64} = 17.14$$