

Perhitungan COCOMO

- **Organik**

$$\begin{aligned} E &= a * (KLOC^b) \\ &= 2.4 * (4,2^{1.05}) \\ &= 2.4 * 4,512 \\ &= 10,829 \end{aligned}$$

$$\begin{aligned} T &= c * (E^d) \\ &= 2.5 * (10,829^{0.38}) \\ &= 2.5 * 2,472 \\ &= 6,18 \text{ bulan} \end{aligned}$$

$$\begin{aligned} P &= E / T \\ &= 10,82 / 6,18 \\ &= 1,75 \text{ man-day per bulan} \end{aligned}$$

Jumlah Pengembang Man-Day (E) : 10,82
Durasi Proyek (T) : 6,1 bulan
Produktivitas (P) : 1.75 man-day per bulan

Digenapkan 6 bulan dengan 2 orang

- **Semi-detached**

$$\begin{aligned} E &= a * (KLOC^b) \\ &= 3.0 * (4,2^{1.12}) \\ &= 3.0 * 4,98 \\ &= 14,967 \end{aligned}$$

$$\begin{aligned} T &= c * (E^d) \\ &= 2.5 * (14,96^{0.35}) \\ &= 2.5 * 2,57 \\ &= 6,42 \text{ bulan} \end{aligned}$$

$$\begin{aligned} P &= E / T \\ &= 14,96 / 6,42 \\ &= 2,33 \text{ man-day per bulan} \end{aligned}$$

Jumlah Pengembang Man-Day (E) : 14,96
Durasi Proyek (T) : 6,42 bulan
Produktivitas (P) : 2,33 man-day per bulan

Digenapkan 6 bulan dengan 2 orang

- **Embedded**

$$\begin{aligned} E &= a * (KLOC^b) \\ &= 3.6 * (4,2^{1.20}) \\ &= 3.6 * 5,59 \\ &= 20,124 \end{aligned}$$

$$\begin{aligned} T &= c * (E^d)R \\ &= 2.5 * (20,12^{0.32}) \\ &= 2.5 * 2.61 \\ &= 6,53 \text{ bulan} \end{aligned}$$

$$\begin{aligned} P &= E / T \\ &= 20,12 / 6,53 \\ &= 3,08 \text{ man-day per bulan} \end{aligned}$$

Jumlah Pengembang Man-Day (E) : 20,12
Durasi Proyek (T) : 6,53 bulan
Produktivitas (P) : 3,08 man-day per bulan
Digenapkan 7 bulan dengan 3 orang

Estimasi Biaya

- **Organik**

Estimasi Biaya:

$(\text{Baris Code} * \text{Harga Perbaris}) + (\text{Jumlah Karyawan} * \text{Gaji perBulan}) * \text{Waktu} + \text{Keuntungan\%}$

$$= (4.200 * 3.000) + (2 * 3000000) * 6\text{bulan} + 15\%$$

$$= 12.600.000 + 6.000.000 * 6\text{bulan} + 15\%$$

$$= 12.600.000 + 41.450.000$$

$$= \text{Rp } 54.050.000$$

- **Semi-detached**

Estimasi Biaya:

$(\text{Baris Code} * \text{Harga Perbaris}) + (\text{Jumlah Karyawan} * \text{Gaji perBulan}) * \text{Waktu} + \text{Keuntungan\%}$

$$= (4.200 * 3.000) + (2 * 3.000.000) * 6\text{ bulan} + 15\%$$

$$= 12.600.000 + 6.000.000 * 6\text{ bulan} + 15\%$$

$$= 12.600.000 + 41.450.000$$

$$= \text{Rp } 54.050.000$$

- **Embedded**

$(\text{Baris Code} * \text{Harga Perbaris}) + (\text{Jumlah Karyawan} * \text{Gaji perBulan}) * \text{Waktu} + \text{Keuntungan\%}$

$$= (4.200 * 3.000) + (3 * 3.000.000) * 3\text{ bulan} + 15\%$$

$$= 12.600.000 + 9.000.000 * 7\text{ bulan} + 15\%$$

$$= 12.600.000 + 72.450.000$$

$$= \text{Rp } 85.050.000$$

