

ASSIGNMENT-2

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1) Product 1

KLOC = 55, semi-detached

$$\begin{aligned} a) \text{ Effort} &= a \times (\text{KLOC})^b \text{ person month} \\ &= 3 \times (55)^{1.12} = 88.96 \times 3 \\ &= 266.88 \text{ person month} \end{aligned}$$

$$\begin{aligned} b) \text{ development time} &= 2.5 \times (\text{Effort})^{0.35} \text{ months} \\ &= 2.5 \times 7.06 \\ &= 17.65 \text{ months} \end{aligned}$$

$$c) \text{ Number of people} = \frac{\text{Effort}}{\text{Time}} = \frac{266.88}{17.65} = 15.12 \text{ people.}$$

2) Product 2

KLOC = 55, embedded

$$\begin{aligned} a) \text{ Effort} &= 3.6 \times (55)^{0.20} \text{ person month} \\ &= 3.6 \times 122.58 \\ &= 441.28 \text{ person month} \end{aligned}$$

$$\begin{aligned} b) \text{ development time} &= 2.5 \times (\text{Effort})^{0.32} \text{ months} \\ &= 2.5 \times (441.28)^{0.32} \text{ months} \\ &= 2.5 \times 7.01 \text{ months} \\ &= 17.52 \text{ months} \end{aligned}$$

$$c) \text{ Number of people} = \frac{441.28}{17.52} = 25.18 \text{ people}$$

3) KLOC = 55, organic

$$\begin{aligned} \text{(a) Effort} &= 2.4 \times (\text{KLOC})^{1.05} \text{ person month} \\ &= 2.4 \times (55)^{1.05} \\ &= 2.4 \times 67.201 \\ &= 161.28 \text{ person month} \end{aligned}$$

$$\begin{aligned} \text{b) Development time} &= 2.5 \times (161.28)^{0.58} \text{ months} \\ &= 2.5 \times 6.9 \\ &= 17.25 \text{ month} \end{aligned}$$

$$\text{c) Number of people} = \frac{161.28}{17.25} = 9.349 \text{ people}$$

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