

Cost Estimation: Travel Diaries Software Engineering Project

Team 5

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Cost estimation of our project i.e. Travel Diaries, has been done considering the COCOMO(Constructive Cost Estimation Model) model.

According to the above mentioned model, the **effort required**(E) for completing a component is given by the formula:

$$E = a \times (X^b)$$

where a , and b are constants based on the layers of software development projects namely *Organic*, *Semi-Detached*, and *Embedded*.

X is the size of the project expressed in terms of KDLOC(Kilo Delivered Lines of Code).

| Software Project | a | b |
|------------------|-----|------|
| Organic | 2.4 | 1.05 |
| Semi-Detached | 3.0 | 1.12 |
| Embedded | 3.6 | 1.20 |

Our project is of Semi-Detached(the team consists of a mixture of experienced and inexperienced members) type and hence the values for a and b are 3.0 and 1.12.

Total Functional Points ≈ 90

Corresponding Lines of Code per FP ≈ 80

Total Lines of Code ≈ 7200

Putting the values in the formula

$$\begin{aligned} E &= 3 \times 7.2^{1.12} \\ &= 27.37 \end{aligned}$$

Hence we require 27.37 Person Months to complete this project.

Team size = 9

Therefore we require ≈ 3 months to complete this project.

Software Effort Distribution

| Phase/Activity | Inception | Elaboration | Construction | Transition |
|----------------|-----------|-------------|--------------|------------|
| Management | | | | |
| Environment | | | | |
| Requirements | | | | |
| Design | | | | |
| Implementation | | | | |
| Assessment | | | | |
| Deployment | | | | |

Acquisition Phase Distribution

| Phase | Effort(PM) | Schedule(PM) | Members |
|--------------|------------|--------------|---------|
| Inception | | | |
| Elaboration | | | |
| Construction | | | |
| Transition | | | |

END