**1. Reconciled Estimates**

* Cost Estimate

The project cost can be found using any one of the model.

COCOMO-1 Model

COCOMO-2 Model

Model -1: The basic COCOMO model computes software development efforts as a function of program size expressed in estimated lines of code.

Model-2: The intermediate COCOMO model computes software development efforts as a function of program size and a set of cost drivers that include subjective assessment of the product, hardware, personnel, project attributes

Model-3: The advanced COCOMO model incorporates all characteristics of the intermediate version with an assessment of the cost drivers impact on each step of the software engineering process. Following is the basic COCOMO -2 model.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Software Project | A(b) | B(b) | C(b) | D(b) |
| Organic | 2.4 | 1.05 | 2.5 | 0.38 |
| Semi-detached | 3.0 | 1.22 | 2.5 | 0.35 |
| Embedded | 3.6 | 1.20 | 2.5 | 0.32 |

The basic COCOMO -2 model equations take form:

E=A(b)KLOCB(b)

D=C(b)ED(b)

Where E is the effort applied in person months. D is development time in chronological month. KLOC is estimated number of delivered lines of code for the project. This project can be classified as Semidetached software project. The rough estimate of number of lines of this project is 9.072k.Applying the above formula

E=3.0\*(9.072)1.22

= 44.20 person- months

D=2.5\* 44.35

= 9.40 months

Hence according COCOMO -2 model the time required for completion of the project is 9 (~9.40) months.

* Cost of Project:

Equation for calculation of cost of project using COCOMO - 2 model is:

C = D \* Cp

Where,

C = Cost of project

D = Duration in month

Cp= Cost incurred per person-month, Cp=Rs.5000/- (per person-month) (approx.)

C = 9 \* 5000

= 45000/-

Hence according COCOMO - 2 model the cost of project is 45000/-(approx.)

* Time Estimates

The time estimate of this project is approximate 11 months.

**2. Project Resources**

Well configured Laptop, android studio IDE, 2 GHZ CPU speed, 4 GB RAM, Internet connection