

Software Engineering (J)

Final Term Lab Task 4 (Project Budget Estimation)

Team 4

Constructive Cost Model , **CoCoMo** , for E-Rental System :

Project Type : Organic

Coefficient<Effort Factor> : 2.4 [P=1.05 , T=0.38]

SLOC : 8000

Person Month , PM : $(2.4 * 8^{1.05}) = 21.304$

Dev. Time , DM : $(2.5 * 21.304^{0.38}) = 7.994 = 8 \text{ months} = 1408 \text{ working hour}$

Required People , ST : $PM/DM = 2.66 = 3 \text{ people}$

Budgeting :

Developers Salary in 8 months : Considering 550 taka per hour per developer –

$$550 * 1408 = \mathbf{774400} \text{ taka}$$

Requirements Analysis : Time needed = 1 month (22 office days) = 176 working hour

Req. Analysis person's hourly wage = 300 taka

$$\text{Total Req. Analysis expense} = 300 * 176 = \mathbf{52800} \text{ taka}$$

Transportation Cost : **12800 taka**

Training and Hardware Expense : **140000** taka

Rent Expense : $16000 * 8 = \mathbf{128000}$ taka

Total Utilities : **40000** taka

Maintenance Cost (6 months after delivery) : Expense per hour = 1000 taka

Est. hrs needed for maintenance = 60 hrs

Total maintenance cost = $60 \times 1000 = \mathbf{60000}$ taka

Others Human Resource cost

: Project Manager = $1 \times 25000 \times 8 = 200000$ taka

Accountant = $1 \times 20000 \times 8 = 160000$ taka

Technical Staff = $2 \times 12000 \times 8 = 192000$ taka

Total HR cost = $200000 + 160000 + 192000$

= **552000** taka

Total Estimated Expense : $774400 + 52800 + 12800 + 140000 + 128000 + 40000 + 60000 + 552000$

= **1760000** taka

Profit

: 20% of Total Estimated Expense = $1760000 \times 20\% = \mathbf{352000}$ taka

Final Project Budget : $1760000 + 352000 = \mathbf{2112000}$ taka