



Department of Computer Science-UIBT

Document: Effort Estimation (COCOMO)

Project Title: Inquizitive Application

Team: CerebroSparks

Course: Software Project Management (CS-458)

Class/Section: BSCS-4th semester, section B

Members:

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Effort Estimation through COCOMO Model

1. Cost Drivers ratings:

Category	Cost Driver	Rating	Multiplier
Product Attributes	RELY (Required Reliability)	Nominal	1.0
	DATA (Database size)	High	1.08
	CPLX (Product Complexity)	High	1.15
Hardware Attributes	TIME (Execution Time Constraints)	Nominal	1.0
	STOR (Main Storage Constraint)	Nominal	1.0
	VIRT (Virtual Machine Experience)	Low	0.87
	TURN (Computer Turnaround Time)	Nominal	1.0
Personnel Attributes	ACAP (Analyst Capability)	High	0.86
	AEXP (Application Experience)	Low	1.13
	PCAP (Programmer Capability)	Nominal	1.0
	VEXP (Virtual Machine Experience)	Low	1.1
	LEXP (Programming Language Experience)	Nominal	1.0
Project Attributes	MODP (Modern Programming Practices)	Nominal	1.0
	TOOL (Use of Software Tools)	High	0.91
	SCED (Required Development Schedule)	High	1.04

2. Effort Estimation (Person-Months):

- Project: Semi-detached, 10 KLOC
- EAF = 1.09
- $\text{Effort} = a \times (\text{Size})^b \times \text{EAF}$
 $= 3 \times 10^{1.12} \times 1.09$
 $= 43.1 \text{ person-months}$

3. Duration Calculation (Months):

$$D = c \times (\text{Effort})^d$$
$$= 2.5 \times (43.1)^{0.35} \approx 9.3 \text{ months}$$

4. Staff Required:

$$\text{Staff} = \text{Effort} / \text{Duration}$$
$$= 43.1 / 9.33 \approx 5 \text{ persons}$$