

COCOMO Model Diagram for Music Recommendation System

1. Project Type:

Organic Model (suitable for small, familiar, in-house projects).

2. COCOMO Basic Formula:

Effort (Person-Months) = $a * (KLOC)^b$

Development Time (Months) = $c * (Effort)^d$

For Organic Model:

- $a = 2.4$, $b = 1.05$
- $c = 2.5$, $d = 0.38$
- Estimated KLOC = 3

3. Calculation Results:

Effort = $2.4 * (3)^{1.05}$ is approximately 7.5 Person-Months

Development Time = $2.5 * (7.5)^{0.38}$ is approximately 4.5 Months

4. Effort Distribution (Approx.):

- Requirements and Planning: 10%
- Design: 20%
- Coding: 40%
- Testing and Debugging: 30%