Constructive Cost Model - Based on SLOC

Let,
SLOC = 5000
Software Project Type = Organic

∴ **Effort (PM)** = $\text{Coefficient}_{\text{<effort factor>}} \times (\text{SLOC} / 1000)^{P}$
$= 2.4 \times (5000 / 1000)^{1.05}$
$= 13.005 \cong 13$

∴ **Development Time (DM)** = $2.5 \times PM^{T}$
$= 2.5 \times 13^{0.38}$
$= 6.626$

∴ **Required number of People** = ST = PM / DM
= 13 / 6.626
= 1.96 ≅ 2

So, the Required Development time for our 6.626 months or almost 27 weeks and requires 2 people for the development of the project.

Timeline Chart

Weeks / Task: Person	Pre game phase					Sprint 1			Sprint 2			Sprint 3			Sprint 4			Sprint 5			Sprint 6			Post Game Phase			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
A : Andy																											
B: Andy																											
C: Andy																											
D: Andy																											
E: Charlie																											
F: Charlie																											
G: Andy																											
H: Andy																											
I: Charlie																											
J: Andy																											

Activity Key:

A: Planning

B: Product Backlog Writing

C: High Level Design

D: Specify & Design Module

E: Code for Module

F: Test Module

G: Product Backlog Update

H: System Testing

I: Integration Testing

J: Documentation

Group #	Lab Task#	Student Name and ID	Assigned Task	Date assigned	Due Date	Comment
4	4	Ahasan Habib (22-48877-3)	Timeline Chart (A,B,C,D)	1/8/2025	1/13/2025	
		Md. Sajib Mondol (22-48824-3)	SLOC -PM, Timeline Chart (E,F)	1/8/2025	1/13/2025	
		Abul Bashar Sourov (22-48823-3)	SLOC -DM, Timeline Chart (G,H)	1/8/2025	1/13/2025	
		Ujjoyeni Dey (22-49001-3)	SLOC – ST, Timeline Chart (I , J)	1/8/2025	1/13/2025	