Course – CSE 327.5

Group - 6

Project – Campus Event Authorization

COCOMO (CONSTRUCTIVE COST MODEL) –

Assumption For Line of Code (SLOC) -

- Sign-Up and Dashboard: 600-700 LOC
- Authorize Application (Admin): 500-600 LOC
- Submit Application (Club/Event Organizer): 500-600 LOC.
- Track Progress (Club/Event Organizer): 400-450 LOC
- Feedback (Admin/Club/Event Organizer): 300-400 LOC

Our project falls under the "Organic" software project type. We know –

Coefficient <Effort Factor> - 2.4

Project complexity (P) – 1.05

SLOC-dependent coefficient (T) – 0.38

Total Approx Line of Code (SLOC): 2350

PM – Person-months needed for project (labor working hours)

DM – Duration time in months for project (weekdays)

ST – Average staffing necessary

1. Effort = PM = Coefficient * (SLOC/1000) ^P
   $$= 2.4 * (2400/1000) ^{1.05}$$
   = 6.017 person-months

2. Development time = DM = 2.50 * (PM) ^ T

$$= 2.50 * (6.017)^{0.38}$$

$$= 4.944 \text{ months}$$

3. Required number of people = ST = PM / DM

$$= 6.017 / 4.944$$

$$= 1.2$$

$$\approx 2 \text{ Developers}$$

Project Budgeting –

Lets consider the cost for per person-month is 13,000 TK. This includes costs - Developer Salaries, Development Tools and Infrastructure, Unit and System Testing)

1. Cost = Effort * Average Cost per Person-month

$$= (6.017 * 13,000) \text{ Tk}$$

$$= 78221 \text{ Tk}$$

2. Project Management Costs = 10,000 Tk

3. Requirements Analysis = 20,000 Tk

4. Modeling and Design Costs = 30,000 Tk

5. Maintenance and Support Costs = 25,000 Tk

6. Documentation and Training Costs = 20,000 Tk

Total Cost = 1,83,221 Tk

Two Timeline Chart –

WEEKS / TASK : PERSON	1	2	3	4	5	6	7	8	9	10	11	12
A: Mezbah Abu Jafar Augustine	██	██										
B: Mezbah Abu Jafar Augustine		██	██									
C: Mezbah				██								
D: Abu Jafar					██							
E: Mezbah Abu Jafar						██	██					
F: Mezbah Abu Jafar								██				
G: Mezbah Abu Jafar Augustine										██		
H: Mezbah Abu Jafar Augustine										██		
I : Mezbah											██	
J: Augustine Abu Jafar											██	
K: Augustine												██
L: Mezbah Abu Jafar Augustine												██
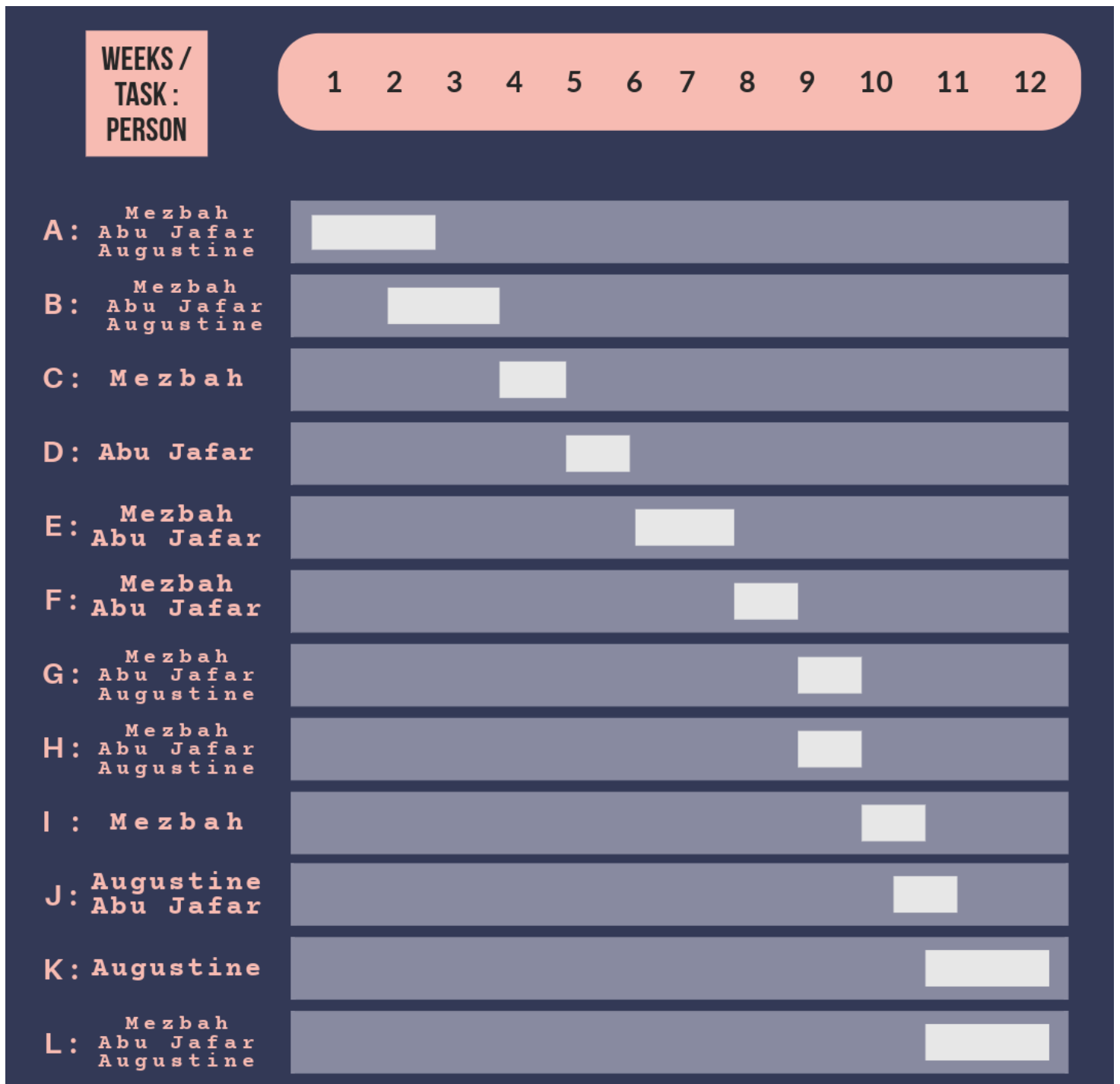
A: Idea Generation

B: Presentation

C: User Story

D: Use Case Diagram

E: User Interface

F: Activity Diagram

G: Git

H: Jira

I: CRC Card

J: Class Diagram

K: Budget (COCOMO)

L: Report

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
1. 1. 1	Identify duration, needs & benefits. Determine the requirements & specifications from the users											
1. 1. 2	Present ideas in the form of presentation with all details. Feel the necessity of product											
1. 1. 3	Build User Story to clarify & represent the features Note down non quality attributes also											
1. 1. 4	Create Use Case Diagram to specify the roles of actors & accessibility of the features											
1. 1. 5	Design a layout to give user a visual experience. Maintained simplicity											
1. 1. 6	Create Activity Diagram to describe the flow of activity of the system											
1. 1. 7	Use Git-Hub to collab, version history for the product & Jira to track the completion.											
1. 1. 8	Generate CRC card to represents classes & their component parts											
1. 1. 9	Build Class diagram to describe the relation of attributes, association											
1. 1. 10	Calculate the Project Budget using COCOMO model											
1. 1. 11	Determine testing methods. Monitor evolving changes. Create Documentation of product											