ASSIGNMENT 1

GROUP-02

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Answer to the Question No: 01

(a)

The feasibility of Ahmed's proposed system project need to be systematically analized of some specific dimensions. If the proposal project can provide a balanced view of potential benifits, costs, risks & overall impact on the company, only then the project should be implemented.

(b)

The operational feasibility of the proposed project is low due to high user satisfaction with the current system. It would likely introduce unnecessary complexity & cost without delivering substanial operational improvement. The new system can be disruptive as the system is performing adequately without any significant issues affecting input & output.

(c)

From an economic perspective, the project doesn't appear to be feasible. The high costs & uncertain benifits suggest that the company should consider other, less expensive ways to enhance its image & operational efficiency. Based on economic factors, the current system is performing well & user satisfied, the marginal benefit of an upgrade doesn't seem to outweigh the significant cost involved.

(d)

The technological feasibility of overchauling the system at allfoods invols not only confirming the availibility of new technology but also evaluating current systems performance, cost implementations, competitive positioning & stakholders

satisfaction. A comprehensive analysis incorporating these factors will provide a clearer picture of whether the upgrade is justified & feasible.

(e)

Based on the discussion between Ahmad & Abu, it is advisable to conduct a full blown systems study before deciding to overhaul the existing system. Ahmad want's to modernize & improve the company's image on the other hand Abu highlights that the current system is satisfactory & working well. A comprehensive systems study could provide a detailed analysis of the current system's strength & weakness, assess the true needs, evaluate the potential benefits & drawbacks of implementing the new system.

Answer to the Question No. 2

Here is a Work Breakdown Structure (WBS) for proposing a new computer system for student registration :-

1. Project Initiation

- **1.1 Define Project Scope**
    - Duration: 1 week
- **1.2 Identify Stakeholders**
    - Duration: 1 week
- **1.3 Assemble Project Team**
    - Duration: 1 week

2. Requirements Gathering

- **2.1 Conduct Needs Assessment**
    - Duration: 1 week
    - Predecessors: 1.1, 1.2
- **2.2 Stakeholder Interviews**
    - Duration: 1 week
    - Predecessors: 1.2
- **2.3 Analyze Current System**
    - Duration: 1 week
    - Predecessors: 1.1, 1.2
- **2.4 Document Requirements**
    - Duration: 1 week
    - Predecessors: 2.1, 2.2, 2.3

3. Feasibility Study

- **3.1 Conduct Feasibility Analysis**

- Duration: 1 week
- Predecessors: 2.4

- **3.2 Compile Feasibility Report**
  - Duration: 1 week
  - Predecessors: 3.1

4. System Design

- **4.1 High-Level System Architecture**
  - Duration: 1 week
  - Predecessors: 3.2
- **4.2 Detailed System Design**
  - Duration: 2 weeks
  - Predecessors: 4.1
- **4.3 User Interface Design**
  - Duration: 1 week
  - Predecessors: 4.1
- **4.4 Database Design**
  - Duration: 1 week
  - Predecessors: 4.1

5. Financial Planning

- **5.1 Cost Estimation and Budget Allocation**
  - Duration: 1 week
  - Predecessors: 3.2, 4.2
- **5.2 Funding Approval**
  - Duration: 1 week
  - Predecessors: 5.1

6. Development

- **6.1 Set Up Development Environment**

    - Duration: 1 week
    - Predecessors: 5.2, 4.2, 4.3, 4.4
- **6.2 Coding and Integration**
    - Duration: 4 weeks
    - Predecessors: 6.1

7. Testing

- **7.1 Unit and Integration Testing**
    - Duration: 2 weeks
    - Predecessors: 6.2
- **7.2 User Acceptance Testing (UAT)**
    - Duration: 1 week
    - Predecessors: 7.1

8. Deployment

- **8.1 Prepare Deployment Plan**
    - Duration: 1 week
    - Predecessors: 7.2
- **8.2 Training for End Users**
    - Duration: 1 week
    - Predecessors: 7.2
- **8.3 System Deployment**
    - Duration: 1 week
    - Predecessors: 8.1, 8.2

9. Post-Deployment

- **9.1 Monitor System Performance and Collect Feedback**
    - Duration: 2 weeks
    - Predecessors: 8.3
- **9.2 Perform System Maintenance**

    - Duration: Ongoing
    - Predecessors: 9.1
- **9.3 Project Closure**
    - Duration: 1 week
    - Predecessors: 9.1

Estimated Duration Summary

- Total Duration: 20 weeks

Answer to the Question No. 3

Managing projects with team members scattered across different time zones and locations, particularly under an agile methodology, presents unique challenges and opportunities. Here are some key differences a manager would face compared to traditional projects:

1. Communication and Collaboration

- **Traditional Projects**: Typically involve co-located teams where face-to-face meetings and physical presence are common. Communication is often more synchronous, with scheduled meetings and direct interactions.
- **Distributed Agile Projects**: Rely heavily on digital communication tools (e.g., Slack, Microsoft Teams, Zoom). Communication is both synchronous and asynchronous to accommodate different time zones. Effective use of collaboration tools and clear communication protocols are essential.

2. Time Zone Management

- **Traditional Projects**: Time zone differences are usually minimal, allowing for standard working hours and consistent meeting schedules.
- **Distributed Agile Projects**: Time zone differences require flexible scheduling, often with overlapping hours to ensure real-time collaboration. Managers need to coordinate meetings carefully and respect the diverse working hours of team members.

3. Agile Methodology Implementation

- **Traditional Projects**: Often follow a waterfall or linear approach with defined phases and milestones. Agile methodologies can be challenging to implement if the organization is not already accustomed to iterative processes.
- **Distributed Agile Projects**: Emphasize iterative development with short, frequent release cycles (sprints). Daily stand-ups, sprint planning, and reviews are adapted to virtual environments. Agile practices such as Kanban boards, user stories, and continuous integration are crucial.

4. Project Tracking and Monitoring

- **Traditional Projects**: Progress is monitored through regular in-person meetings, status reports, and physical tracking tools like Gantt charts.
- **Distributed Agile Projects**: Use digital project management tools (e.g., Jira, Trello) to track progress. Real-time dashboards and automated reporting facilitate visibility and transparency across dispersed teams. Agile metrics like burndown charts and velocity are used to monitor performance.

5. Team Dynamics and Culture

- **Traditional Projects**: Team bonding and culture are fostered through physical interactions, social activities, and a shared workspace. Trust and rapport are built more easily.
- **Distributed Agile Projects**: Building team culture requires deliberate efforts through virtual team-building activities, regular check-ins, and fostering an inclusive environment. Managers need to be proactive in addressing potential isolation and ensuring all team members feel valued.

6. Tools and Technology

- **Traditional Projects**: May rely more on physical documents, whiteboards, and in-person collaboration tools.
- **Distributed Agile Projects**: Depend on a robust set of digital tools for communication, collaboration, and project management. Examples include video conferencing tools (e.g., Zoom), collaboration platforms (e.g., Confluence), and cloud-based document sharing (e.g., Google Drive).

7. Decision-Making and Accountability

- **Traditional Projects**: Decisions can often be made quickly in person, with clear accountability due to proximity.

- **Distributed Agile Projects**: Decision-making processes need to be well-defined, with clear documentation and transparency. Accountability is maintained through regular updates and clearly assigned tasks within digital tools.

8. Flexibility and Adaptability

- **Traditional Projects**: Typically have a more rigid structure, with changes managed through formal change control processes.
- **Distributed Agile Projects**: Require high levels of flexibility and adaptability. Agile methodologies promote responsiveness to change, continuous feedback, and iterative improvement.

Conclusion

Managing distributed agile projects requires a shift in mindset and approach compared to traditional project management. Key differences include enhanced reliance on digital tools, flexible scheduling to accommodate time zones, proactive communication strategies, and fostering a virtual team culture. By embracing these differences, managers can effectively lead distributed teams and capitalize on the benefits of agile methodologies.

Question 4

Calculate cost:

Costs	Year 0	Year 1	Year 2	Year 3
Development cost:				
• Hardware	50,000			
• Software	15,000			
• Training	30,000			
• Consulting	80,000			
• Data Conversion	40,000			
Total	215,000			
Supplies		15,000	15,000	15000
IS Salaries		75,000	82500	90750
upgrades		10,000	10,000	10,000
Annual Prod. Cost		100,000	107,500	115,750
Present value		74074	58985	47046
Accumulated cost		289,074	348,059	395,105

- Calculate benefits, Gain/Loss and PI

Benefits	Year 0	Year 1	Year 2	Year 3
Improve Customer Service		150,000	180,000	216,000
Increase Productivity		150,000	187,500	234,375
Total		300,000	367,500	450,375
Present Value		222,222	201,646	183,051
Accumulated benefits		222,222	423,868	606,919
Gain/Loss		(66,853)	75,809	219,814
Profitability Index (PI)	0.98			

From the profitability Index, the project may not be feasiable from this analysis Because PI is less than 1 In the conclusion, from this analysis, this project is not recommended.

Answere to the Question No: 05

(a)

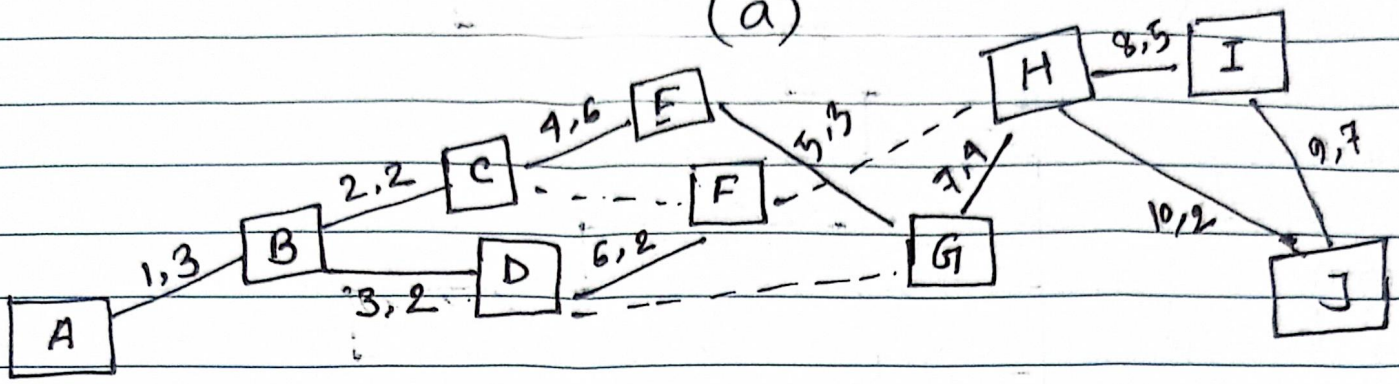

fig: PERT diagram.

(b)

All paths →

(I) A → B → C → E → G → H → J → J

(II) A → B → C → E → G → H → J

(III) A → B → C → F → H → I → J

(IV) A → B → C → F → H → J

(V) A → B → D → F → H → I → J

(VI) A → B → D → G → H → J

(VII) A → B → D → G → H → I → J

(VIII) A → B → D → G → H → J

Question No.

(c)

Calculating all paths →

(i) 3+2+6+3+4+5+7 = 30 → Critical path

(ii) 3+2+6+3+4+2 = 20

(iii)

(d)