

Software Project Management Lab 3 Report



Course: Software Project Management SOFE 3490
CRN: 74667

Topic: Fall Monitor

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Software Project Estimation: COCOMO Model

COCOMO for an organic project with **KLOC = 15** where **a = 3.0** and **b = 1.12**

Effort

$$E = (a(KLOC)^b)$$

$$E = (3.0(15)^{1.12})$$

$$E = 62.28 \text{ person-months}$$

Duration

For an organic project where **a = 2.5** and **b = 0.38**

$$D = (a(E)^b)$$

$$D = (2.5(62.28)^{0.38})$$

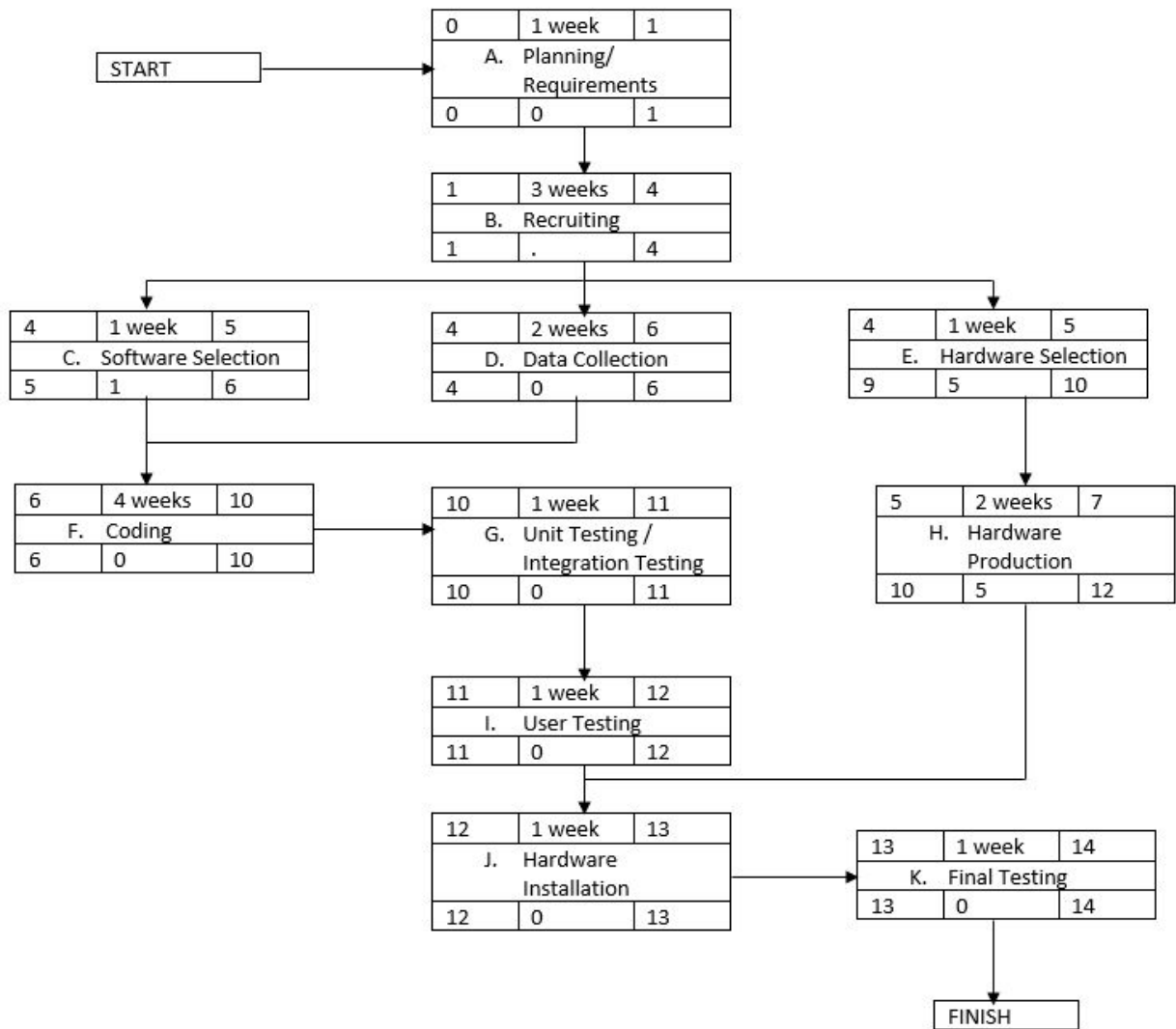
$$D = 12$$

Software Project Estimation: Function Points

External Input (EI)	Simple	3 FPs
External Output (EO)	Medium	5 FPs
External Inquiry (EQ)	Medium	4 FPs
Logical Interface File (LIF)	Medium	10 FPs
External Interface File (EIF)	Medium	7 FPs

Total FP: 29 FP

Activity Planning



Risk Management

Budget Risks

1. **Cost overrun:** amount of actual cost can exceed the estimated/target costs
Countermeasure: thoroughly plan the project ahead of the time, stick to planned scope and closely monitor progress at every stage
2. **Inaccurate budget estimation:** Lack of awareness of the requirements and human errors can cause issues in budget estimation
Countermeasure: Utilize relevant historical data for calculations, avoid biases and human errors. Review the estimation process before development stage starts

Operational Risks

3. **Lack of productivity/communication in the team:** Employees might not abide by deadlines and run into communication issues
Countermeasure: Run strict recruitments and have expectations setting sessions during training before the start of the project
4. **Lack of/improper training:** Employees might not feel ready to do their job at the end of training.
Countermeasure: Run rigorous yet interactive training sessions during different stages of the project

Technical Risks

5. **Changing requirements:** requirements for the project can keep changing by the stakeholder
Countermeasure: Proper understanding of the desired product within the team as well as constant communication with the stakeholders
6. **Complexity of the product:** Aspects of the project might be too complicated to implement by the team.
Countermeasure: Hire experienced individuals for development. Have trusted employees be in charge of every task. Keep constant communication within the team
7. **Poor quality testing:** Errors might get overlooked during the testing phase.
Countermeasure: Have sufficient time assigned for debugging and testing the product. Communicate the importance of the phase and closely monitor the process

Schedule Risks

8. **Untracked resources:** Resources like systems, staff, skills of employees might stay untracked
Countermeasure: Perform proper tracking at the earlier stage of the project and update the resources as the project goes on.