



Project Documentation

SOFE 3490U: Software Project Management

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Sunday, Mar 9, 2023

Project Estimation (COCOMO)

This project is organic thus:

$$A = 2.4, B = 1.05, C = 2.5, D = 0.38$$

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

$$E = 2.4(5)^{1.05}$$

$$E = 13.01 \text{ person months}$$

$$D = c(E)^d$$

$$D = 2.5(13.01)^{0.38}$$

$$D = 6.63 \text{ months}$$

$$\text{Personrequired} = \text{Effort/duration}$$

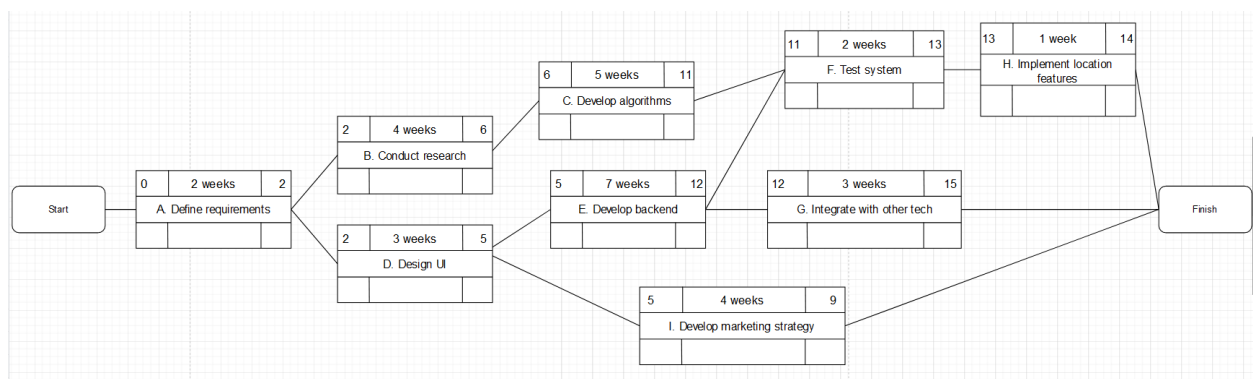
$$\text{Personrequired} = 13.01/6.63$$

$$\text{Personrequired} = 1.96$$

Thus, the project will take **13.01 person months** and **6.63 months**.

Activity Diagram

Activities (shows the sequential relationships of activities using arrows and nodes):



Risk Management

Risks	Description	Countermeasures
Security	If the team doesn't properly consider security issues during development, the resulting software could be vulnerable to cyber attacks, putting user data and privacy at risk.	Follow best practices and coding standards to minimize technical debt. Create a plan to address technical debt when it arises and prioritize its resolution.
Integration problems	If the project involves integrating with other systems or software, compatibility issues can arise, causing delays and added costs.	Test integrations thoroughly and in advance to identify and address any compatibility issues. Consider using standard protocols and interfaces to simplify integration.
Lack of testing	Without proper testing, the software may have bugs or performance issues that could negatively impact users and the project's success.	Implement a rigorous testing process, including unit testing, integration testing, and user acceptance testing. Use automated testing tools and continuous integration to streamline the testing process.
Unqualified Team	Team may not be fully qualified to handle all aspects of the development process	Make sure the team is fully acquainted with all languages and technologies that will be used prior to development so that no one slows down the team.
Technical debt	Taking shortcuts or making compromises to meet project deadlines can lead to technical debt, making future changes more difficult and expensive.	Follow best practices and coding standards to minimize technical debt. Create a plan to address technical debt when it arises and prioritize its resolution.
Communication breakdown	Poor communication between team members or with stakeholders can lead to misunderstandings, delays, and missed deadlines.	Follow best practices and coding standards to minimize technical debt. Create a plan to address technical debt when it arises and prioritize its resolution.