Department of Software Engineering
Course Code: SOFE 3490U
Software Project Management
Lab 3
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Calculate an estimated effort: function point & COCOMO model:

We have estimated that our project will have roughly 10,000 lines of code

This will be an embedded system, therefore constants a = 3.6, b = 1.2 for EFFORT

Cocomo: effort = 3.6*10^1.2

= 57.0561549286 = 57 work-months

Duration: d = 2.5 x 57^0.32

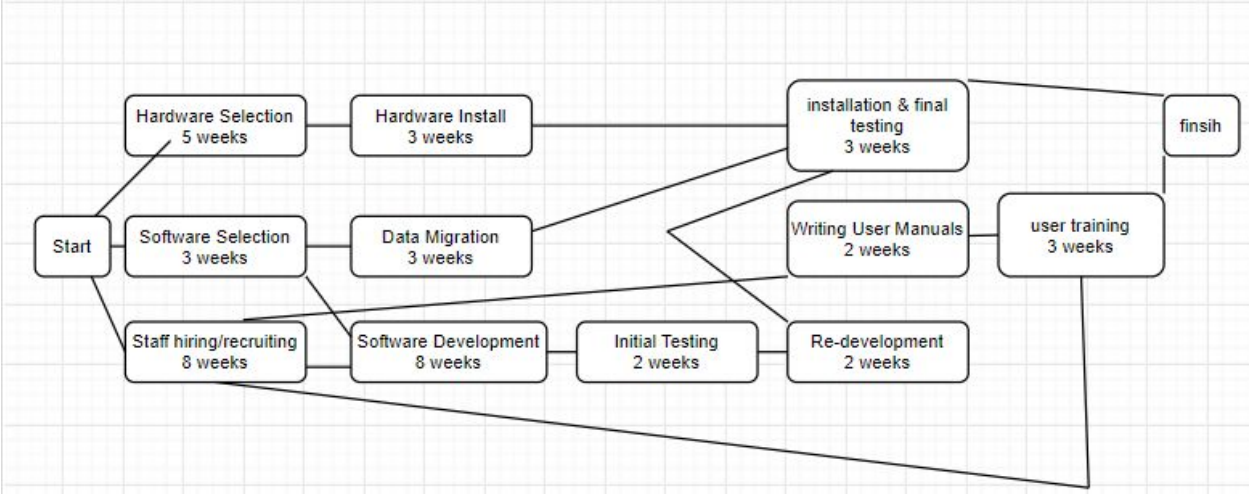
= 9.11 months

Employees = 57 / 9 = 6.3 = 7 developers for the project

Activity diagram

- Hardware selection - 5 weeks
- Software selection - 3 weeks
- Staff hiring/recruitment - 8 weeks
- Hardware installation - 3 weeks
- Data migration - 3 weeks
- Software development - 8 weeks
- Initial testing - 2 weeks
- Re-development - 2 weeks
- installation and final testing - 3 weeks
- Writing user manuals - 2 weeks
- User training - 3 weeks

Highlight coordinates parallel tasks for activity diagram.



Risk Analysis

Risk	Importance	Likelihood
Response Time deter purchasers	H	M
Online Payment has security issues	M	M
Competitors rising and undercutting prices	H	M
Network Connection failures	H	M
Maintenance/Build costs higher than anticipated	L	L
Hardware failures	M	L
Warehouse unable to keep up with demand	M	L

Technology Risks
A risk that we may run into with regards to technology would be a failure in software and hardware. For example, there could be a failure in the bluetooth connection which would prevent the fall monitor from doing the job it is intended to do. A hardware failure that could arise would be a miscalculation when detecting a fall and having the monitor detect a fall when no events happened. These issues can be dealt with by increasing the budget for the build structure to ensure the best technologies are used.

Structure Risks
A structure risk that we may run into would be the inability to carry out a particular task due to the lack of communication from the government. For example, network connectivity tests can be delayed due to the poor communication from the government with regards to the users information. Although this risk being a possibility, it remains relatively low in likelihood because we expect full cooperation from the government as they were the ones to initially bring up this issue.

Task Risks
Another risk that can arise would be the lack of effort from the employees which can result in a lack of productivity. Having employees with poor work ethic will result in a poor product which can lead to harm to the customers. This can be prevented by increasing the strictness to the hiring process to ensure we hire the best possible employees suited for each position.