Faculty of Engineering and Applied Science

SOFE 3490U Software Project Management

Lab 4 Report

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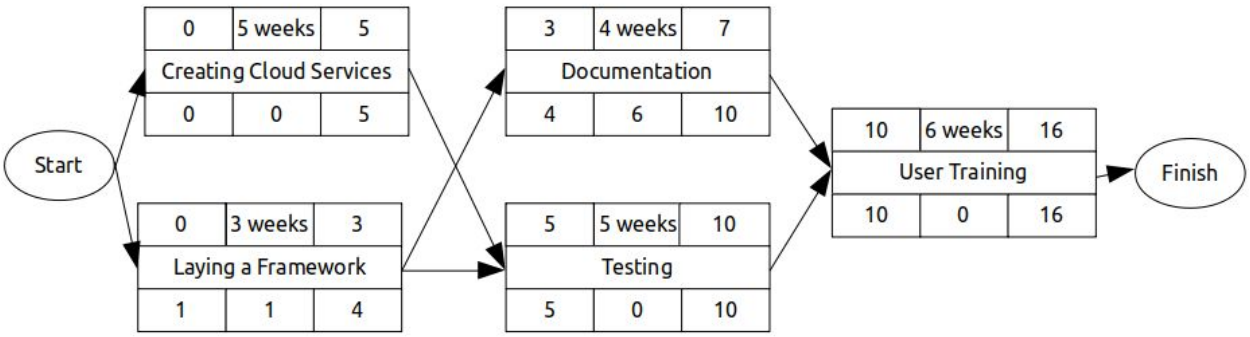
Recap

The project selected in Lab 2 was the fall detection wearable for the elderly, there were many requirements set out and they will be referenced many times during this report to keep the project in line with said original requirements and constraints.

Activity Diagram



The PERT diagram for the activities is shown above and the critical path through goes from Creating Cloud Services, Testing, and then User Training.

Risks

When analyzing our project we found five main risks. First, a skills risk. A skills risk could include insufficient training and lack of skill of the development team. To combat these risks, management will provide extensive training on the software used and protocols accompanying them, as well as screening applicants in the hiring process to include previous knowledge of applications used. Secondly would be a project planning risk. Project planners on this project may be inexperienced, and therefore produce a poor project plan. This can derail the entire project from the beginning, resulting in failure. Combatting this could include hiring an experienced manager to the team, and consulting with external resources and companies for their expertise to apply to this project. Third, and very common, is a project complexity risk. The project may end up more complex than planned, resulting in missed deadlines and high stress levels. Preventing this risk is to over estimate project complexity, so that upon completion morale is high. Fourth, supplier risk is always a risk when dealing with hardware. Suppliers of the hardware product failing to meet physical expectations and providing hardware on time could apply to our project. This risk can be combated with creating a contract ensuring on-time delivery of the product, and worse case scenario having a backup supplier to ensure timely

launch of the project. Finally, integration risk. Risk with integration in the public including participants unwilling to wear the device at all times, resulting in inaccurate results and not having the device when needed is the final risk. This risk is the most unpredictable, and the most we can do to counter the mindset is to release manuals stressing the importance of constant wear, to ensure maximum use. Creating an FAQ section addressing main concerns such as safety, maintenance, and importance can improve willingness to comply and achieve the goal of the product, to improve safety and save lives.

From this we can deduce five tasks:

1. Software training for team
2. Consulting with external companies on project management
3. Analyzing and calculating project complexity
4. Consult with suppliers and create contract
5. Create FAQ section for users

Resources

Our project will need 3 teams that work together to produce the final product. These 3 teams are the Systems Analysis team, the Development and Integration team, and the Deployment and Testing team. Each team will consist of at least 2 members with the option to expand given the demand and scope of the project once development is underway. Since each team interacts with another team, the overall number of persons working on the project can be reduced as members collaborate across teams.

Teams

Systems Analysis

- Person(s): Sydney Smith + 1 or more
- Tasks: Gather information about system implementation and provide an estimate on initial setup costs and distribution methods. Work with the Development and Integration team to ensure timely distribution and active monitoring of the system.
- Activity diagram activities: laying a framework, documentation

Development and Integration

- Person(s): Avdon Racki + 1 or more
- Tasks: Develop the hardware in conjunction with the software to provide a stable and efficient product. The system must be easy to use and design and integration must take

this into account. Work with the Systems Analysis team to accommodate changing requirements/parameters.
- Activity diagram activities: laying a framework, creating cloud services

Deployment and Testing

- Person(s): Daniel Nucci + 1 or more
- Tasks: Distribute and set up the finalized product. Ensure that the system works as expected in a given environment. Develop and execute test cases/plans in order to simulate potential real world scenarios.
- Activity diagram activities: testing, user training