



Initial Plan

Forensic Case Management Analysis

CM2303

One Semester Project

40 Credits

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Moderator: Andrew Jones

1. Project Description

This project was proposed by Sarah Holmes developer of Foreman forensic case management system to Mr Mike Daley as a forensic case management research project.

The Problem/Scenario

Foreman is a new open source forensic case management system. In today's market there is a plethora of digital forensics software available for investigators, from small scripts that do a single task to full-featured toolkits that can aid an investigation from start to finish. However, there is a lack of simple forensics oriented case management software. Whilst there are enterprise products such as Intaforensic's Lima and Blackthorn's Casenote, there is nothing available that is free, simple and open source. This results in too many companies with forensic departments using generic ticketing systems such as those intended for helpdesks. Others rely on a mixture of spreadsheets, documents and emails to track cases. These solutions are inherently difficult to work with as they lack many features that are important to forensic case management. Often this leads to the various parts of a case being scattered over different systems, making it difficult to see everything related to a case in a simple, cohesive format. The intention of this project is to study a range of different digital forensic companies, departments and police forces on how they perform case management and determine how Foreman compares. On completion, this research will be forwarded to the owner of Foreman (Sarah Holmes), who will then use this research to update and make the necessary changes to the system.

My solution

Throughout the duration of this project I will be applying a large number of analysis techniques to identify and consider the most significant requirements that a case management system must possess. In order to discover these requirements this project will conduct a deep and thorough investigation into the processes involved in forensic case management by using Systems Thinking, Qualitative and Quantitative analysis techniques, usability evaluation techniques and if feasible the development of a simulation model or other supporting graphical aids to support my suggestion.

2. Project Aims and Objectives

Aim: Identify main stakeholders of case management processes and determine whether there are any conflicting opinions on what case management represents.

Objective: In order to achieve this aim I will employ a Systems Thinking approach to distinguish the activities involved in case management, the identification of stakeholders and provide root definitions for the different perspectives. This process will also provide the knowledge on who to interview in the later phases of the project.

Aim: Identify leading forensic case management systems and determine the key features of each platform.

Objective: In order to achieve this aim I will use many sources of Information to determine which systems are considered to be the market leaders. This will involve communicating with members from online forensic communities, lecturers in Cardiff University and members of forensic teams across the United Kingdom.

Aim: Measure usability, efficiency, and effectiveness of the interface of each system identified in previous aim.

Objective: In order to achieve this aim I will be exploring different methods of usability testing and will choose the most appropriate.

Aim: Successfully extract both Tacit and Explicit knowledge from users of Case management systems in both the private and public sectors of industry.

Objective: This project will attempt to extract knowledge by means of questionnaires, emails, online forums and through interviewing members of different forensic teams across the United Kingdom.

Aim: Discover whether there are any relationships and dependencies between users feedback and key features identified in own research.

Objective: In order to achieve this aim I will collate all data into a single spreadsheet where I can conduct tabular analysis to expose any relationships and dependencies.

Aim: Identify features that Foreman must implement to be improve their current system.

Objective: In order to achieve this aim I will make use of all research and knowledge acquired to develop an optimum solution for a case management system. If feasible, this solution will be further supported with the use of graphical aids or a simulation model.

3. Ethics

This project does not require any access to restricted or confidential data, it will only investigate the systems that store the evidence rather than analysing the content stored on these systems.

On careful consideration whether this project would engage in any activities that may contravene any ethical principles, my supervisor and I have concluded that this project is very unlikely to encounter acts that may be considered as unethical. However, in the unlikely event of an incident arising during the lifespan of the project I will notify my supervisor and request his guidance immediately.

4. Work Plan and Gantt chart

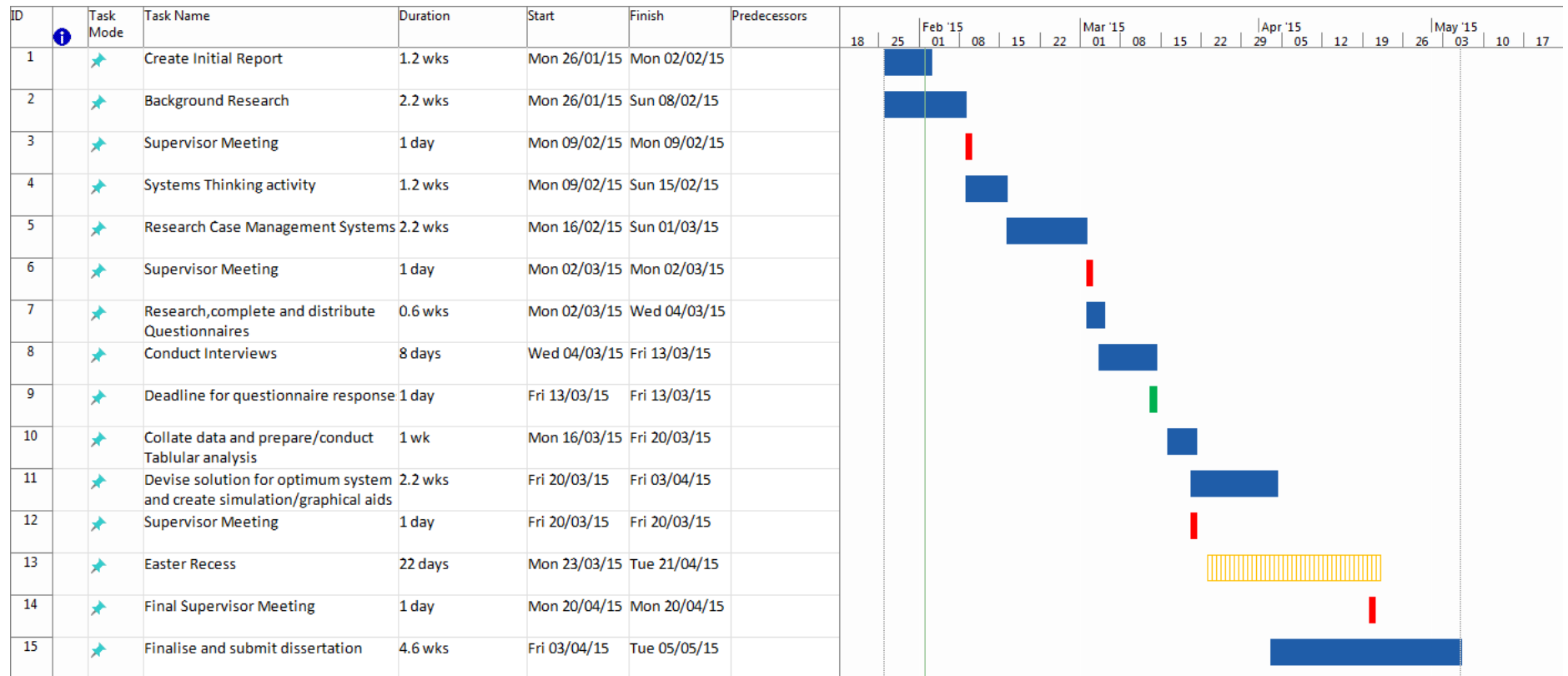
Work Plan

Start	Duration	Tasks	Deliverables
1	1 week	Create Initial report.	Produce and submit Initial plan of report
1	2 week	Background Research on how case management is completed in different organisations.	Develop collection of background knowledge.
3	1week	<p><u>Systems Thinking approach to the problem</u></p> <p>Consider which method of Systems thinking is most suitable to use.</p> <p>Identify key activities, primary stakeholders and other key factors involved in case management using a Systems Thinking approach.</p> <p>Supervisor Meeting (Week 3)</p>	Systems Thinking model which demonstrates an enhanced understanding of Stakeholders roles and requirements.
4	2 weeks	<p><u>Case Management Systems Research and evaluation</u></p> <p>Research and identify current case management systems available on market.</p> <p>Contact vendor to secure copy of system or suitable Demonstration/Trial Version. If unavailable seek alternative case management system or refer to documentation provided on vendors Website.</p> <p>Select collection of systems to analyse.</p> <p>Consider and apply method to evaluate systems to measure the usability, efficiency, and effectiveness of the interface of each system.</p>	<p>Access to Trial/Demo version of case management system.</p> <p>Documented evidence of results of usability Tests.</p>
6	2 weeks	<p><u>User Research.</u></p> <p>Determine best methods of deploying questionnaire and key requirements of a questionnaire.</p>	<p>Secured access to forensic communities.</p> <p>Creation of a Questionnaire</p>

		<p>Distribute questionnaires.</p> <p>Deadline for Questionnaire Responses (Friday week 7)</p> <p>Whilst awaiting questionnaire responses begin interview processes.</p> <p>Complete interview questions. Conduct Interviews</p> <p>Supervisor Meeting (Week 6)</p>	<p>and distributed to target audience. .</p> <p>List of all interview questions, name of person being interviewed, their role and responses to each question.</p>
8	1 week	<p><u>Tabular Analysis</u></p> <p>Organise all information into single location and begin preparation for tabular analysis to identify any relationships amongst the data.</p>	<p>Spreadsheet containing all acquired research.</p>
9	2 weeks	<p><u>Optimum Solution</u></p> <p>Devise key requirements for optimum solution to case management system.</p> <p>Consider methods to challenge or support key requirements of optimum solution.</p> <p>If feasible develop simulation model or choose alternative methods to challenge key requirements.</p> <p>Supervisor Meeting (week9)</p>	<p>Graphical aid or simulation model to challenge or support key requirements.</p>
11	2 weeks	<p>Finalise and Complete Dissertation.</p>	<p>Submission of Project on Pats by 5/5/15</p>

- Dates based on academic Calendar.

Gantt chart



- Dates based on actual calendar.