University of Huddersfield

MEng Group Project

Cryptic Crossword Solver

Project Management

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Friday, 9^{th} May 2014

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Chapter 1

Project Management

The management of projects has evolved to become more complex and and diverse as technology grows. One common characteristic shared by all projects is the projection of activities and ideas. The management of a project allows the explicit control of resources and budget as well as a co-ordinated path for a successful project (Lock, 1986).

This chapter consists of the management resources that were deployed upon the project. The chapter includes the initial plans developed for the project as well as the accurate and concise plans of the project which were changed on a constant basis to apprehend the need of the clients, the users, and the development team of the project. Further more the psychology of the development is briefly discussed to illustrate the change in the life cycle of th project.

1.1 Project Overview

The project began on the 30th September 2013 and ended on Friday the 9th May 2014 allowing the team 32 weeks in order to plan, develop and deploy the project as well as allowing sufficient time to produce the academic and technical reports to accompany the product.

The planning of the project has been produced to incorporate all the academic and technical deliverables. The major academic deliverables are:

- Project Proposal
- Presentation of mid-point progress
- Submission of reports
- Final product demonstration

and the project milestone deliverables are:

- Scope
- Software Requirements
- Design
- Development
- Unit Testing
- Integration Testing
- Documentation
- Deployment

The following sections within this chapter show the progress of the project where each of the deliverables were met accompanied by their predicted completion dates to actual dates when they were completed. There have been a number of factors which impacted the plans and these will be discussed in the chapters.

1.2 Planning

This section contains the project plans which have been developed in Microsoft Project 2010. There are three sub sections which define the initial, interim and end progress of the project. Jalote (2005) refers to software engineering as two domains.

1. Student Systems - Programs that people build to illustrate something or for hobby.
2. Industrial Strength Software - Software that can lead to significant direct or indirect loss.

A software project that is planned throughly is a more successful project than a project that is developed through extreme programming. The Cryptic Crossword project initially started through the Waterfall life cycle model and gradually grew to become an Iterative model. Therefore the project plans had to be updated constantly to reflect the change in which the project was being undertaken. Although the overall project is developed in the Waterfall model due to the time constraints applied by University deadlines the project consists of an iterative development outside of the deliverables which are to be produced for academic purposes.

1.2.1 Timeline

Figure 1.1: Project Timeline on the 21st October 2013

Figure 1.1 shows the initial timescale that was drawn up while planning the project. This was produced to show the major deliverables and their dates. In the next section the Gantt Chart that was produced with all the initial tasks to be completed are shown.

1.2.2 Initial Gantt Chart

ID	WBS	Task Mode	Task Name	Duration	Start	Finish
0	**0**		**Cryptic Crossword**	**145 days?**	**Mon 30/09/13**	**Fri 18/04/14**
1	**1**		**Term 1**	**60 days?**	**Mon 30/09/13**	**Fri 20/12/13**
2	**1.1**		**Scope**	**29 days?**	**Mon 30/09/13**	**Thu 07/11/13**
3	**1.1.1**		**Project Proposal**	**12 days**	**Mon 30/09/13**	**Tue 15/10/13**
4	1.1.1.1		Acquire Project Idea	7 days	Mon 30/09/13	Tue 08/10/13
5	1.1.1.2		Refine Project Definition	11 days	Mon 30/09/13	Mon 14/10/13
6	1.1.1.3		Project Proposal Deadline	12 days	Mon 30/09/13	Tue 15/10/13
7	**1.1.2**		**Research**	**9 days?**	**Thu 24/10/13**	**Tue 05/11/13**
8	1.1.2.1		Natural Language Processing	4 days	Thu 24/10/13	Tue 29/10/13
9	1.1.2.2		Mobile market	4 days	Thu 24/10/13	Tue 29/10/13
10	1.1.2.3		Crosswords in General	4 days	Thu 24/10/13	Tue 29/10/13
11	1.1.2.4		Web Services	4 days	Thu 24/10/13	Tue 29/10/13
12	1.1.2.5		Project Risk Assessment	2 hrs?	Tue 29/10/13	Tue 29/10/13
13	1.1.2.6		Literature Search	6 days	Tue 29/10/13	Tue 05/11/13
14	1.1.2.7		Development Method	6 days	Tue 29/10/13	Tue 05/11/13
15	1.1.2.8		Tools	6 days	Tue 29/10/13	Tue 05/11/13
16	1.1.2.9		Skills / Knowledge	6 days	Tue 29/10/13	Tue 05/11/13
17	1.1.2.10		Unforeseen Research	1 day?	Tue 05/11/13	Tue 05/11/13
18	1.1.3		Secure Resources	2 days	Wed 06/11/13	Thu 07/11/13
19	1.1.4		Scope complete	14 days	Mon 21/10/13	Thu 07/11/13
20	**1.2**		**Analysis/Software Requirements**	**10 days?**	**Fri 08/11/13**	**Thu 21/11/13**
21	1.2.1		Conduct needs analysis	1 day	Fri 08/11/13	Fri 08/11/13
22	1.2.2		General Requirements	2 days	Mon 11/11/13	Tue 12/11/13
23	**1.2.3**		**Technical Requirements**	**2 days?**	**Wed 13/11/13**	**Thu 14/11/13**
24	1.2.3.1		Testing Strategy	1 day	Wed 13/11/13	Wed 13/11/13
25	1.2.3.2		Test Plan	1 day?	Thu 14/11/13	Thu 14/11/13
26	**1.2.4**		**User Requirements**	**2 days**	**Fri 15/11/13**	**Mon 18/11/13**
27	1.2.4.1		Problem	2 days	Fri 15/11/13	Mon 18/11/13
28	1.2.4.2		Client	2 days	Fri 15/11/13	Mon 18/11/13
29	1.2.4.3		Users	2 days	Fri 15/11/13	Mon 18/11/13
30	1.2.4.4		Product	2 days	Fri 15/11/13	Mon 18/11/13
31	1.2.4.5		Aims & Objectives	2 days	Fri 15/11/13	Mon 18/11/13
32	1.2.5		Risk Assessment	1 day	Tue 19/11/13	Tue 19/11/13
33	1.2.6		Assumptions	1 day	Wed 20/11/13	Wed 20/11/13
34	**1.2.7**		**Product Specification**	**1 day?**	**Thu 21/11/13**	**Thu 21/11/13**
35	1.2.7.1		In-Depth MoSCoW	1 day?	Thu 21/11/13	Thu 21/11/13
36	1.2.8		Analysis complete	0 days	Thu 21/11/13	Thu 21/11/13
37	**1.3**		**Design**	**21 days?**	**Fri 22/11/13**	**Fri 20/12/13**
38	**1.3.1**		**UML Models**	**6 days?**	**Fri 22/11/13**	**Fri 29/11/13**
39	1.3.1.1		Use Case Diagrams	1 day?	Fri 22/11/13	Fri 22/11/13
40	1.3.1.2		Sequence Diagrams	1 day?	Mon 25/11/13	Mon 25/11/13
41	1.3.1.3		Class Diagrams	4 days	Tue 26/11/13	Fri 29/11/13
42	1.3.2		Database Models	2 days	Mon 02/12/13	Tue 03/12/13
43	1.3.3		User Interface	3 days	Wed 04/12/13	Fri 06/12/13
44	1.3.4		Review Specifications	2 days	Mon 09/12/13	Tue 10/12/13
45	1.3.5		Approval	1 day	Wed 11/12/13	Wed 11/12/13
46	1.3.6		Assign Resources	1 day?	Thu 12/12/13	Thu 12/12/13
47	1.3.7		Design complete	0 days	Thu 12/12/13	Thu 12/12/13
48	1.3.8		Development Preparation	6 days	Fri 13/12/13	Fri 20/12/13

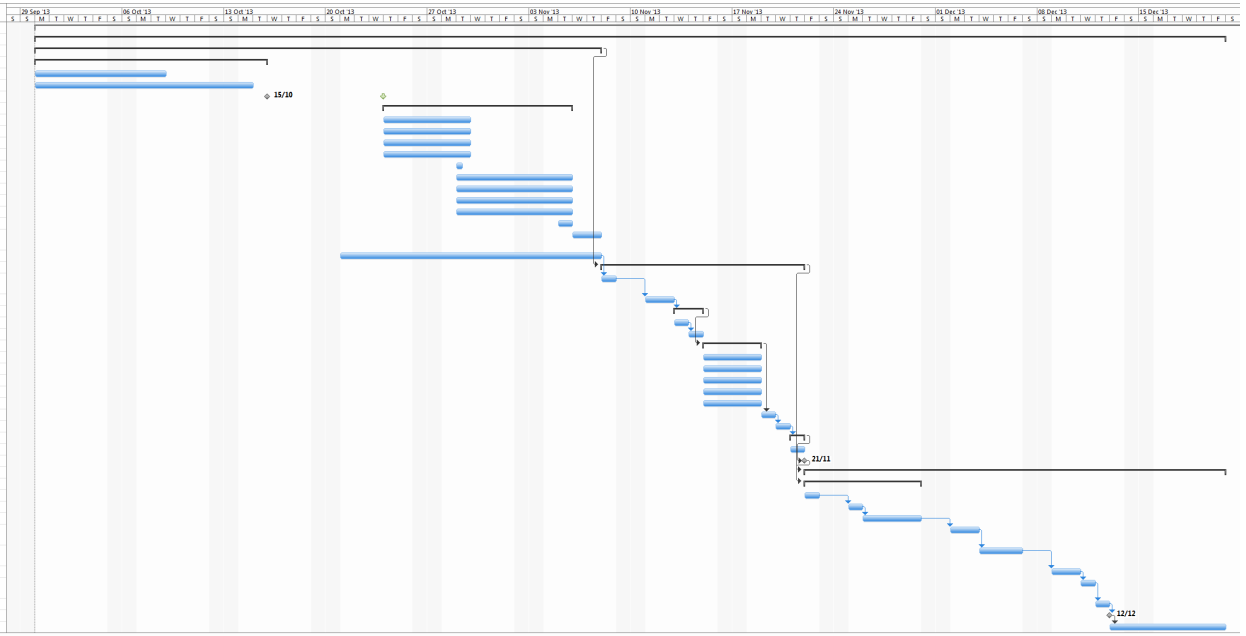


Figure 1.2: Gantt Chart for Term one produced on the 21st October 2013

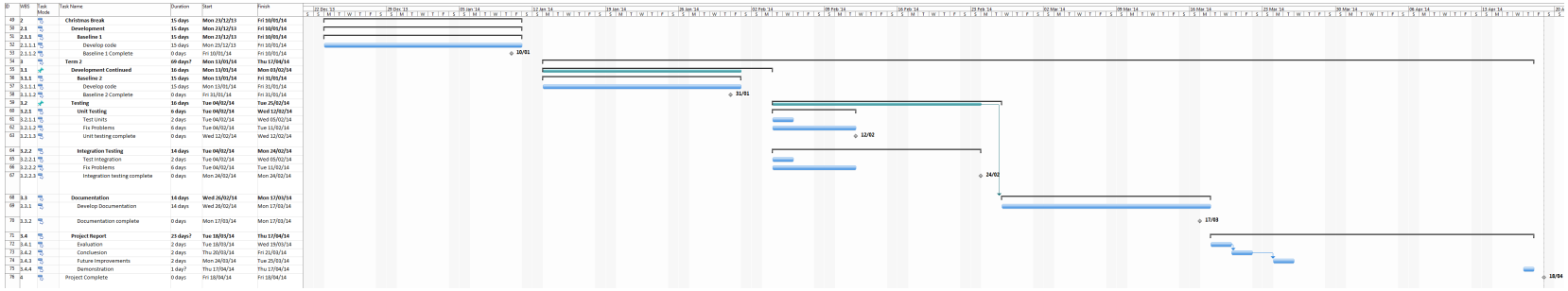


Figure 1.3: Gantt Chart for Term two produced on the 21st October 2013

1.2.3 Timeline Re-Visited

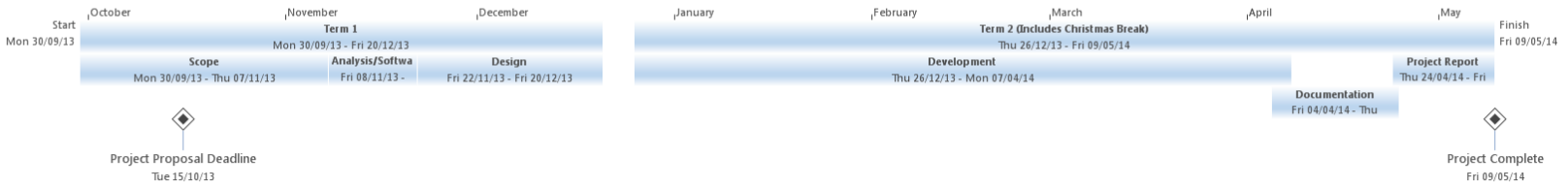


Figure 1.4: Project Timeline on the 30th January 2014

1.2.4 Interim Gantt Chart

ID	WBS	Task Mode	Task Name	Duration	Start	Finish	Predecessors	Milestone
0	**0**		**Cryptic Crossword**	**160 days?**	**Mon 30/09/13**	**Fri 09/05/14**		**No**
1	**1**		**Term 1**	**60 days?**	**Mon 30/09/13**	**Fri 20/12/13**		**No**
2	**1.1**		**Scope**	**29 days?**	**Mon 30/09/13**	**Thu 07/11/13**		**No**
3	**1.1.1**		**Project Proposal**	**12 days**	**Mon 30/09/13**	**Tue 15/10/13**		**No**
4	1.1.1.1		Acquire Project Idea	7 days	Mon 30/09/13	Tue 08/10/13		No
5	1.1.1.2		Refine Project Definition	11 days	Mon 30/09/13	Mon 14/10/13		No
6	1.1.1.3		Project Proposal Deadline	12 days	Mon 30/09/13	Tue 15/10/13		Yes
7	**1.1.2**		**Research**	**9 days?**	**Thu 24/10/13**	**Tue 05/11/13**		**No**
8	1.1.2.1		Natural Language Processing	4 days	Thu 24/10/13	Tue 29/10/13		No
9	1.1.2.2		Mobile market	4 days	Thu 24/10/13	Tue 29/10/13		No
10	1.1.2.3		Crosswords in General	4 days	Thu 24/10/13	Tue 29/10/13		No
11	1.1.2.4		Web Services	4 days	Thu 24/10/13	Tue 29/10/13		No
12	1.1.2.5		Project Risk Assessment	2 hrs?	Tue 29/10/13	Tue 29/10/13		No
13	1.1.2.6		Literature Search	6 days	Tue 29/10/13	Tue 05/11/13		No
14	1.1.2.7		Development Method	6 days	Tue 29/10/13	Tue 05/11/13		No
15	1.1.2.8		Tools	6 days	Tue 29/10/13	Tue 05/11/13		No
16	1.1.2.9		Skills / Knowledge	6 days	Tue 29/10/13	Tue 05/11/13		No
17	1.1.2.1		Unforeseen Research	1 day?	Tue 05/11/13	Tue 05/11/13		No
18	1.1.3		Secure Resources	2 days	Wed 06/11/13	Thu 07/11/13		No
19	1.1.4		Scope complete	14 days	Mon 21/10/13	Thu 07/11/13		No
20	**1.2**		**Analysis/Software Requirements**	**10 days?**	**Fri 08/11/13**	**Thu 21/11/13**	**2**	**No**
21	1.2.1		Conduct needs analysis	1 day	Fri 08/11/13	Fri 08/11/13	19	No
22	1.2.2		General Requirements	2 days	Mon 11/11/13	Tue 12/11/13	21	No
23	**1.2.3**		**Technical Requirements**	**2 days?**	**Wed 13/11/13**	**Thu 14/11/13**	**22**	**No**
24	1.2.3.1		Testing Strategy	1 day	Wed 13/11/13	Wed 13/11/13		No
25	1.2.3.2		Test Plan	1 day?	Thu 14/11/13	Thu 14/11/13	24	No
26	**1.2.4**		**User Requirements**	**2 days**	**Fri 15/11/13**	**Mon 18/11/13**	**23**	**No**
27	1.2.4.1		Problem	2 days	Fri 15/11/13	Mon 18/11/13		No
28	1.2.4.2		Client	2 days	Fri 15/11/13	Mon 18/11/13		No
29	1.2.4.3		Users	2 days	Fri 15/11/13	Mon 18/11/13		No
30	1.2.4.4		Product	2 days	Fri 15/11/13	Mon 18/11/13		No
31	1.2.4.5		Aims & Objectives	2 days	Fri 15/11/13	Mon 18/11/13		No
32	1.2.5		Risk Assessment	1 day	Tue 19/11/13	Tue 19/11/13	26	No
33	1.2.6		Assumptions	1 day	Wed 20/11/13	Wed 20/11/13	32	No
34	**1.2.7**		**Product Specification**	**1 day?**	**Thu 21/11/13**	**Thu 21/11/13**	**33**	**No**
35	1.2.7.1		In-Depth MoSCoW	1 day?	Thu 21/11/13	Thu 21/11/13		No
36	1.2.8		Analysis complete	0 days	Thu 21/11/13	Thu 21/11/13	34	Yes
37	**1.3**		**Design**	**21 days?**	**Fri 22/11/13**	**Fri 20/12/13**	**20**	**No**
38	**1.3.1**		**UML Models**	**6 days?**	**Fri 22/11/13**	**Fri 29/11/13**	**36**	**No**
39	1.3.1.1		Use Case Diagrams	1 day?	Fri 22/11/13	Fri 22/11/13		No
40	1.3.1.2		Sequence Diagrams	1 day?	Mon 25/11/13	Mon 25/11/13	39	No
41	1.3.1.3		Class Diagrams	4 days	Tue 26/11/13	Fri 29/11/13	40	No
42	1.3.2		Database Models	2 days	Mon 02/12/13	Tue 03/12/13	41	No
43	1.3.3		User Interface	3 days	Wed 04/12/13	Fri 06/12/13	42	No
44	1.3.4		Review Specifications	2 days	Mon 09/12/13	Tue 10/12/13	43	No
45	1.3.5		Approval	1 day	Wed 11/12/13	Wed 11/12/13	44	No
46	1.3.6		Assign Resources	1 day?	Thu 12/12/13	Thu 12/12/13	45	No
47	1.3.7		Design complete	0 days	Thu 12/12/13	Thu 12/12/13	46	Yes
48	1.3.8		Development Preparation	6 days	Fri 13/12/13	Fri 20/12/13	47	No

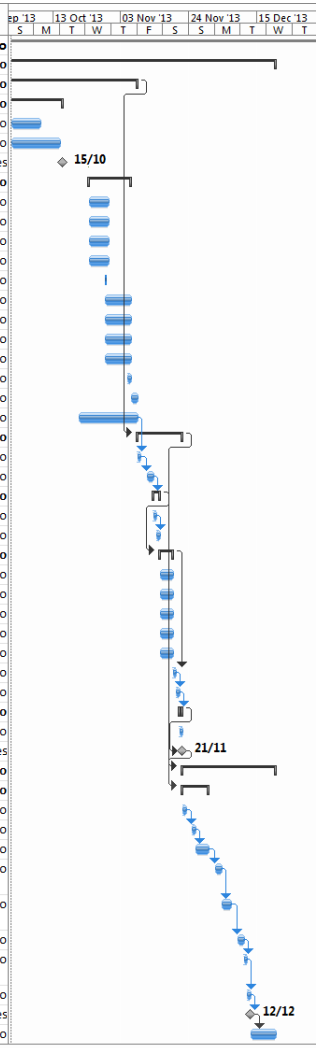


Figure 1.5: Gantt Chart for Term one produced on the 30th January 2014

ID	WBS	Task Mode	Task Name	Duration	Start	Finish	Predecessors	Milestone
49	2		**Term 2 (Includes Christmas Break)**	**97 days**	**Thu 26/12/13**	**Fri 09/05/14**	**1**	**No**
50	2.1		**Development**	**73 days**	**Thu 26/12/13**	**Mon 07/04/14**	**37**	**No**
51	2.1.1		**Iteration 1**	**25 days**	**Thu 26/12/13**	**Wed 29/01/14**	**48**	**No**
52	2.1.1.1		Develop code	15 days	Thu 26/12/13	Wed 15/01/14		Yes
53	2.1.1.2		**Testing**	**10 days**	**Thu 16/01/14**	**Wed 29/01/14**		**No**
54	2.1.1.2.		**Unit Testing**	**6 days**	**Thu 16/01/14**	**Thu 23/01/14**		**No**
55	2.1.1.2.		Test Units	2 days	Thu 16/01/14	Fri 17/01/14		No
56	2.1.1.2.		Fix Problems	3 days	Mon 20/01/14	Wed 22/01/14		No
57	2.1.1.2.		Unit testing complete	0 days	Wed 22/01/14	Wed 22/01/14		Yes
58	2.1.1.2.		**Integration Testing**	**5 days**	**Thu 23/01/14**	**Wed 29/01/14**		**No**
59	2.1.1.2.		Test Integration	2 days	Fri 24/01/14	Mon 27/01/14		No
60	2.1.1.2.		Fix Problems	3 days	Mon 27/01/14	Wed 29/01/14		No
61	2.1.1.2.		Integration testing complete	0 days	Wed 29/01/14	Wed 29/01/14		Yes
62	2.1.1.3		Iteration 1 Complete	0 days	Wed 29/01/14	Wed 29/01/14		Yes
63	2.1.2		**Iteration 2**	**24 days**	**Thu 30/01/14**	**Tue 04/03/14**	**51**	**No**
64	2.1.2.1		Develop code	15 days	Thu 30/01/14	Wed 19/02/14		Yes
65	2.1.2.2		**Testing**	**10 days**	**Wed 19/02/14**	**Tue 04/03/14**		**No**
66	2.1.2.2.		**Unit Testing**	**5 days**	**Wed 19/02/14**	**Tue 25/02/14**		**No**
67	2.1.2.2.		Test Units	3 days	Wed 19/02/14	Fri 21/02/14		No
68	2.1.2.2.		Fix Problems	3 days	Fri 21/02/14	Tue 25/02/14		No
69	2.1.2.2.		Unit testing complete	0 days	Tue 25/02/14	Tue 25/02/14		Yes
70	2.1.2.2.		**Integration Testing**	**6 days**	**Tue 25/02/14**	**Tue 04/03/14**		**No**
71	2.1.2.2.		Test Integration	2 days	Tue 25/02/14	Wed 26/02/14		No
72	2.1.2.2.		Fix Problems	5 days	Wed 26/02/14	Tue 04/03/14		No
73	2.1.2.2.		Integration testing complete	0 days	Tue 04/03/14	Tue 04/03/14		Yes
74	2.1.2.3		Iteration 2 Complete	0 days	Tue 04/03/14	Tue 04/03/14		Yes
75	2.1.3		**Iteration3**	**24 days**	**Wed 05/03/14**	**Mon 07/04/14**	**63**	**No**
76	2.1.3.1		Develop code	15 days	Wed 05/03/14	Tue 25/03/14		Yes
77	2.1.3.2		**Testing**	**10 days**	**Tue 25/03/14**	**Mon 07/04/14**		**No**
78	2.1.3.2.		**Unit Testing**	**5 days**	**Tue 25/03/14**	**Mon 31/03/14**		**No**
79	2.1.3.2.		Test Units	3 days	Tue 25/03/14	Thu 27/03/14		No
80	2.1.3.2.		Fix Problems	3 days	Thu 27/03/14	Mon 31/03/14		No
81	2.1.3.2.		Unit testing complete	0 days	Mon 31/03/14	Mon 31/03/14		Yes
82	2.1.3.2.		**Integration Testing**	**5 days**	**Mon 31/03/14**	**Fri 04/04/14**		**No**
83	2.1.3.2.		Test Integration	2 days	Mon 31/03/14	Tue 01/04/14		No
84	2.1.3.2.		Fix Problems	4 days	Tue 01/04/14	Fri 04/04/14		No
85	2.1.3.2.		Integration testing complete	0 days	Fri 04/04/14	Fri 04/04/14		Yes
86	2.2		**Documentation**	**14 days**	**Fri 04/04/14**	**Thu 24/04/14**	**50**	**No**
87	2.2.1		Develop Documentation	14 days	Mon 07/04/14	Thu 24/04/14	47	No
88	2.2.2		Documentation complete	0 days	Thu 24/04/14	Thu 24/04/14		Yes
89	2.3		**Project Report**	**12 days?**	**Thu 24/04/14**	**Fri 09/05/14**	**86**	**No**
90	2.3.1		Evaluation	5 days	Thu 24/04/14	Wed 30/04/14		No
91	2.3.2		Concluesion	2 days	Wed 30/04/14	Thu 01/05/14		No
92	2.3.3		Future Improvements	2 days	Fri 02/05/14	Mon 05/05/14	91	No
93	2.3.4		Spelling And Grammer	5 days	Mon 05/05/14	Fri 09/05/14		No
94	3		Project Complete	0 days	Fri 09/05/14	Fri 09/05/14	49	Yes

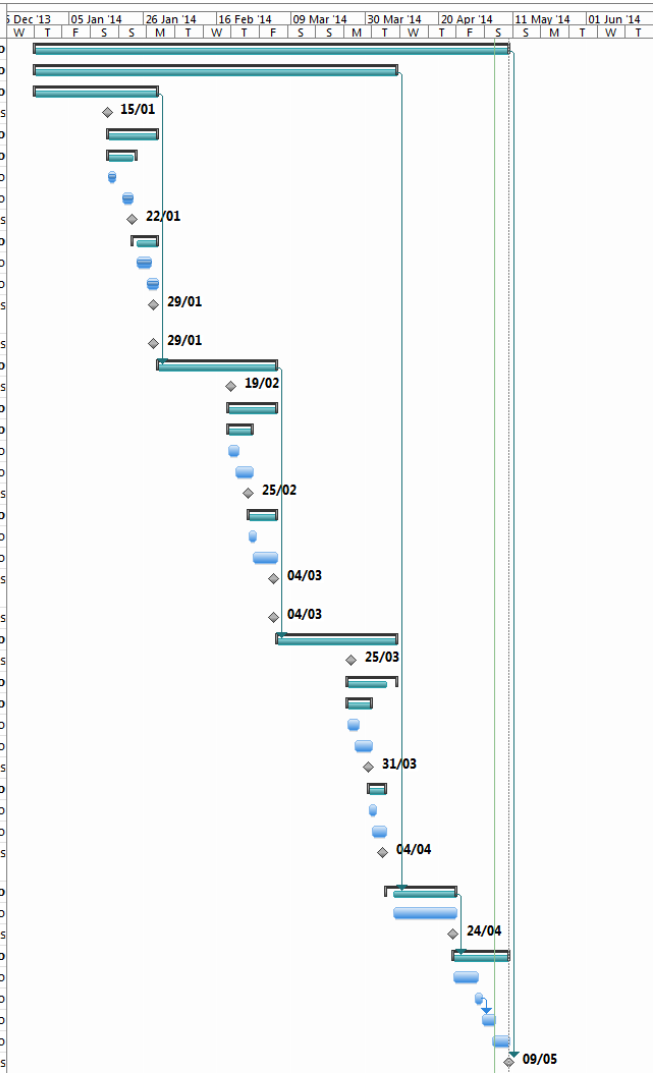
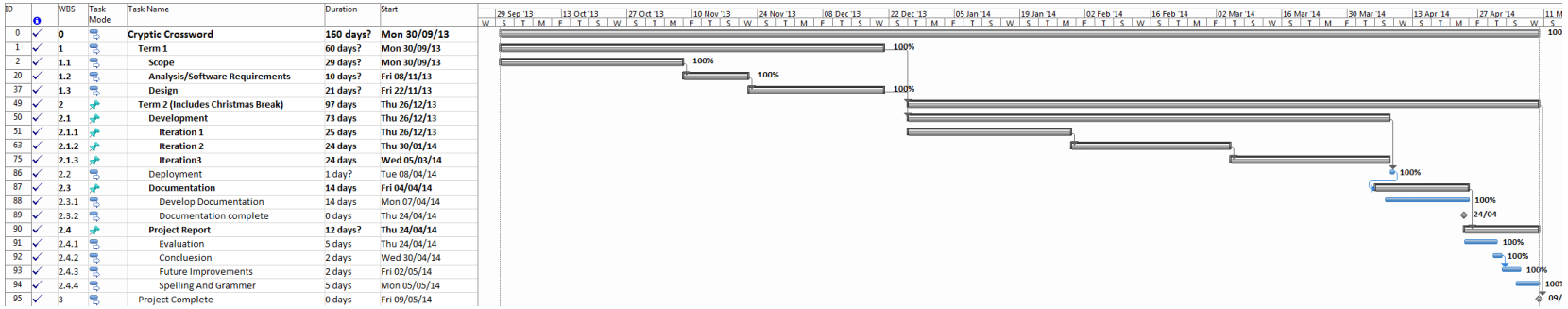


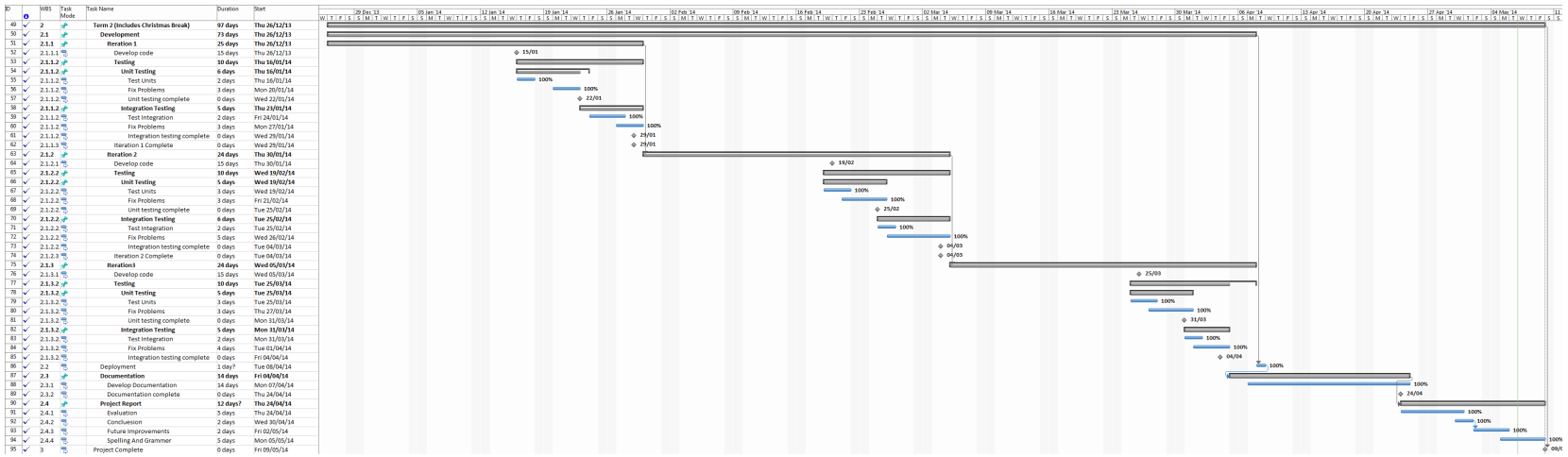
Figure 1.6: Gantt Chart for Term two produced on the 30th January 2014

1.2.5 Final Gantt Chart



ID	WBS	Task Mode	Task Name	Duration	Start
0	**0**		**Cryptic Crossword**	**160 days?**	**Mon 30/09/13**
1	**1**		**Term 1**	**60 days?**	**Mon 30/09/13**
2	**1.1**		**Scope**	**29 days?**	**Mon 30/09/13**
20	**1.2**		**Analysis/Software Requirements**	**10 days?**	**Fri 08/11/13**
37	**1.3**		**Design**	**21 days?**	**Fri 22/11/13**
49	**2**		**Term 2 (Includes Christmas Break)**	**97 days**	**Thu 26/12/13**
50	**2.1**		**Development**	**73 days**	**Thu 26/12/13**
51	**2.1.1**		**Iteration 1**	**25 days**	**Thu 26/12/13**
63	**2.1.2**		**Iteration 2**	**24 days**	**Thu 30/01/14**
75	**2.1.3**		**Iteration3**	**24 days**	**Wed 05/03/14**
86	2.2		Deployment	1 day?	Tue 08/04/14
87	**2.3**		**Documentation**	**14 days**	**Fri 04/04/14**
88	2.3.1		Develop Documentation	14 days	Mon 07/04/14
89	2.3.2		Documentation complete	0 days	Thu 24/04/14
90	**2.4**		**Project Report**	**12 days?**	**Thu 24/04/14**
91	2.4.1		Evaluation	5 days	Thu 24/04/14
92	2.4.2		Concluesion	2 days	Wed 30/04/14
93	2.4.3		Future Improvements	2 days	Fri 02/05/14
94	2.4.4		Spelling And Grammer	5 days	Mon 05/05/14
95	3		Project Complete	0 days	Fri 09/05/14

Figure 1.7: Final Gantt Chart of Project Summary produced on the 7th May 2014



ID	WBS	Task Mode	Task Name	Duration	Start
49	2		**Term 2 (Includes Christmas Break)**	**97 days**	**Thu 26/12/13**
50	2.1		**Development**	**73 days**	**Thu 26/12/13**
51	**2.1.1**		**Iteration 1**	**25 days**	**Thu 26/12/13**
52	2.1.1.1		Develop code	15 days	Thu 26/12/13
53	**2.1.1.2**		**Testing**	**10 days**	**Thu 16/01/14**
54	**2.1.1.2**		**Unit Testing**	**6 days**	**Thu 16/01/14**
55	2.1.1.2		Test Units	2 days	Thu 16/01/14
56	2.1.1.2		Fix Problems	3 days	Mon 20/01/14
57	2.1.1.2		Unit testing complete	0 days	Wed 22/01/14
58	**2.1.1.2**		**Integration Testing**	**5 days**	**Thu 23/01/14**
59	2.1.1.2		Test Integration	2 days	Fri 24/01/14
60	2.1.1.2		Fix Problems	3 days	Mon 27/01/14
61	2.1.1.2		Integration testing complete	0 days	Wed 29/01/14
62	2.1.1.3		Iteration 1 Complete	0 days	Wed 29/01/14
63	**2.1.2**		**Iteration 2**	**24 days**	**Thu 30/01/14**
64	2.1.2.1		Develop code	15 days	Thu 30/01/14
65	**2.1.2.2**		**Testing**	**10 days**	**Wed 19/02/14**
66	**2.1.2.2**		**Unit Testing**	**5 days**	**Wed 19/02/14**
67	2.1.2.2		Test Units	3 days	Wed 19/02/14
68	2.1.2.2		Fix Problems	3 days	Fri 21/02/14
69	2.1.2.2		Unit testing complete	0 days	Tue 25/02/14
70	**2.1.2.2**		**Integration Testing**	**6 days**	**Tue 25/02/14**
71	2.1.2.2		Test Integration	2 days	Tue 25/02/14
72	2.1.2.2		Fix Problems	5 days	Wed 26/02/14
73	2.1.2.2		Integration testing complete	0 days	Tue 04/03/14
74	2.1.2.3		Iteration 2 Complete	0 days	Tue 04/03/14
75	**2.1.3**		**Iteration3**	**24 days**	**Wed 05/03/14**
76	2.1.3.1		Develop code	15 days	Wed 05/03/14
77	**2.1.3.2**		**Testing**	**10 days**	**Tue 25/03/14**
78	**2.1.3.2**		**Unit Testing**	**5 days**	**Tue 25/03/14**
79	2.1.3.2		Test Units	3 days	Tue 25/03/14
80	2.1.3.2		Fix Problems	3 days	Thu 27/03/14
81	2.1.3.2		Unit testing complete	0 days	Mon 31/03/14
82	**2.1.3.2**		**Integration Testing**	**5 days**	**Mon 31/03/14**
83	2.1.3.2		Test Integration	2 days	Mon 31/03/14
84	2.1.3.2		Fix Problems	4 days	Tue 01/04/14
85	2.1.3.2		Integration testing complete	0 days	Fri 04/04/14
86	2.2		Deployment	1 day?	Tue 08/04/14
87	**2.3**		**Documentation**	**14 days**	**Fri 04/04/14**
88	2.3.1		Develop Documentation	14 days	Mon 07/04/14
89	2.3.2		Documentation complete	0 days	Thu 24/04/14
90	**2.4**		**Project Report**	**12 days?**	**Thu 24/04/14**
91	2.4.1		Evaluation	5 days	Thu 24/04/14
92	2.4.2		Concluesion	2 days	Wed 30/04/14
93	2.4.3		Future Improvements	2 days	Fri 02/05/14
94	2.4.4		Spelling And Grammer	5 days	Mon 05/05/14
95	3		Project Complete	0 days	Fri 09/05/14

Figure 1.8: Final Gantt Chart for Term two produced on the 7th May 2014

1.3 People Invloved

1.4 Ethics and Proffessionalism

1.5 Psycholoogy of Software Development

1.6 Estimation and Costing

1.7 Allocation of Work

Glossary of Terms

The following section contains a glossary with the meanings of all names, acronyms, and abbreviations used by the stakeholders.

Term/Acronym	**Definition**
The Guardian	A newspaper with a website featuring cryptic crosswords
Blackberry	A mobile phone platform by Blackberry
iOS	A mobile phone platform by Apple
Android	A mobile phone platform by Google
NLP	Natural Language Processing
SRS	Software Requirements Specification
App	Short for application

Bibliography

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Lock, D. (1986). *Project management*. Wildwood House, Aldershot.