University *of* Glasgow | Department of Computing Science

D2: PROJECT PLAN

Deliverable ID	D2
Deliverable Title	Project Plan
Project	PSD Group Exercise 1
Team	X
Authors	Ross Adam Andrew Gardner Nicole Kearns Mamas Nicolau Asset Sarsengaliyev ...
Deliverable Date	10 January 2009
File Name	d2.tex
Version	

Contents

1 Introduction

1.1 Identification

Project plan for the internship system for PSD3 team project.

1.2 Related Documentation

PSD3 Group Exercise Description `http://fims.moodle.gla.ac.uk/file.php/128/coursework/psd3-ge-1-rev3278.pdf`

Deliverables Template `http://fims.moodle.gla.ac.uk/file.php/128/coursework/templates.zip`

PSD3 Course Notes `http://fims.moodle.gla.ac.uk/file.php/128/lecture-notes/notes-r3275.pdf`

1.3 Purpose and Description of Document

The purpose of this document is to detail and explain the tasks which will be involved in the development of the intenship sytem and to identify and explain any risks which may be involved.

1.4 Document Status and Schedule

Date	Change	Version	Author
02/10/2012	Began Draft	0.1	All
09/10/2012	Initial Draft Completed	0.2	All
10/10/2012	Finalised for Submission	0.3	All
11/10/2012	**Draft Submission Deadline**	1.0	All
26/11/2012	Completed introduction section	1.1	All
26/11/2012	Modified and Added Tasks	1.2	All
	ADD MORE HERE!		All
	Finalised for Submission		All
29/11/2012	**Final Submission Deadline**		

2 Resources, Budgets, Schedules and Organisation

2.1 Work Breakdown Structure

Describe the logical structure for managing acquisition and development (or relevant subsection thereof) by means of a Work Breakdown Structure (WBS) scheme that is coordinated with the resource allocation described in Subsection **??**. An activities-oriented rather than an organisation- or product oriented WBS is recommended. The level of detail given in the WBS should be sufficient to support sound management practices.
For purposes of the WBS, identify the activities to be undertaken. Define these in terms of a descriptive statement in operational terms of activities and identification of the products to be delivered or outcomes of the activity.

For each activity give:

- an identifying label;
- a descriptive statement in operational terms (what needs to be done);
- identification of outcomes, including deliverables; and
- a brief risk assessment.

For example, using the PSDTask environment (defined in this document's header):

Task 1:	***Breakdown of Initial Problem Definition***
Description:	Discussing the initial problems and forming our own ideas of how to approach the client's task.
Outcomes:	Problem breakdown.
Deliverables:	None
Risk:	R1
Task 2:	***Identify Initial Requirements***
Description:	Using the initial problem definition, identify what the basic features of the system should be.
Outcomes:	Inital requirements list
Deliverables:	None
Risk:	R1
Task 3:	***Prepare Interview Plan***
Description:	Construct questions for Customer Liaison to ask the client in order to elicit requirements. Questions will then be approved by group. An interview plan will then be written consisting of these questions.
Outcomes:	Interview Plan document.
Deliverables:	None
Risk:	R2
Task 4:	***Conduct Interview***
Description:	Meeting with client to collect requirements using the Interview Plan document. If additional information is revealed plan document will be deviated from.
Outcomes:	Interview notes - system requirements
Deliverables:	None
Risk:	R3
Task 5:	***Review Interview Notes***
Description:	Look over the notes gathered in the interview with the client and the initial requirements.
Outcomes:	None
Deliverables:	None
Risk:	R1, R3
Task 6:	***Produce Requirements Post Interview***
Description:	Produce a document containing all requirements gathered for the system from the client interview.
Outcomes:	Requirements document
Deliverables:	None
Risk:	R1, R3

Task 7:	***Review Initial Requirements***
Description:	Check over the requirements document to ensure it contains all requirements for the system, and that they are appropriate for the system
Outcomes:	
Deliverables:	None
Risk:	
Task 8:	***Create UML of Internship Management System***
Description:	Produce a UML diagram of the system to show the structure of the internship system
Outcomes:	UML diagram
Deliverables:	D3
Risk:	R6
Task 9:	***Create Use Cases***
Description:	For each of the requirements gathered, produce a use case containing all appropriate information ie. description, actors, conditions,etc
Outcomes:	Requirements Specification
Deliverables:	D3
Risk:	R1
Task 10:	***Create Use Case Diagrams***
Description:	Produce use case diagrams to show the relationship between different use cases and the actors involved.
Outcomes:	Requirements Specification
Deliverables:	D3
Risk:	R1, R6
Task 11:	***Prepare Stakeholders Panel Interview Questions***
Description:	Come up with a few key questions about the system/requirements we are unsure about to ask the clients. Allows us to clarify the requirements we have are correct.
Outcomes:	Stakeholder panel Questions
Deliverables:	None
Risk:	R2
Task 12:	***Attend Stakeholders Panel Interview***
Description:	Allow the teams to ask questions about the system that maybe were not clear in the interview; or ask questions which they forgot about during the interview.
Outcomes:	Stakeholder panel notes
Deliverables:	None
Risk:	R3
Task 13:	***Review Notes from Stakeholders Panel Interview***
Description:	Go through the notes from the stakeholder panel and amend the requirements document where necessary.
Outcomes:	
Deliverables:	None
Risk:	R1, R3

Task 14:	***Finalise all Requirements***
Description:	Gather all requirements from the interview and the stakeholder panel and ensure that all the requirements are included in the document
Outcomes:	Final Requirements Document
Deliverables:	
Risk:	
Task 15:	***Finalised UML of Internship Management System***
Description:	Modified the UML diagram to suit the requirements gathered at the stakeholder panel
Outcomes:	UML diagram
Deliverables:	D3
Risk:	
Task 16:	***Finalised Use Cases***
Description:	Modified the use cases to suit the requirements gathered at the stakeholder panel
Outcomes:	Requirements Specification
Deliverables:	D3
Risk:	
Task 17:	***Finalised Use Case Diagrams***
Description:	Modified the use case diagrams to suit the requirements gathered at the stakeholder panel
Outcomes:	Requirements Specification
Deliverables:	D3
Risk:	
Task 18:	***Finalise Requirements Specifications Documents***
Description:	Check over the requirements specification to ensure it is correct and contains all relevant information for the use cases, and that the use case diagrams match the information in the descriptions.
Outcomes:	Requirments Specificaiton
Deliverables:	D3
Risk:	
Task 19:	***Research Bash Scripting***
Description:	Learn how to do bash scripting in order to create a prototype to show the client the basic functionality of the system and the workflow.
Outcomes:	None
Deliverables:	None
Risk:	
Task 20:	***Create Bash Prototype***
Description:	Creating the first actual prototype of the application written in Bash Scripting Language.
Outcomes:	Bash Prototype created
Deliverables:	D4
Risk:	R8

Task 21:	***Test Bash Prototype***
Description:	Allow someone to test the prototype created in order to ensure there are no bugs and works as expected.
Outcomes:	
Deliverables:	D4
Risk:	
Task 22:	***Demonstrate Bash Prototype to Customer***
Description:	Giving the Customer a first view of how the application functions. The customer will have the opportunity to ask questions and the customer liaison will be available to give answers
Outcomes:	Bash Prototype demonstrated to Customer
Deliverables:	D4
Risk:	
Task 23:	***Review Notes from customer about Bash Prototype***
Description:	
Outcomes:	
Deliverables:	D4
Risk:	

2.2 Resource Estimation and Allocation to WBS

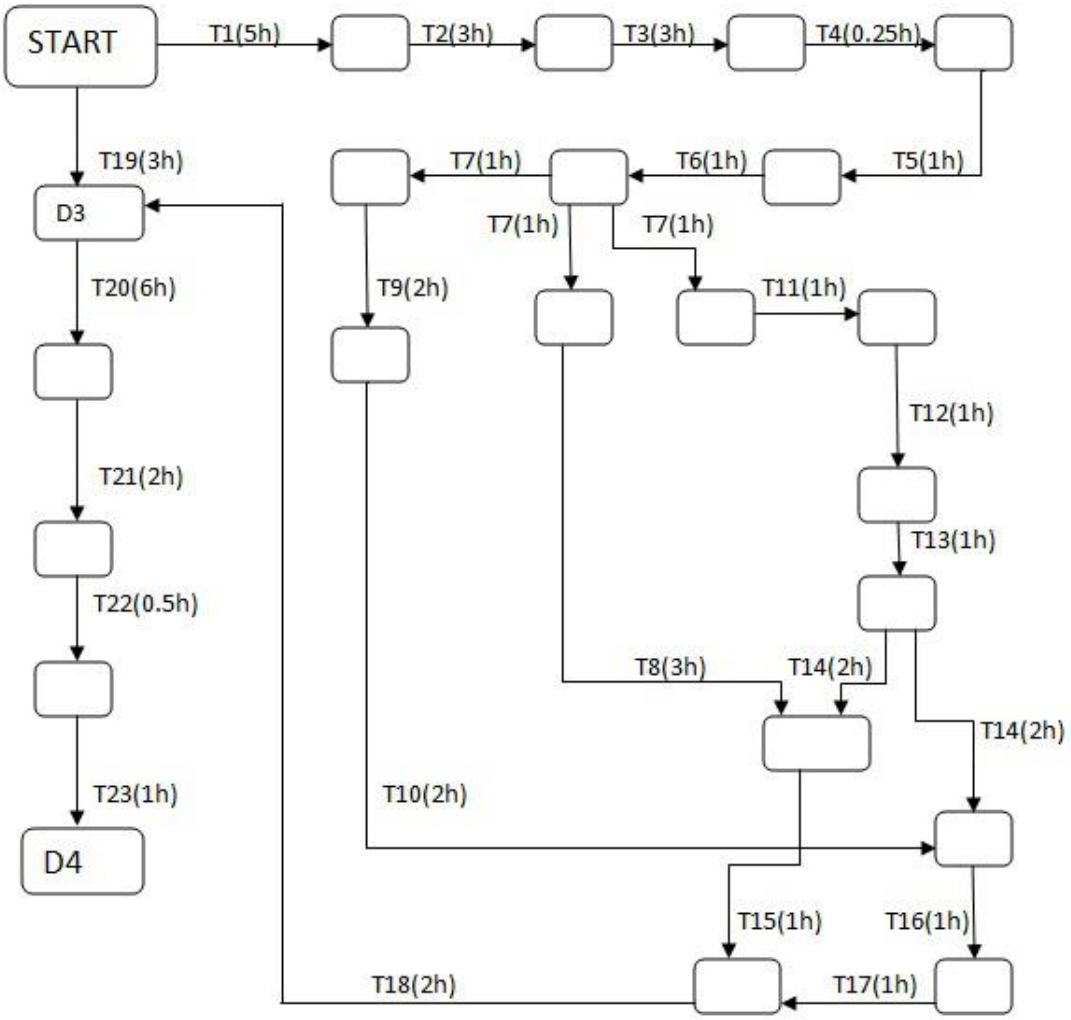
The purpose of this subsection is to list and describe the resources available to support the activities defined in the WBS. The resources may include team members involved in the activity, roles assigned and estimated overall effort (in person days or other appropriate measure).

2.3 Schedules

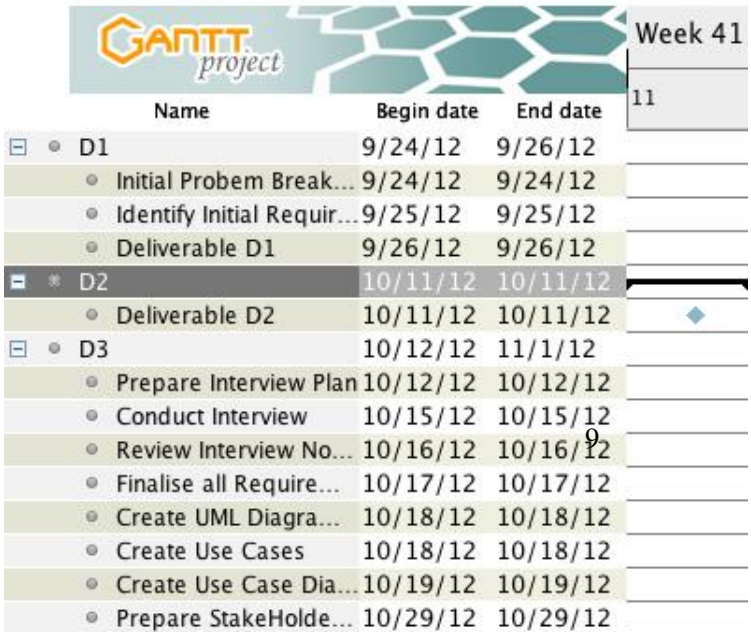
Table 1: Tasks Table

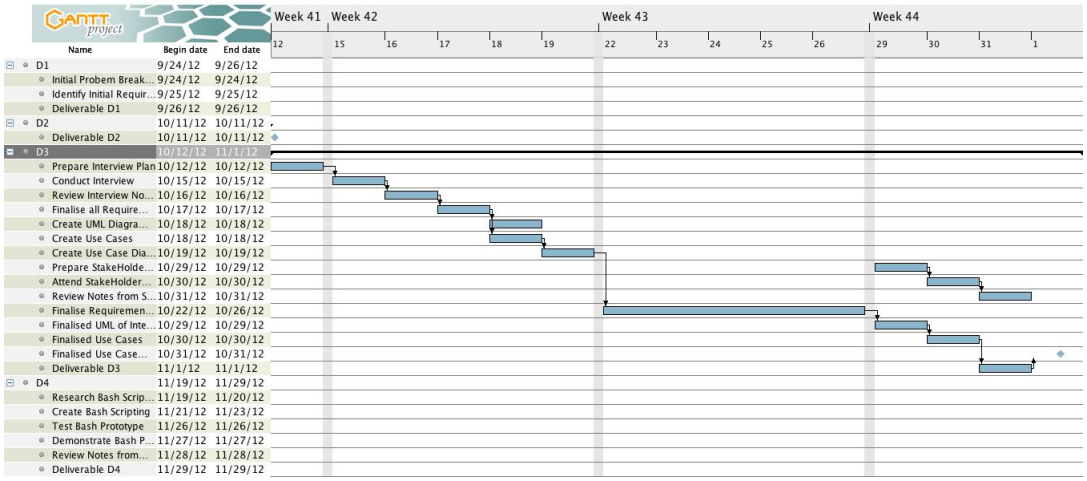
Task	Title	Hours	Depend	Team Members
1	Breakdown of Initial Problem Definition	5:00	-	All
2	Identify Initial Requirements	3:00	1	All
3	Prepare Interview Plan	3:00	2	Ross Adam, Nicole Kearns, Asset Sarsengaliyev
4	Conduct Interview	0:15	3	All
5	Review Interview Notes	1:00	4	All
6	Produce Requirements Post Interview	1:00	5	All
7	Review Initial Requirements	1:00	6	All
8	Create UML of Internship Management System Internship Management System	3:00	7	Asset Sarsengaliyev, Nicole Kearns, Andrew Gardner
9	Create Use Cases	2:00	7	Nicole Kearns, Ross Adam
10	Create Use Case Diagrams	2:00	9	Andrew Gardner, Mamas Nicolaou
11	Prepare Stakeholders Panel Interview Questions	1:00	7	All
12	Attend Stakeholders Panel Interview	1:00	11	All
13	Review Notes from Stakeholders Panel Interview	1:00	12	All
14	Finalise all Requirements	2:00	13	All
15	Finalise UML Diagram of Internship Management System	1:00	14	All
16	Finalise Use Cases	1:00	14	Andrew Gardner, Mamas Nicolaou,
17	Finalise Use Case Diagrams	1:00	16	Nicole Kearns, Ross Adam,
18	Finalise Requirements Specifications Documents	2:00	15,17	Ross Adam
19	Research Bash Scripting	3:00	-	Andrew Gardner
20	Create Bash Prototype	6:00	19,18	Andrew Gardner
21	Test Bash Prototype	2:00	20	Mamas Nicolaou
22	Demonstrate Bash Prototype to Customer	0.30	21	All
23	Review Notes from customer about Bash Prototype	1:00	22	All

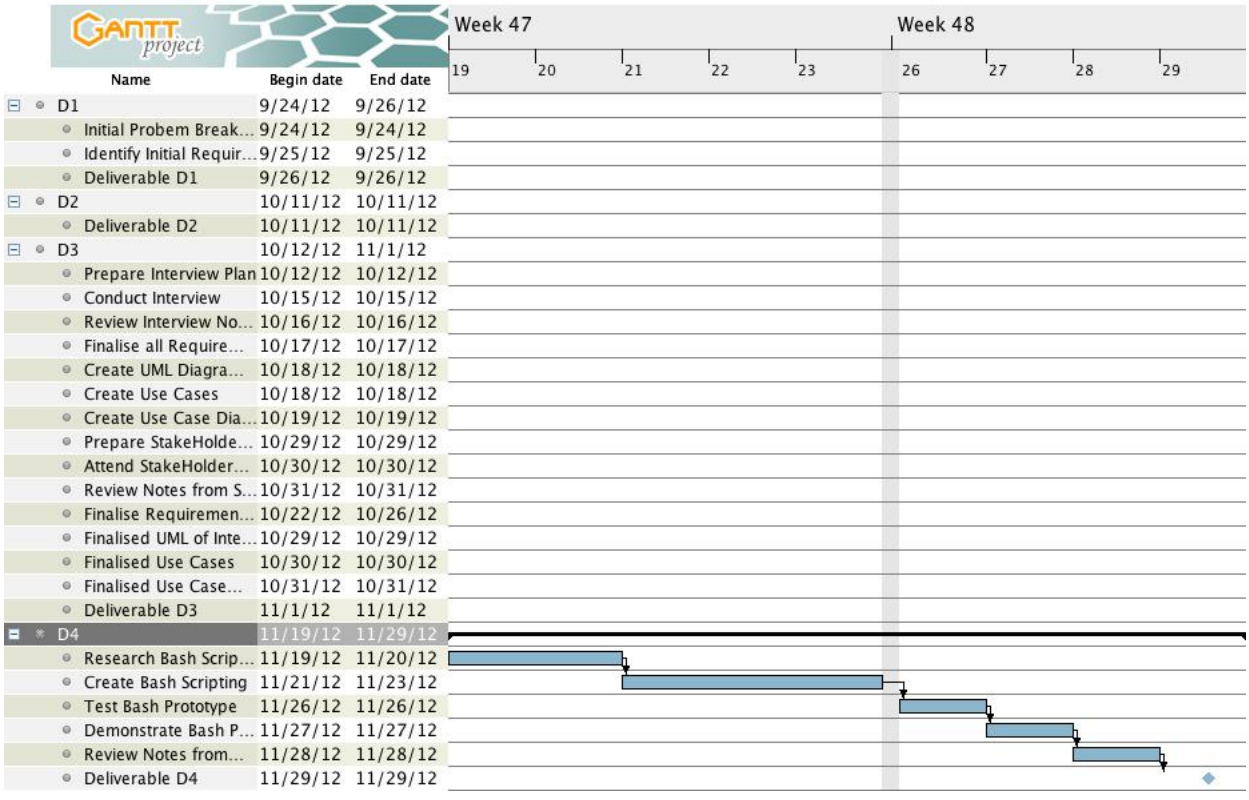
2.4 Pert Chart



2.5 Gantt Chart







2.6 Equipment, Materials, Facilities, and Other Resources

3 Assurance Plan

The Quality Assurance Plan(The QAP) is the basis for maintaining the quality of our product on the highest level that matches the requirements for the given software system and approved by stakeholders. The QAP will be overseen by the team to maintain quality improvement activities, such as

monitoring, adding features and evaluating defects. The purpose of the QAP is designed to match the following requirements:

- to perform suitable actions when possibilities for improvements in service are identified.
- to implement corrective action when technical issues or bugs are found.
- to ensure that the software system is maintaining properly all the time.

Our team will mainly rely on Risk Management Plan, Product Requirements Specification and Change Management Plan to keep the product quality to the appropriate level.

Team activities:

Team members use the special group on Facebook to discuss their thoughts. All the documentation and code are accessible on GitHub for all members as well as supervisors. It is the responsibility of everyone to ensure that update will not harm any working parts of the system. After altering any part of the code, we invoke test sets to check if the corresponding oracles match expected outputs.

Team should have one or more meetings every week to discuss the progress of the work. The tasks should be equally divided by team members and this is being added to the timeline of tasks. Every member is in charge of reviewing all finished tasks and task is approved by team if two or more member of the team approves it.

Product documentation(Deliverables) are ready to submit when members have no offers how to improve the document. Latex tool is used to produce the documentation. Feedback for the deliverables is carefully analysed and corrections are done by the whole team at the end of term.

In order to make sure the quality of the product will be high and the team is in the right direction, team meets the supervisor every week as well as the clients few times per term.

Apart from that, we use black box testing with other teams to check if they can find bugs in prototype, as they have a fresh look to the product.

4 Risk Management Plan

Risk ID	Category	Description	Probability	Impact	Controls
R1	Requirements	Functional and non-functional requirements may be interpreted differently by team members due to the lack of interviews	Meduim	High / The final product may behave differently and delayed to fix the problems	C1, C3, C5
R2	Requirements	Team members may ask inappropriate questions or miss important requirements	Low	Medium/ This may lead to improper documentation of the product	C2, C8
R3	Requirements	The stakeholders are not sure how the final product should look like	High	Medium/ Stakeholders may not be satisfied with what developers will offer	C1, C3, C5
R4	Skills	Members may over estimate their expectations about the final product	Very high	Medium/ The product will be different from what was offered on documentation	C1, C3, C5
R5	Requirements	Releasing unprofessional document to the client missing some requirements or poorly prepared	Medium	High/ Consequently, the product may not reach expectations	C3, C5, C7
R6	Technical	Team members are unfamiliar with appropriate tools	Medium	High/ Consequently, the product may not reach expectations	C3, C7
R7	Requirements	Tasks may be left from the time-line	Medium	Medium/ This may lead to potential delays	C6
R8	Prototyping	Prototype is not compatible with client's specification	Medium	High/ Changing all specification and possibly start all the work again	C3, C7

Control ID	Description
C1	Iteratively checking the specification of the product with stakeholders
C2	Prepare the questions with team for the interview
C3	Use other expert advise about the product development
C4	Make presentation of the software system to the stakeholders
C5	Develop the prototype of the product, based on bash script
C6	Check the work by two members of the team
C7	Investigate software competency and other skills within team
C8	Assign one member to conduct the interviews

5 Configuration Management Plan

Describe the activities and plans for configuration management to be performed by the organization preparing this Management Plan. The primary topics for the plan include:

1. Configuration management process
2. Configuration control activities
3. Configuration identification
4. Configuration change control

The contents of this subsection will be explained later in the 1st semester in the PSD lectures. For initial hand-in deadline, you may leave this subsection blank or make your best effort to produce an assurance plan.

A Glossary

PSD3: Professional Software Development 3
CC: Course Coordinator