University of Glasgow | Department of Computing Science

D3: REQUIREMENTS DOCUMENT

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Project	PSD3 Group Exercise 1
Team	V
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Contents

1 Introduction

1.1 Identification

Requirements specification for the internship management system for PSD3 team project.

1.2 Related Documentation

PSD3 Group Exercise Description `http://fims.moodle.gla.ac.uk/file.php/128/coursework/psc`
`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 requirements collected for the internship management system. This will include all actors within the system, their use cases, descriptions, and suitable scenarios for the system.

1.4 Document Status and Schedule

Date	Change	Version	Author
25/10/2012	Began Draft	0.1	All
30/10/2012	Initial Draft Completed	0.2	All
10/11/2012	Finalised for Submission	0.3	All
11/11/2012	**Draft Submission Deadline**	1.0	All
...	Revision		All
19/11/2012	Modified Section 4	1.1	Nicole
26/11/2012	Modified the use case diagrams	1.2	Nicole
26/11/2012	Modified the use case descriptions	1.3	Andrew
27/11/2012	Modified the use case scenarios	1.4	Nicole
28/11/2012	Minor modifications to all use cases	1.5	Andrew, Nicole, Mamas
29/11/2012	**Final Submission Deadline**		All

2 Extended Problem Definition

A system is needed to manage internship adverts posted by companies so that students can browse through them and apply if they are interested. In order for this system to be successful it requires a login mechanism, allowing a company to submit and edit their adverts. Submitted adverts are then approved by the Course Co-ordinator. If approved they will be made available for the students to see. Applying will direct the student to the appropriate apply page belonging to the company. The Course Co-ordinator will remove any adverts that have been filled or whose deadlines have expired.

3 System Scope

From our requirements gathering and the stakeholder panel it has been concluded that the program must have the following features:
General:

1. Allow seperate logins for different types of Users specifically the subclasses Student, Course Co-ordinator and Company.
2. Allow each user to log out from the system.
3. A ”back” option to naviagte away from pages.

Student:

1. Display a list of adverts.
2. Functionality to select an advert to apply for from the displayed list.
3. A function to notify course co-ordinator of succesful application.

Course Co-ordinator:

1. Display a list of Adverts that have been approved.
2. Display a list of adverts that still have to be approved.
3. Functionality to approve an advert from list.

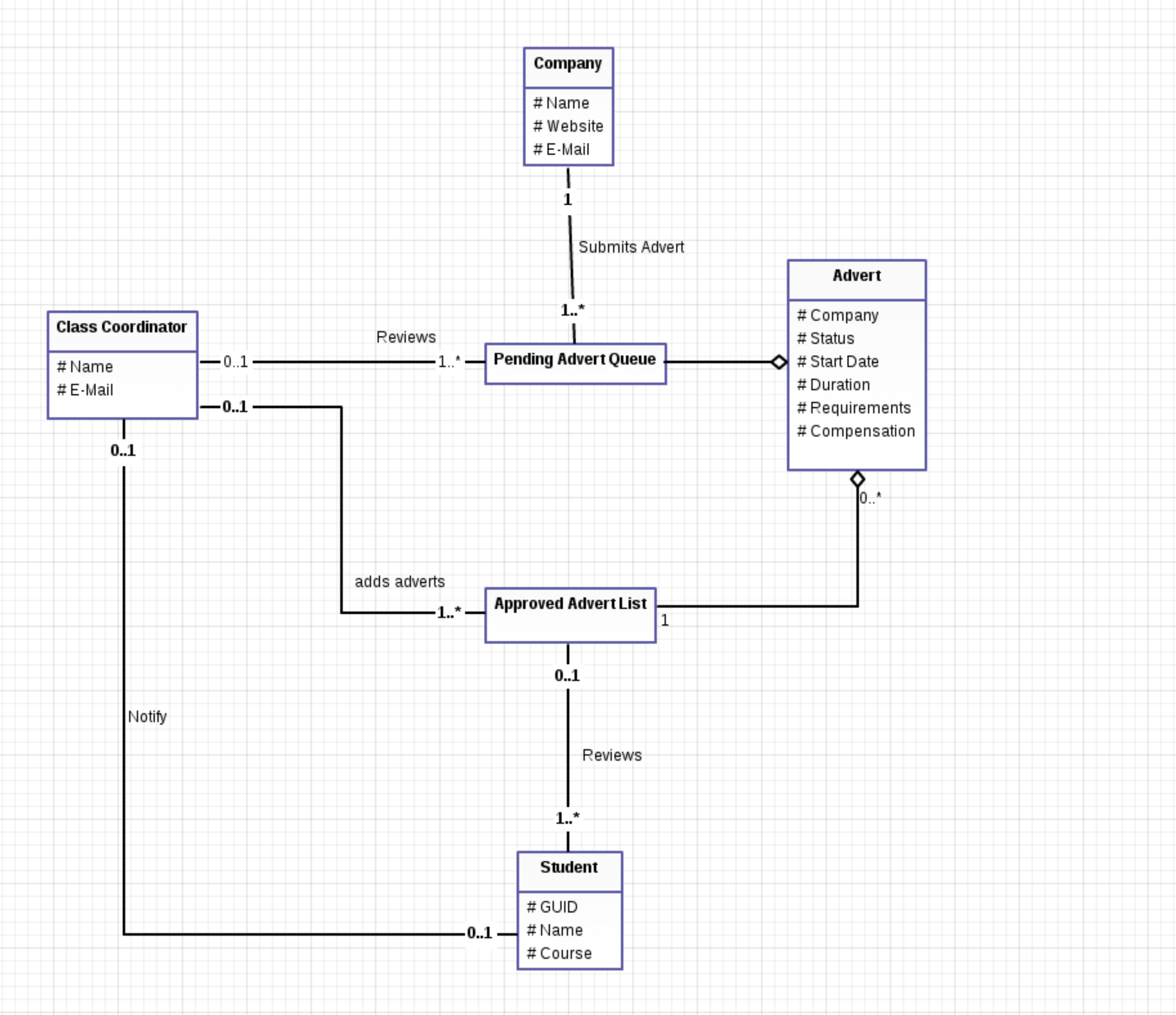
Company:

1. Ability to submit an advert for approval.
2. Ability to edit advert.

3.1 System Actors

Course Co-ordinator: Responsible for the management of adverts on the system.
Students: Uses the system to browse available internship adverts and apply.
Company: Submits adverts for approval.

3.2 Domain Model



4 Use Case Descriptions

This section describes the required functionality for the internship management system as four groups of related use cases. The core use cases for the system are:

Submission of internship advert by Company (Section 4.1):

- Submit internship advert
- Edit advert

Review and approval of internship adverts by Course Co-ordinator (Section 4.2):

- Review internship adverts

- Approve internship advert

Review of adverts by Student (Section 4.3):

- View internship adverts
- Apply for internship

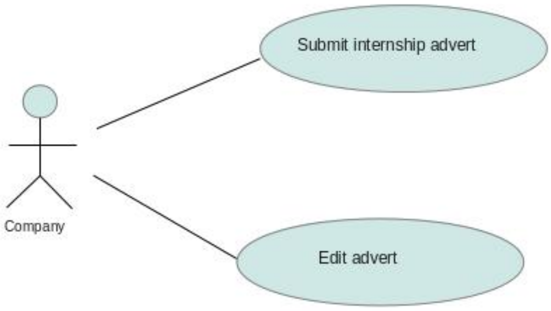
Notification of successful internship placement by student (Section 4.4):

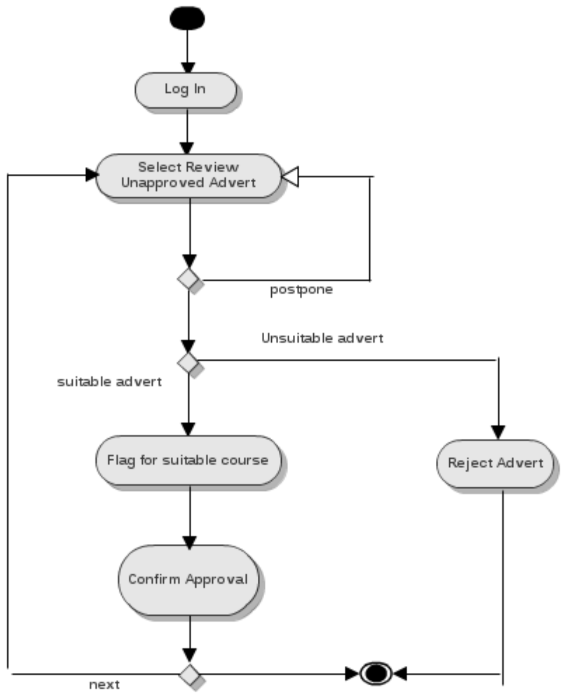
- Notify if successful placement
- Remove internship advert

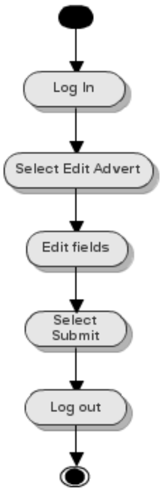
Common utility services (Section 4.5):

- Login
- Logout

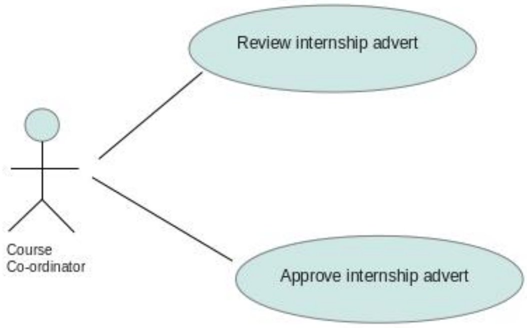
4.1 Submission of internship advert by Company

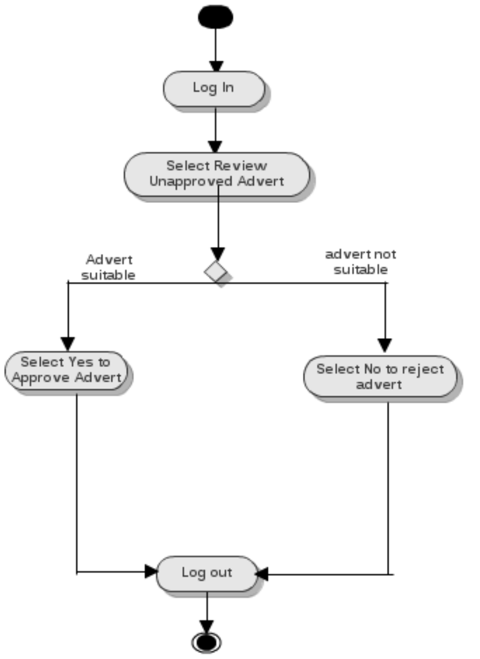


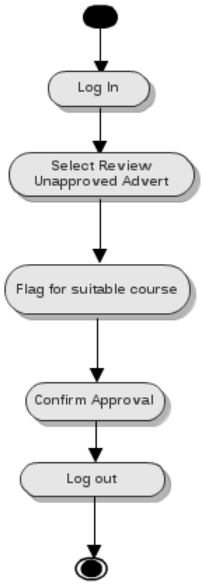
Use case	Submit internship advert
Description	 Log In Select Review Unapproved Advert postpone Unsuitable advert suitable advert Flag for suitable course Reject Advert Confirm Approval next
Rationale	During the client interview we were given the requirement that a company must be able to submit internship adverts to the system in order for the students to view and apply for the placement.
Priority	Must have
Status	Not implemented
Actors	Company
Includes	Login, Logout
Conditions	**Post:** The advert is stored in the system, pending approval by the CC.
Non-Functional Requirements	Security
Scenarios	IBM are wanting to submit an internship advert to the system. They log in to the system using their designated username IBM, fill out the submission form, confirm their submission and submit it to the system to eventually be approved by Timothy Storer, the current CC. IBM then log out of the system.
Risks	

Use case	Edit internship advert
Description	 Log In Select Edit Advert Edit fields Select Submit Log out
Rationale	During the stakeholder panel meeting the need for companies to be able to edit pending approval adverts was clarified to be a requirement.
Priority	Must Have
Status	Not implemented
Actors	Company
Includes	Login, Logout
Conditions	**Pre:** Company's advert must currently be pending approval by the CC.
Non-Functional Requirements	Data consistency
Scenarios	IBM realise that the advert they have previously submitted contains the wrong starting date. They log in to the system, select the relevant advert and section they want to edit and correct the starting date. They confirm their changes and then log out.
Risks	During client interview we were told that this probably wouldn't be needed, yet during the stakeholder panel meeting it was made clear that it was a valid requirement.

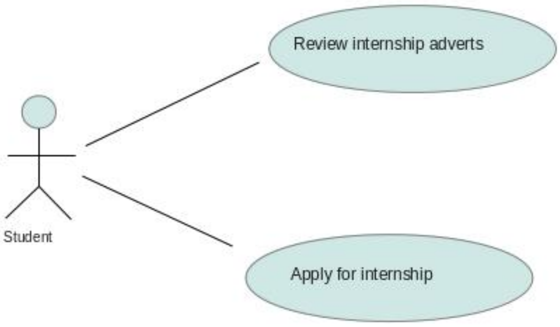
4.2 Review and approval of internship adverts by Course Co-ordinator

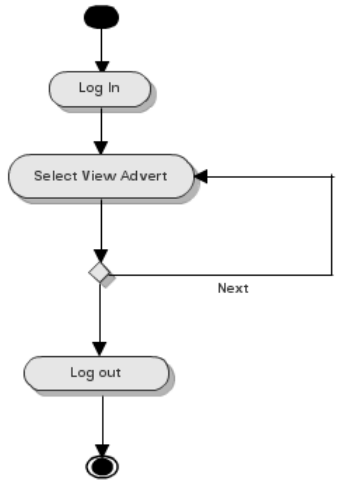


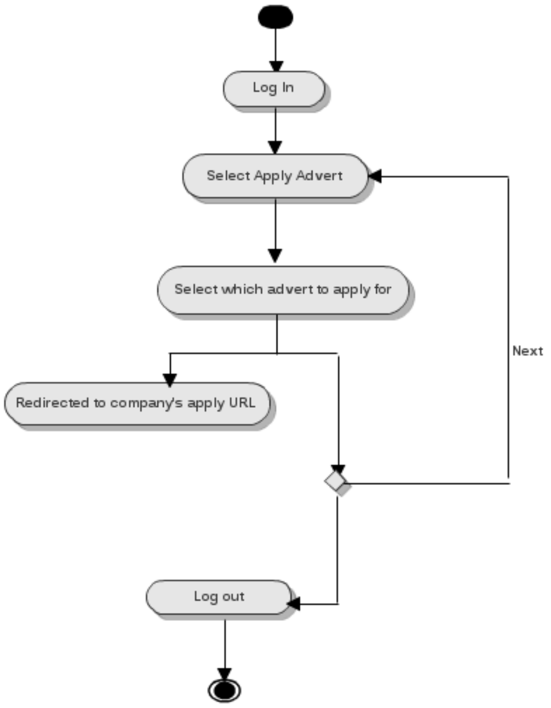
Use case	Review internship adverts
Description	 Log In Select Review Unapproved Advert Advert suitable advert not suitable Select Yes to Approve Advert Select No to reject advert Log out
Rationale	During the client interview we verified that it was essential for the CC to have the ability to review adverts.
Priority	Must have
Status	Not implemented
Actors	Course Co-ordinator
Includes	Login, Logout
Conditions	**Pre:** Must have advert(s) pending approval on system.
Non-Functional Requirements	Data consistency
Scenarios	Timothy Storer, the current CC, logs in to the system with his GUID and views all pending adverts submitted to the system and decides whether or not each internship is suitable for student review.
Risks	

Use case	Approve internship advert
Description	 Log In Select Review Unapproved Advert Flag for suitable course Confirm Approval Log out C
Rationale	During the client interview we verified that it was essential for the CC to have the ability to approve adverts.
Priority	Must have
Status	Not implemented
Actors	Course coordinator
Includes	Login, Logout
Conditions	**Pre:** Must have advert(s) pending approval on system. **Post:** Approved advert now available for student viewing
Non-Functional Requirements	Data consistency
Scenarios	After having reviewed an internship advert from IBM, Timothy Storer, the current CC, decides that the advert is suitable. He specifies what degree structure (CS/SE/ESE) it's suitable for and approves the advert for later student viewing.
Risks	

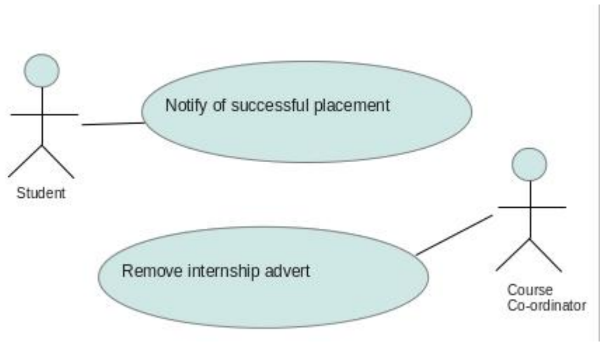
4.3 Review of adverts by Student

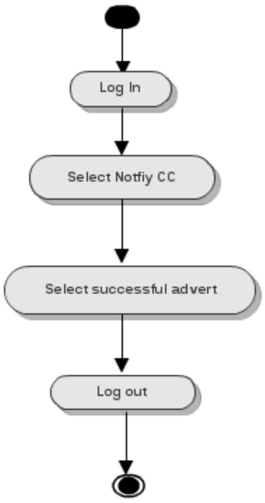


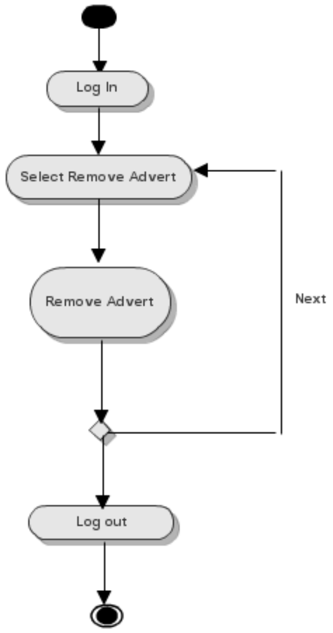
Use case	View internship adverts
Description	
Rationale	During the client interview we verified that it was essential for students to have the ability to view adverts.
Priority	Must Have
Status	Not Implemented
Actors	Student
Includes	Login, Logout
Conditions	**Pre:** Must have advert(s) approved by the CC.
Non-Functional Requirements	User Concurrency, Security, Number of Adverts
Scenarios	Jim, a 3rd year Software Engineering student, wants to see if there is any suitable internships available that he might apply to. He logs into the system and selects the option that allows him to view the currently available internships.
Risks	

Use case	Apply for internship
Description	 Log In Select Apply Advert Select which advert to apply for Next Redirected to company's apply URL Log out
Rationale	During the interview, client told us that this would be a desirable feature to have but perhaps not essential.
Priority	Could Have
Status	Not Implemented
Actors	Student
Includes	Login, View internship adverts, Logout
Conditions	**Pre:** Must have advert(s) approved by the CC.
Non-Functional Requirements	User Concurrency, Security, Number of Adverts
Scenarios	Jim, the 3rd year Software Engineering student, wants to apply for the IBM internship that he saw whilst reviewing the available internships. He selects the Apply option, chooses the IBM internship and confirms his selection. Jim's browser then directs him to IBM's apply page on their website.
Risks	The stakeholder panel meeting somewhat contradicted what we had gathered from our client interview, saying that applying through the system itself would be outwith the system scope. However, we felt that having the browser open the company's own apply URL was a reasonable compromise.

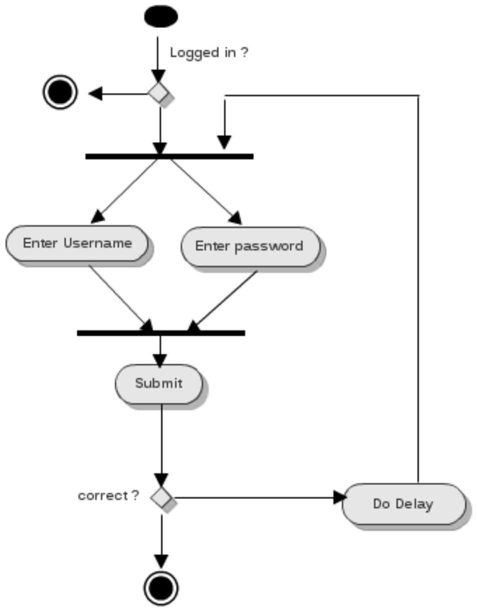
4.4 Notification of successful internship placement by student

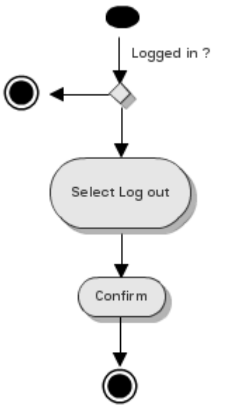


Use case	Notify if successful placement
Description	 Log In Select Notfiy CC Select successful advert Log out
Rationale	During the client interview we were told that allowing students to notify the CC of a successful placement was a requirement.
Priority	Should have
Status	Not Implemented
Actors	Student
Includes	Login, Logout
Conditions	**Pre:** The advert for the placement position that was taken must be still visible on the system. **Post:** Course Coordinator is notified.
Non-Functional Requirements	User Concurrency, Security
Scenarios	Jim, the 3rd year Software Engineering student, has successfully obtained an internship at his company of choice, IBM. He logs in to the system in order to notify Timothy Storer, the current Course Co-ordinator, that he has got the placement. He selects the relevant option and selects the IBM placement to notify the Course Co-ordinator.
Risks	The stakeholder panel meeting left this requirement necessity somewhat abiguous but we didn't feel it was outwith the system scope.

Use case	Remove internship advert
Description	 Log In Select Remove Advert Remove Advert Next Log out
Rationale	During our client interview we gathered that the CC must be able to remove adverts that were no longer available or had passed the deadline.
Priority	Must have
Status	Not implemented
Actors	Course Co-ordinator
Includes	Login, Logout
Conditions	**Pre:** Course Co-ordinator has recieved a notification to say the placement has been filled. **Post:** Advert no longer available on the system.
Non-Functional Requirements	Data Consistency
Scenarios	Timothy Storer, the current Course Co-ordinator, receives a notification that Jim the SE student has secured a placement with IBM. Timothy logs in to the system, finds and selects the IBM advert, and removes it from the system.
Risks	

4.5 Common utility services

Use case	Login
Description	 Logged in ? Enter Username Enter password Submit correct ? Do Delay
Rationale	Logging in was ascertained to be a requirement both from client interview and stakeholder panel meeting.
Priority	Must have
Status	Not implemented
Actors	Company, Students, Course Co-ordinator
Includes	
Conditions	**Pre:** User should not be already logged in to the system.
Non-Functional Requirements	Security, User Concurrency
Scenarios	Jim, the 3rd year Softare Engineering student, wishes to access the internship management system. Knowing his GUID and password he logs in to the system.
Risks	

Use case	Logout
Description	
Rationale	Logging out was ascertained to be a requirement both from client interview and stakeholder panel meeting.
Priority	Must Have
Status	Not implemented
Actors	Company, Students, Course Coordinator
Includes	
Conditions	**Pre:** User must be currently logged in to the system.
Non-Functional Requirements	
Scenarios	Jim, the 3rd year software engineering student, after browsing the available adverts on the system but finding nothing suitable, wishes to log out of the system. He selects log out and his subsequently logged out of the system.
Risks	

5 Non Functional Requirements

- User Concurrency: The system should be available to all Students of the School of Computing Science and a large number of users might want to use the system at the same time so the System should be able to handle a large number of users at once.

- Data Consistency: The system must maintain data accuracy and integrity throughout the sytem's use, to ensure that each user observes a consistent view of the data despite any changes made by other users.

- Security: Students should be able to log in with their GUIDs and passowrds which would be the same used for other University of Glasgow websites such as Moodle and MyCampus. Employers who wish to use the system to post placement adverts will need to be provided with new usernames and passwords in order to use the system.

- Number of Adverts: The system must be able to handle an unlimited number of adverts. Any number of companies might offer placement opportunities for students each year therefore the number of adverts that can be posted on the system must not be limited.

6 Summary

A company should upload their adverts to the system. The course coordinator will review all adverts posted to the system and determine whether or not they are appropriate for the students. If appropriate, the CC makes the advert available for the students to view. If a student wants to apply for an advert, they will email the company or apply through their website. If a student successfully secures a placement, they must notify the course coordinator. If all placements have been filled, the CC can take the adverts off the system.

A Glossary

CC - Course Co-ordinator PSD - Professional Software Development

B Stakeholder Interview Documentation

Key points we got from our interview with the client are:

- The company does not directly interact with the system.
- The Course Coordinator will review adverts sent via email and if they are suitable, would then be posted on the system.
- When applying for internships, students will be redirected to the company website or given an email address in order to send in their CV.
- Students will be able to flag inappropriate adverts to the CC.
- Students will notify the CC of a successful placement via email.
- The Company must also verify a successful placement to avoid students abusing the system.
- Once a student has accepted a placement, the advert is taken off the system.

C Stakeholder Panel Documentation

Originally, we were informed that the company would not interact with the system, all adverts would be submitted via email to the course coordinator. However, at the stakeholder meeting it was clarified that the company would interact with the system. The company will be given a username and password and will be able to post their adverts directly to the system. They will have a to fill out a standard form with all the relevant information before submitting the advert. The course coordinator will then review it to determine whether or not it is relevant for the students. If so, the adverts is made available to the students.