University of Surrey

Department of Computing

Faculty of Engineering & Physical Sciences

COM3001 Professional Project

Project Requirements Document

Chara Katiri

6166668

ck00113@surrey.ac.uk

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Role	**Name**

Contact Details		
All queries in relation to this document should be addressed in the first instance to:	Name	Chara Katiri
	Department	Computing, University of Surrey
	Phone Number	
	e-mail	ck00113@surrey.ac.uk
	Address	University of Surrey, Guildford, Surrey, GU2 7XH

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1. Project Requirements……………………………………………………

1.1. Project Summary, present situation …………………………

Nowadays, electronic mail is the predominant digital communication platform. According to Reuter's survey [1], 85% of human population is connected online and communicate through email despite the number of social channels available. The Internet is overflowing with 100 million emails send and received daily [2], of which 97.4 millions are spam [3].

[Add University of Surrey statistics here] – the question is: what leads to the creation of so many spam emails within the university environment.

1.2. Project Objective, goal statement …………………………

The purpose of this document is to outline the high level requirements of Pinboard project (in the form of web application) as a method to minimize the number of spam emails send and received daily in the University of Surrey. The project is developed as part of 'COM3001 Professional Project' module, taught by the university of Surrey, Department of Computing.

The objective of this dynamic Web application is to allow users to interact with the Pinboard database and sell/buy second hand items. The solution has the potential to significantly reduce the number of emails send between students regarding second-hand books and room swaps. Additional functionalities can enrich the search user experience by offering a number of browsing categories like unwanted tickets for events, sports equipment, electronics etc.

This document is created in preparation for Pinboard's development and presents the full list of requirements, summary of deliverables, risks & issues, constraints & dependencies to ensure successful development of the application.

1.3 Project Scope……………………………………………………………...

1.3.1 Full list of Requirements……………………………………………

Req. no.	Requirements Description	Req. Type	MoSCoW
1	The solution must automate and simplify the process of selling and buying goods, such as second-hand books, within the University of Surrey environment.	Functional	M
Database			
2	The centralized database that contains the products must update automatically and daily.	Non-functional	M
3	The solution must update the list of products so that a product becomes unavailable after a user purchases it.	Functional	M
Seller/Buyer requirements			
4	The solution must ask the users (byers & sellers) to agree with 'The Sales of Goods Act 1979' and adhere to it: ""*traders must sell goods that are as described and of satisfactory quality*" [4], [5]. The Terms & conditions must be accessible, meaningful and fair.	Non-functional	M
5	The solution won't require the users to register. The login process will be based on the existing Active Directory (AD) groups. New users will be automatically added in the database.	Functional	W

6	The solution must validate the user information upon registration e.g. text fields that require information and valid email that contains '@', '.'.	Functional	M	5
7	The solution should make use of cookies to enable fast and effective login.	Functional	S	
8	The solution must allow the users to search products based on categories e.g. books, unwanted tickets, room swaps.	Functional	M	
9	The solution must provide a search functionality (text-box search) to allow the users enter keywords.			
10	The solution should enable the users to sort the products based on price (Low to High, or High to Low) and the date (most recent items first).	Functional	S	
11	The solution must provide information about the product: Title, Description, Category, Price and Seller contact information.	Functional	M	
12	The solution must ask the seller to fill specific fields regarding the product: Title, Description, Category, Price and Seller contact information such as email address and/or mobile phone number.	Functional	M	
13	The solution should provide a 'My profile' area for each user.	Functional	S	
14	The solution could provide a 'My basket' area for each user.	Functional	C	
15	If req. 14 is developed the solution must protect users' basket and follow data privacy policies.	Functional	M	
16	The solution won't allow items to be purchased online (PayPal services) provided that the users are students that live on campus and they'll meet for the delivery and payment of the product.	Functional	W	
17	The solution won't provide delivery charges, stages involved in ordering process and dispatch information.	Functional	W	
18	The solution won't provide refund functionalities.	Functional	W	

Notes:
- The requirements listed above will be used as the basis for the development and testing of the web application, to determine the completion of the project and access its success.
- Requirement Type: Functional or Non-Functional.
  - Functional: Requirements are classified as Functional if their aim is to provide information on what the system should do. [6] Examples include: authentication and authorization processes, historical data, audit tracking, legal and regulatory requirements etc. [7]
  - Non-Functional: Requirements are classified as non-functional if they cover constraints of the solution, targets and ways to control its mechanisms. Examples include performance, scalability, maintainability etc. [7]
- MoSCoW: 'Must or Should Could or Won't' business analysis and prioritization method. The prioritization shows the importance of each requirement however it does not mean that requirements classified as Musts will be developed first; it means that by the completion of the project they must be delivered. Requirements classified, as 'Won't' should be listed even if they won't be met during this sprint. The list of 'Won't' requirements can be suggestions for future development and improvements on the system.

1.3.2   Summary of Deliverables………………………………………..

Req. no.	Requirements Description	Deliverable Description

4	The solution must ask the users (byers & sellers) to agree with 'The Sales of Goods Act 1979' and adhere to it: ""*traders must sell goods that are as described and of satisfactory quality*" [4], [5]. The Terms & conditions must be accessible, meaningful and fair.	The solution must deliver this by providing a link to 'The Sales of Goods Act 1979'as a pop up-window. The users will have to submit his confirmation using a check-box or by clicking on a submit button.
5	The solution won't require the users to register. The login process will be based on the existing Active Directory (AD) groups. New users will be automatically added in the database.	The solution must check the database and the AD group during the login process. An instance of the user will be added in the database in first login.
8	The solution must allow the users to search products based on categories e.g. books, unwanted tickets, room swaps.	The solution must deliver this in the form of drop-down menu for the users to choose their preferred category.
9	The solution must provide a search functionality (text-box search) to allow the users enter keywords.	The solution must return results based on categories tags.
12	The solution must ask the seller to fill specific fields regarding the product: Title, Description, Category, Price and Seller contact information such as email address and/or mobile phone number.	The solution must ensure that some information is mandated. The solution must deliver this as a form that the seller needs to complete when posting a new product.

1.4   Project Benefits, ROI statement………………………………………………

Enable:
- *Providing, a high quality solution to meet students' needs* and support the University of Surrey strategy for continual improvement. The creation of Pinboard site can be seen as a new communication channel.

Defend
- *Improve student relationships by* providing a common platform as a mean to control and minimize the number of spam emails sent internally.

Grow
- *Taking a strategic approach by introducing* a new communication channel that allows the students to sell second-hand books (and other equipment) and search for housemates/swap rooms on campus. Pinboard solution enhances the quality of student experience with the use of multimedia and makes their requests/hunt for houses and books more pleasant.

1.5   Project Risks & Issues…………………………………………………………

1.5.1   Risks………………………………………………………………...…..

1. End user expectations unrealistic compared to solution.
2. The implementation of this solution has adverse effect on the look and feel of existing sites and pages on the University Of Surrey website.

1.5.2   Issues…………………………………………………………………………

1.6   Project Constraints & Dependencies, timescales ……………………..
1.6.1   Constraints…………………………………………………………

3. Time constraints due to 5 other modules that run in parallel with COM3001. All the modules are assessed based on at least one Coursework and an Exam.
4. Timescale for set up, development and deployment are aggressive to meet the demands of FYP deadlines and deliveries.
5. Resources being available when required (IT team).

1.6.2   Dependencies……………………………………………………………

1. FYP topic to be accepted by the IT services team (pending response since 27/10/14).
2. Creation of pinboard.cs.surrey.ac.uk website by IT services and access to Tomcat server & MySQL database (pending response since 28/10/14).
3. Depandancy on resources being available (IT team).
4. Early adopters (University of Surrey Students / CS students) reporting issues with look and feel as part of the UAT phase to prevent issues from being observed in live environment.

1.7   Success Criteria…………………………………………………………

The project is a success if the scope of work is satisfied and the requirements listed above are met. Other success criteria include:

1. Go-Live criteria met.
2. Software Development Requirements met.
3. Delivery of final project in agreed timescale.
4. All system testing (IST & UAT) approved and documented.
5. All Data Loading completed.
6. Knowledge Transfer to future Support Resource completed to agreed level.
7. All documentation identified and passed to Support and Business Owner.
8. Business Owners identified and informed of their Role and Responsibility
9. No major system outages raised against system over agreed timescale
10. No Severity 1 calls raised against system over agreed timescale
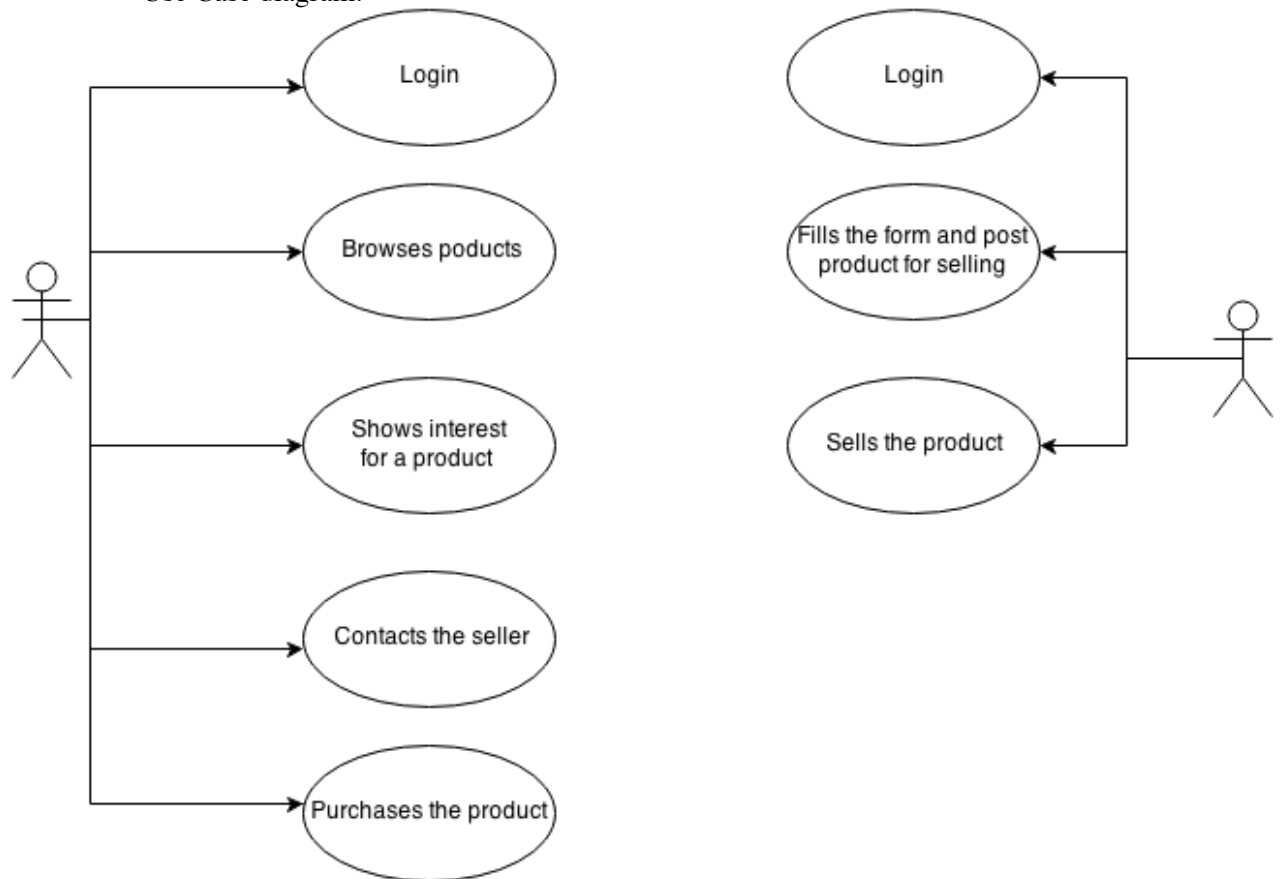
1.8   Project Stakeholders……………………………………………………

This section lists the Stakeholders of the 'Pinboard' project. Stakeholders [8] are individuals or organizations with interest in a project. Typically they are internal or external investors, employees, customers and suppliers.

Stakeholder	Support Role
University of Surrey students /and academics	The main users of the web application.
University of Surrey IT and Service Desk	The support team.
Chara Katiri	Computer Science Student, the developer.
Dr Steve Wesemeyer	Project Supervisor.
Department of Computing Examiners board	Examiners board and assessment of the project.

Use Case diagram:

System prototype:

Pinboard   Login   Sell   Buy

- Antiques   V
- Art (drawings, posters)
- Announcements
- Books, comics, magazines
- Cameras & photography
- Cars, motorcycles, vehicles, bicycles
- Computers/tablets
- Charity
- Crafts
- DVDs, Films & TV, Music
- Event Tickets
- Fashion
- Furniture (equipment, supplies)
- Mobile Phones
- Musical Instruments
- Rooms (Find/ swap/ advertise rooms)
- Services
- Sound & Vision (iPods, radios, headphones, musical instruments, DVDs)
- Sporting goods
- Other

Category 1

Pinboard Homepage:
- Nice and clean page. (No scroll up or down)
1. Login will take you to the log in page. If nor registered it will point you to Register page.
2. Sell will take you to a new page to fill a form.
3. Buy will open a drop down list to choose categories. The same categories are displayed in homepage as thumbnails (4x4 or 8x2)

1

The solution won't require the users to register. The login process will be based on the existing Active Directory (AD) groups. New users will be automatically added in the database.

Login

Username	
Password	
Remember me	☐

Login

Register

Username	
Password	
Confirm Password	
Name	
Email	

Register

A successful login will direct the user to the 'My profile' page.

Sell

Picture of the product

Title

Category (drop down)

Description

Price

Contact the seller: (email or phone no.)

Submit

3

3.   References …………………………………………………………………………

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In-text: (http://www.legislation.gov.uk/ukpga/1979/54, 2014)
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[5] In-text: (Glassraven.com, 2014)
Bibliography: Glassraven.com, (2014). *Trading Online | Legal Requirements | Ecommerce Websites | Glassraven*. [Online] Available at: http://www.glassraven.com/articles/online-legal-requirements.php [Accessed 10 Nov. 2014].

[6] In-text: (Sqa.org.uk, 2014)

Bibliography: Sqa.org.uk, (2014). *Functional and Non-Functional Requirements*. [online] Available at: http://www.sqa.org.uk/e-learning/SDM03CD/page_02.htm [Accessed 10 Nov. 2014].

[7] In-text: (Debono, 2014)
Bibliography: Debono, M. (2014). *Functional vs Non Functional Requirements*. [Blog] ReQtest. Available at: http://reqtest.com/requirements-blog/functional-vs-non-functional-requirements/ [Accessed 10 Nov. 2014].

[8]   Dictionary.com,   (2014). *The   definition   of   stakeholder*.   [Online]   Available   at: http://dictionary.reference.com/browse/stakeholder [Accessed 9 Nov. 2014].

4.   Acronyms ……………………………………………………………

AD: Active Directory
IST: Integrated Systems Testing
MoSCow: Must or Should Could or Won't
UAT: User Acceptance Testing