Requirements Elicitation Survey

As part of our research at the Department of Computer Science, we have developed a method to gather the requirements for a software project.

The survey aims to collect project data for testing the method. It should take 30 minutes to complete.

Your name and answers are confidential and will be used strictly for research.

Thank you for your participation.

Regards,

Soo Ling Lim
Professor Anthony Finkelstein

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London WC1E 6BT
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The RALIC Project

In 2005, UCL had a variety of access and security systems. As a result, identification and access control methods varied from building to building.

Staff, students, and visitors had to use two or more of the following access control measures:
- Magnetic strip swipe card
- Contactless Smart Card
- Photo ID Card
- Library Barcode
- Philips “Black key”
- Digital Security Code
- Metal door keys
- Session Card
- Bloomsbury Fitness Centre Card

The RALIC project was initiated to provide one card that replaces all of the above measures.

Below is the summarised scope of the RALIC project.

1. Replace magnetic swipe card readers with smart card readers
2. Source and install access card printers
3. Decide on card design and categories
4. Define user groups and default access rights
5. Provide a more accurate card holder database, save resources on manual data input, and facilitate automated provision and suspension of access and library borrowing rights
6. Issue new cards to staff, students, visitors and contractors
7. Replace the Library access control system
8. Use new cards at the Bloomsbury Fitness Centre
Requirements

A requirement is a statement that identifies a necessary attribute, capability, characteristic, or quality of a system in order for it to have value and utility to a stakeholder.

<table>
<thead>
<tr>
<th>Examples</th>
<th>Template</th>
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</thead>
<tbody>
<tr>
<td>• To reduce the time a student spends queuing for access cards (provided by student registry).&lt;br&gt;• To borrow library books (provided by students).</td>
<td>To &lt;a goal you want to achieve by using the system&gt;.</td>
</tr>
<tr>
<td>• To control access to university buildings.</td>
<td>To &lt;a goal the enterprise should achieve from the system in operation&gt;.</td>
</tr>
<tr>
<td>• Per annum, save 9000 pounds on purchase of access cards (provided by director of Estates).</td>
<td>By / Within / Per annum &lt;a measurable criteria to know if the enterprise’s goal is achieved&gt;.</td>
</tr>
<tr>
<td>• Security guards should be able to view cardholder photos (provided by security guard).</td>
<td>&lt;subject&gt; should [not] be able to &lt;action&gt; (by using the system).</td>
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<tr>
<td>• An individual without an access card must not enter the Computer Science building (provided by Computer Science department admin).&lt;br&gt;• The identification card must display the UCL logo.</td>
<td>&lt;subject&gt; must / should [not] &lt;action&gt; [if/while &lt;condition&gt;].</td>
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<td>• The system must be compatible with other UCL systems.</td>
<td>The system must / should [not] &lt;performance criteria&gt;.</td>
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<td>• The system should have an expected Life Cycle and Product Support of more than 10 years.</td>
<td>Examples of performance criteria:&lt;br&gt;• Compliance&lt;br&gt;• Time behaviour&lt;br&gt;• Fault tolerance</td>
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</table>
Types of Requirements

A requirement can be:

- **A Business Goal**: a state or target that the enterprise intends to achieve or maintain with the system.

- An **Objective**: a quantitatively measurable and specific state or target that the enterprise intends to achieve or maintain with the system.

- A **System Goal**: a state or target that you intend to achieve or maintain by using the system.

- A **Capability Constraint**: a restriction on how the system achieves your goal.

- A **Quality of Service Constraint**: a quality restriction on the behaviour of the system.

- A **Business Policy**: a directive from the enterprise that defines what can be done and what must not be done, and may indicate or set limits on how it should be done.

- A **Business Rule**: a directive from the enterprise that provides specific and discrete governance or guidance to implement Business Policies.
The RALIC Project
Questionnaire for
Requirements Elicitation

Please complete the following information about yourself.

Name: ________________________________
Position: ________________________________
Department: ________________________________

What stakeholder do you represent in the RALIC project?
**Question 1**

Please **write your requirements for RALIC** in the space below following the template we provided.

Then, **rank the requirements** based on their importance to you in the right-hand column (1 being the most important).

Finally, **write requirements that you actively do not want**, and **put an X** in the right-hand column.

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Rank/X</th>
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<tbody>
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<td>Requirement</td>
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</table>
**How did you find Question 1?**

Please circle the appropriate answer.

<table>
<thead>
<tr>
<th>Level of difficulty</th>
<th>Low</th>
<th>Medium</th>
<th>High</th>
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</thead>
<tbody>
<tr>
<td>Effort required</td>
<td>Low</td>
<td>Medium</td>
<td>High</td>
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<tr>
<td>Time spent</td>
<td>Low</td>
<td>Medium</td>
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</table>

----------------------------------------------- End of Question 1 -------------------------------------------
Question 2

Below is a list of requirements for RALIC.

Rate them from 0 (not important to you) to 5 (very important to you).

Circle -1 for requirements that you actively do not want in the system.

<table>
<thead>
<tr>
<th>Requirements</th>
<th>Increasing importance</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Better user experience</strong></td>
<td>-1 0 1 2 3 4 5</td>
</tr>
<tr>
<td>1.1 Access cards that are easier to use with more accurate scanning</td>
<td>-1 0 1 2 3 4 5</td>
</tr>
<tr>
<td>1.2 For library entrance, remove the need to put card in exact location for barcode scanning</td>
<td>-1 0 1 2 3 4 5</td>
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<tr>
<td>1.3 All in one card</td>
<td>-1 0 1 2 3 4 5</td>
</tr>
<tr>
<td>1.3.1 ID card and session card</td>
<td>-1 0 1 2 3 4 5</td>
</tr>
<tr>
<td>1.3.2 Library card</td>
<td>-1 0 1 2 3 4 5</td>
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<tr>
<td>1.3.3 Bloomsbury fitness</td>
<td>-1 0 1 2 3 4 5</td>
</tr>
<tr>
<td>1.3.4 Club and societies</td>
<td>-1 0 1 2 3 4 5</td>
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<tr>
<td>1.3.5 Cashless vending</td>
<td>-1 0 1 2 3 4 5</td>
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<tr>
<td>1.3.6 Time and attendance</td>
<td>-1 0 1 2 3 4 5</td>
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<tr>
<td>1.3.7 Computer Logon</td>
<td>-1 0 1 2 3 4 5</td>
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<tr>
<td>1.3.8 Santander Bank Card</td>
<td>-1 0 1 2 3 4 5</td>
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<tr>
<td><strong>2. Improve processes (reduce manual data entry and improve efficiency for access control and library processes)</strong></td>
<td>-1 0 1 2 3 4 5</td>
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<tr>
<td>2.1 Library barcode generated together with card (less 1 library queue)</td>
<td>-1 0 1 2 3 4 5</td>
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<tr>
<td>2.2 Import photos from registry for advance card production (save queuing time for students)</td>
<td>-1 0 1 2 3 4 5</td>
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<tr>
<td>2.3 Centralised management of access and identification information</td>
<td>-1 0 1 2 3 4 5</td>
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<tr>
<td>2.4 Card issue available anywhere within the UCL campus</td>
<td>-1 0 1 2 3 4 5</td>
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<tr>
<td>2.5 Digitally storing, printing and exporting photographs to other systems</td>
<td>-1 0 1 2 3 4 5</td>
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<tr>
<td>2.5.1 Staff photograph</td>
<td>-1 0 1 2 3 4 5</td>
</tr>
<tr>
<td>2.5.2 Student photograph</td>
<td>-1 0 1 2 3 4 5</td>
</tr>
<tr>
<td><strong>3. Improved security</strong></td>
<td>-1 0 1 2 3 4 5</td>
</tr>
<tr>
<td>3.1 Enable security/reception staff to check that the appearance of the card user matches the digitally stored photo</td>
<td>-1 0 1 2 3 4 5</td>
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<tr>
<td>3.2 More locations to be controlled by smart card access readers</td>
<td>-1 0 1 2 3 4 5</td>
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<tr>
<td>3.3 Enable the reliable removal/suspension of access rights and library borrowing privileges</td>
<td>-1 0 1 2 3 4 5</td>
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<tr>
<td>3.4 Enable the gathering and retrieval of the time which individuals enter and leave buildings</td>
<td>-1 0 1 2 3 4 5</td>
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<tr>
<td>3.4.1 Library</td>
<td>-1 0 1 2 3 4 5</td>
</tr>
<tr>
<td>3.4.2 Other buildings</td>
<td>-1 0 1 2 3 4 5</td>
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</tbody>
</table>
**Write other requirements** you have or actively do not want following the template we provided. Please also **rate** the requirements.

<table>
<thead>
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<th>Requirements</th>
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</table>
How did you find Question 2?

Please circle the appropriate answer.

<table>
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<tr>
<th>Level of difficulty</th>
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</table>

----------------------------------------------- End of Question 2 -------------------------------------------
Question 3

You are given 100 points.

Please **distribute the points** among the requirements you want in Question 2. Allocate *more* points to requirements that are more important to you.

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Points</th>
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</table>
How did you find Question 3?

Please circle the appropriate answer.

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<td>High</td>
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</tbody>
</table>

End of Question 3

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Question 4

How much do you care about RALIC?

Please circle the appropriate answer.

| Not at all | A little | So so | A lot |

Please write any other comments below.