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| Functional Requirements Document |
| Version: 1.112/11/2009 |
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# Executive Summary

The purpose of this document is to provide an initial summary and brief description of the functional, non-functional and business requirements of the ICT Students at Risk system. The new system is to be known as the Coordinated Assistance Enterprise for Students at Risk (CAESAR).

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# Introduction

This document has been prepared to outline the Functional Requirements for the CAESAR project required by the ICT section of the Engineering department of Swinburne. The Functional Requirements document is produced to confirm the current business practices of ICT and to provide a description of what functions they are seeking in a Students at Risk system.

This document will also cover the following information:

* Non Functional requirements
* Data gathering
* Problem/Opportunity statement

## Report Purpose

The purpose of this report is to provide a list of functional and non functional requirements for the CAESAR system. The CAESAR Team has gathered data through interviews and research of the present system to provide an accurate list of requirements.

Through this report the client will view the integral components of the CAESAR system.

## Client Details

The main representative that the CAESAR project team will communicate with throughout the project lifecycle will be Anna Shaw. Contact details for her are as follows:

Name: Anna Shaw

Position: Team Leader

 Computing and Information Technology

 Department of Engineering

Email: annashaw@swin.edu.au

## Project Team

|  |  |
| --- | --- |
|  |  |
|  |  |
| Team Leader /Planning Manager | Mathew Close |
| Testing Manager | Paul Montagna |
| Technical Manager | Mark Isherwood |
| Quality manager | Jamie Stevens |
| Support Manager | George Ng |
| Team Member  | Paul Hames |

## Project Background

Swinburne requires an application to maintain a list of students that are missing classes repeatedly or teachers believe they are having trouble with classes. The system will be able to have these added automatically via the ‘allocate+’ system or they can be manually inputted by a teacher.

Once the student is added a message will be sent to an administrator, who will arrange a meeting time and enter these details into the system. A confirmation email will be sent to both teacher/team leader and student. After the meeting is completed the teacher/team leader will record the outcome of the meeting. This will determine if a follow up meeting is required, the student withdrawals or the student is no longer at risk.

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# Problem/Opportunity Statement

The problem with the current system includes:

* Poor multi-user support
* Lack of documented teacher availability time
* No tracking of ongoing student at risk process
* Unable to produce reports
* Do not know what course student is enrolled in
* Repeated data entry

The new system will automate the Student at Risk procedure to help resolve the above issues. It will provide an opportunity for administration and teachers to save valuable time when using the system.

# Methodologies Used

## Data Gathering Methodology

In order to gather complete and accurate data within budget constraints several data gathering techniques were used, these included Qualitative methods such as interviews with the client and a representative from administration.

Most of the data came from internal sources with some general research externally via the internet about alternative solutions.

As mentioned previously interviews allowed much of the data used to construct the project requirements, with some documentation in the form of flow charts was provided by the client.

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## Analysis Methodology

The data from the first interview was analysed by the CAESAR team and a further series of questions was formulated for a second interview with the client. This helped clarify many of the technical aspects of the project.

The information gathered by the CAESAR team has been placed into a series of documents and provided to the client for signing. This ensures the client and the CAESAR team have a documented scope for the new system.

## Findings

After analysing the data gathered the following system requirements for the CAESAR project are detailed below:

* Manually add student to CAESAR
* Import file from allocate+ to CAESAR
* Email sent to student/teacher/team leader
* Notify student updates to admin when logging on
* View student history
* Record outcome of meeting
* Differentiate different user permissions
* Sort students into requiring teacher or team leader meeting
* Prompt teachers who have not recorded meeting outcome
* Add new teachers/team leaders
* Search teacher/team leader
* Generate reports
* Log meeting time and details into system.
* Maintain CSV File

# System Requirements

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## Functional Requirements

The following are a list of the major functional requirements for the CAESAR system. They have been rated according to their rating of importance.

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| **Functional Requirement** | **Final Rating** **In order of importance** |
| Maintain Student  | 1 |
| Maintain Teacher/Team Leader | 2 |
| Maintain CSV File  | 3 |
| Maintain meeting process | 4 |
| Mandatory/optional line |
| Generate reports | 5 |
| Prompt teachers/team leaders to record the outcome of meetings | 6 |

##

## Non Functional Requirements

* The system must be stable; this means it must not ‘crash’, ‘freeze’ etc during standard use.
* The system will require Username and Password authentication to prevent unauthorised users from maliciously affecting the database.
* The project is to be created using a MySQL database so that it will run on existing Swinburne servers.
* The possibility of the system being extended after the completion of the Major Project has been discussed and thus the system must be created so that others outside the current project team can add extra functionality to it at a later date.
* The design of the database must be carefully considered and normalized to 3rd Normal Form to avoid addition, creation and modification difficulties during use.
* The design of the user interface must be organised, intuitive and user-friendly. It must also follow Swinburne design guidelines.

# Conclusion

This functional requirements document examined the methodologies used to gather and analyse the data used to formulate a list of requirements for the Coordinated Assistance Enterprise for Students at Risk (CAESAR) project.

These requirements have been broken up into functional and non functional requirements and the functional requirements given a priority rating. This will ensure the CAESAR system most ably satisfies the clients’ requirements.