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| CAESAR-logo.png |
| Project Plan |
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## Executive Summary

This document outlines a project plan for the Coordinated Assistant Enterprise for Students at Risk (CAESAR). The CAESAR team will develop a software solution and a networked database for Students at Risk within the ICT section of multiple Swinburne campuses.

This Project Plan document will define the schedule along with the processes and managerial objectives for the project. Other inclusions are location of work, period of time on certain and specific areas as well as the deliverables.

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# 1 Introduction

## 1.2 Project Name

The name of the project is Coordinated Assistance for Students at Risk (CAESAR).

## 1.3 Project Description

The Students at Risk project has been initiated to provide a software based solution and a networked database for the ICT section of multiple Swinburne campuses. The CAESAR system will be more efficient and effective than the current existing system.

It is anticipated that the new software will be developed to serve Swinburne and allow them to record which students are classed as at risk. Reasons for being classed as at risk include; unsatisfactory marks, poor attendance and dropping out of a specific course.

The project must be completed by ***end of 4th term***, approximately 14 weeks after its inception. 4 weeks of post implementation support will occur before the official sign off and presentation of the project during the week starting week 18.

## 1.3 Sponsor Name

The main representative that the CAESAR 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

 Information and Computing Technology Department

Email: alongo@swin.edu.au

## 1.4 Project Team

The CAESAR project team consists of six people.

Each team member has their own individual role within the team. The roles assigned are as follows:

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| --- | --- |
| **Roles** | **Team Member** |
| **Team Leader/ Planning Manager** | Matthew Close |
| **Development** | Mark Isherwood |
| **Support Manager** | George Ng |
| **Testing Manager** | Paul Montagna |
| **Quality Manager** | Jamie Stevens |
| **Team Member** | Paul Hames |

## 1.5 Key Deliverables

### 1.5.1 Software

The project will produce a software based application developed with Java. The application will link to a remote relational MySQL database for storing and retrieving information.

### 1.5.2 Technical Documentation

All of the following technical documentation will be produced as part of the project (not necessarily in this order).

#### 1.5.2.1 Quality Management Plan

The quality management plan specifies all standards associated with the project. Design, document, coding, security and database standards as well as issues related to configuration management are included in the quality management plan.

#### 1.5.2.2 Risk Management Plan

The risk management plan documents procedures to evaluate and manage project risk.

#### 1.5.2.3 Configuration Management Plan

The configuration management plan contains information relating to the project items to be controlled, and the procedures for ensuring quality products.

#### 1.5.2.4 Feasibility Report

The feasibility report details 2 or more alternatives to be considered in relation to the project. It considers the technical, operational and economic feasibility of each alternative and recommends a course of action.

#### 1.5.2.5 Scope Document

The scope document describes and defines the scope of the project. In addition it lists project deliverables, required resources, and the impact of the project on the organisation and lists the absolute requirements for project success.

#### 1.5.2.6 Analysis Report

The analysis report is made up of two parts:

* Requirements Model. The requirements model further defines the project requirements in the form of use case diagrams and use case descriptions. The requirements model also provides a section diagramming the current system.
* Software Requirements Specification (SRS). The SRS documents project functionality, user characteristics and interface requirements as well as user acceptance criteria.

#### 1.5.2.7 Project Plan

The project plan describes issues related to the management of the project with relation to developers and sponsors. It includes the project work breakdown structure (WBS), project PERT and Gantt charts and project cost and time information.

#### 1.5.2.8 Test Plan

The test plan provides details relating to software testing, processes, deliverables and environments. In addition, it contains client acceptance, functional and non-functional test plans if applicable.

#### 1.5.2.9 System Design Model

* The design model consists of three main parts:
* Database Design. Database design involves creating an entity relationship diagram and normalisation.
* Unified Modelling Language (UML) Design Model. The UML model is made up of diagrams to specify the design of the system. Those diagrams being sequence, state chart and class diagrams.
* Graphical User Interface (GUI) Design. GUI design involves creating a plan for the system interface.

#### 1.5.2.10 Project Status Report

The status report documents all issues in relation to the present progress of the project.

#### 1.5.2.11 Project Post Mortem Report

The post mortem report takes a reflective look at the project after completion.

### 1.5.3 User Manuals

* User Reference Guide. The user reference guide is to be a ‘quick reference’ style guide to assist the user in operation the new application.
* Installation Guide. The installation guide is produced to assist users to install the new software on their machines.

# 2 Management / Technical

## 2.1 Management Objectives

The following section describes the project objectives, assumptions and constraints; both managerial and technical.

### 2.1.1 General Objectives

* All deliverables are to be submitted by the due date.
* All deliverables, including documents and code, must comply with the standards set out in the Quality Management Plan produced by the CAESAR Team.
* The development team will schedule work according to the Work Breakdown Structure (WBS) and Gantt chart included in this document.
* Processes and procedures described in the Configuration Management Plan will be used when necessary, and documented as stipulated.
* Project risks are to be assessed and documented. If necessary, and upon occurrence of risk, action should be taken according to the CAESARRisk Management Plan.
* All team meetings will be recorded, and should include an agenda and meeting minutes.
* All clients should be made immediately aware of any possible delays to project deliverables. The relaying of such information to all clients must be documented.
* To maintain and update the company website with relevant project information on a regular basis.
* It should be the intention of all CAESARTeam members to produce work of the highest order and quality at all times.

### 2.1.2 Assumptions

* Swinburne TAFE will provide the necessary hardware and software throughout the duration of the project.
* CAESAR Team members will use their own equipment outside of normal hours.
* Should the need arise, Swinburne lecturers will provide assistance and guidance where absolutely necessary.
* All clients will provide feedback on a project prototype(s) during development.

### 2.1.3 Management Constraints

* The new software must be delivered by week 14.
* Coding of the new software should be completed by week 10 to allow for 4 weeks of maintenance prior to the final delivery date.
* The presentation of the finished product must occur in the week beginning week 18
* The project must fulfill minimum system requirements as agreed to by the client.
* The project team consists of six members only. Additional human resources will not be available during the project
* The new software must be signed off by the client after completing the client acceptance test.

### 2.1.4 Technical Constraints

* The new software must be developed using the Java programming language.
* The project must adhere to Object-Oriented design principles.

## 2.2 Project Controls

The WBS and Gantt chart included in this document shall serve as the primary means for monitoring project progress. In addition, the Planning Manager is responsible for creating a schedule of work each week under the supervision of the Project Manager.

The Gantt chart will also be updated every week to ensure the projects progress is monitored carefully.

If a member of the CAESAR Team believes that a product of the project should be changed, he or she is required to submit a Change Request form to the Change Control Board.

CAESAR will hold a weekly meeting whereupon each member will be required to report the status of their work. In addition, the teams Team Mentor will check project status on a weekly basis.

## 2.3 Risk Management Plan

CAESAR Team has produced a Risk Management Plan in order to identify possible risks related to the project.

The Risk Management Plan includes a course of action to be taken, and a member of the team for which the risk is to be assigned. If during the course of the project additional risks are identified either by the team or the client, they will be added to the Risk Management Plan.

## 2.4 Project Staffing

The following organizational chart displays the hierarchical structure of the CAESAR Team.

## 2.5 Technical Processes

### 2.5.1 Project Methodology

The CAESAR Team has agreed to use a prototyping/agile methodology, for the purpose of developing the new CAESAR software. This way, the clients will be able to provide valuable feedback early on during the project lifecycle. The life of the project does however contain analysis, design, and implementation and support phases to compliment the iterative style of prototyping.

### 2.5.2 Project Software

The following is a list of software to be used during development.

* Microsoft Windows XP/Vista/7
* Microsoft Office 2007
* Microsoft Project 2007
* NetBeans
* Java Development Kit
* MySQL development tools
* Enterprise Architect 7.1
* Email system
* vBulletin forum software

The CAESAR Team will ensure the system is compatible with the following operating systems (both 32 and 64 bit)

* Windows XP
* Windows Vista
* Windows 7

## 2.6 Statement of Work

### 2.6.1 Scope of Work

The Student at riskproject involves developing an application to replace the existing system. Requirements of the new system include:

* Will allow User(teacher) to enter a Student as being at risk
* Remind Admin to contact the student for a meeting
* Track Students that have been classed as at risk
* Allow automatic entry from attendance record system

The new application must not exceed the capabilities of the hardware on which it is intended to run as specified in section 2.1.4 Technical Constraints.

Items further to those specified above (wish list items), will be considered depending on time and available resources.

The specific tasks for the project are included in the form of a WBS. *See Appendix A*.

### 2.6.2 Location of Work

The primary location of work will be the Swinburne TAFE campus at Hawthorn. Additional work will occur at the homes of CAESAR Team members.

### 2.6.3 Period of Performance

Start Date: 14 July 2009

End Date: Week 18th

Presentation Date: Week 18th

### 2.6.4 Applicable Standards

All project deliverables must adhere to the standards set out in the Quality Management Plan produced by the CAESAR Team.

### 2.6.5 Acceptance Criteria

The acceptance of the project is to be based upon the minimum requirements specified in the System Requirements Specification document produced by the CAESAR Team. Only when the client has signed the client acceptance test, will the project be deemed a success.

## 2.7 Summary Schedule

Week Ending 18/07/2009 - Project Week 1

* Team Roles agreement
* Initial client meeting Plan
* Initial client meeting
* Initial client meeting minutes

Week Ending 24/07/2009 – Project Week 2

* Team Websites completed.
* Quality Management Plan
* Configuration Management Plan
* Scope Document
* Initial Project Schedule
* Initial Risk Management Plan
* Investigate technologies & SDLC's

Week Ending 31/07/2009 – Project Week 3

* Business/Functional Requirements
* Feasibility Document
* Project Plan
* Version Control and document Procedures
* Security Plan & Privacy Policies
* Policies and Procedures displayed on Website
* Baseline Project Schedule

Week Ending 14/07/2009 – Project Week 5

* Requirements Analysis Document
* System Requirements Specification (SRS)
* Testing Templates
* Testing Plan

Week Ending 21/07/2009 – Project Week 6

* Integration/Systems Test Plan
* Client Acceptance Test Plan
* Database Design

Week Ending 28/07/2009 – Project Week 7

* Initial Prototype Wk 07 Initial Design Document
* Client walkthrough of prototype

Week Ending 04/08/2009 – Project Week 8

* Project Prototype/Peer review presentation
* Finished Prototype

Week Ending 11/08/2009 – Project Week 9

* Continue coding.
* Continue testing.
* Continue documenting User Reference and Training Manuals.

Week Ending 18/08/2009 – Project Week 10

* Continue coding.
* Continue testing.
* Continue documenting User Reference and Training Manuals.

Week Ending 27/08/2009

* Holidays.

Week Ending 02/09/2009

* Holidays.

Week Ending 09/09/2009– Project Week 11

* Continue coding.
* Continue testing.
* Continue documenting User Reference and Training Manuals.

Week Ending 16/09/2009– Project Week 12

* Implement Design (code & test) Wk 08 - 12
* Training Plan Wk 12 Sign Off Unit Testing

Week Ending 02/10/2009– Project Week 13

* Installation Plan
* Sign Off Integration/System Testing
* Training Manual

Week Ending 09/10/2009– Project Week 14

* Sign Off Installation Manual
* Online and User Documentation
* Sign Off Revised Design Documentation
* Sign Off Individual Programming Portfolios
* System Maintenance Procedures
* Client Delivery & Walkthrough of Product

Week Ending 16/102009– Project Week 15

* Project Peer Review Presentation

Week Ending 23/10/2009– Project Week 16

* Client Acceptance Test Results
* Hand in Competed Design Documentation

Week Ending 02/11/2009– Project Week 17

* Code Portfolio and System Documentation
* Completed Risk Management Plan
* Completed Test Reviews

Week Ending 09/11/2009– Project Week 18

* Trade Day Display and Presentation
* Completed Issues/Problem Log
* Portfolio of Time Sheets, minutes etc.
* Post-Mortem Report
* Completed Project & Doc on CD/DVD

*Note during the holidays students will be attending meetings. Locations will include Swinburne Library and available class rooms.*

# 3 Certificate of Acceptance/Sign off

The signatures below certify that the project, based upon the requirements for the Students at Risk system, has been approved and is to be undertaken by the CAESAR team.

Client: Anna Shaw

Signature: Date:

Team Mentor: Andrew Roadknight

Signature: Date:

Team Leader: Matthew Close

Signature: Date:

# 4 Glossary of Terms

**Class Diagram** – Used to represent the different underlying pieces of a system, their relationships to each other, and which subsystem they belong to.

**Entity Relationship Diagram** – A diagram used to show data structures that are the data items and their relationships.

**Gantt chart** – A chart used to show the flow and length of work items in a project. Gantt charts also display information about project resources and costs.

**Graphical User Interface** **–** The visual interaction point of a system to the user.

**Integrated Development Environment** **–** Software tool for the development of new software, web sites etc.

**Interface –** An interaction point.

**Normalisation –** The grouping of logically related data into structures that are stable and have minimal redundancies.

**PERT Chart -** A chart showing the flow and length of work items within a project, used to discover the quickest time a project will take to complete.

**Sequence Diagram –** A diagram used to show interaction between items within a part of a system or sub-system.

**State Chart Diagram** **–** A diagram used to show the various states of an item during a function of a system or sub-system.

**Unified Modelling Language** **–** A diagramming language used to document a system to assist requirements elicitation.

**Use Case Description –** A step by step description of a particular action within a system.

**Use Case Diagram –** A diagram showing what a system does.

**Work Breakdown Structure –** A chart used to show all work items within a project in a hierarchical structure.

# 5 References

Swinburne documents
 <http://cit.wta.swin.edu.au/cgi-bin/newtopic.cgi?dir=PM&title=Project+Management+Templates&htmlpath=/cit/majorprojects/quality/templates/>

Cit3 Student Projects

<http://cit3.cdn.swin.edu.au/>

# Appendix A – Work Breakdown Structure

Appendix B – Activity List



# Appendix C – Gantt chart



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