

**Student Results View (SRV)
Software Requirements Specification
For TAFEBuddy**

Version 0.0.1

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TAFEBuddy	

Revision History

Date	Version	Description	Author
Today	0.0.01	Initial draft, pending approval.	Team NAG

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Software Requirements Specification

1. Introduction

The purpose of the Software Requirements Specification document is to describe in detail the requirements for the “Student Results View” (SRV) software. The document will explain the software functionalities and how the users will interact with it. It will also include the constraints, the interface and the interaction of this software with other external applications.

To keep this document as clear as possible, it will provide a list of abbreviations and definitions. This document is intended to be proposed as a reference for developing the first version of the system for the development team.

1.1 Scope

The “Student Result View” (SRV) is a multi-platform application with database interactivity that helps students at TAFESA to monitor their progress in their courses. It provides convenient access to the progress of a student’s study path, what has been done and what is being done. Students will also be allowed to request a parchment once their qualification is determined to be complete (on the assumption that the database is accurate and current).

For the purposes of this project, SRV will be initially made available for students studying a course within the ICT field (Certificates and Diplomas related to ICT and software development) with the possibility of future expansion to other qualifications when given approval. The system should consider the possibility that a student could be enrolled in different qualifications at the same time.

Lecturers can interact with the application by entering the details of a qualification and/or a student that belongs to that qualification, in which a lecturer should be able to access the student’s results. The lecturers can also request a parchment checklist and can apply their electronic signature on it to submit a parchment checklist to the admin staff.

The administration staff must have access to a list of students that have completed their qualification. The administration staff can review each students’ checklist submitted by a lecturer and prompt the creation of a parchment.

The system must be able to interact with a given database to retrieve students’ information.

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1.2 Definitions, Acronyms, and Abbreviations

Table1 - Definitions

Term	Definition
SRS	Software Requirements Specification; a document that details the scope and criteria for the project's solution. Will be used to refer to this document.
SRV	Student Results View, the name of the project this document will refer to.
TAFEBuddy	Refers to the overarching TAFEBuddy architecture. TAFEBuddy is a previously explored software suite by faculty at TAFESA that seeks to delegate minor administrative functions to the end user (i.e. the student or the lecturer).
TAFE	Acronym for Tertiary And Further Education. Term used to refer to government-owned tertiary educational institutes within Australia. TAFESA refers to the entity that exists solely within South Australia (Tertiary And Further Education South Australia)
User	A stakeholder who interacts with the software solution.
Role	A title given to a user that determines the purpose of the user in the system. Role is defined as an attribute of the user.
Student	A user has the role of student and is enrolled as a student at TAFESA.
Lecturer	A user who has the role of lecturer and is employed at TAFESA as an instructor for the institution.
Admin/Administrator	A user who has the role of administrator and is employed at TAFESA as faculty for administrative purposes. An actor whose purpose is to maintain the backend of the institution.
Stakeholder	Any person who interacts with the system that is not a developer.
Client	Refers to the project's sponsor, liaison or otherwise.
ICT	Acronym for Information & Computation Technology.

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1.3 Overview

The remainder of the System Requirements Specification document is broken up into three major sections:

- The second section explores mission critical functionality, how the software solution will interact with pre-existing systems and will define the different stakeholders as well as how they will interact with the system. The section will also describe the assumptions and dependencies needed to be made for the project to succeed.
- The third section will delve into the details concerning the requirements specifications and will give a description of the system interfaces.
- The fourth section will cover references to additional sources and any other graphic resource that may help in defining the software.

2. Overall Description

This section serves as an overview of the whole system. It explains the context for the system's creation and operation, and it gives a few examples of how the stakeholders can interact with the system.

The last part of this section deals with the constraints and the assumptions considered for the creation of the system.

2.1 Use-Case Model

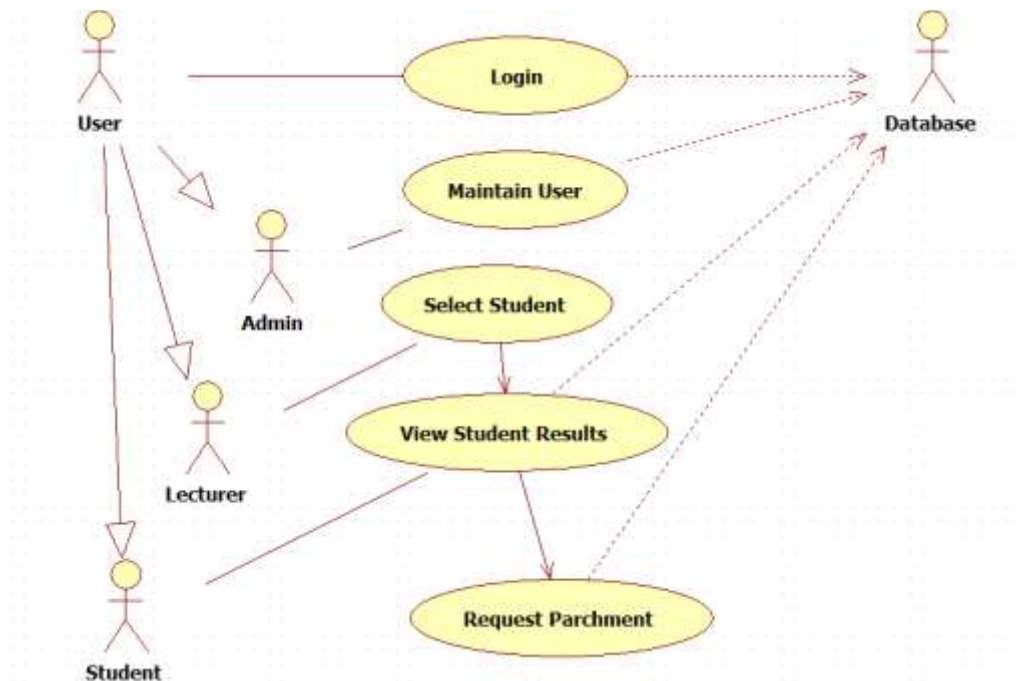


Figure 1 - Student Results View Use Case Diagram

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2.2 Product Position

The current system in use by TAFESA (called MyTafeSA) is insufficient when it comes to giving students a concise summary of their academic situation and is too convoluted when it comes to managing the enrolment process. The current process in place for dealing with student enrolments has been identified as highly inefficient, requiring appositely trained lecturers to go through the process and often a heavy burden on the student to fully comprehend.

The SRV project is to be part of the larger TAFEBuddy System, whose purpose is to create a portal for students to easily access all the information they may need during their study path.

- A student can quickly view his/her progress and can request a parchment.
- A lecturer can select a qualification, can select a student, can view a student's progress, can generate a parchment checklist.
- An admin can view a list of students eligible to request a parchment and can prompt lecturers to submit his or her parchment checklists.
- The administration staff can review the checklists submitted by the lecturer.

The SRV needs to communicate with the database to retrieve all the relevant information about a student to then display them to the user. The application will be granted access to the database just to view and retrieve data. No data entry is allowed at this stage but can be considered in the scope of an administrator type user.

2.3 Assumptions and Dependencies

- The System relies on the database to perform its tasks.
- The database is reliable and secure.
- The data entered in the database is accurate and will always be up to date.
- The SRV project will only focus on one type of qualification with room for further expansion.
- The users will have access to an internet connection.

3. Specific Requirements

This section provides a detailed description of the features and functionalities of the system.

3.1 Use-Case Specifications

3.1.1 ACTOR – Student

Use Case: **Login**

A student logs in to access the results view.

Prerequisites:

- The user must have the role of student.
- The user must be registered at TAFESA and have a password attribute set.

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Use Case: **View Student Results**

A student views his or her academic results.

Prerequisites:

- A student must be enrolled into a subject and qualification.
- A student must have grades that are current and up to date.

Use Case: **Request Parchment**

A student who has achieved 100% competency for a training package is eligible to claim a parchment as evidence of his or her qualification.

Prerequisites:

- A student must be enrolled into a qualification at TAFESA.
- A student must have at least a P or PA grade for every core competency listed in the training package rules as well as the minimum amount of P/PA grades for elective components.

Post conditions:

- The student has the ParchmentRequest attribute set to 1 (from 0).

3.1.2 **ACTOR – Lecturer**

Use Case: **Select Student**

A lecturer can view a list of students enrolled into TAFESA to view his or her academic details.

Prerequisites:

- This use case must be preceded by the login use case.
- The user must have the role of lecturer.
- The user must be registered as a lecturer and a member of faculty at TAFESA.

Use Case: **View Student Results**

A lecturer can view the academic results of a given student.

Prerequisites:

- A student must be enrolled into a subject and qualification.
- A student must have grades that are current and up to date.

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Use Case: **Request Parchment**

A student who has achieved 100% competency for a training package is eligible to claim a parchment as evidence of his or her qualification. A lecturer must ensure that a student's claim to a qualification certification is accurate and manually verify that each competency needed by the training package is graded with a P/PA or greater.

Prerequisites:

- A student must be enrolled into a qualification at TAFESA.
- A student must have at least a P or PA grade for every core competency listed in the training package rules as well as the minimum amount of P/PA grades for elective components.

Post conditions:

- The lecturer must submit a verified and signed competency checklist to TAFESA administration (out of scope).

3.1.3 ACTOR – Administrator

Use Case: **Maintain User**

An administrator can create, read, update and delete any user that may act on the Student Results View system.

Prerequisites:

- This use case must be preceded by the login use case.
- The user must have the role of administrator.
- The user must be registered as a member of faculty and as an administrator of TAFESA.

Post conditions:

- The selected user(s) is maintained and kept current.

3.2 Supplementary Requirements

- All qualifications and competencies described by SRV should relate to and be kept up to date with Australian training guidelines set by the Australian authority of vocational training.
- The SRV UI should be made responsive as the software solution will be deployed on multiple platforms with varying screen real estate.
- The SRV UI should have a “modern” design language.
- The SRV UI views should be made as intuitive and user-friendly as possible for each user type (role).
- The color palette comes from TAFESA graphic norm manual.
- The database to support the back end will be hosted in a remote server.

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4. Supporting Information

This section will contain information outside the scope of development that may relate to the development of SRV.

4.1 Database Structure

The database to be used as the backend to SRV will be provided by the client. The SRV software solution must be able to integrate seamlessly with the database API and should be a core consideration for the successful development of the software solution.

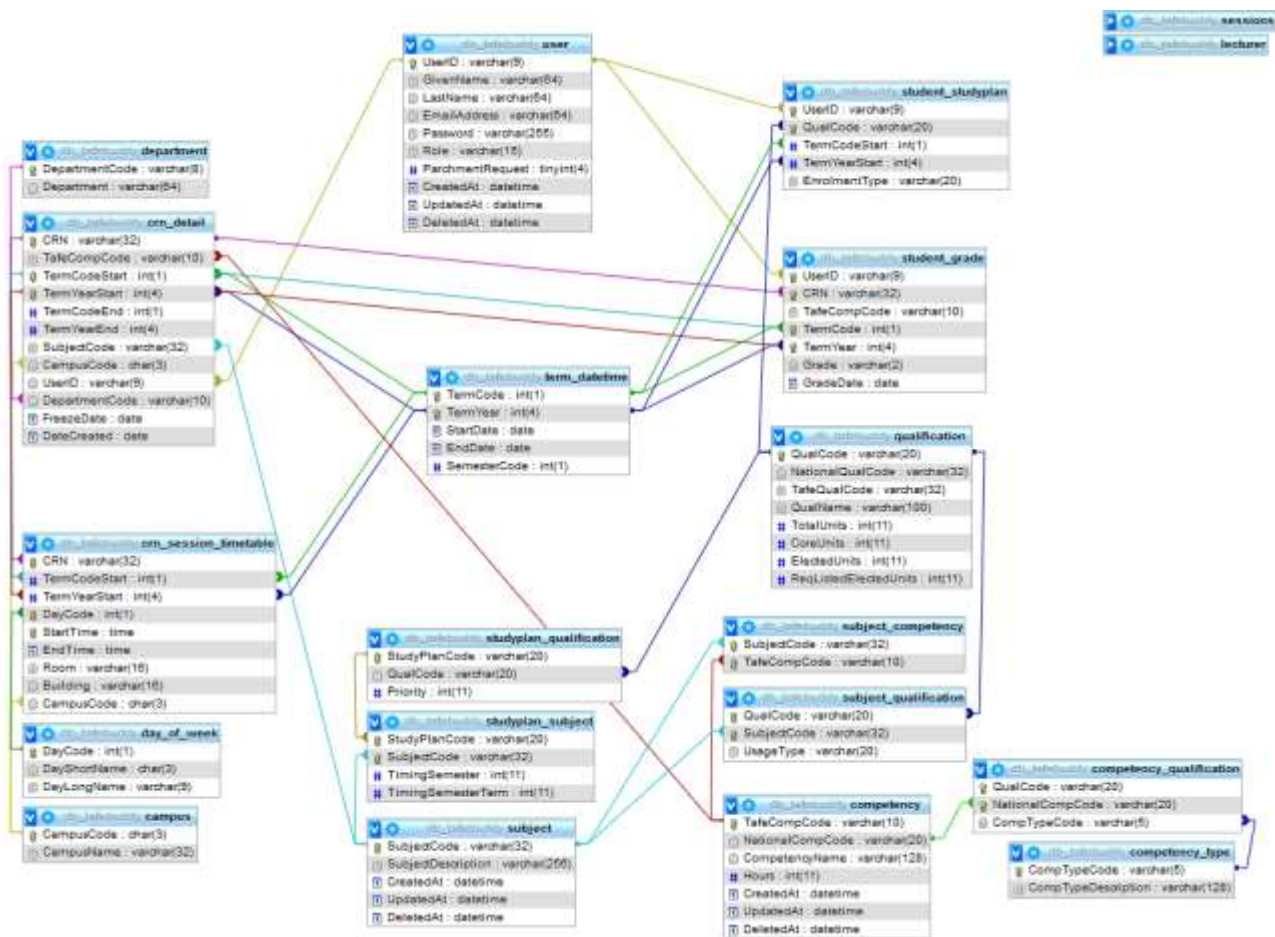


Figure 2 - db_tafebuddy backend for the software solution

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4.2 SRV Class Diagram

The SRV software solution is only concerned with the grades/results of a student during his or her academic career. Through analysis, the following entities have been determined to be mission critical to view generation:

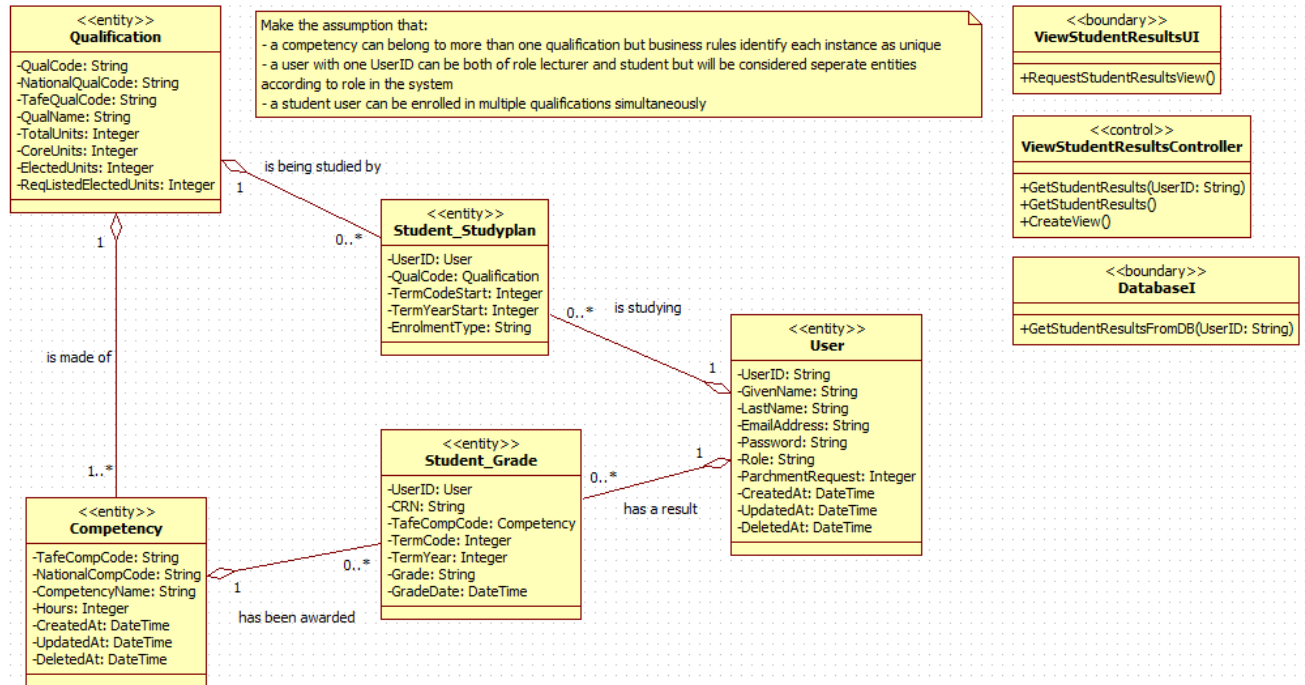


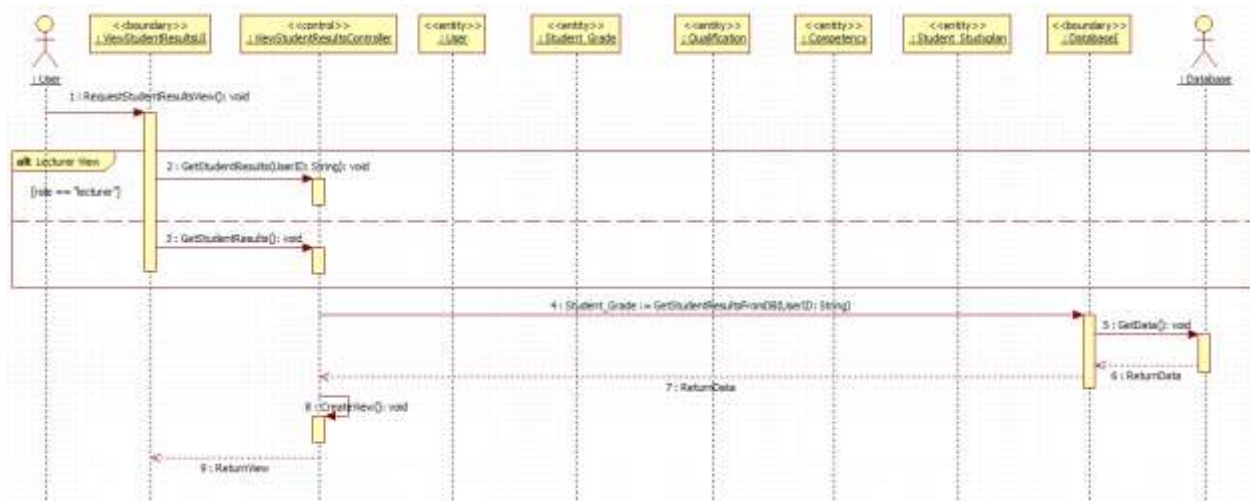
Figure 3- SRV class diagram (MVC)

The models identified should be taken into consideration when developing the software solution, but the structure does not have to be followed pro forma.

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4.3 Sequence Diagram – View Student Results

The following diagram rationalises the basic flow of the View Student Results use case as described in 3.1.1 and 3.1.2:



The sequence of events described should only serve as a suggestion for the programming of the business layer in the software solution.