# Requirements

Date 02/11/2019

## Introduction

This requirements report outlines the functional and non-funtional requirements that need to be considered when designing and implementing our student management system.

## Purpose

The purpose of this document is to outline the needs to be considered when designing and implementing the student management system.

## Background

We are automating and digitalising a new cyber education start-up’s student management system. The system specialises in micro-credentials where students participate in various events and complete a range of activities in order to achieve ‘bacdges’. We are tasked with designing and implementing an attendance record and badge tracking system (student management system) by storing details in SQLite.

## Assumptions

We are assuming that we have the ability to make any architectural decisions around the design and implementation of the student management system, as long as they are not outside the scope of the initial task sheet provided by the principal, Timmy.

## Constraints

The main constraint during the requirements gathering phase was that we were limited to only the documentation provided by principal, Timmy. We had no access to question, interview or observe the current use of the system and the operatives of.

## References

There is only one reference for this report, that being the assignment 2 task sheet provided by principal, Timmy.

## Methodology

For the design and implementation, we used a mixture of SCRUM and KANBAN methodology. This worked well for how we divided up our workload, providing the designers and implementers autonomy and freedom, whilst also having reviewers to ensure quality control. GitHub provided great KANBAN services, with the added element of peer reviewability incorporating SCRUM techniques.

## Functional

1. Manage Students
   1. Add, edit and view students
   2. Manage meetings and intensives involving students
   3. Track what badges and what topics the students have done
   4. Implement a leaderboard
2. Manage Badges
   1. Add, edit and view badges

## Non-Functional

1. Operational Requirements
   1. The system will operate in a windows environment through a consol
   2. The system should automatically update and back up
   3. The system should be compatible and able to connect with an SQLite3 database
   4. The system will record attendance on a weekly basis to the SQLite3 database
   5. The system will track and record the students progress
2. Performance Requirements
   1. The system will store new data in 2 seconds or less
3. Security Requirements
   1. Only the teachers have the authority to create, edit and delete attendance records, students and meetings/intensives
   2. Every teacher’s password must be in accordance with the latest ASD security recommendations of minimal 13 characters long including upper- and lower-case letters, numbers, and unique characters
   3. There is a time out of 10 minutes for each user
4. Cultural and Political Requirements
   1. No special cultural and political requirements are anticipated.,

## Sign off

I, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, here-by agree with the above requirements list and understand that by signing this document give permission for Timmy’s Developers to design and implement the student management system.

