Software Requirements Specification

for

CourseRegistrar9000

**Version 1.0 approved**

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# Introduction

## Purpose

This document covers the software requirements for the CourseRegistrar9000, version 1.0 and release 1. This document covers the entirety of the system and all relevant subsystems (Tsui et al., 2018).

## Product Scope

The CourseRegistrar9000 is a student registration system designed to be cradle-to-grave functionality regarding students and entering courses they take for this school. Everything from federated new user registered, to profile creation, to listing online courses along with the ability to enroll in real-time if the course has a vacancy. The students would otherwise be able to add themselves to a waitlist, as well as cancel enrollment. Notifications for every step should be available upon request in preferences (Fan et al., 2016).

# Overall Description

## Product Functions

* Accounts and Profiles:
  + Registration for new users, including account and profile creation.
  + During registration, enforcement of user ID uniqueness as well as password protection.
  + User profiles with mandatory fields including name, phone number, email address, and other preferred contact methods.
* Login and Session Management:
  + Users can log in immediately post registration using created credentials using highly-available databases with immediate changes being available (“*Manage and authenticate user credentials with IT/security platform”*, 2007).
* Functionality:
  + With consideration that each school year has 3 semesters, Spring/Summer/Fall, students can see the courses offered during any semester accordingly, since course availability changes per semester.
  + Courses should have real time accessibility to databases in order to ensure student count and limit maintained, as course limits may vary per specific instance (Lam & Kuo, 2001).
  + Users attempting to register for a full course should be denied, but given the opportunity to join a waitlist.
  + Users should be able to cancel enrollment in a course, and subsequent vacancies in a course should kick off notifications to waitlist users in chronological order.

**References**

Tsui, F., Karam, O., & Bernal, B. (2018). *Essentials of software engineering (4th ed.)*. Jones & Bartlett Learning.

Fan, X., Sinnen, O., & Giacaman, N. (2016). *Towards an Event-Driven Programming Model for OpenMP.* 2016 45th International Conference on Parallel Processing Workshops (ICPPW) 240–249. <https://doi.org/10.1109/ICPPW.2016.44>

*Manage and authenticate user credentials with IT/security platform*. (2007, October 1). Government Product News, 46(10).

Lam, K.-Y., & Kuo, T.-W. (2001). *Real-time database systems*. [electronic resource] : architecture and techniques. Kluwer Academic.