***ETPB Software Design™*** *| 212 McAlister Dr, Saint John NB*

*Architecture Draft*

*Studentable: Registration Management System*

**Architecture Draft**

**Purpose**

The purpose of the architecture draft is to ensure all stakeholders agree on the systems intended purpose, following use-case scenarios. The general description of Studentable will be stated with its features, and use-case scenarios will be made for each type of connection to the software.

**General Description**

The purpose of this project is for *ETPB Software Design****™*** to complete a framework University Registration Management System, formally known as Studentable.

Students and professors will sign into the system using their student emails and self-appointed passwords. This system will be entirely web based, requiring no installation of software on university computers. It will be hosted on the university's public domain, therefore no need for the use of a VPN to access it from home or work.

This system must be able to handle large traffic as in a worst-case scenario: students, professors, and admins can all be accessing it. It must be able to withstand such situation

Studentable is a synthesized cloud service, organizing a course catalog for students, instructors, and administration to use. The system allows students at a university to browse a course catalog that provides information on various course offerings they need for their semester. Students will be restricted to only four course offerings per semester, with two alternatives in the case that the other courses are cancelled or filled.

- This system detects when a course should be cancelled (less than 3 students), and when a course is full (more than 10 students).

- The system will send the student's billing information to the university's billing system upon registration completion.

A strict grace period is enforced where students are permitted to change their schedule at the beginning of the semester. During this grace period there is a special student portal that only students have access to using their school credentials. In this portal they can add/drop courses.

A special portal exists for users with professor’s authorization through the management system which enables them to see which courses they are instructing, and who are the students enrolled.

An admin account will exist for the university admin@university-domain.com. This account will allow the admin to perform customizations on the site. The admin account is also responsible for the automation of creating new accounts and freeing up old accounts, which will be done through automation.

**Use Case Scenarios**

Student:

* From the viewpoint of a student, they will have a designated login/password authentication process before receiving access to the university registration management system. The student will then be able to either select/drop their four classes of choice with two reserved options in the case that the classes have an insufficient number of students. Students may change their schedule as much as they wish until the date designated by the specific university’s registrar.
* The student will be able to see the classes they are enrolled in, and also will be issued their bill for the semester.
* Students actions on the webpages will be logged for administrative purposes.

Instructors:

* Similarly, to a student, the instructor will have to login with a designated login/password authentication process before being allowed access. When in the system, the instructor will then have access to see the specific classes they are teaching, and the students enrolled in their classes.
* Instructors actions on the webpages will be logged for administrative purposes.

Admin:

* An admin’s perspective of the program begins by their specific login authenticity ([admin@university-domain.com](mailto:admin@university-domain.com)). The admin will have access to both what the student and the instructors are able to see, with some additional capabilities. The admins will be able to see a list of students, and the classes they are enrolled in. In the same sense, they may access a specific class and see the list of students enrolled in it.
* Accounts of both instructors or students will automatically be made, however there is an option for the administrator to manually make the account.
* The admin will also be able to check a specific account of a student, and see the students logged actions (i.e: dropped MATH1503, enrolled in CS1073).

**Sequence Diagram**

**Communication Diagram**

**Use Case Diagram**