

## Project Proposal

*Name:* Cerulean

*Brief Description:* Cerulean is a web application catered towards BC K-12 distance learning schools, which combines the functions of a student information system (SIS) and learning management system (LMS) into one single infrastructure. Students and teachers have access to a sophisticated course delivery platform with messaging and grade reporting capabilities. In addition, this application makes it easier for both prospective and current students to register in courses - enrollees simply add courses to their “course cart” and fill out an admissions form, which once completed, will be sent to the school administration to process.

*Rationale/Purpose:* This web application aims to modernize and hybridize internal school processes, especially for distance learning schools, since they are run solely through the Internet and as a result, have different and more complicated needs than brick-and-mortar schools. Instead of having separate solutions for SIS and LMS, distance learning schools need to only use one. This project was actually inspired by the needs expressed by the distance learning school I work at as an Instructional Design Assistant, seeing that we have limited options for SIS and LMS because many of them are catered towards brick-and-mortar schools.

### *Key Functions:*

	Visitors	Members	
		Students	Admin/Teachers
Content Details (for each unit), Browsing and Navigation	<ul style="list-style-type: none"> <li>- <b>Static front page</b> with school information and newest/featured courses, along with navigation links to course list, admission form, and login dropdown box</li> <li>- <b>Course list page:</b> default view is browse all, but courses and their descriptions are also viewable by using grade, subject area, term offered, or searched keyword to filter content</li> <li>- <b>Admission form:</b> allows visitors to register as students; by filling out fields and adding courses from Course list page to a “cart”</li> </ul>	<ul style="list-style-type: none"> <li>- <b>Welcome portal page:</b> after logging in from the static front page, students can view and access their registered courses (can be personalized since they can enroll in new courses), grades, a messaging system and notifications, and settings to change or update account information</li> <li>- <b>Course pages:</b> contains modules with course material files and assignment hand-in boxes</li> <li>- <b>Grades page:</b> access latest grade information and generate a report card/transcripts for personal filing</li> </ul>	<ul style="list-style-type: none"> <li>- <b>Welcome portal page:</b> after logging in from the static front page, teachers can view and access the courses they're teaching, reports, a messaging/email system and notifications, and settings to change or update account information</li> <li>- <b>Course pages:</b> contains modules which they can edit and upload new course material files, mark assignments, as well as see a class list and drop students from courses</li> <li>- <b>Reports page:</b> default view is list of all students for K-9 teachers and list</li> </ul>

		<ul style="list-style-type: none"> <li>- <b>Messaging system:</b> contact teachers, administration, and other students, as well as receive announcements from school</li> <li>- <b>Settings page:</b> manually change login information (username and password) and provide a request form to change student information (name, address, phone number, etc.)</li> </ul>	<p>of courses with dropdown of students for High School teachers; main function is to create status reports for ministry reporting and access ledger</p> <ul style="list-style-type: none"> <li>- <b>Messaging system:</b> same as students</li> <li>- <b>Settings page:</b> same as students, except request form is for adding a new course to database</li> </ul>
Range of Values (for each characteristic, e.g. number of pools, low-medium-high range, list of genres, etc.)	<ul style="list-style-type: none"> <li>- <b>Course list page:</b> grades k-12; subjects like math, science, humanities, and electives; terms like Term 1 (Sept-Jan), Term 2 (Feb-June), and Summer, or search by keywords from course descriptions</li> <li>- <b>Admission form:</b> contains fields like general student information (name, DOB, Residency, Care Card #, previous schools attended, etc.), upload personal files (copies of report cards, birth certificates, proof of residency, etc.), and select courses they want to enrol in if they haven't added any to their "cart"</li> </ul>	<ul style="list-style-type: none"> <li>- <b>Course pages:</b> modules are arranged in order of completion and navigable through dropdowns</li> <li>- <b>Grades page:</b> default view is list of current enrolled courses and grade (ex. Math 8 - 85%), but can be expanded to view marks for individual assignments and teacher comments; option to view grades from previous school years</li> <li>- <b>Messaging system:</b> leads to a general email page with database of previously received emails, subject-line field, message body, and send button, but for security reasons, as the student sender types in a username, they can only choose a recipient from a dropdown of all staff and/or only students from courses the sender is in enrolled in</li> <li>- <b>Settings page:</b> Navigation links to change or update username, password, and profile picture; request form to change student information will have fields similar to admissions form</li> </ul>	<ul style="list-style-type: none"> <li>- <b>Course pages:</b> same as students, except teachers can toggle different views/modes (editing mode, marking mode, student view, teacher view, and visitor view, if enabled)</li> <li>- <b>Reports page:</b> after selecting student, teacher can select which term to report under (Term 1, Term 2, Summer) and which course they will be writing a report for; learning outcomes will then be presented as a grid with indicators of whether those outcomes have been met within a course or through external means (provide upload button for files of learning samples); ledger accounts for usage of student funding allotment</li> <li>- <b>Messaging system:</b> same as students, except as a sender, recipient dropdown provides students only in their courses in addition to all staff</li> <li>- <b>Settings page:</b> same as students; request form to add a new course to database will contain fields like course name, grade level, subject area, term offered, description, and upload button for course outline/syllabus, which will be then reviewed and approved by principal</li> </ul>