

Every user has a unique user ID, first name, last name, email address (used for login/notifications), a password, a profile picture, a contact address (street, city, postal code, country), and any number of contact phone numbers.

A user can be a student or a faculty or an administrator.

Faculty are the creators of courses.

Each course has a unique Course ID, a name, description, icon, cost, at least one faculty creator, and creation date. Courses are categorized by topic – each course has a primary topic, as well as any number of secondary topics.

A student can be interested in many courses, they can enroll in a course (whether or not it was indicated as of interest). If a student enrolled a course, then track date/time of payment and the payment confirmation code for the course.

Each Faculty has an affiliation, a work website, a title and a validation status which must be validated by an administrator after registration (the identity of the administrator and date/time of this verification is recorded for accreditation purposes).

Students that have enrolled in the course can submit questions to the faculty creators. Each question has a unique course ID. A course question may relate to one or more of the course materials. If any of the creators believes the question will be of use to other students, s/he makes the question visible and supplies an answer. Students can “like” questions they find useful – this rating informs the ranking of questions on the course site.

Administrators have a variety of enhanced positions within the system, and must thus be granted their role by another administrator – for purposes of security auditing, the date/time and grantor must be recorded.

A course is really just a list of materials to be completed, in sequence, by a student. Each piece of material is unique to the course (i.e. material cannot be used in multiple courses), and is identified by its order in the sequence of materials. When student complete material(s), then track the date/time of completion of each item. A course is complete when all materials are complete.

If a student completes a course, the date/time must be recorded. Additionally, once a student completes a course, they are asked to provide a rating: 1–5 stars for the material, as well as any comments they might have for improvement/potential students.

A piece of course material has a name, and comes in one of three types: a downloadable file, a link, or a post.

Downloadable files have a path, size, and type. Links have a URL and are tagged as video or not (videos are actually embedded on-site, to keep students on task!). A post just has a large block of text, possibly marked up via Markdown.