A6 Forward Engineering Database Descriptions

USERS

The database contains the user table which is designed to associate with each different user, no matter the type of user they are whether they are educators, students, or administrators. The User table contains:

Required Information (NOT NULL):

* USERNAME as the primary key which is what the system will use to identify each user that is logged on to the system as well as the users who stored in the database. The users must create a username to operate the system.
* EMAIL to be associated with the user so that if a need arises where the user needs to verify or change information the email address can be used to do that.
* PASSWORD
* FIRST\_NAME
* LAST\_NAME
* TITLE which identifies the type of user it is whether it is educator, student, or administrator

Non-required Information:

* Affiliation or the university, company, etc. they are part of.
* ADDRESS\_LINE1
* ADDRESS\_LINE2
* CITY
* STATE
* ZIPCODE
* COUNTRY
* PHONE

CURRENTLOGINS

The User table is the main database for the users logging on to the system. The table is connected to the CurrentLogins table which basically identifies who is currently logged on to the system. This table contains all required information inputted in by the system based on what is retrieved as the user logs in. It contains:

Required Information (NOT NULL):

* CURRENTLOGIN\_ID which is the id automatically inputted in by the system based on some calculated factor.
* USERNAME which is basically the username of the user that is currently logged in
* AUTHENTICATIONTOKEN which is basically the token used to represent the secure access to the system that is also automatically put in by the system that is calculated based on some factor.

MODULE

This table is used to store data regarding the educational modules in the application. This table has these fields:

Required Information (NOT NULL):

* MODULE\_ID which is the primary key, abstract which is not null
* TITLE which is the name of the module
* CATEGORY which is the category or type of the module based on what course it is
* SUBMITTER which is who submitted the module
* TOPICS which discusses what is talked about in the module
* LANGUAGE which refers to the language the module is written in
* WHO\_CAN\_VIEW which refers to the permissions and who can view
* AUTHOR which is who wrote the module

Non-required Information:

* MATERIALS\_ID which is the foreign key reference to the materials table. This is not required as not all modules may contain materials as that is dependent on the educators
* PREREQUISITES
* LEARNING OBJECTIVES
* RATING
* VERSION

This is an important table to have because the main purpose of the application is to store educational modules. This will be the primary resource that students, teachers and administrators use to input or gather information.

MODULERATINGS

This table is used to store ratings data for each of the modules.

Required Information (NOT NULL):

* MODULERATE\_ID which is the primary key
* MODULE\_ID which is a foreign key that refers to the module table, rating which is of double datatype which ranges from 0 to 5
* NUMBEROFRATINGS which is the count of how many people rated the modules.

MATERIALS

This table is used to store the assignments, notes or references that are connected to a module. If an educator wants to upload a homework assignment or notes from a lecture, they can upload it to the materials section on the modules page and it will be saved in the database.

Required Information (NOT NULL):

* MATERIALS\_ID field which is the primary key
* LINKTOMATERIAl which is used to store the hyperlink to the material
* TITLE which refers to the tile of each of the materials that are inputted in by the educators
* DATE which refers to the updated date of the materials

Non- required information:

* RATINGS as not every material will contain ratings