



## Student Behavior and Study Hours

Student behavior is set up to track bad behavior of students, so that the amount of study hours can be calculated. We use a log to track instances of bad behavior, which then updates the student study hours table for required hours. This system allows for new behaviors to be added easily, and allows for modification to the study hour penalties of existing negative behaviors. Student Study time is recorded as an int as minutes after midnight. This helps reduce memory and allows us to make quick calculations.

# Compass Database

Here is a high level design of the Compass Database. It will store the users, the associated roles, their mastered skills, and a variety of behaviors that affect a student's study hours. All fields are NOT NULL unless specified.

## Skill Mastery

Skills have two key features, a name, and a category to which a skill belongs. When a skill is updated it is recorded in the skill mastery log, so that our graphs can use this information to plot student growth from day to day. This system allows for teachers to add new skills and open new skill categories as the program evolves.