

Part A: Inventory Database

1. Look at the database and write down five problems with the database. For example, if the database is not in first normal form, write down the specific table(s), how they violate first normal form, and how you would fix it.

Part B: Create a database based on the following user stories:

As an instructor I want to:

1. Create a course
 - a. A course has a name, description, person teaching the course
 - b. A course has modules
 1. Modules have a name and one or more lessons
2. A lesson has a name, description, the video course movie, whether the course is completed or not
3. A lesson can also have comments.
 - a. A comment has text, date the comment was made, and who made the comment. People can also reply to other people's comments.
 - b. A lesson can also have a quiz or an exam. The only difference between a quiz and an exam is that the quiz is NOT graded and the exam is graded.
 1. Both quizzes and exams have questions. Questions have one or more correct answers.
 - c. A lesson can also have one or more resources. Resources are files that instructors want students to view after watching the course video.
2. Register students to view the course.
 - Students have a first name, last name, student classification (undergraduate or graduate), and a major.

As a student I want to:

1. Login into the course website with a username and password
2. See a list of courses that I have been registered for
3. View the course that I have been registered for
4. View any lesson resources

5. Mark a lesson as complete
6. Comment on lesson
7. Reply to someone else's comment
8. Take a quiz and see how many I got correct and incorrect
9. Take an exam and see my grade, how many I got correct and how many I got incorrect